

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

IN THE MATTER OF PROTESTED)
APPLICATIONS 69836, 69837, 70383, 72012,)
72239, 72962, 73862, 74531, 74532, 74533, 74534)
AND 74535 FILED TO CHANGE THE POINT)
OF DIVERSION, PLACE OF USE AND)
MANNER OF USE OF UNDERGROUND)
WATER PREVIOUSLY APPROPRIATED)
UNDER PERMIT 60437 CERTIFICATE 14999,)
PERMIT 63235, PERMIT 17417 CERTIFICATE)
5888, PERMIT 31727 CERTIFICATE 9318,)
PERMIT 66057, PERMIT 20352 CERTIFICATE)
5764, PERMIT 66370, APPLICATION 70383,)
APPLICATION 69837, APPLICATION 69836,)
PERMIT 67957, AND PERMIT 67956, WITHIN)
THE AMARGOSA DESERT HYDROGRAPHIC)
BASIN (230), NYE COUNTY, NEVADA.)

RULING

#5902

GENERAL

I.

Application 69836 was filed on April 10, 2003, by Rockview Farms, a California Corporation, later assigned to Rockview Dairies, Inc., to change the point of diversion and place of use of 0.0389 cubic feet per second (cfs), not to exceed 10.0 acre-feet annually (afa), of the underground water heretofore appropriated under Permit 60437, Certificate 14999. The proposed and existing manner of use is for irrigation and domestic purposes. The proposed place of use is described as being located within the E $\frac{1}{2}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ and the E $\frac{1}{2}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 9, T.17S., R.49E., M.D.B.&M. The existing point of diversion is described as being located within the NW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 15, T.16S., R.48E., M.D.B.&M. The proposed point of diversion is described as being located within the NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 9, T.17S., R.49E., M.D.B.&M.¹

II.

Application 69837 was filed on April 10, 2003, by Rockview Farms, Inc., later assigned to Rockview Dairies, Inc., to change the point of diversion and place of use of 0.11 cfs, not to exceed 18.2 afa, of the underground water heretofore appropriated under Permit 63235. The proposed and existing manner of use is for irrigation and domestic

¹ File No. 69836, official records in the Office of the State Engineer.

purposes. The proposed place of use is described as being located within the E $\frac{1}{2}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ and the E $\frac{1}{2}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 9, T.17S., R.49E., M.D.B.&M. The existing point of diversion is described as being located within the SE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 8, T.16S., R.49E., M.D.B.&M. The proposed point of diversion is described as being located within the NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 9, T.17S., R.49E., M.D.B.&M.²

III.

Application 70383 was filed on September 5, 2003, by Rockview Dairies, Inc., to change the point of diversion and place of use, in addition to the manner of use of 1.4 cfs, not to exceed 160.1 afa, that being a portion of the of the underground water heretofore appropriated under Permit 17417, Certificate 5888. The proposed manner of use is for irrigation and domestic purposes while the existing manner of use is for irrigation purposes only. The proposed place of use is described as being located within the NW $\frac{1}{4}$ NE $\frac{1}{4}$ and the SW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 9, T.17S., R.49E., M.D.B.&M. The existing point of diversion is described as being located within the NW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 17, T.16S., R.48E., M.D.B.&M. The proposed point of diversion is described as being located within the NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 9, T.17S., R.49E., M.D.B.&M.³

IV.

Application 72012 was filed on December 13, 2004, by The Ken Garey Family Trust, dated October 30, 1996, to change the point of diversion and place of use of 0.032 cfs, not to exceed 5.0 afa, that being a portion of the underground water heretofore appropriated under Permit 31727, Certificate 9318. The proposed and existing manner of use is for irrigation and domestic purposes. The proposed place of use is described as being located within the NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 12, T.17S., R.48E., M.D.B.&M. The existing point of diversion is described as being located within the SE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 9, T.16S., R.49E., M.D.B.&M. The proposed point of diversion is described as being located within the NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 12, T.17S., R.48E., M.D.B.&M.⁴

V.

Application 72239 was filed on February 18, 2005, by Anjoy Trust, to change the point of diversion and place of use of 0.0757 cfs, not to exceed 25.0 afa, that being a

² File No. 69837, official records in the Office of the State Engineer.

³ File No. 70383, official records in the Office of the State Engineer.

⁴ File No. 72012, official records in the Office of the State Engineer.

portion of the underground water heretofore appropriated under Permit 66057. The proposed and existing manner of use is for irrigation and domestic purposes. The proposed place of use is described as being located within the SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 9, T.16S., R.49E., M.D.B.&M. The existing point of diversion is described as being located within the NW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 20, T.16S., R.48E., M.D.B.&M. The proposed point of diversion is described as being located within the SE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 9, T.16S., R.49E., M.D.B.&M.⁵

VI.

Application 72962 was filed on June 24, 2005, by Rockview Dairies, Inc., to change the point of diversion and place of use, in addition to the manner of use of 1.0283 cfs, not to exceed 343.6 afa, of the underground water heretofore appropriated under Permit 20352, Certificate 5764. The proposed manner of use is for irrigation and domestic purposes while the existing manner of use is for irrigation purposes only. The proposed place of use is described as being located within the SE $\frac{1}{4}$ of Section 10, T.17S., R.49E., M.D.B.&M. The existing point of diversion is described as being located within Lot 10, Section 36, T.16S., R.48E., M.D.B.&M. The proposed point of diversion is described as being located within the NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 9, T.17S., R.49E., M.D.B.&M.⁶

VII.

