

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

IN THE MATTER OF APPLICATIONS 63805, )  
64171, 65060, 65061, 65062, 65063, 65064, )  
65065, 65066, 65067, 65068, 65069, 65070, )  
65071, 66729, 69594, 69595 and 69596 FILED TO )  
APPROPRIATE THE PUBLIC WATERS OF AN )  
UNDERGROUND SOURCE WITHIN THE )  
TRACY SEGMENT HYDROGRAPHIC BASIN )  
(83), STOREY COUNTY, NEVADA. )

**RULING**

**# 5747**

**GENERAL**

**I.**

Application 63805 was filed on January 30, 1998, by Mark L. Mansfield, Guardian of Lincoln "Nick" Mansfield to appropriate 1.0 cubic foot per second not to exceed 180 acre-feet annually (afa), of ground water within the Tracy Segment Hydrographic Basin. The proposed manner of use is for industrial and domestic purposes. The proposed place of use is described as being located within the S $\frac{1}{2}$  NW $\frac{1}{4}$  and SW $\frac{1}{4}$  NE $\frac{1}{4}$  of Section 34, T.20N., R.22E., M.D.B.&M. The proposed point of diversion is described as being located within the SE $\frac{1}{4}$  NW $\frac{1}{4}$  of said Section 34.<sup>1</sup>

**II.**

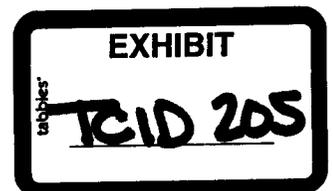
Application 64171 was filed on May 28, 1998, by James A. Schumacher to appropriate 0.25 cubic feet per second (cfs), not to exceed 15.23 afa, of ground water within the Tracy Segment Hydrographic Basin. The proposed manner of use is for hydroponics (greenhouses). The proposed place of use is described as being located within the S $\frac{1}{2}$  SE $\frac{1}{4}$  NE $\frac{1}{4}$ , NE $\frac{1}{4}$  NE $\frac{1}{4}$  SE $\frac{1}{4}$  and W $\frac{1}{2}$  NE $\frac{1}{4}$  SE $\frac{1}{4}$  of Section 9, T.17N., R.21E., 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 said Section 9.<sup>2</sup>

**III.**

Application 65060 was filed on April 19, 1999, by TRI Water and Sewer Company c/o Robert M. Sader, Esq. to appropriate 2.5 cfs, not to exceed 1,000 afa, of ground water within the Tracy Segment Hydrographic Basin. The proposed manner of use is for quasi-municipal purposes. The proposed place of use is described as being located within the SW $\frac{1}{4}$  of Section 32

<sup>1</sup> File No. 63805, official records in the Office of the State Engineer.

<sup>2</sup> File No. 64171, official records in the Office of the State Engineer.



lying south of the Southern Pacific Railroad, S½ SE¼ of Section 32, S½ of Section 33, S½ of Section 34, and Section 36, T.20N., R.22E., M.D.B.&M., and Sections 1, 2, 3, 4, 5, 9, 10, 11, 12, 13, 14, 15, 16, N½ of Section 23 and N½ of Section 24, T.19N., R.22E., M.D.B.&M., and the S½ of Section 29, S½ of Section 30, Section 31 and Section 32, T.20N., R.23E., M.D.B.&M., and Sections 5, 6, 7, 8, W½ of Section 9, W½ of Section 16, Sections 17, 18, 19, 20, 21, 29, 30 and W½ of Section 22, T.19N., R.23E., M.D.B.&M. The proposed point of diversion is described as being located within the SW¼ NW¼ of Section 11, T.19N., R.22E., M.D.B.&M.<sup>3</sup>

#### IV.

Application 65061 was filed on April 19, 1999, by TRI Water and Sewer Company c/o Robert M. Sader, Esq. to appropriate 2.5 cfs, not to exceed 1,000 afa, of ground water within the Tracy Segment Hydrographic Basin. The proposed manner of use is for quasi-municipal purposes. The proposed place of use is described as being located within the SW¼ of Section 32 lying south of the Southern Pacific Railroad, S½ SE¼ of Section 32, S½ of Section 33, S½ of Section 34, and Section 36, T.20N., R.22E., M.D.B.&M., and Sections 1, 2, 3, 4, 5, 9, 10, 11, 12, 13, 14, 15, 16, N½ of Section 23 and N½ of Section 24, T.19N., R.22E., M.D.B.&M., and the S½ of Section 29, S½ of Section 30, Section 31 and Section 32, T.20N., R.23E., M.D.B.&M., and Sections 5, 6, 7, 8, W½ of Section 9, W½ of Section 16, Sections 17, 18, 19, 20, 21, 29, 30 and W½ of Section 22, T.19N., R.23E., M.D.B.&M. The proposed point of diversion is described as being located within the NW¼ NE¼ of Section 14, T.19N., R.22E., M.D.B.&M.<sup>4</sup>

#### V.

Application 65062 was filed on April 19, 1999, by TRI Water and Sewer Company c/o Robert M. Sader, Esq. to appropriate 2.5 cfs, not to exceed 1,000 afa, of ground water within the Tracy Segment Hydrographic Basin. The proposed manner of use is for quasi-municipal purposes. The proposed place of use is described as being located within the SW¼ of Section 32 lying south of the Southern Pacific Railroad, S½ SE¼ of Section 32, S½ of Section 33, S½ of Section 34, and Section 36, T.20N., R.22E., M.D.B.&M., and Sections 1, 2, 3, 4, 5, 9, 10, 11, 12, 13, 14, 15, 16, N½ of Section 23 and N½ of Section 24, T.19N., R.22E., M.D.B.&M., and the S½ of Section 29, S½ of Section 30, Section 31 and Section 32, T.20N., R.23E., M.D.B.&M., and Sections 5, 6, 7, 8, W½ of Section 9, W½ of Section 16, Sections 17, 18, 19, 20, 21, 29, 30

<sup>3</sup> File No. 65060, official records in the Office of the State Engineer.

<sup>4</sup> File No. 65061, official records in the Office of the State Engineer.

and W $\frac{1}{2}$  of Section 22, T.19N., R.23E., M.D.B.&M. The proposed point of diversion is described as being located within the SE $\frac{1}{4}$  SE $\frac{1}{4}$  of Section 10, T.19N., R.22E., M.D.B.&M.<sup>5</sup>

#### VI.

Application 65063 was filed on April 19, 1999, by TRI Water and Sewer Company c/o Robert M. Sader, Esq. to appropriate 2.5 cfs, not to exceed 1,000 afa, of ground water within the Tracy Segment Hydrographic Basin. The proposed manner of use is for quasi-municipal purposes. The proposed place of use is described as being located within the SW $\frac{1}{4}$  of Section 32 lying south of the Southern Pacific Railroad, S $\frac{1}{2}$  SE $\frac{1}{4}$  of Section 32, S $\frac{1}{2}$  of Section 33, S $\frac{1}{2}$  of Section 34, and Section 36, T.20N., R.22E., M.D.B.&M., and Sections 1, 2, 3, 4, 5, 9, 10, 11, 12, 13, 14, 15, 16, N $\frac{1}{2}$  of Section 23 and N $\frac{1}{2}$  of Section 24, T.19N., R.22E., M.D.B.&M., and the S $\frac{1}{2}$  of Section 29, S $\frac{1}{2}$  of Section 30, Section 31 and Section 32, T.20N., R.23E., M.D.B.&M., and Sections 5, 6, 7, 8, W $\frac{1}{2}$  of Section 9, W $\frac{1}{2}$  of Section 16, Sections 17, 18, 19, 20, 21, 29, 30 and W $\frac{1}{2}$  of Section 22, T.19N., R.23E., M.D.B.&M. The proposed point of diversion is described as being located within the SE $\frac{1}{4}$  NW $\frac{1}{4}$  of Section 32, T.20N., R.23E., M.D.B.&M.<sup>6</sup>

#### VII.

Application 65064 was filed on April 19, 1999, by TRI Water and Sewer Company c/o Robert M. Sader, Esq. to appropriate 2.5 cfs, not to exceed 1,000 afa, of ground water within the Tracy Segment Hydrographic Basin. The proposed manner of use is for quasi-municipal purposes. The proposed place of use is described as being located within the SW $\frac{1}{4}$  of Section 32 lying south of the Southern Pacific Railroad, S $\frac{1}{2}$  SE $\frac{1}{4}$  of Section 32, S $\frac{1}{2}$  of Section 33, S $\frac{1}{2}$  of Section 34, and Section 36, T.20N., R.22E., M.D.B.&M., and Sections 1, 2, 3, 4, 5, 9, 10, 11, 12, 13, 14, 15, 16, N $\frac{1}{2}$  of Section 23 and N $\frac{1}{2}$  of Section 24, T.19N., R.22E., M.D.B.&M., and the S $\frac{1}{2}$  of Section 29, S $\frac{1}{2}$  of Section 30, Section 31 and Section 32, T.20N., R.23E., M.D.B.&M., and Sections 5, 6, 7, 8, W $\frac{1}{2}$  of Section 9, W $\frac{1}{2}$  of Section 16, Sections 17, 18, 19, 20, 21, 29, 30 and W $\frac{1}{2}$  of Section 22, T.19N., R.23E., M.D.B.&M. The proposed point of diversion is described as being located within the SE $\frac{1}{4}$  SE $\frac{1}{4}$  of Section 31, T.20N., R.23E., M.D.B.&M.<sup>7</sup>

#### VIII.

Application 65065 was filed on April 19, 1999, by TRI Water and Sewer Company c/o Robert M. Sader, Esq. to appropriate 2.5 cfs, not to exceed 1,000 afa, of ground water within the

<sup>5</sup> File No. 65062, official records in the Office of the State Engineer.

<sup>6</sup> File No. 65063, official records in the Office of the State Engineer.

<sup>7</sup> File No. 65064, official records in the Office of the State Engineer.

