

IN THE OFFICE OF THE STATE ENGINEER

IN THE MATTER OF APPLICATIONS 32394, )  
32395, 38500, 38501, 38502, 38504, 38505, )  
38507, 38508, 38509, 38511, 38512, 38519, )  
38527, 38529, 38530, 38531, 38532, 38717, )  
38728, 38729, 38730, 38731, 38732, 38774, )  
38863, 38864, 39045, 39046, 40274, 40275, )  
40320, 40329, 40330, 40545, 40831, 41775, )  
41835, 41836, 42493, 42494, 42496, 42497, )  
42498, 42500, 42501, 42503, 42505, 44448, )  
44449, 45069, 45072, 45116 AND 45117 FILED )  
TO APPROPRIATE THE PUBLIC WATERS OF )  
AN UNDERGROUND SOURCE IN MARYS )  
RIVER AREA, ELKO COUNTY, NEVADA. )  
)

RULING

GENERAL

I.

Application 32394 was filed on June 29, 1977, by Willis Edwin and Lynette Wanda Arnold to appropriate 6.0 c.f.s. of water from an underground source for irrigation and domestic purposes on 320 acres of land within the N1/2 S1/2 and S1/2 N1/2 Section 30, T.38N., R.63E., M.D.B.&M., (unsurveyed). The point of diversion is described as being within the SE1/4 NW1/4 Section 30, T.38N., R.63E., M.D.B.&M.<sup>1</sup>

Application 32395 was filed on June 29, 1977, by Willis Edwin and Lynette Wanda Arnold to appropriate 6.0 c.f.s. of water from an underground source for irrigation and domestic purposes on 320 acres of land within the S1/2 N1/2 and N1/2 S1/2 Section 30, T.38N., R.63E., M.D.B.&M., (unsurveyed). The point of diversion is described as being within the SE1/4 NE1/4 Section 30, T.38N., R.63E., M.D.B.&M.<sup>1</sup>

Application 38500 was filed on July 9, 1979, by Wayne P. Wilson to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the E1/2 Section 8, T.39N., R.61E., M.D.B.&M. The point of diversion is described as being within the SE1/4 NE1/4 Section 8, T.39N., R.61E., M.D.B.&M.<sup>1</sup>

Application 38501 was filed on July 9, 1979, by Jeffrey M. Hunt to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the E1/2 Section 16, T.38N., R.60E., M.D.B.&M. The point of diversion is described as being within the NE1/4 SE1/4 Section 16, T.38N., R.60E., M.D.B.&M.<sup>1</sup>

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<sup>1</sup> Public record in the office of the State Engineer.

Application 38502 was filed on July 9, 1979, by Sylvia P. Hunt to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the W1/2 Section 12, T.38N., R.60E., M.D.B.&M. The point of diversion is described as being within the SW1/4 NW1/4 Section 12, T.38N., R.60E., M.D.B.&M.<sup>1</sup>

Application 38504 was filed on July 9, 1979, by Gayle Dean Hunt to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the E1/2 Section 3, T.38N., R.60E., M.D.B.&M. The point of diversion is described as being within the SW1/4 NE1/4 Section 3, T.38N., R.60E., M.D.B.&M.<sup>1</sup>

Application 38505 was filed on July 9, 1979, by Steve A. Wuthrich to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the W1/2 Section 6, T.38N., R.61E., M.D.B.&M. The point of diversion is described as being within the SE1/4 NW1/4 Section 6, T.38N., R.61E., M.D.B.&M.<sup>1</sup>

Application 38507 was filed on July 9, 1979, by Dorothy S. Peterson to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the E1/2 Section 11, T.38N., R.60E., M.D.B.&M. The point of diversion is described as being within the SE1/4 NE1/4 Section 11, T.38N., R.60E., M.D.B.&M.<sup>1</sup>

Application 38508 was filed on July 9, 1979, by Allen James Peterson to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the W1/2 Section 2, T.38N., R.60E., M.D.B.&M. The point of diversion is described as being within the SW1/4 NW1/4 Section 2, T.38N., R.60E., M.D.B.&M.<sup>1</sup>