Application 73862 was filed on February 21, 2006, by James C. Sr. and Nora M. Rook, later assigned to Ultimate Industries, Inc., to change the point of diversion and manner of use, in addition to the place of use of 0.056 cfs, not to exceed 15.0 afa, that being a portion of the underground water heretofore appropriated under Permit 66370. The proposed manner of use is for commercial and domestic purposes and the existing manner of use is for irrigation and domestic purposes. The proposed place of use is described as being located within the E $\frac{1}{2}$ NE $\frac{1}{4}$ of Section 1, T.18S., R.49E., M.D.B.&M. The existing point of diversion is described as being located within SW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section

⁵ File No. 72239, official records in the Office of the State Engineer.

⁶ File No. 72962, official records in the Office of the State Engineer.

22, T.16S., R.49E., M.D.B.&M. The proposed point of diversion is described as being located within the SE¼ NE¼ of Section 1, T.18S., R.49E., M.D.B.&M.⁷

VIII.

Application 74531 was filed on July 19, 2006, by Rockview Dairies, Inc., to change the manner and place of use of 1.4 cfs, not to exceed 160.1 afa, of the underground water heretofore requested for transfer under Application 70383. The proposed manner of use is for commercial dairy purposes and the existing manner of use is for irrigation and domestic purposes. The proposed place of use is described as being located within the SE¼ and the NE¼ of Section 9, T.17S., R.49E., M.D.B.&M. The existing point of diversion is described as being located within NE¼ NE¼ of Section 9, T.17S., R.49E., M.D.B.&M. The proposed point of diversion is described as being located within the NE¼ NE¼ of Section 9, T.17S., R.49E., M.D.B.&M.⁸

IX.

Application 74532 was filed on July 19, 2006, by Rockview Dairies, Inc., to change the manner of use and place of use of 0.11 cfs, not to exceed 18.2 afa, of the underground water heretofore requested for transfer under Application 69837. The proposed manner of use is for commercial dairy purposes and the existing manner of use is for irrigation and domestic purposes. The proposed place of use is described as being located within the SE¼ and the NE¼ of Section 9, T.17S., R.49E., M.D.B.&M. The existing point of diversion is described as being located within NE¼ NE¼ of Section 9, T.17S., R.49E., M.D.B.&M. The proposed point of diversion is described as being located within the NE¼ NE¼ of Section 9, T.17S., R.49E., M.D.B.&M.⁹

X.

Application 74533 was filed on July 19, 2006, by Rockview Dairies, Inc., to change the manner of use and place of use of 0.389 cfs, not to exceed 10.0 afa, of the underground water heretofore requested for transfer under Application 69836. The proposed manner of use is for commercial dairy purposes and the existing manner of use is for irrigation and domestic purposes. The proposed place of use is described as being located within the SE¼ and the NE¼ of Section 9, T.17S., R.49E., M.D.B.&M. The

⁷ File No. 73862, official records in the Office of the State Engineer.

⁸ File No. 74531, official records in the Office of the State Engineer.

⁹ File No. 74532, official records in the Office of the State Engineer.

existing point of diversion is described as being located within NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 9, T.17S., R.49E., M.D.B.&M. The proposed point of diversion is described as being located within the NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 9, T.17S., R.49E., M.D.B.&M.¹⁰

XI.

Application 74534 was filed on July 19, 2006, by Rockview Dairies, Inc., to change the point of diversion and manner of use, in addition to the place of use of 0.12 cfs, not to exceed 75.0 afa, of the underground water heretofore requested for transfer under Application 67957. The proposed manner of use is for commercial dairy purposes and the existing manner of use is for irrigation and domestic purposes. The proposed place of use is described as being located within the SE $\frac{1}{4}$ and the NE $\frac{1}{4}$ of Section 9, T.17S., R.49E., M.D.B.&M. The existing point of diversion is described as being located within NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 9, T.17S., R.49E., M.D.B.&M. The proposed point of diversion is described as being located within the NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 9, T.17S., R.49E., M.D.B.&M.¹¹

XII.

Application 74535 was filed on July 19, 2006, by Rockview Dairies, Inc., to change the point of diversion and manner of use, in addition to the place of use of 0.244 cfs, not to exceed 17.5 afa, of the underground water heretofore appropriated under Permit 67956. The proposed manner of use is for commercial dairy purposes and the existing manner of use is for irrigation and domestic purposes. The proposed place of use is described as being located within the SE $\frac{1}{4}$ and the NE $\frac{1}{4}$ of Section 9, T.17S., R.49E., M.D.B.&M. The existing point of diversion is described as being located within NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 9, T.17S., R.49E., M.D.B.&M. The proposed point of diversion is described as being located within the NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 9, T.17S., R.49E., M.D.B.&M.¹²

¹⁰ File No. 74533, official records in the Office of the State Engineer.

¹¹ File No. 74534, official records in the Office of the State Engineer.

¹² File No. 74535, official records in the Office of the State Engineer.

XIII.

Applications 69836, 69837, 70383, 72012, 72239, 72962, 73862, 74531, 74532, 74533, 74534 and 74535 were timely protested by the National Park Service (NPS) as summarized on the following grounds:¹³

- The public interest will not be served if water and water-related resources in the nationally important Death Valley National Park including Devils Hole, are diminished or impaired as a result of the appropriation proposed by these applications.
- The applications will reduce or eliminate the flows of springs in Death Valley National Park which are discharge areas for regional ground water flow systems, thereby impairing senior National Park Service water rights.
- The changes proposed by these applications, in combination with existing appropriations, will cause the water level at Devils Hole to fall, thereby impairing the senior Federal reserved water right for Devils Hole.
- The proposed changes will move the ground-water pumping center of the Amargosa Desert Hydrographic Basin closer to Devils Hole and there is a strong correlation between nearby ground-water pumping and water-level declines in Devils Hole.
- Applicant Rockview Dairies has not complied with the terms of its existing water right permits and has reported more water use than permitted under at least one of their permits. The public interest will not be served by the issuance of additional permits to an applicant that has not adhered to its existing permit terms and conditions.
- The Amargosa Desert basin is over-appropriated and additional management considerations are warranted.
- The Devils Hole pupfish are an endangered species found only in Devils Hole and the Court has mandated a minimum water level needed to inundate the shelf on which the pupfish spawn. (*Cappaert v. United States*, 1976).
- The change applications should be limited to the amount of water historically placed to beneficial use.