Tracy Segment Hydrographic Basin. The proposed manner of use is for quasi-municipal purposes. The proposed place of use is described as being located within the SW¼ of Section 32 lying south of the Southern Pacific Railroad, S½ SE¼ of Section 32, S½ of Section 33, S½ of Section 34, and Section 36, T.20N., R.22E., M.D.B.&M., and Sections 1, 2, 3, 4, 5, 9, 10, 11, 12, 13, 14, 15, 16, N½ of Section 23 and N½ of Section 24, T.19N., R.22E., M.D.B.&M., and the S½ of Section 29, S½ of Section 30, Section 31 and Section 32, T.20N., R.23E., M.D.B.&M., and Sections 5, 6, 7, 8, W½ of Section 9, W½ of Section 16, Sections 17, 18, 19, 20, 21, 29, 30 and W½ of Section 22, T.19N., R.23E., M.D.B.&M. The proposed point of diversion is described as being located within Lot 11 of Section 5, T.19N., R.23E., M.D.B.&M.<sup>8</sup>

**IX.**

Application 65066 was filed on April 19, 1999, by TRI Water and Sewer Company c/o Robert M. Sader, Esq. to appropriate 2.5 cfs, not to exceed 1,000 afa, of ground water within the Tracy Segment Hydrographic Basin. The proposed manner of use is for quasi-municipal purposes. The proposed place of use is described as being located within the SW¼ of Section 32 lying south of the Southern Pacific Railroad, S½ SE¼ of Section 32, S½ of Section 33, S½ of Section 34, and Section 36, T.20N., R.22E., M.D.B.&M., and Sections 1, 2, 3, 4, 5, 9, 10, 11, 12, 13, 14, 15, 16, N½ of Section 23 and N½ of Section 24, T.19N., R.22E., M.D.B.&M., and the S½ of Section 29, S½ of Section 30, Section 31 and Section 32, T.20N., R.23E., M.D.B.&M., and Sections 5, 6, 7, 8, W½ of Section 9, W½ of Section 16, Sections 17, 18, 19, 20, 21, 29, 30 and W½ of Section 22, T.19N., R.23E., M.D.B.&M. The proposed point of diversion is described as being located within the NW¼ SE¼ of Section 20, T.19N., R.23E., M.D.B.&M.<sup>9</sup>

**X.**

Application 65067 was filed on April 19, 1999, by TRI Water and Sewer Company c/o Robert M. Sader, Esq. to appropriate 2.5 cfs, not to exceed 1,000 afa, of ground water within the Tracy Segment Hydrographic Basin. The proposed manner of use is for quasi-municipal purposes. The proposed place of use is described as being located within the SW¼ of Section 32 lying south of the Southern Pacific Railroad, S½ SE¼ of Section 32, S½ of Section 33, S½ of Section 34, and Section 36, T.20N., R.22E., M.D.B.&M., and Sections 1, 2, 3, 4, 5, 9, 10, 11, 12, 13, 14, 15, 16, N½ of Section 23 and N½ of Section 24, T.19N., R.22E., M.D.B.&M., and the

<sup>8</sup> File No. 65065, official records in the Office of the State Engineer.

<sup>9</sup> File No. 65066, official records in the Office of the State Engineer.

S½ of Section 29, S½ of Section 30, Section 31 and Section 32, T.20N., R.23E., M.D.B.&M., and Sections 5, 6, 7, 8, W½ of Section 9, W½ of Section 16, Sections 17, 18, 19, 20, 21, 29, 30 and W½ of Section 22, T.19N., R.23E., M.D.B.&M. The proposed point of diversion is described as being located within the NW¼ NE¼ of Section 7, T.19N., R.23E., M.D.B.&M.<sup>10</sup>

**XI.**

Application 65068 was filed on April 19, 1999, by TRI Water and Sewer Company c/o Robert M. Sader, Esq. to appropriate 2.5 cfs, not to exceed 1,000 afa, of ground water within the Tracy Segment Hydrographic Basin. The proposed manner of use is for quasi-municipal purposes. The proposed place of use is described as being located within the SW¼ of Section 32 lying south of the Southern Pacific Railroad, S½ SE¼ of Section 32, S½ of Section 33, S½ of Section 34, and Section 36, T.20N., R.22E., M.D.B.&M., and Sections 1, 2, 3, 4, 5, 9, 10, 11, 12, 13, 14, 15, 16, N½ of Section 23 and N½ of Section 24, T.19N., R.22E., M.D.B.&M., and the S½ of Section 29, S½ of Section 30, Section 31 and Section 32, T.20N., R.23E., M.D.B.&M., and Sections 5, 6, 7, 8, W½ of Section 9, W½ of Section 16, Sections 17, 18, 19, 20, 21, 29, 30 and W½ of Section 22, T.19N., R.23E., M.D.B.&M. The proposed point of diversion is described as being located within the SW¼ NW¼ of Section 20, T.19N., R.23E., M.D.B.&M.<sup>11</sup>

**XII.**

Application 65069 was filed on April 19, 1999, by TRI Water and Sewer Company c/o Robert M. Sader, Esq. to appropriate 2.5 cfs, not to exceed 1,000 afa, of ground water within the Tracy Segment Hydrographic Basin. The proposed manner of use is for quasi-municipal purposes. The proposed place of use is described as being located within the SW¼ of Section 32 lying south of the Southern Pacific Railroad, S½ SE¼ of Section 32, S½ of Section 33, S½ of Section 34, and Section 36, T.20N., R.22E., M.D.B.&M., and Sections 1, 2, 3, 4, 5, 9, 10, 11, 12, 13, 14, 15, 16, N½ of Section 23 and N½ of Section 24, T.19N., R.22E., M.D.B.&M., and the S½ of Section 29, S½ of Section 30, Section 31 and Section 32, T.20N., R.23E., M.D.B.&M., and Sections 5, 6, 7, 8, W½ of Section 9, W½ of Section 16, Sections 17, 18, 19, 20, 21, 29, 30 and W½ of Section 22, T.19N., R.23E., M.D.B.&M. The proposed point of diversion is described as being located within the SW¼ NW¼ of Section 8, T.19N., R.23E., M.D.B.&M.<sup>12</sup>

<sup>10</sup> File No. 65067, official records in the Office of the State Engineer.

<sup>11</sup> File No. 65068, official records in the Office of the State Engineer.

<sup>12</sup> File No. 65069, official records in the Office of the State Engineer.

**XIII.**

Application 65070 was filed on April 19, 1999, by TRI Water and Sewer Company c/o Robert M. Sader, Esq. to appropriate 2.5 cfs, not to exceed 1,000 afa, of ground water within the Tracy Segment Hydrographic Basin. The proposed manner of use is for quasi-municipal purposes. The proposed place of use is described as being located within the SW¼ of Section 32 lying south of the Southern Pacific Railroad, S½ SE¼ of Section 32, S½ of Section 33, S½ of Section 34, and Section 36, T.20N., R.22E., M.D.B.&M., and Sections 1, 2, 3, 4, 5, 9, 10, 11, 12, 13, 14, 15, 16, N½ of Section 23 and N½ of Section 24, T.19N., R.22E., M.D.B.&M., and the S½ of Section 29, S½ of Section 30, Section 31 and Section 32, T.20N., R.23E., M.D.B.&M., and Sections 5, 6, 7, 8, W½ of Section 9, W½ of Section 16, Sections 17, 18, 19, 20, 21, 29, 30 and W½ of Section 22, T.19N., R.23E., M.D.B.&M. The proposed point of diversion is described as being located within the NE¼ SW¼ of Section 17, T.19N., R.23E., M.D.B.&M.<sup>13</sup>

**XIV.**

Application 65071 was filed on April 19, 1999, by TRI Water and Sewer Company c/o Robert M. Sader, Esq. to appropriate 2.5 cfs, not to exceed 1,000 afa, of ground water within the Tracy Segment Hydrographic Basin. The proposed manner of use is for quasi-municipal purposes. The proposed place of use is described as being located within the SW¼ of Section 32 lying South of the Southern Pacific Railroad, S½ SE¼ of Section 32, S½ of Section 33, S½ of Section 34, and Section 36, T.20N., R.22E., M.D.B.&M., and Sections 1, 2, 3, 4, 5, 9, 10, 11, 12, 13, 14, 15, 16, N½ of Section 23 and N½ of Section 24, T.19N., R.22E., M.D.B.&M., and the S½ of Section 29, S½ of Section 30, Section 31 and Section 32, T.20N., R.23E., M.D.B.&M., and Sections 5, 6, 7, 8, W½ of Section 9, W½ of Section 16, Sections 17, 18, 19, 20, 21, 29, 30 and W½ of Section 22, T.19N., R.23E., M.D.B.&M. The proposed point of diversion is described as being located within the SW¼ NW¼ of Section 17, T.19N., R.23E., M.D.B.&M.<sup>14</sup>

**XV.**

Application 66729 was filed on August 22, 2000, by Grand Slam Enterprises, LLC, to appropriate 1.0 cfs, not to exceed 25.0 afa, of ground water within the Tracy Segment Hydrographic Basin. The proposed manner of use is for industrial purposes. The proposed place of use is described as being located within portions of the SE¼ SE¼ of Section 9 and the SW¼

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<sup>13</sup> File No. 65070, official records in the Office of the State Engineer.

<sup>14</sup> File No. 65071, official records in the Office of the State Engineer.