Application 38509 was filed on July 9, 1979, by Marjorie A. Allen to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the E1/2 Section 21, T.38N., R.60E., M.D.B.&M. The point of diversion is described as being within the NE1/4 SE1/4 Section 21, T.38N., R.60E., M.D.B.&M.<sup>1</sup>

Application 38511 was filed on July 9, 1979, by Loren James Peterson to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the W1/2 Section 14, T.38N., R.60E., M.D.B.&M. The point of diversion is described as being within the SW1/4 NW1/4 Section 14, T.38N., R.60E., M.D.B.&M.<sup>1</sup>

Application 38512 was filed on July 9, 1979, by Royd Waters to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the N1/2 Section 15, T.39N., R.61E., M.D.B.&M. The point of diversion is described as being within the NE1/4 NW1/4 Section 15, T.39N., R.61E., M.D.B.&M.<sup>1</sup>

Application 38519 was filed on July 9, 1979, by Lillie Shipp to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the E1/2 Section 1, T.38N., R.60E., M.D.B.&M. The point of diversion is described as being within the SE1/4 NE1/4 Section 1, T.38N., R.60E., M.D.B.&M.<sup>1</sup>

Application 38527 was filed on July 9, 1979, by Connie R. Shipp to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the W1/2 Section 6, T.39N., R.61E., M.D.B.&M. The point of diversion is described as being within Lot 6 Section 6, T.39N., R.61E., M.D.B.&M.<sup>1</sup>

Application 38529 was filed on July 9, 1979, by Peggy Marie Hunt Nelson to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the W1/2 Section 28, T.38N., R.60E., M.D.B.&M. The point of diversion is described as being within the SW1/4 NW1/4 Section 28, T.38N., R.60E., M.D.B.&M.<sup>1</sup>

Application 38530 was filed on July 9, 1979, by Dan F. Nelson to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the E1/2 Section 28, T.38N., R.60E., M.D.B.&M. The point of diversion is described as being within the SE1/4 NE1/4 Section 28, T.38N., R.60E., M.D.B.&M.<sup>1</sup>

Application 38531 was filed on July 9, 1979, by George F. Thompson to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the E1/2 Section 27, T.38N., R.60E., M.D.B.&M. The point of diversion is described as being within the SE1/4 NE1/4 Section 27, T.38N., R.60E., M.D.B.&M.<sup>1</sup>

Application 38532 was filed on July 9, 1979, by Ruth S. Wilson to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the W1/2 Section 8, T.39N., R.61E., M.D.B.&M. The point of diversion is described as being within the SW1/4 NW1/4 Section 8, T.39N., R.61E., M.D.B.&M.<sup>1</sup>

Application 38717 was filed on August 1, 1979, by Douglas F. Curioni to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the S1/2 Section 18, T.39N., R.61E., M.D.B.&M. The point of diversion is described as being within the SE1/4 SW1/4 Section 18, T.39N., R.61E., M.D.B.&M.<sup>1</sup>

Application 38728 was filed on August 3, 1979, by Stephen P. Adams to appropriate 6.0 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the E1/2 Section 10, T.38N., R.60E., M.D.B.&M. The point of diversion is described as being within the SE1/4 NE1/4 Section 10, T.38N., R.60E., M.D.B.&M.<sup>1</sup>

Application 38729 was filed on August 3, 1979, by Marilyn P. Adams to appropriate 6.0 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the W1/2 Section 10, T.38N., R.60E., M.D.B.&M. The point of diversion is described as being within the SW1/4 NW1/4 Section 10, T.38N., R.60E., M.D.B.&M.<sup>1</sup>

Application 38730 was filed on August 3, 1979, by Christine Lee Adams Holland to appropriate 6.0 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the E1/2 Section 20, T.39N., R.61E., M.D.B.&M. The point of diversion is described as being within the SE1/4 NE1/4 Section 20, T.39N., R.61E., M.D.B.&M.<sup>1</sup>

Application 38731 was filed on August 3, 1979, by Beecher Dan Adams, Jr., to appropriate 6.0 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the E1/2 Section 32, T.39N., R.61E., M.D.B.&M. The point of diversion is described as being within the SE1/4 SE1/4 Section 32, T.39N., R.61E., M.D.B.&M.<sup>1</sup>