XIV.

After all parties were duly noticed, a public administrative hearing was held before the Office of the State Engineer on September 5-6, 2007. Appearances for the record, included Greg Walch, Esq. for Applicant Rockview Dairies, a.k.a. Rockview Farms, a.k.a. Amargosa Farms (69836, 69837, 70383, 72962, 74531, 74532, 74533, 74534 and 74535), Michael DeLee for Applicant The Ken Garey Family Trust, dated October 30, 1996, (72012) and Peter Fahmy, Esq. for the Protestant National Park Service (NPS). There

¹³ Exhibit Nos. 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, and 24, public administrative hearing September 5-6, 2007, official records in the Office of the State Engineer.

were no appearances on behalf of Applications 72239 (Anjoy Trust) and 73862 (Ultimate Industries, Inc.).¹⁴

FINDINGS OF FACT

I.

The filing of a water right application for use within the Amargosa Desert Hydrographic Basin is often followed by a timely protest from the NPS. The NPS protests both applications that request additional appropriations of underground water, and applications that request changes in existing water rights. The NPS protests received by the State Engineer's office typically contain a set of standard points, similar to those found in the protests being considered in this ruling. A review of the protests finds that they focus primarily upon the issues of existing water rights, particularly for Devils Hole, and the lack of unappropriated water in the Amargosa Desert Hydrographic Basin.

Regarding the issue of existing rights, there has been much opposition by the NPS to applications that would transfer existing water rights to points of diversion that are closer to its areas of concern being Death Valley National Park. The NPS is responsible for the continued health of numerous surface-water sources that are located within the Death Valley National Park, some of which are populated by threatened or endangered species. It is feared by the Protestant that the cumulative effect of water right transfers within the Amargosa Desert Hydrographic Basin will ultimately have a negative impact on the ground-water levels found at these sources. Of particular concern is the potential decline of the water level at Devils Hole, which is a detached unit of the Death Valley National Park.

While the effects that a ground-water appropriation may have on a spring source is not solely a function of distance, it is useful to compare the locations of the existing points of diversion with those proposed under the subject applications as they relate to Devils Hole.

State Engineer's Order No. 724, issued May 14, 1979, described and designated the Amargosa Desert Hydrographic Basin as a ground-water basin in need of additional

¹⁴ Transcript and Exhibits, public administrative hearing September 5-6, 2007, official records of the Office of the State Engineer. Hereinafter the transcript and exhibits will be referred to by page number and exhibit number.

administration under the provisions of NRS § 534.030.¹⁵ All water right applications, which are filed in the Office of the State Engineer are subjected to a simple analysis to determine the location of the proposed points of diversion. This determination is a critical part of the initial application review process and establishes which hydrographic basin the proposed points of diversion are located within and, in this case, determines the location of the existing points of diversion and the proposed points of diversion in relation to Devils Hole. All of the applications under consideration in this ruling are changes of existing water rights already located in the Amargosa Desert Hydrographic Basin. The description of the proposed points of diversion found within Applications 69836, 69837, 70383, 72012, 72239, 72962, 73862, 74531, 74532, 74533, 74534, and 74535 and their supporting maps were used to plot the location of the proposed and existing well sites. These locations were all found to be within the Amargosa Desert Hydrographic Basin. In addition, the distances from Devils Hole were approximated and are presented in Table 1.

Table 1.
Tabular illustration of relevant distances and quantities sought for change

Application Number	Proposed Point of Diversion[†]	Existing Point of Diversion[†]	Change in Distance to Devils Hole (miles)*	Quantity of Water to be Moved (AF)
69836	10.4	17.8	-7.4	10.0
69837	10.4	14.5	-4.1	18.2
70383	10.4	19.2	-8.8	160.1
72012	12.8	13.9	-1.1	5.0
72239	14.0	18.9	-4.9	25.0
72962	9.9	13.6	-3.7	343.6
73862	5.7	11.7	-6.0	15.0
74531	10.4	10.4	0.0	160.1
74532	10.4	10.4	0.0	18.2
74533	10.4	10.4	0.0	10.0
74534	10.0	10.0	0.0	75.0
74535	10.0	10.0	0.0	17.5

*Negative number indicates well site (POD) is moving closer to Devils Hole.

†Distances were approximated using 1:100,000 scale topographic map.

It should be noted that Applications 74531, 74532 and 74533 were filed to change the manner and place of use of Applications 70383, 69837 and 69836, respectively, and do not propose a further change in the point of diversion. Also, Applications 74534 and

¹⁵ State Engineer's Order No. 724, issued May 14, 1979, official records in the Office of the State Engineer.

74535 are proposing to change existing points of diversion to a new well location; however, the change in distance from Devils Hole is so small that it becomes negligible at the mapping scale utilized to construct the table.

The State Engineer finds that Applications 69836, 69837, 70383, 72012, 72239, 72962, 73862, 74531, 74532, 74533, 74534, and 74535 are changes of existing rights within the Amargosa Desert Hydrographic Basin. The State Engineer finds Applications 69836, 69837, 70383, 72012, 72239, 72962, and 73862 seek to move their existing points of diversion to wells located closer to Devils Hole.

II.

The NPS has expressed concerns that the cumulative impact of moving water rights closer to Devils Hole will change the pumping center within the Amargosa Desert Hydrographic Basin and, therefore, have greater impact on water levels at Devils Hole. An analysis was performed by Applicant Rockview to determine the potential impact of moving its water rights closer to Devils Hole.