SW¼ of Section 10, T.19N., R.21E., M.D.B.&M. The proposed point of diversion is described as being located within the SW¼ SW¼ of said Section 10.<sup>15</sup>

**XVI.**

Application 69594 was filed on February 21, 2003, by Peter R. Morgan LLC, Marc A. Bedell and later assigned to the Tahoe Reno Commercial Center, LLC, to appropriate 1.5 cfs of ground water within the Tracy Segment Hydrographic Basin. The proposed manner of use is quasi-municipal purposes. The proposed place of use is described as being located within Section 21, N½, N½ S½ of Section 28, SW¼, NW¼, NE¼ of Section 29, E½ SE¼, E½ W½ SE¼ of Section 30, T.20N., R.22E., M.D.B.&M. The proposed point of diversion is described as being located within the SW¼ SW¼ of said Section 29.<sup>16</sup>

**XVII.**

Application 69595 was filed on February 21, 2003, by Peter R. Morgan LLC, Marc A. Bedell and later assigned to the Tahoe Reno Commercial Center, LLC, to appropriate 2.5 cfs of ground water within the Tracy Segment Hydrographic Basin. The proposed manner of use is quasi-municipal purposes. The proposed place of use is described as being located within Section 21, N½, N½ S½ of Section 28, SW¼, NW¼, NE¼ of Section 29, E½ SE¼, E½ W½ SE¼ of Section 30, T.20N., R.22E., M.D.B.&M. The proposed point of diversion is described as being located within the SE¼ SW¼ of said Section 21.<sup>17</sup>

**XVIII.**

Application 69596 was filed on February 21, 2003, by Peter R. Morgan LLC, Marc A. Bedell and later assigned to the Tahoe Reno Commercial Center, LLC, to appropriate 2.5 cfs of ground water within the Tracy Segment Hydrographic Basin. The proposed manner of use is quasi-municipal purposes. The proposed place of use is described as being located within Section 21, N½, N½ S½ of Section 28, SW¼, NW¼, NE¼ of Section 29, E½ SE¼, E½ W½ SE¼ of Section 30, T.20N., R.22E., M.D.B.&M. The proposed point of diversion is described as being located within the SE¼ SW¼ of said Section 21.<sup>18</sup>

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<sup>15</sup> File No. 66729, official records in the Office of the State Engineer.

<sup>16</sup> File No. 69594, official records in the Office of the State Engineer.

<sup>17</sup> File No. 69595, official records in the Office of the State Engineer.

<sup>18</sup> File No. 69596, official records in the Office of the State Engineer.

**XIX.**

Application 63805 was timely protested by Churchill County on the following grounds:<sup>1</sup>

This application, if granted, will adversely affect existing water rights since the diversion will consumptively use water from a groundwater basin which has been fully appropriated and designated by the State Engineer. Records of the State Engineer and the United States Geological Service indicate that much of the potential groundwater recharge in the Truckee Canyon is rejected to the surface system (Truckee River) and does not actually reach the groundwater reservoir. Therefore new groundwater appropriation will adversely affect existing downstream Truckee River water right holders which rely on the rejected groundwater to the river.

**XX.**

Applications 65060 through 65071, inclusive, were timely protested by Churchill County on the following grounds:<sup>3,4,5,6,7,8,9,10,11,12,13,14</sup>

- 1) There is no unappropriated water at the proposed source. The United States Geological Survey ("USGS") has estimated the potential recharge for the Tracy Segment groundwater basin to be 6,000 acre-feet per year. The State Engineer has issued underground permits and certificates for the Tracy Segment which approach 8,000 acre feet annually, therefore, this groundwater basin is over appropriated.
- 2) This application, if granted will tend to adversely affect existing rights because the diversion will consumptively use water from a groundwater basin which has been fully appropriated and designated by the State Engineer. Further, records of the State Engineer and the USGS indicate that much of the potential groundwater recharge is rejected to the surface system (Truckee River) and does not actually reach the groundwater reservoir. Therefore, any new groundwater appropriation will adversely affect existing downstream Truckee River water right holders who rely on the rejected groundwater as the groundwater gradient throughout the Tracy Segment is toward the Truckee River and the approval of this application will result in the interception of water which provides base flow for the Truckee River.
- 3) Because the approval of this application will reduce the flows in the Truckee River, the application, if granted, threatens to prove detrimental to the public interest by:
  - a. adversely affecting water quantity and quality in the Truckee River;
  - b. threatening to reduce the amount of water delivered to the Newlands Project and thereby reducing groundwater recharge upon which many residents of Churchill County rely for domestic water; and
  - c. adversely affecting wildlife habitat on the lower Truckee River.

**XXI.**

Applications 65060 through 65071, inclusive were timely protested by the Pyramid Lake Paiute Tribe of Indians on the following grounds:<sup>3,4,5,6,7,8,9,10,11,12,13,14</sup>

1. The proposed groundwater appropriation will intercept a portion of the groundwater recharge and will reduce surface flows in the Truckee River. The proposed wells are located in an area of shallow alluvium and consolidated rocks. The amount of water proposed for extraction in the applicant's 12 combined applications (Nos. 65060-65071) exceeds the natural recharge to groundwater in the area. Whether the source of the water reached by the proposed wells is natural recharge or storage or a combination of the two, the proposed extraction will reduce the base flow to the Truckee River.
2. Granting the application would violate the Pyramid Lake Paiute Tribe's right to all the waters of the Truckee River that are not subject to valid, vested and perfected rights.
3. In Ruling # 4683, dated November 24, 1998, the Nevada State Engineer granted the Pyramid Lake Paiute Tribe's Application Nos. 48061 and 48494 to appropriate the water in the Truckee River and its tributaries that is not subject to valid existing water rights. Granting the present application would conflict with that Ruling.
4. Granting the application would conflict with, interfere with and impair the agricultural and fishery water rights of the Pyramid Lake Paiute Tribe.
5. Granting the application would violate the Endangered Species Act, 16 U.S.C. § 1531 *et seq.*, because it would reduce the amount of water that flows to Pyramid Lake and thus be likely to jeopardize the continued existence of Pyramid Lake's two principal fish, the endangered cui-ui and the threatened Lahontan cutthroat trout.
6. Granting the application would violate the provisions of Nevada law that protect the endangered cui-ui.
7. Granting the application would be detrimental to the public welfare because it would:
  - A. be likely to jeopardize the continued existence of Pyramid Lake's two principal fish, the endangered cui-ui and the threatened Lahontan cutthroat trout;
  - B. prevent or interfere with the conservation or recovery of those endangered and threatened species;
  - C. take or harm those endangered or threatened species;
  - D. adversely affect the recreational value of Pyramid Lake;

- E. interfere with the purposes for which the Pyramid Lake Paiute Tribe's Indian Reservation was established;
- F. adversely affect the interests of the Pyramid Lake Paiute Tribe of Indians;
- G. conflict and interfere with the Pyramid Lake Paiute Tribe's reserved right to the water of the Truckee River and its tributaries that is not subject to valid existing water rights; and
- H. to the extent that any of the underground water that is the subject of this application is utilized and then returned to the Truckee River, it may degrade the water quality of the Truckee River.

**XXII.**

Applications 66729, 69594, 69595 and 69596 were timely protested by Washoe County on the grounds that there is no water available at the source and the committed ground-water resources exceeds the perennial yield estimated by the United States Geological Survey in Reconnaissance Report No. 57.<sup>15,16,17,18</sup>

**XXIII.**

Application 69595 was timely protested by Edwin L. Depaoli on the following grounds:<sup>17</sup>

Existing ground water rights in this basin exceed the perennial yield: The Sept 30 1987 agreement (enclosed) between the livestock permittees and Mr. John Ting, (Tracy) regarding perfecting a water right for livestock use needs to be acknowledged and provisions for continued uninterrupted [sic] use of water by permittees insured prior to issuing additional water rights.

**XXIV.**

After all parties were duly noticed by certified mail,<sup>19</sup> a public administrative hearing was held on December 12-14, 2006, regarding Applications 63805, 64171, 65060, 65061, 65062, 65063, 65064, 65065, 65066, 65067, 65068, 65069, 65070 and 65071 in Carson City, Nevada, before representatives of the Office of the State Engineer.

**XXV.**

After all parties were duly noticed by certified mail,<sup>20</sup> a public administrative hearing was held on February 27-28, 2007, regarding Applications 66729, 69594, 69595 and 69596 in Carson City, Nevada, before representatives of the Office of the State Engineer.

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<sup>19</sup> Exhibit No. 1 and Transcript Volumes I, II and III, public administrative hearing before the State Engineer, December 12-14, 2006, official records in the Office of the State Engineer. (Hereafter, "Transcript" and "Exhibits")

<sup>20</sup> Exhibit No. 102 and Transcript Volumes IV, V and VI, public administrative hearing before the State Engineer, February 27-28, 2007, official records in the Office of the State Engineer. (Hereafter, "Transcript" and "Exhibits")

## FINDINGS OF FACT

### I.

The State Engineer has been asked to split the Tracy Segment Hydrographic Basin into separately administered sub-basins by Applicants Tahoe Reno Commercial Center, LLC (TRCC) and Grand Slam Enterprises, and Protestants Washoe County and Churchill County. The Applicants and Protestants offered differing ideas regarding the number of sub-basins and how those sub-basins should be administered.

Applicant TRCC asked that the Tracy Segment Hydrographic Basin be split into a northern half and a southern half utilizing the Truckee River as a natural divide. Witnesses for the TRCC presented testimony and evidence in that regard. One TRCC witness provided technical evidence regarding the geology of the area and presented his concept of flow either toward the Truckee River or away from the Truckee River. Under either scenario, the Truckee River acts as a hydrologic barrier.<sup>21</sup> In addition, it was implied that recharge related to either half of the basin could not be captured by wells located on the opposite side of the Truckee River without capturing water from the Truckee River itself. For example, a well located on the north side of the Truckee River cannot capture recharge available on the south side of the river and vice-versa.<sup>22</sup> TRI's witness testified on sub-basins established through State Engineer's Orders, Rulings or policy. Some of the examples cited were Washoe Valley, Lemmon Valley, Carson Valley and Pahrump.<sup>23</sup> However, under questioning it was pointed out that the ground water was already appropriated in these areas and further regulations were enacted to mitigate the effects of pumping. The witness agreed that the Tracy Segment situation would be different in that the State Engineer would be asked to pre-determine the pumping effects and establish the sub-basins now.<sup>24</sup>

Under the TRCC scenario of either leaving the basin whole, but giving consideration to the Truckee River as a hydrologic divide or splitting the basin into two sub-basins, the TRCC applications are in the northern sub-basin and therefore, water is available to TRCC only.<sup>25</sup> This is based on the supposition that 20,500 afa of recharge is available and about 70% of the committed resource of 8,000 afa, along with most of the domestic wells, are located within the

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<sup>21</sup> Transcript, pp. 1090-1092.

<sup>22</sup> Transcript, p. 1082.

<sup>23</sup> Transcript, pp. 981-982.

<sup>24</sup> Transcript, p. 983.