Application 38732 was filed on August 3, 1979, by Beecher D. Adams to appropriate 6.0 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the W1/2 Section 32, T.39N., R.61E., M.D.B.&M. The point of diversion is described as being within the SW1/4 SW1/4 Section 32, T.39N., R.61E., M.D.B.&M.<sup>1</sup>

Application 38774 was filed on August 13, 1979, by Patricia Peterson Lujan to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the W1/2 Section 11, T.38N., R.60E., M.D.B.&M. The point of diversion is described as being within the SW1/4 NW1/4 Section 11, T.38N., R.60E., M.D.B.&M.<sup>1</sup>

Application 38863 was filed on August 27, 1979, by Erving C. Wilferd to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the E1/2 Section 20, T.38N., R.60E., M.D.B.&M. The point of diversion is described as being within the NE1/4 SE1/4 Section 20, T.38N., R.60E., M.D.B.&M.<sup>1</sup>

Application 38864 was filed on August 27, 1979, by Nancy J. Wilferd to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the W1/2 Section 20, T.38N., R.60E., M.D.B.&M. The point of diversion is described as being within the NW1/4 SW1/4 Section 20, T.38N., R.60E., M.D.B.&M.<sup>1</sup>

Application 39045 was filed on September 13, 1979, by Iris P. Corry to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the E1/2 Section 22, T.38N., R.60E., M.D.B.&M. The point of diversion is described as being within the NE1/4 SE1/4 Section 22, T.38N., R.60E., M.D.B.&M.<sup>1</sup>

Application 39046 was filed on September 13, 1979, by Elwood J. Corry to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the W1/2 Section 22, T.38N., R.60E., M.D.B.&M. The point of diversion is described as being within the NW1/4 SW1/4 Section 22, T.38N., R.60E., M.D.B.&M.<sup>1</sup>

Application 40274 was filed on January 9, 1980, by Ronald B. McLean to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the E1/2 Section 6, T.37N., R.60E., M.D.B.&M. The point of diversion is described as being within the SE1/4 NE1/4 Section 6, T.37N., R.60E., M.D.B.&M.<sup>1</sup>

Application 40275 was filed on January 9, 1980, by Mrs. Ronald B. McLean to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the W1/2 Section 5, T.37N., R.60E., M.D.B.&M. The point of diversion is described as being within the SW1/4 NW1/4 Section 5, T.37N., R.60E., M.D.B.&M.<sup>1</sup>

Application 40320 was filed on January 15, 1980, by Jack D. Fisher to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the E1/2 Section 7, T.38N., R.60E., M.D.B.&M. The point of diversion is described as being within the SE1/4 NE1/4 Section 7, T.38N., R.60E., M.D.B.&M.<sup>1</sup>

Application 40329 was filed on January 17, 1980, by Lyle Stephens to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the W1/2 Section 24, T.39N., R.60E., M.D.B.&M. The point of diversion is described as being within the SW1/4 NW1/4 Section 24, T.39N., R.60E., M.D.B.&M.<sup>1</sup>

Application 40330 was filed on January 17, 1980, by Stella Stephens to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the W1/2 Section 4, T.38N., R.60E., M.D.B.&M. The point of diversion is described as being within the SE1/4 NW1/4 Section 4, T.38N., R.60E., M.D.B.&M.<sup>1</sup>

Application 40545 was filed on February 15, 1980, by Jim Basamakakis to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the W1/2 Section 34, T.39N., R.60E., M.D.B.&M. The point of diversion is described as being within the SW1/4 NW1/4 Section 34, T.39N., R.60E., M.D.B.&M.<sup>1</sup>

Application 40831 was filed on March 5, 1980, by Lyle Stephens to appropriate 5.04 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the W1/2 Section 32, T.38N., R.60E., M.D.B.&M. The point of diversion is described as being within the SW1/4 NW1/4 Section 32, T.38N., R.60E., M.D.B.&M.<sup>1</sup>