From the perspective of the entire Amargosa Farms district, the change applications will result in a shift in pumping distribution (pumping weighted centroid) over 2006 pumping conditions of approximately 483 ft E-SE (Figure 12). The pumping centroid computation was made in ESRI ArcView, using the mean center function in the spatial statistics workbook from ArcToolbox. The farm district pumping distribution was mapped at the Section, Township, Range scale (see Figure 8). This ArcView utility determines the weighted geographic center, or center of concentration, of a set of point features. From a regional view point, the change applications represent only a minor shift internally within the established pumping center.¹⁶

The centroid analysis shows that the proposed changes by Applicant Rockview could shift the pumping center about 482 feet to the southeast when compared to existing (2006) conditions.¹⁷

A Theis analysis was used by the Protestant to predict potential drawdown at Devils Hole.¹⁸ The Protestant's Theis analysis showed that the difference in pumping at the current points of diversion versus pumping at the proposed points of diversion would

¹⁶ Exhibit No. 64, p. 16.

¹⁷ Exhibit No. 64, Figure No. 12.

¹⁸ Transcript, p. 220-235 and Exhibit Nos. 48 and 48A.

result in the drawdown at Devils Hole increasing by 24% over 100 years.¹⁹ However, the validity of this method was challenged by Applicant Rockview, concluding that “The Theis computations of potential drawdown at Devils Hole presented by Cutillo (2007) is a gross over-simplification of the flow systems in Amargosa Desert, and the results of the computation are of no utility, even for producing worst-case predictions.”²⁰ Additional concerns over the method and results presented by NPS were raised during questioning by the Nevada Division of Water Resources (Division). It was noted that the Theis analysis has a number of assumptions that must be made and almost all are violated in this application of the method.²¹

A Theis solution requires a number of assumptions and even though all of these assumptions are rarely met the solution may still be useful, depending on the degree to which they are violated. The State Engineer finds that the Protestant’s Theis analysis is a first order approximation of drawdown that represents the lowest level of analysis and because it ignores known hydrogeologic conditions that violate the necessary Theis assumptions, any conclusions based on this analysis must be considered to be an approximation only.

The State Engineer finds neither Protestant nor Applicant Rockview was able to clearly demonstrate the effects of regional pumping on Devils Hole water levels, or to accurately estimate the effect of the proposed change in points of diversion on water levels at Devils Hole.

III.

The Nevada Revised Statutes (NRS) chapters 533 and 534 and the policies developed by the Office of the State Engineer control the appropriation of water within the state of Nevada. Under the provisions of NRS § 533.370(5), before an application can be considered for approval it must be determined that there is unappropriated water available at the targeted source. The Protestant argues that the Amargosa Desert Hydrographic Basin is over-appropriated and therefore, the subject change applications should be denied, despite the fact that the applications seek to change existing water rights and do not seek a new appropriation of ground water.

¹⁹ Transcript, pp. 225 and 226.

²⁰ Exhibit No. 64, p. 14.

²¹ Transcript, pp. 264-268.

All of the applications under review in this ruling are changes of existing water right permits within the Amargosa Desert Hydrographic Basin and could be pumped at their existing points of diversion. The State Engineer finds that the water sought for change has already been accounted for in the ground-water basin budget and, therefore, will have no additional effect on the ground-water resource.

IV.

Application 69836 was filed to change 10.0 afa of water heretofore permitted under Permit 60437, Certificate 14999. The Protestant contends that the Permittee has failed to maintain a beneficial use of all the water issued under Permit 60437, Certificate 14999, which forms the basis for the change application.

Permit 60437 authorizes the irrigation of up to 0.0389 cfs, not to exceed 10 acre-feet annually, for irrigation of 2.5 acres. The metered water use indicates varied use since 1999, averaging approximately 7.8 acre-feet annually. Since 1997, the irrigated acreage has declined from 2.5 acres to 1.0 acres; the acreages irrigated and the types of use indicated in the field notes (e.g., trees, windbreak, grapes) suggest a use consistent with domestic purposes.²²

The validity of this claim can be determined through an examination of the basin inventories that the Office of the State Engineer has created for the Amargosa Desert Hydrographic Basin. Since 1983, representatives from the State Engineer's Las Vegas Branch office have visited the points of diversion and places of use of the irrigation permits found within the Amargosa Desert Hydrographic Basin. The purpose of these annual site inspections is to document the amount of land that is being irrigated and the amount of water being used under each water right permit, from which an estimate of the basin wide ground-water pumpage can be derived.

If the record of water use specific to Permit 60437, Certificate 14999, is reviewed, it can be seen that this particular water right has been utilized each year since certification in 1998. A water meter has been in place at the permitted point of diversion since 1999 and the amount of water placed to beneficial use has varied from about 4.6 afa to 10.7 afa from 1999 to 2006.²³ The Protestant notes that the average water use since 1999 is about 7.8 afa, which is slightly less than the maximum duty of 10.0 afa for Permit 60347,

²² Exhibit No. 46A, p. 2.

²³ Amargosa Valley (230) Pumpage Inventories, official records in the Office of the State Engineer.

Certificate 14999. However, the Permittee did place 9.6 afa of water to beneficial use as recently as 2005.

The State Engineer finds that Permit 60437, Certificate 14999 is in good standing at this time and that Permit 60437, Certificate 14999 can be considered for the transfer proposed under Application 69836.

V.

Application 69837 was filed to change 18.2 afa of water heretofore permitted under Permit 63235. The Protestant requested that any permit issued under Applications 69837 be limited to the amount of water historically placed to beneficial use under Permit 63235. The State Engineer finds that this request by the NPS is inconsistent with NRS §§ 533.324 and 533.325, which allows for the filing of a change application on a permit prior to applying any water from said permit to its intended beneficial use.