<sup>25</sup> Transcript, p. 1181.

southern half of the basin. Applicant TRCC also indicated that their property is within a sub-basin or micro-watershed that does not reject water to the Truckee River, based on a theory of recharge going to a deep circulation, regional geothermal system.<sup>26</sup>

Applicant Grand Slam Enterprises had a slightly different position on the creation of a sub-basin. Rather it indicated that an equitable management strategy for the State Engineer would be to take into consideration the ratio of water resources between Washoe County and Storey County, i.e. north and south of the Truckee River, and to consider the amount of water resources and recharge within the watershed of the Applicant's proposed appropriation.<sup>27</sup>

Protestant Churchill County also provided testimony and evidence regarding the establishment of sub-basins. The proposed sub-basins were based on topography. Eight sub-basins were illustrated on page 23 of Exhibit No. 84 and were listed as Long Valley Creek, Martin Canyon, Derby Dam Area, Mustang Area, Dry Lakes, Tracy Area, South of Pierson Canyon, and Pierson Canyon.<sup>28</sup> Churchill County is a protestant to the Mansfield application (63805) and the TRI applications (65060-65071). Under this scenario, the TRI applications would fall within the Martin Canyon sub-basin and the Mansfield application within the Tracy area sub-basin. The Martin Canyon and Tracy area sub-basins are both over-appropriated, based on estimates of recharge and committed resources by sub-basin as calculated by the Protestant, and therefore, the applications would have to be denied.

Protestant Washoe County chose not to attend the administrative hearing, but did supply a letter to the State Engineer indicating "There is evidence that the Truckee River divides the Basin into two sub-basins, and there may even be additional geologic boundaries and lithologic formations that create additional sub-basins within the North and the South portions of the Basin. The Truckee River also acts as a political boundary between Washoe and Storey Counties." The Protestant also recognized that "Historically, the State Engineer has administered each basin singularly and limited the total appropriations basin-wide to the best estimate of yield for the entire basin as established by the USGS."<sup>29</sup>

Nevada can claim very few large rivers and streams compared to other states. Of particular importance are the Truckee, Carson and Walker Rivers, which have similar

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<sup>26</sup> Transcript, pp. 1165-1166.

<sup>27</sup> Transcript, p. 773.

<sup>28</sup> Transcript, pp. 473-476, and Exhibit No. 84, p.23.

<sup>29</sup> Exhibit No. 109.

characteristics. The Truckee River originates in the Tahoe Basin and drains the eastern slope of the Sierra Nevada. The river flows east through Reno to Wadsworth where it turns north and ends in terminal Lake Pyramid. The Carson River also drains the eastern slope of the Sierra Nevada in an area south of Lake Tahoe. The river flows east, then north through Carson Valley and turns east again near Carson City to flow into Lahontan Reservoir. The river ultimately terminates in Carson Sink. The Walker River originates in California and flows north and east into Nevada where it passes through Smith and Mason Valleys. The river turns east and south in a circular fashion through Schurz and ends in terminal Walker Lake. An examination of the Division of Water Resources' Hydrographic Basin Map shows that these three rivers pass through a large number of hydrographic basins. The map shows that none of the three rivers, including the east and west forks of the Carson and Walker, are utilized as boundaries for administrative hydrographic basins.<sup>30</sup>

The State Engineer has taken into account the geologic structure and localized recharge potential when administering basins with or without taking the additional step of either dividing basins into two separate basins or establishing areas considered to be sub-basins. For example, the Washoe Valley Hydrographic Basin is one such hydrographic basin. There are no orders in effect that divide the basin into sub-basins. However, it has been the policy of the Division of Water Resources to disallow new appropriations on the east side of Washoe Valley citing limited recharge and declining water levels as important factors.<sup>31</sup> Other examples exist where applications have sought to move or appropriate additional water into areas of concentrated pumping and/or limited recharge areas within a particular basin, and these requests have been denied or prohibited by State Engineer's Order.<sup>32,33</sup>

It is within the State Engineer's administrative authority to establish the boundaries of hydrographic basins within the state of Nevada and to establish areas of active management within those basins, which may include the establishment of sub-basins. The establishment of sub-basins has occurred in the past when water-level data, pumpage data, and other water-related evidence have indicated the necessity. A review of records on file in the Office of the State Engineer and of Scientific Investigations Report 2006-5010 – *Hydrology, Water Chemistry, and*

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<sup>30</sup> Division of Water Resources' Hydrographic Basin Map, official record in the Office of the State Engineer.

<sup>31</sup> State Engineer's Ruling Nos. 2419, 2571, 2684 and 3651, official record in the Office of the State Engineer.

<sup>32</sup> State Engineer's Ruling Nos. 908, 909, 997, 998, 1838, 5546, official record in the Office of the State Engineer.

<sup>33</sup> State Engineer's Order No. 904, official record in the Office of the State Engineer.

*Revised Water Budgets for Tracy Segment Hydrographic Area, Storey, Washoe, and Lyon Counties, West-Central Nevada, 1998-2002* (hereinafter, "Tracy Segment Report"),<sup>34</sup> fail to show any existing conditions at this time that would trigger the implementation of sub-basins or additional management strategies in the Tracy Segment Hydrographic Basin. A review of the evidence and testimony offered by both Applicants and Protestants also failed to provide sufficient evidence of adverse hydrologic conditions, such as declining water tables, over-pumping, impairment of domestic wells, water quality degradation, storage depletion, diminishing yield of wells, increased economic pumping lifts, land subsidence, possible reversal of ground-water gradients, etc., that could warrant such action. Although a formal pumpage inventory is not available, estimates of annual pumpage from the Tracy segment can be made based on well log data, permit data and individual pumpage reports submitted to the Office of the State Engineer. At this time, the estimated amount of ground water being pumped from the Tracy Segment is 2,000-4,000 acre-feet annually,<sup>35</sup> considerably less than the historical ground-water recharge from precipitation estimate of 6,000 acre-feet.<sup>36</sup> From a ground-water management perspective, managing every basin in the state through the creation of sub-basins or dividing basins along political boundaries would unnecessarily complicate water management in the state of Nevada. Of note, Nevada water law specifies that all sources of water supply within the boundaries of the State, whether above or beneath the surface of the ground, belongs to the public.<sup>37</sup> Managing the public's resource along political boundaries, such as county lines, is not contemplated under the law, has not been part of the water management policy of the Office of the State Engineer for over the last 100 years, and does not make sense. Creating sub-basins or micro-watersheds, in a basin that is not over-allocated<sup>38</sup> and is currently under-pumped, simply cannot be justified.

The State Engineer finds the Tracy Segment Hydrographic Basin is appropriately configured for ground-water management at this time. The varied requests to further divide the hydrographic area into two or more sub-basins based on county boundaries, watershed areas, or

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<sup>34</sup> Exhibit No. 72.

<sup>35</sup> Exhibit No. 73 and Well Log Database, Permits Database and pumpage records, Tracy Segment Hydrographic Basin, official records in the Office of the State Engineer.

<sup>36</sup> Exhibit No. 150, Table 12, p. 40.

<sup>37</sup> NRS § 533.025.

<sup>38</sup> See, Conclusions Section VII, The State Engineer concludes that by taking the recharge of 11,500 acre-feet annually and deducting the committed resource, including domestic well demand minus secondary recharge from septic systems, of approximately 8,580 acre-feet annually leaves a difference of 2,920 acre-feet annually available for appropriation in the Tracy Segment Hydrographic Basin.

the Truckee River, is denied. The State Engineer further finds that a perennial yield will be established for the Tracy Segment Hydrographic Basin and committed resources deducted from the perennial yield to determine water availability; water will not be allocated on a watershed-by-watershed basis but rather will be managed basin wide in accordance with historic practice.

## II.

Applications 63805, 64171, 65060, 65061, 65062, 65063, 65064, 65065, 65066, 65067, 65068, 65069, 65070, 65071, 66729, 69594, 69595 and 69596 each request new appropriations of ground water from the Tracy Segment Hydrographic Basin. When an application is filed with the Office of the State Engineer, the date of the filing is noted on the application and a sequential application number is assigned. Nevada water law is based on the prior appropriation doctrine, which is simplistically summarized as "first in time, first in right." Applications are prioritized on this basis with the priority of an application, and any later permit or certificate derived from that application, being the date the application was filed. This date is referred to as the priority date. For example, an examination of this group of applications shows that Application 63805 has the earliest filing date of January 30, 1998, and thus, senior priority amongst the applications under consideration.

For clarity, the following table lists Applications 63805, 64171, 65060, 65061, 65062, 65063, 65064, 65065, 65066, 65067, 65068, 65069, 65070, 65071, 66729, 69594, 69595 and 69596 by descending priority date and shows the requested amount of appropriation:

<u>Application No.</u>	<u>Amount of Water Requested</u>	<u>Date Filed</u>
63805	180.00 acre-feet annually	January 30, 1998
64171	15.23 acre-feet annually	May 28, 1998
65060-65071	12,000.00 acre-feet annually	April 19, 1999
66729	25.00 acre-feet annually	August 22, 2000
69594-69596	3,200.00 acre-feet annually <sup>39</sup>	February 21, 2003
<b>Total</b>	<b>15,420.23 acre-feet annually</b>	

In general, ground-water applications are considered in the priority in which they are filed. However, Nevada water law does provide for some exceptions. Under Nevada Revised Statute § 533.357, when two or more applications are filed for irrigation purposes in the same hydrographic basin, the State Engineer observes the following priority:

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<sup>39</sup> Transcript, p. 792.

1. An owner of land for use on that land.
2. An owner of land for use on adjacent land for which he intends to file an application under the Carey Act or the Desert Land Entry Act, 43 U.S.C. §§ 321 et seq.
3. Any other person whose application is preparatory to proceeding under the Carey Act or the Desert Land Entry Act.

The TRCC witness opined that there was some precedence for taking applications out of priority in a designated ground-water basin.<sup>40</sup> However, a review of records at the Division of Water Resources failed to reveal any similar situations where the Applicant has asked that the basin be split into two sub-basins along the length of a major river and junior applications to one side of the river were approved over senior applications on the other side of the river. A more general review found a few permits that were approved out of priority. In general, these permits were for minimal appropriations, for preferred uses in designated basins, and the analysis that was performed was whether the junior application would be approved despite any disposition of the senior applications.