Application 41775 was filed on July 16, 1980, by Douglas Kreck to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the N1/2 Section 6, T.37N., R.59E., M.D.B.&M. The point of diversion is described as being within the NE1/4 NW1/4 Section 6, T.37N., R.59E., M.D.B.&M.<sup>1</sup>

Application 41835 was filed on July 18, 1980, by Annabelle G. Herman to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the S1/2 Section 34, T.38N., R.59E., M.D.B.&M. The point of diversion is described as being within the SW1/4 SE1/4 Section 34, T.38N., R.59E., M.D.B.&M.<sup>1</sup>

Application 41836 was filed on July 18, 1980, by Steve Herman to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the N1/2 Section 34, T.38N., R.59E., M.D.B.&M. The point of diversion is described as being within the SW1/4 NE1/4 Section 34, T.38N., R.59E., M.D.B.&M.<sup>1</sup>

Application 42493 was filed on September 23, 1980, by Irene Herman to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the S1/2 Section 20, T.37N., R.59E., M.D.B.&M. The point of diversion is described as being within the SW1/4 SE1/4 Section 20, T.37N., R.59E., M.D.B.&M.<sup>1</sup>

Application 42494 was filed on September 23, 1980, by Lynne E. Sullivan to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the E1/2 Section 28, T.38N., R.59E., M.D.B.&M. The point of diversion is described as being within the SE1/4 NE1/4 Section 28, T.38N., R.59E., M.D.B.&M.<sup>1</sup>

Application 42496 was filed on September 23, 1980, by Charles Herman to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the S1/2 Section 30, T.37N., R.59E., M.D.B.&M. The point of diversion is described as being within the SW1/4 SE1/4 Section 30, T.37N., R.59E., M.D.B.&M.<sup>1</sup>

Application 42497 was filed on September 23, 1980, by Joyce Herman to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the N1/2 Section 30, T.37N., R.59E., M.D.B.&M. The point of diversion is described as being within the NW1/4 NE1/4 Section 30, T.37N., R.59E., M.D.B.&M.<sup>1</sup>

Application 42498 was filed on September 23, 1980, by Michele A. Livingston to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the N1/2 Section 28, T.37N., R.59E., M.D.B.&M. The point of diversion is described as being within the NE1/4 NW1/4 Section 28, T.37N., R.59E., M.D.B.&M.<sup>1</sup>

Application 42500 was filed on September 23, 1980, by Richard A. Bell to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the S1/2 Section 16, T.37N., R.59E., M.D.B.&M. The point of diversion is described as being within the SW1/4 SE1/4 Section 16, T.37N., R.59E., M.D.B.&M.<sup>1</sup>

Application 42501 was filed on September 23, 1980, by Thelma E. Livingston to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the S1/2 Section 22, T.37N., R.59E., M.D.B.&M. The point of diversion is described as being within the SW1/4 SE1/4 Section 22, T.37N., R.59E., M.D.B.&M.<sup>1</sup>

Application 42503 was filed on September 23, 1980, by Boni L. Giles to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the W1/2 Section 10, T.39N., R.59E., M.D.B.&M. The point of diversion is described as being within the SW1/4 NW1/4 Section 10, T.39N., R.59E., M.D.B.&M.<sup>1</sup>

Application 42505 was filed on September 23, 1980, by Claudia L. Bell to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the N1/2 Section 16, T.37N., R.59E., M.D.B.&M. The point of diversion is described as being within the NW1/4 NE1/4 Section 16, T.37N., R.59E., M.D.B.&M.<sup>1</sup>

Application 44448 was filed on September 18, 1981, by Beryl Nottingham to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320.74 acres of land within the E1/2 Section 2, T.36N., R.58E., M.D.B.&M. The point of diversion is described as being within the SE1/4 SE1/4 Section 2, T.36N., R.58E., M.D.B.&M.<sup>1</sup>

Application 44449 was filed on September 18, 1981, by Craig C. Hyde to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320.64 acres of land within the W1/2 Section 2, T.36N., R.58E., M.D.B.&M. The point of diversion is described as being within Lot 3 Section 2, T.36N., R.58E., M.D.B.&M.<sup>1</sup>