Under the terms and conditions issued with Permit 63235, the Permittee was granted five years to establish a beneficial use of the water, with the deadline for achieving this goal set at September 14, 2004. A review of the permit file indicates that although the Permittee was unable to meet the required deadline of September 14, 2004, the permit has remained in good standing through the filing of extensions of time on an annual basis.²⁴

The State Engineer finds that Permit 63235 is in good standing at this time and that Permit 63235 can be considered for the transfer proposed under Application 69837.

VI.

Application 70383 was filed to change 160.1 afa of water heretofore permitted under Permit 17417, Certificate 5888. The Protestant contends that the base right Permit 17417, Certificate 5888 requested for transfer under Application 70383 has undergone extended periods of non-use.

The Ground Water Pumpage Inventories indicate non-use from 1986 through 1993. The Ground Water Pumpage Inventories for 1995 through 2005 also indicate non-use of this water. Further, the field notes for 1998 through 2005 indicate there is no pump or motor on site. Even though the amount sought to be changed is small, there is no record of consumptive use upon which to base a change.²⁵

²⁴ File No. 63235, official records in the Office of the State Engineer.

²⁵ Exhibit No. 46A, p. 3.

The validity of this claim can be determined through an examination of the basin inventories for the Amargosa Desert Hydrographic Basin. A review of the records on file for Permit 17417, Certificate 5888, show that this water right was the subject of a forfeiture proceeding. It was determined that the evidence of forfeiture was not clear and convincing and it was ruled that the water was not subject to forfeiture.²⁶ As noted by the Protestant, there is a period of documented non-use subsequent to the issuance of State Engineer's Ruling No. 4446.

The State Engineer finds that the right to use this water has not been forfeited under the procedure mandated by NRS § 534.090, at this time; thus the State Engineer finds that Permit 17417, Certificate 5888 is in good standing at this time and it can be considered for the transfer proposed under Application 70383.

VII.

Application 72012 was filed to change 5.0 afa of water heretofore permitted under Permit 31727, Certificate 9318.²⁷ The Protestant alleges that the water has not been placed to beneficial use since 2002.²⁸ A review of the records on file for Permit 31727, Certificate 9318, substantiates the claim of non-use.²⁹ Under the provisions set forth under NRS § 534.090, failure for five successive years on the part of any water right holder to use beneficially all or any part of the underground water for the purpose for which the right is acquired or claimed works a forfeiture to the extent of the non-use. As amended in 1995, the forfeiture statute requires that the holder of any water right must be notified after at least four successive years of non-use have been recorded before the State Engineer may proceed with forfeiture. As noted, it appears that non-use for the remaining water under Permit 31727, Certificate 9318, may have occurred for the years 2002, 2003, 2004, 2005 and 2006. However, a review of the file shows that a 4-year notice of non-use was not sent to the owners of record of Permit 31727, Certificate 9318, because change Application 72012 was filed in December of 2004 after only three consecutive years of non-use.

²⁶ State Engineer's Ruling No. 4446, dated October 10, 1996, official records in the Office of the State Engineer.

²⁷ File No. 72012, official records in the Office of the State Engineer.

²⁸ Exhibit No. 46A, p. 4.

²⁹ Amargosa Valley (230) Pumpage Inventories, official records in the Office of the State Engineer.

The State Engineer finds that the right to use this water has not been forfeited under the procedure mandated by NRS § 534.090, at this time; thus the State Engineer finds that Permit 31727, Certificate 9318 is in good standing at this time and can be considered for the transfer proposed under Application 72012.

VIII.

Application 72239 was filed to change 25.0 afa of water heretofore permitted under Permit 66057. At the administrative hearing the Protestant presented a stipulation between itself and the Applicant, whereby the Protestant withdraws its protest claims.³⁰ It should be noted that the stipulation is not binding upon the State Engineer; however, the State Engineer does find that the Protestant has withdrawn its protest to this application.

IX.

Application 72962 was filed to change 343.6 afa of water heretofore permitted under Permit 20352, Certificate 5764. The Protestant contends that the Permittee has failed to maintain a beneficial use of all the water issued under Permit 20352, Certificate 5764, which forms the basis for the change application.

The Ground Water Pumpage Inventories for Permit 20352 for 1983, and 1985 through 2005 indicate consistent use for irrigation, although the full authorized acreage has not been irrigated. The authorized acreage has been reduced somewhat since 2001 through change applications (Permits 64737 and 70435), and since that time approximately 72% of the authorized acreage has been irrigated.³¹

Records on file in the Office of the State Engineer pertaining to Permit 20352, Certificate 5764, show that this particular water right has been utilized each year from 1985 through 2006.³²

The State Engineer finds that Permit 20352, Certificate 5764 is not subject to forfeiture. The State Engineer finds that Permit 20352, Certificate 5764 is in good standing at this time and can be considered for the transfer proposed under Application 72962.

³⁰ Exhibit No. 72.

³¹ Exhibit No. 46A, p. 6.

³² Amargosa Valley (230) Pumpage Inventories, official records in the Office of the State Engineer.

X.

Application 73862 was filed to change 15.0 cfs of water heretofore permitted under Permit 66370. The water right issued under Permit 66370 has yet to be perfected and, therefore, is not subject to forfeiture.

Under the terms and conditions issued with Permit 66370, the permittee was granted five years to establish a beneficial use of the water, with the deadline for achieving this goal set at May 25, 2006. A review of the permit file indicates that although the permittee was unable to meet the required deadline of May 25, 2006, the permit has remained in good standing through the filing of extensions of time. At this point in time, Permit 66370 is considered to be in good standing. The State Engineer finds that Permit 66370 is in good standing at this time and can be considered for the transfer proposed under Application 73862.

XI.