The State Engineer finds that the applications were filed for industrial, commercial (greenhouses) and quasi-municipal purposes, and therefore, NRS § 533.357 does not apply. The State Engineer finds that Applications 63805, 64171, 65060, 65061, 65062, 65063, 65064, 65065, 65066, 65067, 65068, 65069, 65070, 65071, 66729, 69594, 69595 and 69596 must be reviewed by priority and that sufficient evidence was not provided to justify a change in that procedure.

### III.

Nevada Revised Statutes 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 found under NRS § 533.370(5), before an application that requests a new appropriation of underground water can be considered for approval it must be determined, amongst other things, that there is unappropriated water available at the targeted source. The answer to the question of what amount of underground water is available for additional appropriation from the Tracy Segment Hydrographic Basin can be found in an analysis of the basin's recharge-discharge relationship. Central to this equation is the concept of the perennial yield of the Tracy Segment Hydrographic Basin.

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<sup>40</sup> Transcript, pp. 979-981.

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 maximum amount of natural discharge that can be salvaged for beneficial use. If the perennial yield is continually exceeded ground-water levels will decline.<sup>41</sup> Withdrawals of ground water in excess of the perennial yield contribute to adverse conditions such as water quality degradation, storage depletion, diminishing yield of wells, increased economic pumping lifts and land subsidence. Perennial yield in basins such as the Tracy Segment, which is dominated by river flow, has historically been approximately equal to the natural recharge from precipitation. This approach allows for the development of basins whose ground water discharge is difficult to measure and/or capture.

The United States Geological Survey (USGS) has previously estimated the perennial yield of the Tracy Segment Hydrographic Basin at approximately 6,000 acre-feet annually.<sup>42</sup> In addition, the USGS released a newer study of the Tracy Segment in 2006; however, the report does not specifically identify the perennial yield, rather it provides a range for ground-water recharge in the basin.<sup>43</sup> Additional consideration of the Tracy Segment Report is detailed in subsequent sections of this ruling.

The committed ground-water resource in the form of permits and certificates issued by the State Engineer to appropriate underground water from the Tracy Segment Hydrographic Basin is 7,976 acre-feet annually.<sup>44</sup> In addition, a review of well driller reports indicates that 683 domestic wells have been drilled and 35 domestic wells have been plugged in the Tracy Segment.<sup>45</sup> A domestic well is entitled to pump 1,800 gallons per day (gpd) of water or about 2.02 acre-feet annually. The domestic wells place a maximum demand on the ground-water resource of just over 1,300 acre-feet annually. Applicant Grand Slam provided testimony and evidence that the actual domestic usage is much lower than the maximum allowed under the law. The testimony indicated, "I used .5 . . . which I believe is consistent with the type of residential domestic uses we see out there. There's nothing really extravagant. There's not ranchette[s], larger type developments, larger type of parcels out there that would consume a lot of water."<sup>46</sup> Applicant TRI used an

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<sup>41</sup> State Engineer's Office, *Water For Nevada, State of Nevada Water Planning Report No. 3*, p. 13, Oct. 1971.

<sup>42</sup> Exhibit No. 71.

<sup>43</sup> Exhibit No. 72.

<sup>44</sup> Hydrographic Basin Abstract, Basin 6-83, official records in the Office of the State Engineer, March 2007.

<sup>45</sup> Well Driller's Log – General Report, Basin 6-83, official records in the Office of the State Engineer, March 2007.

<sup>46</sup> Transcript, p. 764.

estimate of 1.12 acre-feet annually based on the fact that this is the number commonly used in pumpage inventories by the Division of Water Resources (Division).<sup>47</sup> A review of parcel information in the Tracy Segment area confirms the assessment of Applicant Grand Slam regarding the type of parcels currently being served by domestic wells. Based on the type of parcels and the Division's experience in estimating water usage on a domestic well parcel, it is apparent that the average domestic well water usage in the Tracy Segment is less than the maximum 2.02 acre-feet annually. However, since domestic well usage is not monitored and the wells are not metered in the Tracy Segment area a cautious approach is warranted. The values offered by the Applicants are 0.5 acre-feet annually and 1.12 acre-feet annually. In this case, Applicant TRI's more conservative estimate of 1.12 acre-feet annually appears to be the most reasonable in consideration of all the facts and circumstances. Therefore, the existing demand from domestic wells is calculated at just over 725 acre-feet annually by taking the number of domestic wells (648) and multiplying by 1.12 acre-feet annually.

In instances where septic systems are utilized in conjunction with domestic wells, 200 gpd per lot recharge from septic systems may be subtracted from the demand.<sup>48</sup> In this case, the septic recharge equates to about 145 acre-feet annually. By accounting for recharge from septic systems, the estimated demand from existing domestic wells is about 580 acre-feet annually.

The State Engineer finds that existing ground-water rights in the Tracy Segment Hydrographic Basin are about 8,000 acre-feet annually and an additional 580 acre-feet is necessary to meet the net estimated demand from existing domestic wells. The State Engineer finds that the historically accepted perennial yield for the Tracy Segment Hydrographic Basin was estimated by the USGS at 6,000 acre-feet annually.

#### IV.

As previously mentioned, the USGS recently published the Tracy Segment Report, which addresses water budgets for the Tracy Segment Hydrographic Basin.<sup>49</sup> In order to determine whether it is appropriate to use a new perennial yield estimate, a review of the report was conducted by the Division of Water Resources.

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<sup>47</sup> Transcript, pp. 37-38.

<sup>48</sup> Seiler, R.L., *Methods for Identifying Sources of Nitrogen Contamination of Ground Water in Valleys in Washoe County, Nevada*, USGS Open-File Report 96-461, p. 5, 1996.

<sup>49</sup> Exhibit No. 72.

The previous estimate of ground-water recharge by the USGS is 6,000 acre-feet annually using an empirical method known as the Maxey-Eakin method. One other empirical method and three mass balance methods were evaluated to determine the annual recharge to ground water from precipitation. The five results are summarized as follows:<sup>50</sup>

1. VanDenburgh and others, 1973	6,000 afa
2. Nichols, 2000 coefficients applied to 1997 precipitation map	19,000 afa
3. Subtraction of ET and runoff from the precip. distribution of VanDenburgh and others, 1973	8,000 afa
4. Subtraction of evapotranspiration and runoff from the 1997 Nevada precipitation map	22,000 afa
5. Subtraction of evapotranspiration and runoff from precipitation estimated by Berger and others, 1997	2,000 afa

The estimates of mean annual recharge vary from 2,000 to 22,000 acre-feet annually. It was further explained that the highest estimate of 22,000 acre-feet annually was primarily due to more precipitation estimated by the 1997 PRISM precipitation map, which overestimates precipitation.<sup>51</sup> A detailed review of the Tracy Segment Report shows there are limitations to all the methods employed to calculate mean annual recharge primarily related to the lack of sufficient hydrological data.

Applicant TRI estimated a recharge value of 16,900 acre-feet annually, the yield of the basin at 22,500 acre-feet annually and the water available for appropriation at 12,000 acre-feet annually.<sup>52</sup> The origin of these numbers was scrutinized under examination by the Division and the inconsistencies in methodology and conclusions reached were challenged.<sup>53</sup> For example, the TRI witness based his estimate of recharge from precipitation on the PRISM precipitation map and used this map in conjunction with the Maxey-Eakin method. The State Engineer has found that estimates of recharge using the Maxey-Eakin recharge coefficients with precipitation distributions other than the Hardman precipitation map constitute a misapplication of the method. The Maxey-Eakin method uses the Hardman precipitation map, which relates elevation zones to annual precipitation. The amount of precipitation in each precipitation zone that recharged the ground water was balanced by trial-and-error with ground-water discharge estimates in 13 ground-water basins in eastern Nevada. The percent of recharge in each zone was systematically adjusted until total basin

<sup>50</sup> Exhibit No. 72, Table 16, p. 37.

<sup>51</sup> Exhibit No. 72, p. 43.

<sup>52</sup> Exhibit No. 75, p. 41.

<sup>53</sup> Transcript, pp. 248-296.

recharge acceptably matched total basin discharge. Because the Maxey-Eakin recharge coefficients are tied to the Hardman map, the use of any other precipitation map would require that the recharge coefficients be reestablished to match total basin discharge estimates in multiple basins. That is, if any other precipitation map is used, the recharge coefficients need to be re-calibrated by trial-and-error against known ground-water discharge.<sup>54</sup> The State Engineer finds the Applicant used a new precipitation distribution (PRISM), but did not re-estimate recharge coefficients or re-calibrate those coefficients to ground-water discharge. The State Engineer further finds that the Applicant's methodology of using of Maxey-Eakin with PRISM was inappropriate and therefore, the recharge estimate of 16,900 acre-feet annually is invalid.

Annual precipitation was estimated at both 150,000 acre-feet and 200,000 acre-feet. Although some precipitation gauges exist within the Tracy Segment, they are sparsely distributed and therefore, various techniques must be employed to calculate a total precipitation value. Three methods were used in the Tracy Segment Report; the Hardman precipitation map, the PRISM map, and a local linear regression equation (Berger). The PRISM map gave the highest value of 200,000 acre-feet and the Hardman map and Berger regression estimated 150,000 acre-feet. The Berger regression approach, which uses actual precipitation data obtained from 34 stations in northwestern Nevada, appears to be the most accurate and yields a precipitation value of 150,000 acre-feet annually.<sup>55</sup> The Tracy Segment Report also concludes that the best estimate of average annual precipitation is 150,000 acre-feet.<sup>56</sup> Applicant TRI concluded that the PRISM precipitation estimate is accurate for the Tracy Segment and thereby implied that the other, lower estimates for precipitation are underestimating. However, it was pointed out that this conclusion was not supported by the evidence. In particular, USGS SIR 2005-5291, *Evaluation of Precipitation Estimates from PRISM for the 1961-90 and 1971-2000 data sets, Nevada*, shows that the PRISM precipitation map generally overestimates precipitation when compared to actual data obtained from near or within the Tracy Segment area<sup>57</sup> and the coarseness of the PRISM grid cells, the sparseness of the long-term precipitation data, and the broad range of differences between the PRISM estimates and the recorded data suggest that the optimum use of PRISM is for large-scale studies and may not

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<sup>54</sup> State Engineer's Ruling No. 5726, pp. 29-30, dated April 16, 2007, official record in the Office of the State Engineer.