Application 45069 was filed on November 20, 1981, by Richard R. Sanders to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the W1/2 Section 10, T.36N., R.58E., M.D.B.&M. The point of diversion is described as being within the NW1/4 NW1/4 Section 10, T.36N., R.58E., M.D.B.&M.<sup>1</sup>

Application 45072 was filed on November 23, 1981, by Marie E. Hyde to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the E1/2 Section 10, T.36N., R.58E., M.D.B.&M. The point of diversion is described as being within the NE1/4 NE1/4 Section 10, T.36N., R.58E., M.D.B.&M.<sup>1</sup>

Application 45116 was filed on December 9, 1981, by Howard Lanier to appropriate 5.4 c.f.s. of water from an underground source for irrigation and domestic purposes on 320 acres of land within the E1/2 Section 19, T.41N., R.61E., M.D.B.&M. The point of diversion is described as being within the SE1/4 NE1/4 Section 19, T.41N., R.61E., M.D.B.&M.<sup>1</sup>

Application 45117 was filed on December 9, 1981, by May Lanier to appropriate 5.4 c.f.s. of water from an underground source for irrigation and domestic purposes on 320 acres of land within the E1/2 Section 30, T.41N., R.61E., M.D.B.&M. The point of diversion is described as being within the SE1/4 NE1/4 Section 30, T.41N., R.61E., M.D.B.&M.<sup>1</sup>

II.

Water Resources Bulletin No. 32 titled "Hydrologic Reconnaissance of the Humboldt River Basin, Nevada", was prepared cooperatively by the Geological Survey, U.S. Department of Interior, and the State of Nevada, Department of Conservation and Natural Resources. The report was first published in 1966.

Water and Related Land Resources Humboldt River Basin Report No. 4 titled "Marys River Sub-Basin", was prepared cooperatively by the Geological Survey, U.S. Department of Interior, and the State of Nevada, Department of Conservation and Natural Resources. The report was first published in 1963.

FINDINGS

I.

A timely protest to the granting of Application 40831 was filed on July 10, 1980, by William Max and Joyce H. Spratling. The grounds of the protest consisted of the following:

"1. The Protestants are the owners of the grazing rights upon public land where Applicant's point of diversion is situate.

2. The Protestants have appropriate stockwatering rights near the proposed point of diversion, and because of the poor supply of underground water in the area, Protestant's rights would be damaged or destroyed if the Application is granted."<sup>2</sup>

II.

A timely protest to the granting of Application 40831 was filed on August 13, 1980, by BLM. The grounds of their protest consisted of the following:

"The subject lands are vacant public lands and that the applicant has no authorization or right to use or convey the applied for waters on or across such lands."<sup>2</sup>

III.

The Marys River Ground Water Basin was described and designated by the State Engineer on February 14, 1984, as a ground water basin in need of additional administration under the provisions of NRS Chapter 534.<sup>3</sup>

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<sup>2</sup>Public record in the office of the State Engineer filed under Application 40831.

<sup>3</sup> State Engineer's Order No. 837, public record in the office of the State Engineer.

IV.

A study of the Marys River Sub-Basin, prepared cooperatively by the Geological Survey, U.S. Department of the Interior and the State of Nevada, Department of Conservation and Natural Resources published in 1963, estimated the total water yield of the sub-basin to be 40,880 acre-feet per year. 21,130 acre-feet per year was estimated to discharge to the Humboldt River system leaving a balance of 19,750 acre-feet per year as recharge to the ground water system.<sup>4</sup>

V.

At the public hearing held by the State Engineer on November 17, 1983, in the matter of the consideration of the designation of the Marys River Sub-Basin as a ground water basin in need of additional administration under the provisions of NRS Chapter 534, a representative of the U.S. Geological Survey gave testimony as to their recent re-evaluation of the Marys River Sub-Basin. The re-evaluation determined the annual ground water recharge to be 54,000 acre-feet per year with approximately 22,000 acre-feet per year leaving the basin as ground water discharge to the Humboldt River system.<sup>5</sup>

The amount of ground water leaving the sub-basin as discharge to the Humboldt River system is determined by a stream flow gage at Deeth, Nevada. The remaining 32,000 acre-feet per year could be considered to be the estimated perennial yield of the ground water system.<sup>5</sup>

The U.S. Geological Survey also evaluated the amount of evapotranspiration occurring in the Marys River Sub-Basin and estimated it to be 30,600 acre-feet per year.<sup>5</sup>

VI.