Applications 74534 and 74535 seek to change Permits 67957 and 67956, respectively. The water rights issued under Permits 67957 and 67956 have yet to be perfected. Under the terms and conditions issued with Permits 67957 and 67956, the permittee was granted 3 years to establish beneficial use of the water. A review of the permit file indicates that the permit has remained in good standing through the filing of extensions of time. The State Engineer finds that Permits 67957 and 67956 are in good standing at this time and can be considered for the transfer proposed under Applications 74534 and 74535.

XII.

The Devils Hole pupfish was listed as an endangered species in 1967 due in part to declining water levels resulting from local ground-water pumping. This small iridescent blue fish's only natural habitat is in the 93 degree waters of Devils Hole, located within a detached unit of Death Valley National Park within the boundaries of the Ash Meadows Wildlife Refuge, Nye County, Nevada. Although the cavern is over 400 feet deep, the pupfish are believed to spawn exclusively on a shallow rock shelf just under the water's surface.

A decision by the U.S. Supreme Court and later refined by the U.S. District Court determined that a Federal reserved water right exists at Devils Hole for the purpose of

maintaining a water level of no more than 2.7 feet below a copper washer located on the wall of Devils Hole. This level was chosen as the minimum level required for spawning to occur on the shallow rock shelf. Also mandated by court decision, was a reduction in local ground-water pumping to the extent required to maintain a daily mean water level of 2.7 feet below the copper washer.^{33,34,35}

The water level in Devils Hole has been measured from May 23, 1962, to present. The level in 1962 was approximately 1.1 feet below the washer. Measurements indicated a slight declining water level prior to the start of significant pumping in the Ash Meadows area, which may have been due to pumping in Amargosa Valley or to natural fluctuations relating to climate and local recharge. Pumping in the Ash Meadows area began about 1967 and water levels in Devils Hole began to decline rapidly. In 1972, the water level dipped to its lowest point at about 3.7 - 3.8 feet below datum. From 1975 to 1979 the pumping rate was reduced and water levels began to recover. In 1980, the nearby pumping ceased and the water levels continued to recover up to 1989, with the water level at about 1.8 – 1.9 feet below datum. Since that time there has been a slight decrease in the water levels at Devils Hole and the level as of January 2006 is approximately 2.1 – 2.3 feet below datum.³⁶ Additional information at the administrative hearing indicates a slight uptick in water levels for 2007, with the level rising to approximately 2.05 – 2.15 feet below datum. The Protestant indicated that from October 16, 1999, through May 5, 2007, the mean water level was 2.11 feet below datum with a fluctuation of about 0.2 feet.³⁷

The magnitude of water level fluctuation on Devils Hole is small due to its proximity to a discharge area. In a discharge area, changes in water level are dampened by springs, which are at a fixed altitude. Therefore the magnitude of water-level fluctuations at sites located in and near Ash Meadows discharge area such as Tracer Well 3 and Devils Hole, are less

³³ *United States v. Cappaert*, 375 F. Supp. 456 (D. Nev. 1974).

³⁴ *Cappaert v. United States*, 426 U.S. 128, 141 (1976).

³⁵ *United States v. Cappaert*, 455 F. Supp. 81 (D. Nev. 1978).

³⁶ Richard K. Waddell, Jr., *Report on Simulation Results in the Amargosa Desert Hydrographic Basin*, GeoTrans Inc., 2006, Figure 4, official record in the Office of the State Engineer.

³⁷ Exhibit No. 64, p. 1.

when compared to fluctuations at sites distant from this discharge area, such as wells TW-3, UE-7nS, TW-D, and TW-F (cite omitted).³⁸

Fluctuations in water levels and spring discharge can be caused by barometric pressure and earth tides, precipitation, evapotranspiration, ground-water withdrawal, and seismic events. One recent study concluded that local ground-water pumping was the primary cause of water level declines in Devils Hole.

Devils Hole pool is home to an endangered pupfish that was threatened when irrigation pumping in nearby Ash Meadows lowered the pool stage in the 1960s. Pumping at Ash Meadows ultimately ceased, and the stage recovered until 1988, when it began to decline, a trend that continued until at least 2004. Regional ground water pumping and changes in recharge are considered the principal potential stresses causing long term stage changes. A regression was found between pumpage and Devils Hole water levels. Though precipitation in distant mountain ranges is the source of recharge to the flow system, the stage of Devils Hole shows small change in stage from 1937 to 1963, a period during which ground water withdrawals were small and the major stress on stage would have been recharge. Multiple regression analyses, made by including the cumulative departure from normal precipitation with pumpage as independent variables, did not improve the regression. Drawdown at Devils Hole was calculated by the Theis Equation for nearby pumping centers to incorporate time delay and drawdown attenuation. The Theis drawdowns were used as surrogates for pumpage in multiple regression analyses. The model coefficient for the regression, $R^2 = 0.982$, indicated that changes in Devils Hole were largely due to effects of pumping at Ash Meadows, Amargosa Desert [Amargosa Farms Area], and Army 1.³⁹

The Applicant, however, argues that the above evaluation made by Bedinger and Harrill (2006) fails to adequately examine and define climate and seismic variables and their Devils Hole water stage relationships to pumping do not adequately reproduce measured stage elevations in the past 4-5 years (post-2002). Also, the flow system is far too complex for a Theis computation to have any value.⁴⁰

³⁸ Joseph M. Fenelon and Michael T. Moreo, *Trend Analysis of Ground-Water Levels and Spring Discharge in the Yucca Mountain Region, Nevada and California, 1960-2000*, U.S. Geological Survey, Water-Resources Investigations Report 02-4178, 2002, p. 52.

³⁹ M.S. Bedinger and J.R. Harrill, *Analytical-regression stage analysis for Devils Hole, Death Valley National Park, Nevada*, *Journal of American Water Resources Association*, Volume 42, Number 4, August 2006, pp. 0827-0839.