<sup>55</sup> Exhibit, No. 72, Table 5.

<sup>56</sup> Exhibit 72, p.18-19.

<sup>57</sup> Transcript, pp. 250-261.

be appropriate for basin-scale studies.<sup>58</sup> In addition, Table 3 of the Tracy Segment Report also supports the contention that PRISM is overestimating precipitation in the Tracy Segment Hydrographic Basin. The TRI witness attempted to justify the higher PRISM estimate through an analysis of non-phreatophytic evapo-transpiration (ET). However, the methodology used would leave the Tracy Segment Basin with almost no recharge, i.e., 198,700 acre-feet ET versus 200,000 acre-feet of precipitation. Also, questions were raised about the method of determining the 198,700 acre-feet ET number. The TRI witness applied precipitation measured at micrometeorological sites 3 and 4, divided the precipitation data by 0.75 thereby increasing the value by approximately 33%, and then applied the calculated rate over 83% of the Tracy Segment Basin. After questioning, in reference to the 198,700 acre-feet ET number, the expert witness ultimately stated, "I don't stand by that number."<sup>59</sup> The State Engineer finds that the use of the PRISM precipitation map on a basin-scale must be carefully considered and the evidence suggests that, in this particular case, PRISM may be overestimating actual precipitation in the Tracy Segment Hydrographic Basin. The State Engineer further finds that the Applicant's calculation of non-phreatophytic ET and the conclusions based on that calculation must be discounted.

Applicant TRI's expert witness estimated the quantity of water available for appropriation at approximately 12,000 acre-feet annually, which is equal to the water requested under the TRI applications.<sup>60</sup> The number was obtained by taking the estimated 16,900 acre-feet of recharge from precipitation and adding secondary recharge from septic systems (450 acre-feet annually), adding inflow (3,200 acre-feet annually) and rounding the result to 20,500 acre-feet and then subtracting the committed water rights (8,090 acre-feet annually) and again rounding to an even 12,000 acre-feet annually.<sup>61</sup> It is noted that this calculation has some inconsistencies as well. For example, the secondary recharge is from domestic well owners that also have septic systems. While it may be appropriate to include secondary recharge from septic systems under some circumstances, the water pumped from the domestic wells must also be accounted for in the calculation of committed resources and this was not done. In addition, the estimate for secondary recharge is substantially greater than the estimate made by the Office of the State Engineer; 450 acre-feet annually versus 145 acre-feet annually. Also, the inclusion of 3,200 acre-feet annually of inflow as part of the

<sup>58</sup> Jeton, A. E.; Watkins, S. A.; Huntington, J., United States Geological Survey, Scientific Investigations Report (SIR) 2005-5291, *Evaluation of Precipitation Estimates from PRISM for the 1961-90 and 1971-2000 data sets, Nevada*.

<sup>59</sup> Transcript, pp. 263-269 and 481-482.

<sup>60</sup> Transcript, pp. 233, 234 and 244.

<sup>61</sup> Transcript, pp. 292-293.

perennial yield was inappropriate. The inflow occurs at the eastern-most edge of the Tracy Segment. The source of water is accurately characterized by the Protestant as a “diminishing source” because it results from secondary recharge of irrigation in the Fernley area, and as water uses continue to change from agriculture to municipal, the water source will significantly diminish in the future. It was also noted that almost 2,400 acre-feet annually outflows from the Tracy Segment just a short distance from the inflow location. It appears that additional consideration of this issue by the Applicant was warranted, but it was not addressed in the proposed water budget.

Protestant Churchill County proposed a range of recharge from precipitation of 2,000 – 8,000 acre-feet annually. This range is from the Tracy Segment Report but discounts the two PRISM methods, which are the two highest estimates in the Tracy Segment Report, 19,000 and 22,000 acre-feet annually. The rejection of the PRISM derived recharge estimates is based on evidence and testimony indicating PRISM over-estimates precipitation in the Tracy Segment Hydrographic Basin.

Applicant TRCC opined that the State Engineer should utilize the mean of the values presented in the Tracy Segment Report as the estimated recharge from precipitation. The Applicant also suggests that new science equals the best science and therefore, a mean of the two highest values utilizing the PRISM precipitation map could also be averaged. This results in a range of recharge between 11,400 acre-feet annually and 20,500 acre-feet annually.<sup>62</sup> The calculations are as follows:

$$\begin{array}{r} +2,000 \\ +6,000 \\ +8,000 \\ +19,000 \\ \underline{+22,000} \\ 57,000 \div 5 = 11,400 \end{array}$$

$$\begin{array}{r} +19,000 \\ \underline{+22,000} \\ 41,000 \div 2 = 20,500 \end{array}$$

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<sup>62</sup> Exhibit No. 186.

Applicant TRCC's idea of using a statistical average of all the methods was supported in a letter by Dr. Gilbert Coleman.<sup>63</sup>

The ultimate conclusion of the study is that between 2,000 acre feet per year and 22,000 acre feet per year are recharged into the hydrographic area. This range is based on different models that were employed to calculate the same value, i.e., the average annual recharge in the hydrological area. ...However, anytime more than one model is used to estimate a value, one of the models will overestimate most often, one will underestimate most often and the others will fall in between. ...Without demonstrating some methodological or statistical flaw in the models, using an average of the models, which uses all available information that the models employ is the appropriate statistical method. Choosing one model and ignoring the others loses important statistical information that is necessary to the development of the most accurate possible estimate of the annual recharge.

The wide range of recharge estimates provided by different experts supports the position that recharge is a difficult parameter to measure, and if recharge rates are used to determine pumpage volumes, then the uncertainty in those rates should be recognized. The aquifer recharge from precipitation ranges of 2,000 acre-feet annually to 22,000 acre-feet annually in the Tracy Segment Report represents a difference of approximately 1,100 percent. Due to the uncertainty of the quantity of actual recharge and the conflicting testimony and evidence offered by the expert witnesses, the State Engineer must proceed with vigilance. The State Engineer has found that the recharge estimate of Applicant TRI has methodological flaws and cannot be utilized. This leaves the five methodologies of calculating the annual recharge from precipitation discussed in the Tracy Segment Report. As Dr. Gilbert pointed out in his letter, "Choosing one model and ignoring the others loses important statistical information that is necessary to the development of the most accurate possible estimate of the annual recharge." As indicated above, by utilizing the statistical average of the five estimates of recharge from precipitation in the Tracy Segment Report, the value of recharge is 11,400 acre-feet annually.

An alternative statistical method is to throw out the highest and lowest values and to use the average of the remaining values in the Tracy Segment Report. This would result in averaging 6,000, 8,000 and 19,000 and discounting the highest value of 22,000 and the lowest value of 2,000. The resulting average using this statistical method is 11,000 acre-feet annually.<sup>64</sup>

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<sup>63</sup> Exhibit No. 185.

<sup>64</sup> Exhibit No. 72, Table 16, p. 37.

Although the statistical methods of averaging the values presented has some validity, the large variation in the estimated recharge and the small sample size of methodologies suggest that the State Engineer should look to his own analysis of the hydrological data, as well. A review of the Tracy Segment Report shows there is additional evidence that may be analyzed that also gives an indication of the mean annual recharge to the ground-water system.

The flow of the Truckee River is measured at various points by the U.S. Geological Survey and a summary of various data is presented in Table 7 of the Tracy Segment Report. The gauging data indicates that the Truckee River, as it flows through the Tracy Segment, is a gaining stretch of the river. Stream-flow in the Truckee River gains a net 11,000 acre-feet annually.<sup>65</sup>

Estimated ground-water recharge was also estimated by a chloride-mass balance method, although there is limited useable data for the analyses. The chloride-balance method supports a recharge from precipitation from 1,000 - 10,000 acre-feet annually and within that range the value was further refined to an estimated 6,000 - 8,000 acre-feet annually.<sup>66</sup>

The use of a median value was also mentioned in the Tracy Segment Report. The report cites a median value of 8,000 acre-feet annually,<sup>67</sup> but arrives at this value by choosing the middle value of the five estimates, 2,000, 6,000, 8,000, 19,000 and 22,000. When looking at just the range of 2,000 - 22,000, the median value is 12,000 acre-feet annually.

Based on the State Engineer's expertise in evaluating the various methodologies and hydrological data summarized above and a review of the evidence and testimony, the State Engineer finds the perennial yield of the Tracy Segment Hydrographic Basin can be increased from the previous value of 6,000 acre-feet annually. In this case, conflicting expert testimony and the large range of recharge values offered by the USGS in the Tracy Segment Report provide the State Engineer with ample reason to be conservative. It is clear from the testimony and evidence that the best data available is contained within the Tracy Segment Report and a review of all the different ways to examine that data suggests that the ground-water recharge from precipitation is situated within a range of values from 11,000 to 12,000 acre-feet annually. The State Engineer finds that the estimated perennial yield of the Tracy Segment Hydrographic Basin, based on ground-water recharge from precipitation, is 11,500 acre-feet annually.

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<sup>65</sup> Exhibit No. 72, Table 7, p. 35, and p. 46.

<sup>66</sup> Exhibit No. 72, p. 37 and p. 43.

<sup>67</sup> Exhibit No. 72, p. 49.

V.

A large portion of the protest issues center around the idea that any ground-water pumping will intercept water that will ultimately reject to the Truckee River and thereby will reduce the flow of the Truckee River and cause numerous problems as detailed in the PLPT protest of Applications 65060 through 65071 and as detailed in Churchill County's protest of Applications 65060 through 65071, and the Churchill County protest of Application 63805.