⁴⁰ Exhibit No. 64, pp. 1-2.

The Protestant has asserted that Devils Hole water levels are declining and pumping in the Amargosa basin is the primary cause.⁴¹ In rebuttal to this general claim, the Applicant notes that the recent water level trends do not necessarily support this theory.

Figure 1 presents Devils Hole stage data from May 22, 1962 to May 5, 2007, as obtained from the USGS NWIS database (USGS field measurements). The immediate and noticeable affects of pumping in Ash Meadows by Spring Meadows Ranch, Inc. is observed from 1969 to 1973, followed by post-pumping recovery of water levels through approximately 1990. The water level elevations measured since 1990 are interesting. Up to 2002, a gradual decline can be interpreted in the record (Generalized Trend A, Figure 1). However, the past 4 years of water level data deviate from this trend (Generalized Trend A, Figure 1), raising questions as to the influences on water levels in Devils Hole. The trends observed appear to be more clearly explained when factoring into consideration the effects of earthquake events.⁴²

After the Hector Mine earthquake on October 16, 1999, there was an abrupt decline in Devils Hole water level of about 0.15 feet. Since then the water level appears stable except for natural variability. Since pumpage within the basin has ranged between 12,000 to 16,000 afa from 1994 to 2006, the Bedinger and Harrill (2006) multiple regression relationships between pumping at Ash Meadows (Spring Meadows), Amargosa Farms, and the Nevada Test Site predicts a continued declining trend in Devils Hole but this has not occurred. The water levels have been relatively stable over the last 7-8 years.⁴³

There was some concern expressed by the Protestant that the Devils Hole water level data used by the Applicant's expert witness was incomplete. Devils Hole is measured with a transducer that provides a reading every 15 minutes, but the witness explained that he was unable to obtain this information from the USGS and therefore, used published data from the USGS web site described as 'USGS NWIS data, USGS field measurements.'⁴⁴ A review of Figure 1, Exhibit No. 64, shows that the field measurements used closely mirror the transducer measurements graphically; however, the

⁴¹ Transcript, pp. 137-162.

⁴² Exhibit No. 64, pp. 3-4.

⁴³ Exhibit No. 64, p. 6.

⁴⁴ Transcript, pp. 326 and 328.

Protestant did insist that the water levels since 1999 are not flat and that there is an overall declining trend although “the magnitude is probably pretty small...”⁴⁵

The State Engineer finds that a Federal reserved water right exists at Devils Hole for the purpose of maintaining a minimum water level. The State Engineer finds that local ground-water pumping has contributed in the past to the water level in Devils Hole dropping below the copper washer (now a common bolt) and since cessation of pumping and recovery of water levels in the 1980s, the water level in Devils Hole appears to be in a slight decline, equal to approximately 0.1 foot /10 years for the 20-year period ending in 2006. At the present time, the water level in Devils Hole is 0.6 to 0.7 feet above the threshold level mandated by the Court, and extreme caution must be taken with regard to management of ground water in the basin. Neither the Protestant nor the Applicant was able to clearly demonstrate the effects of regional pumping on Devils Hole water levels, or to accurately estimate the effect of the proposed change in points of diversion on water levels at Devils Hole. However, general hydrologic principles support a finding that pumpage in the Amargosa Valley farm area is likely to have an effect on water levels in the Devils Hole and Ash Meadows area, even if the magnitude of the effect cannot be precisely determined. Furthermore, the same principles dictate that moving a pumping location closer to Devils Hole and Ash Meadows will increase its effect on Devils Hole and Ash Meadows. Even though any lowering of water levels may be relatively small, and any acceleration in the rate of water level decline due to moving a point of diversion marginally closer to Devils Hole or Ash Meadows may be miniscule, the State Engineer finds that caution is warranted, and any such changes in points of diversion must be carefully examined.

XIII.

Application 73862 (Ultimate Industries) seeks to move its point of diversion from approximately 11.7 to within 5.7 miles of Devils Hole. This proposed point of diversion is significantly closer to Devils Hole than any other application at issue in this ruling and involves the largest relative change with respect to distance from Devils Hole. Because of its close proximity to Devils Hole, the State Engineer is concerned that the additional pumping could have a measurable and unacceptable impact on water levels in Devils

⁴⁵ Transcript, pp. 152-153.

Hole. With no contravening testimony or evidence by the Applicant, the State Engineer must use his own judgment in the matter. The State Engineer finds there is sufficient evidence to demonstrate that the proposed change under Application 73862 will conflict with existing water rights.

XIV.

The Protestant has alleged that the Applicants, particularly Applicant Rockview, have failed to substantially comply with various provisions and requirements of their respective existing water rights and the public interest will not be served by the issuance of additional permits to any applicant that has not adhered to its existing permit terms and conditions. In this regard, the Protestant points to the requirement for the filing of pumpage data on a quarterly basis and the lack of required water meters on selected well locations.⁴⁶ In addition, the Division has had various issues with Applicant Rockview including pumpage data, meters, and plugging and abandonment. For example, many of Applicant Rockview's files, such as Application 74531, contain a Division memorandum that states, "No further action is to be taken on this application until the Applicant is in compliance with the plugging and abandonment regulations."

In its defense, counsel for Applicant Rockview indicated that there has been an effort to rectify any non-compliance issues and a belief that there is now substantial compliance with the reporting requirements rather than a complete dereliction of that duty.⁴⁷

The water of all sources of water supply within the boundaries of the State whether above or beneath the surface of the ground, belongs to the public.⁴⁸ All such water is subject to appropriation for beneficial use as provided for under Nevada Water Law. If an application to appropriate water is filed, and meets the statutory criteria for approval, a water right permit shall be issued. The water right permit contains such information as the point of diversion, place of use, manner of use, diversion rate, duty of water, and permit terms. One of the most common permit terms is the requirement of a device to measure the water placed to beneficial use, such as a water meter. In conjunction with a water meter requirement, it is frequently required that meter readings

⁴⁶ Transcript, pp. 206-213 and Exhibit Nos. 46 and 46A.

⁴⁷ Transcript, p. 518.

⁴⁸ NRS § 533.025.

be submitted to the Division on a regular basis. The Amargosa Desert Hydrographic Basin is an area of active management and, in addition to the collection of water usage data from selected permits, a pumpage inventory is conducted on an annual basis. At this time, any approved change applications for ground water will contain permit terms requiring the installation of a water-measuring device. As demonstrated by the issues raised in this ruling, compliance with the permit terms is crucial to the proper management of this basin. For permittees that are unwilling to comply with the terms and conditions placed on the water permits issued by the State Engineer, those permits will be subject to administrative action, which may include cancellation of the permit or, in the near future, fines and penalties.

The State Engineer finds that all permittees are required to fully comply with all laws, rules, regulations, terms and conditions imposed for the proper management of the water resources of Nevada.

XV.

The Ken Garey Family Trust (Trust) filed Application 72012. Mr. Michael DeLee made an appearance during the administrative hearing on behalf of the Trust. Nevada Administrative Code § 533.220 provides that parties to a protest hearing are required to reimburse the State Engineer for the cost of the court reporter's appearance fee, travel expenses, the portion of the transcript consisting of comments by the State Engineer and the public and the portion of the transcript taken up by their own case. While Mr. DeLee did not put on a formal case for the Trust, but he made an appearance at the hearing and the Trust is responsible for its portion of the court reporter's appearance fee and the State Engineer's and the public's comments. On November 15, 2007, the State Engineer billed Mr. DeLee for the Ken Garey Trust's portion of the hearing cost in the amount of \$158.50. A second notice was sent on December 17, 2007, and another billing on April 25, 2008, all of which have not been reimbursed to the State. The State Engineer finds no permit will be issued under Application 72012 until payment of the Trust's portion of the hearing cost is received by the Office of the State Engineer.

CONCLUSIONS

I.

The State Engineer has jurisdiction over the parties and the subject matter of this action and determination.⁴⁹

II.

The State Engineer is prohibited by law from granting an application that requests a transfer of an existing water right where:⁵⁰

- 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.

Applications 69836, 69837, 70383, 72012, 72239, 72962, 73862, 74534 and 74535 request changes in existing ground-water permits. As change applications, the State Engineer concludes their approval would not represent an additional appropriation of underground water from the Amargosa Desert Hydrographic Basin. The State Engineer further concludes that the water sought for change is in good standing, and is not subject to forfeiture, abandonment or cancellation at this time.

IV.

Applications 74531, 74532 and 74533 request changes of pending applications described above; the base rights of which have been found to be in good standing and are not subject to forfeiture, abandonment or cancellation at this time. The State Engineer concludes Applications 74531, 74532 and 74533 can be considered for approval.

V.

The State Engineer is authorized under the Nevada Revised Statutes to create whatever degree of regulation is necessary to manage and protect the underground water resources of the State and to protect the existing senior water rights, including those present within the Amargosa Desert Hydrographic Basin. While new appropriations of underground water are tightly controlled through the permitting process, additional

⁴⁹ NRS chapters 533 and 534.

⁵⁰ NRS § 533.370(5).

regulation may also be considered for water right applications that request changes in existing water permits and certificates.

For the effective management of the Amargosa Desert Hydrographic Basin and to protect the existing rights of the Protestant, further regulation of the resource is required and any change application approved by this ruling will be subject to such terms and conditions necessary for the highest level of resource management. The State Engineer concludes that additional management within the Amargosa Desert Hydrographic Basin requires the issuance of an Order to establish a sub-area that will prohibit the movement of ground-water rights closer to Devils Hole through the change application process and to limit new appropriations of underground water. In addition, due to the magnitude and concentration of pumpage and proximity of its property to Devils Hole, Applicant Rockview will be required to comply with a monitoring plan, which will include a minimum of two newly constructed monitor wells, the location of which are to be determined by the State Engineer with consultation from Applicant Rockview and the NPS, and approved by the State Engineer. The State Engineer further concludes that under these conditions, the proposed change applications, with the exception of Application 73862, will not threaten to prove detrimental to the public interest or conflict with existing rights.

VI.

The State Engineer concludes that the close proximity of the proposed point of diversion of change Application 73862 to Devils Hole would conflict with existing rights and would threaten to prove detrimental to the public interest.

VII.

The State Engineer concludes that the Applicants must be in full compliance with Nevada Water Law, regulations, orders, all permit terms and conditions, and monitor plan requirements prior to the issuance of any permit that may be authorized for approval under this ruling.

RULING

Application 73862 is hereby denied on the grounds that its issuance would conflict with existing rights and would threaten to prove detrimental to the public interest.

The protests to Applications 69836, 69837, 70383, 72012, 72239 (protest withdrawn), 72962, 74531, 74532, 74533, 74534 and 74535 are overruled and the applications are hereby approved subject to:

1. Existing rights;
2. A determination by the Division that each Applicant is in full compliance with Nevada Water Law, regulations, orders, and all permit terms and conditions;
3. A monitoring plan approved by the State Engineer (Rockview Dairies only);
4. Payment of the statutory permit fees and any outstanding hearing fees.

However, no permit will be issued under Application 72012 until the Ken Garey Family Trust, dated October 30, 1996, reimburses the State for its portion of the hearing costs.

Respectfully Submitted,


TRACY TAYLOR, P.E.
State Engineer

TT/TW/jm

Dated this 4th day of
November, 2008.