Protestant PLPT presented testimony and evidence regarding the Tribe's Truckee River water rights. In particular, it was stated "...the Tribe is granted the right to the remaining unappropriated waters of the Truckee River, subject to the State Engineer's actions on applications filed by the Tribe in 1983."<sup>68</sup> Subsequently, the State Engineer granted the remaining unappropriated waters of the Truckee River to the Tribe under State Engineer's Ruling No. 4683.<sup>69</sup> It was stated that looking at the various tributaries contributing flow to the Truckee River there are also water bearing materials recharged by precipitation that contribute to the Truckee River. Any pumping that intercepts that ground-water flow would take water from the Truckee River.<sup>70</sup> Later it was claimed that the sources of waters of the Truckee River is a combination of surface water, ground water and return flow.<sup>71</sup> However, it was pointed out by the Applicant that State Engineer's Ruling No. 4683, pertained to surface water only, being the Truckee River and its Tributaries, and ground water is not mentioned in the ruling.<sup>72</sup> It was also pointed out that similar issues regarding the Truckee River have been addressed in State Engineer's Ruling No. 5079.<sup>73</sup>

The State Engineer finds that in Nevada the ground-water resources have been managed on a perennial yield basis of the entire hydrographic basin. Each ground-water basin in Nevada was defined and a perennial yield figure calculated based on a recharge/discharge relationship, which keeps the basin in balance. The water that is not calculated as the water contributing to recharge of the ground-water system is accounted for in the amounts available for appropriation from surface-water sources. There is no logical reason to deviate from the management scheme now in place and accept the PLPT's proposal that the ground-water basin should be managed drainage by drainage. The State Engineer finds that the ground-water discharge to the Truckee River should not be counted as part of the PLPT's surface-water rights in the Truckee River whether established under Claims No. 1 and 2 of the Orr Ditch Decree or appropriated pursuant to Permits 48061 and 48494 ("the unappropriated

<sup>68</sup> Transcript, p. 663 and Exhibit No. 86.

<sup>69</sup> Transcript, p. 665 and Exhibit No. 87.

<sup>70</sup> Transcript, p. 667.

<sup>71</sup> Transcript, p. 675.

<sup>72</sup> Transcript, pp. 676 and 677.

<sup>73</sup> State Engineer's Ruling No. 5079, dated September 27, 2001, official records in the Office of the State Engineer.

water applications”) issued by the State Engineer, since this ground-water discharge was determined to be utilized as part of the ground-water system by previous studies in the basin.

The State Engineer further finds there is nothing in the Orr Ditch Decree that indicates possible ground-water discharge to the Truckee River was even contemplated by the decree court as a part of the water of the river. The State Engineer finds the water requested for appropriation under these applications is not part of what was considered the unappropriated water of the Truckee River granted to the PLPT in State Engineer’s Ruling No. 4683. The water under consideration in that ruling is the most junior water right on the river in terms of priority, and the right can only be exercised in those years where there is high flow in the river in excess of senior rights (flood flows).

The State Engineer finds to instigate a management technique such as that suggested by the PLPT for the ground-water basins of Nevada is impracticable, overly burdensome and unnecessary because of how the perennial yields are calculated. In addition, the water law provides for the appropriation of ground water.

Protestant Churchill County advanced an argument that in both the 1977 State Engineer’s Ruling No. 2197 and the 1980 Nevada Supreme Court decision of *Griffin v. Westergard* underground applications were denied based on impacts to senior decreed water rights on the Walker River. However, reviews of both decisions show some divergence when compared to the current situation. First, State Engineer’s Ruling No. 2197 indicates that the ground-water basin is already fully appropriated and the approval of any additional ground-water rights would remove water from the ground-water reservoir, which could not be replaced by recharge from precipitation or “would be replaced by infiltrating surface water that otherwise would return to the stream system.” The underground and tail water referred to in the ruling is water that was being applied to irrigated lands beyond the consumptive use of the crop and the excess water was infiltrating into the soil of the irrigated land or was running-off the land as tail water. This water infiltrates and flows through the shallow aquifer and the gradient suggests this water is discharged back into the Walker River. The ruling concluded that this water was not part of the natural recharge to the ground-water system and could not be appropriated as ground water. Second, the referenced Supreme Court case also refers to what may happen if the ground-water reservoir is depleted and states that if the depleted water is replaced from the West Walker River, existing surface-water rights will be impaired and it will be detrimental to the public interest.<sup>74</sup> In the present matter, the State Engineer

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<sup>74</sup> Exhibit No. 84, pp. 71-74.

will limit any new appropriations of water to the estimated perennial yield of the basin, which in this ruling has been determined to be equal to the estimated ground-water recharge from precipitation or 11,500 acre-feet annually.

The State Engineer finds that any approval of the subject applications will be limited to the ground-water recharge from precipitation available within the Tracy Segment Hydrographic Basin. The State Engineer finds that any ground water that may discharge to the Truckee River is not part of the surface water decreed to Protestant PLPT pursuant to the *Orr Ditch Decree* or the unappropriated surface water of the Truckee River granted to the PLPT in State Engineer's Ruling No. 4683. The State Engineer further finds that the water law provides for the appropriation of ground water and to change the policy set forth in that statutory scheme would disrupt the entire history of Nevada water law.

## VI.

The PLPT protest alleges that granting the application would conflict with, interfere with and impair the agricultural and fishery water rights of the Pyramid Lake Paiute Tribe, would violate the Endangered Species Act, 16 U.S.C. § 1531 et seq., because it would reduce the amount of water that flows to Pyramid Lake, and thus, be likely to jeopardize the continued existence of Pyramid Lake's two principal fish, the endangered cui-ui and the threatened Lahontan cutthroat trout, would violate the provisions of Nevada law that protect the endangered cui-ui, and would be detrimental to the public welfare because it would:

- A. be likely to jeopardize the continued existence of Pyramid Lake's two principal fish, the endangered cui-ui and the threatened Lahontan cutthroat trout;
- B. prevent or interfere with the conservation or recovery of those endangered and threatened species;
- C. take or harm those endangered or threatened species;
- D. adversely affect the recreational value of Pyramid Lake;
- E. interfere with the purposes for which the Pyramid Lake Paiute Tribe's Indian Reservation was established;
- F. adversely affect the interests of the Pyramid Lake Paiute Tribe of Indians;
- G. conflict and interfere with the Pyramid Lake Paiute Tribe's reserved right to the water of the Truckee River and its tributaries that is not subject to valid existing water rights; and
- H. to the extent that any of the underground water that is the subject of this application is utilized and then returned to the Truckee River, it may degrade the water quality of the Truckee River.

The State Engineer finds that a review of the transcripts and exhibits show that no substantial evidence was submitted regarding impact to the cui-ui or Lahontan cutthroat trout, impact to agriculture or fisheries, impact to recreational value of Pyramid Lake, impact to water quality in the Truckee River, or violations of the Endangered Species Act. The State Engineer further finds that there was no substantial evidence regarding interference with the purposes for which the PLPT reservation was created or how the applications would adversely affect the interests of the PLPT, particularly in light of the decision to limit the amount of water available for appropriation to the ground-water recharge from precipitation. The State Engineer finds that there was no substantial evidence that any underground water utilized would be returned to the Truckee River in such a way as to lower the water quality in the river and the discharge of any such water must be permitted by the Nevada Division of Environmental Protection; therefore, additional protections exist under separate jurisdiction.

## VII.

Application 63805 was filed on January 30, 1998, by Mark L. Mansfield, Guardian of Lincoln "Nick" Mansfield to appropriate 1.0 cubic-foot per second not to exceed 180 afa of ground water within the Tracy Segment Hydrographic Basin for industrial and domestic purposes. The Applicant provided testimony and evidence regarding the proposed project and the ability of the Applicant to place any water approved to beneficial use.<sup>75</sup> Agreements between the Applicant and TRI and testimony provided at the hearing indicate that the 124-acre Mansfield property will be included in the phase-1 development of the TRI industrial Center. The relationship between the Applicant and TRI provides, in part, that portions of the Applicant's property would be given to TRI for a sewer treatment plant, for access, for a rail easement and for utilities easements. In exchange, the Applicant would receive utility services and property improvements. Any water rights approved under Application 63805 would be conveyed to TRI in exchange for water service on the Mansfield property and any water not needed for service on the Mansfield property may be reconveyed to Mansfield or allocated by TRI for other uses on the TRI property.<sup>76</sup>

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<sup>75</sup> Transcript, pp. 437-451.

<sup>76</sup> Exhibit Nos. 82 and 83. Transcript, pp. 444-448.

The Applicant did not offer any evidence or testimony regarding the available perennial yield of the Tracy Segment Hydrographic Basin and did not offer any opinion on the newest water study encompassing the Tracy Segment Report.

The State Engineer finds that the Applicant has a need for the water and that there is a reasonable expectation that any water appropriated under the application will be placed to beneficial use.

### VIII.

Application 64171 was filed on May 28, 1998, by James A. Schumacher to appropriate 15.23 acre-feet annually of ground water within the Tracy Segment Hydrographic Basin for hydroponics (greenhouses). The application was not protested. 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.<sup>77</sup> Application 64171 was included in the administrative hearing to provide the Applicant an opportunity to submit additional information that the State Engineer feels is required to properly guard the public interest. It was also imperative for the Applicant to provide any necessary information because Application 64171 is second in priority and must be resolved prior to action on subsequent applications in the Tracy Segment Hydrographic Basin.

Certified notices were mailed to the Applicant and his agent regarding the administrative hearing. The U.S. Postal Service returned the Applicant's letters to the Office of the State Engineer with the indication that the letters were "not deliverable as addressed" or "attempted - not known." The Applicant's agent responded by letter and indicated that they were in the process of attempting to contact him.<sup>78</sup>

At the administrative hearing, appearances were taken for the record of the various parties representing the Applicants and Protestants. It was noted at the hearing that no person appeared on behalf of Applicant James A. Schumacher. It was also noted in the record that the Applicant's agent was unable to contact him.<sup>79</sup>

In reviewing the application file, it is noted that the proposed point of diversion and place of use are located with portions of Section 9, T.17N., R.21E., M.D.B.&M. A review of Storey

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<sup>77</sup> NRS 533.375.

<sup>78</sup> File No. 64171, official records in the Office of the State Engineer.

<sup>79</sup> Transcript, pp. 10-11.

County Assessor records show that the Applicant does not own the land comprising the proposed project, inclusive of the proposed point of diversion and proposed place of use.<sup>80</sup>

The State Engineer finds that the Applicant was properly notified at his address of record of the administrative hearing and of the request for additional information regarding Application 64171 and has failed to respond. The State Engineer finds that the Applicant's agent was unable to locate the Applicant and there were no representatives on behalf of the Applicant at the administrative hearing. The State Engineer finds that it is the responsibility of the Applicant or their agent to keep this office informed of a current and valid mailing address. The State Engineer further finds that the Applicant does not own the land comprising the proposed point of diversion and place of use; therefore, there is no evidence the Applicant can place the water to beneficial use.

#### IX.

Applications 65060, 65061, 65062, 65063, 65064, 65065, 65066, 65067, 65068, 65069, 65070, and 65071 request a combined appropriation of 12,000 acre-feet annually. A great deal of evidence and testimony was given regarding the proposed project. In summary, the project is already in the initial phases and is being served under existing ground-water rights. The above applications are for additional water to meet the future water demands of the project. The Applicant commits water to the commercial properties as the properties are sold within the project area. Once developed, the commercial properties are delivered the water required for their project. Warehouse distribution facilities are common as they tend to use minimal amounts of water. Certain high-quantity water users, such as a Pepsico Gatorade bottling facility, have been turned away due to water availability. The projected water demand at full build-out is 11,900 acre-feet to 45,000 acre-feet, depending on the water users that come to the industrial/commercial park area.<sup>81</sup>

The State Engineer finds that the Applicant has a need for the water and that there is a reasonable expectation that any water appropriated under the applications will be placed to beneficial use.

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<sup>80</sup> Communiqué, Storey County Assessor's Office, March 26, 2007.

<sup>81</sup> Transcript, pp. 56-87.

X.

Application 66729 was filed by Grand Slam Enterprises, LLC, to appropriate 1.0 cfs, not to exceed 25.0 afa, of ground water within the Tracy Segment Hydrographic Basin. The proposed manner of use is for industrial purposes and the current use taking place on the property was further described as a Ready Mix plant, supplying Ready Mix concrete, a pre-casting yard for forming pre-cast concrete and storage for a truck fleet and other heavy equipment.<sup>82</sup> In consideration of the previous findings regarding water availability, it is apparent that there is insufficient water available for appropriation in the Tracy Segment Hydrographic Basin to satisfy Application 66729, especially when the water available is compared to the magnitude of the water requested by senior applications. However, evidence submitted by Applicant TRI indicates that the Tracy Segment Hydrographic Basin is currently under-pumped.<sup>83</sup> This means that the current water right holders are not fully exercising their water rights at this time. It is anticipated that at some point in the future all of the ground-water rights will be pumped to their maximum duty allowed, which ideally should correspond to the perennial yield of the ground-water basin.

For ground-water basins that are fully appropriated but under-pumped, the State Engineer has the discretion to issue permits for a finite period of time, provided the safe yield of the source is not exceeded and the proposed use can be considered temporary. In this case, the Applicant testified that the proposed use was not temporary.<sup>84</sup> However this was later contradicted by information which indicated that the A&K property to the south of Interstate-80 (I-80) and the Grand Slam property to the north would be served by a Washoe County run water system at some point in the future. A sleeve under I-80 currently exists for the purpose of facilitating the interconnection, along with a storage reservoir on the A&K property. The plan would consist of the properties combining their existing water rights into one pool, which consists of approximately 190 acre-feet from A&K and 22.5 acre-feet from Grand Slam, and having the properties served from one water system.<sup>85</sup> The testimony indicated that there were no

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<sup>82</sup> Transcript, p. 724.

<sup>83</sup> Exhibit No. 73.

<sup>84</sup> Transcript, pp. 729-730.

<sup>85</sup> Transcript, pp. 730-734.

agreements in place for the use of some of the A&K water by Grand Slam Enterprises, but there have been discussions along those lines.<sup>86</sup>

The State Engineer finds that a permit may be issued under Application 66729 for a finite period of time at a duty of 25.0 acre-feet annually, under the provisions of NRS § 533.371.

**XI.**

Applications 69594, 69595 and 69596 were filed after the TRI applications and, are therefore, junior in priority, as previously found in this ruling. In examining the available ground-water resource, committed resource and senior applications, the State Engineer finds there is insufficient water to satisfy these applications.

**XII.**

The State Engineer has found that there is no additional ground water available in the Tracy Segment Hydrographic Basin to satisfy Applications 69594, 69595 and 69596; therefore, the State Engineer finds that the protest concerns of Washoe County and Edwin L. Depaoli have been rendered moot.

**CONCLUSIONS**

**I.**

The State Engineer has jurisdiction over the parties and the subject matter of this action and determination.<sup>87</sup>

**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.<sup>88</sup>

**III.**

The State Engineer is prohibited by law from granting a permit under a change application that requests to appropriate public waters where:<sup>89</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.

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<sup>86</sup> Transcript, p. 733.

<sup>87</sup> NRS chapters 533 and 534.

<sup>88</sup> NRS § 533.375.

<sup>89</sup> NRS § 533.370(5).

IV.

The State Engineer concludes that Nevada water law provides for the management of surface water and ground water as distinct sources. The State Engineer concludes that to change that scheme of water management at this point in time would conflict with existing rights and threaten to prove detrimental to the public interest.

V.

Ground water in Nevada is managed by the State Engineer through the establishment of hydrographic basins, whereby a perennial yield is established in each basin and permits are issued to fully develop the ground-water resource and ensure all the water is ultimately placed to beneficial use. The State Engineer concludes that management decisions within the Tracy Segment Hydrographic Basin are under the sole purview of the State Engineer. The State Engineer further concludes that the Tracy Segment Hydrographic Basin should be managed as a whole and the various requests to divide the basin into two or as many as eight sub-basins are denied.

VI.

The USGS has calculated the recharge to the Tracy Segment by five different methodologies. The values generated were found to vary between 2,000 and 22,000 afa. Applicant TRI calculated its own value of recharge that fell within the range of the USGS, but the methodologies employed to arrive at their value were found to be inadequate. The State Engineer concludes that the best evidence available indicates that the recharge to the ground-water system in the Tracy Segment Hydrographic Basin is 11,500 acre-feet annually.

VII.

The State Engineer concludes that by taking the recharge of 11,500 acre-feet annually and deducting the committed resource, including domestic well demand minus secondary recharge from septic systems, totaling approximately 8,580 acre-feet annually leaves a difference of 2,920 acre-feet annually available for appropriation in the Tracy Segment Hydrographic Basin.

**VIII.**

In regards to Application 64171, the State Engineer concludes that the Applicant no longer has an interest in pursuing the proposed project. The State Engineer further concludes that under these circumstances the issuance of any permit under Application 64171 would threaten to prove detrimental to the public interest.

**IX.**

The State Engineer concludes by limiting additional ground-water appropriations to the remaining available yield or 2,920 acre-feet annually, the use will not conflict with existing rights, threaten to prove detrimental to the public interest or conflict with protectible interests in existing domestic wells as set forth in NRS § 533.024. The State Engineer further concludes, in light of the limitations, the PLPT and Churchill County protests may be overruled.

**X.**

For Application 66729, the State Engineer concludes the proposed use may be considered temporary, there is water available from the proposed source without exceeding the safe yield, the proposed use does not conflict with existing rights and the proposed use does not threaten to prove detrimental to the public interest; therefore, Application 66729 may be issued for a finite period of time for the full requested duty of 25.0 acre-feet annually.

**XI.**

The State Engineer concludes there is sufficient water available to satisfy the appropriations requested under Application 63805 in the amount of 180 acre-feet annually and Applications 65060, 65061, 65062, 65063, 65064, 65065, 65066, 65067, 65068, 65069, 65070, and 65071 in the amount of 2,740 acre-feet annually. The State Engineer concludes there is insufficient water to satisfy any of the additional applications as shown on the following table.

Application No.	Water Requested (afa)	Date Filed (priority date)	Available (afa)	Granted (afa)
63805	180	Jan. 30, 1998	2,920	180
64171	15.23	May 28, 1998	2,740	0*
65060	1,000	Apr. 19, 1999	2,740	2,740**
65061	1,000	Apr. 19, 1999	0	2,740**
65062	1,000	Apr. 19, 1999	0	2,740**
65063	1,000	Apr. 19, 1999	0	2,740**
65064	1,000	Apr. 19, 1999	0	2,740**
65065	1,000	Apr. 19, 1999	0	2,740**
65066	1,000	Apr. 19, 1999	0	2,740**
65067	1,000	Apr. 19, 1999	0	2,740**
65068	1,000	Apr. 19, 1999	0	2,740**
65069	1,000	Apr. 19, 1999	0	2,740**
65070	1,000	Apr. 19, 1999	0	2,740**
65071	1,000	Apr. 19, 1999	0	2,740**
66729	25	Aug. 22, 2000	0	25***
69594-69596	3,200	Feb. 21, 2003	0	0

\*Denied for reasons other than water availability.

\*\*Total combined duty for Applications 65060 – 65071.

\*\*\*Approved for a finite period of time as allowed under NRS § 533.371.

## XII.

Applications 69594, 69595 and 69596 are subject to denial on the grounds there is no additional water available for appropriation. As such, the State Engineer concludes further evaluation of the merits of the protests relating to these applications would be superfluous.

**RULING**

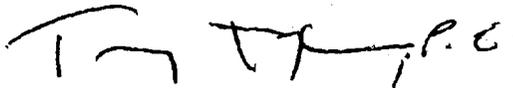
The protests are upheld in part and overruled in part. Applications 69594, 69595 and 69596 are hereby denied on grounds that the basin is fully appropriated. Application 64171 is hereby denied on the grounds its issuance would threaten to prove detrimental to the public interest. Applications 63805, 65060, 65061 65062, 65063, 65064, 65065, 65066, 65067, 65068, 65069, 65070, and 65071, are hereby approved for a total of 2,920 acre-feet annually, subject to:

1. Existing rights;
2. Payment of the statutory permit fees;
3. An approved monitoring plan.

Application 66729 is approved for a total 25.0 acre-feet annually, subject to:

1. Existing rights;
2. Payment of the statutory permit fees;
3. Expiration of the permit as determined by the State Engineer.

Respectfully submitted,



TRACY TAYLOR, P.E.  
State Engineer

TT/TW/jm

Dated this 27th day of

June, 2007.