The waters of the Humboldt River and its principal tributaries were adjudicated during the interval 1923 - 1938. The decree specifically states:

"The court finds that the water of the stream system is fully appropriated and that in the average year, as shown by the flow in the said stream system, there is no surplus water for irrigation."<sup>6</sup>

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<sup>4</sup> Water and related land resources, Humboldt River Basin Report No. 4, titled "Marys River Sub-Basin".

<sup>5</sup> Transcript of public hearing by the State Engineer held November 17, 1983.

<sup>6</sup> The Humboldt River Adjudication, Bartlett Decree p. 28, public record in the office of the State Engineer.

VII.

The Geological Survey, U.S. Department of Interior, in cooperation with the State of Nevada, Department of Conservation and Natural Resources, is currently conducting an ongoing study of the effects of ground water flow on surface water by use of a modular three-dimensional finite difference ground water flow model. The information developed for the model has assisted in the identification and quantification of the effects of ground water pumpage on surface water flow.<sup>7</sup>

Based on information available to the State Engineer, any further increase in ground water pumpage would tend to reduce ground water inflow into the Humboldt River system.<sup>7</sup>

VIII.

The perennial yield of a hydrologic system may be defined as the maximum amount of water of usable chemical quality that can be consumed economically each year for an indefinite period of time. If the perennial yield is continually exceeded, ground water levels will decline until the ground water reservoir is depleted of water of usable quality or until the pumping lifts become uneconomical to maintain. Perennial yield cannot exceed the natural replenishment to an area indefinitely and ultimately is limited to the maximum amount of natural discharge that can be salvaged for beneficial use.<sup>8</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, land subsidence and possible reversal of ground water gradients which could result in significant changes in the recharge-discharge relationship. These conditions have developed in several other ground water basins within the State of Nevada where storage depletion and declining water tables have been recorded and documented.<sup>8</sup>

IX.

Permits and certificates have been issued under existing rights for more than the estimated perennial yield from the ground water system within the Marys River Area.<sup>1</sup>

X.

Should additional water be allowed for appropriation under new applications and subsequent development of ground water pursuant thereto detrimentally affect prior existing rights, the State Engineer is required by law to order withdrawals be restricted to conform to priority rights.<sup>9</sup>

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<sup>7</sup> Information available in the office of the State Engineer and the U.S. Geological Survey.

<sup>8</sup> See attached Appendix of References.

<sup>9</sup> NRS 534.110(6).

XI.

Information available to the State Engineer indicates that Applications 32394, 32395, 38500, 38501, 38502, 38504, 38505, 38507, 38508, 38509, 38511, 38512, 38519, 38527, 38529, 38530, 38531, 38532, 38717, 38728, 38729, 38730, 38731, 38732, 38774, 38863, 38864, 39045, 39046, 40274, 40275, 40320, 40329, 40330, 40545, 40831, 41775, 41835, 41836, 42493, 42494, 42496, 42497, 42498, 42500, 42501, 42503, 42505, 44448, 44449, 45069, 45072, 45116 and 45117 were filed in support of Carey Act or Desert Land Entry applications.<sup>1</sup> NRS 533.357 establishes the order of priority the State Engineer must follow in acting on applications for irrigation use within the same basin.

XII.

The approval of the above referenced applications would authorize the additional withdrawal of 99,000 acre-feet of ground water which would substantially exceed the perennial yield of the ground water basin.<sup>1</sup>

CONCLUSIONS

I.

The State Engineer has jurisdiction of the parties and the subject matter of this action under the provisions of NRS Chapters 533 and 534.

II.

The State Engineer is prohibited by law from granting a permit where:

- A. there is no unappropriated water in the proposed source, or
- B. the proposed use conflicts with existing rights, or
- C. the proposed use threatens to prove detrimental to the public welfare.<sup>10</sup>

III.

The granting of permits under Applications 32394, 32395, 38500, 38501, 38502, 38504, 38505, 38507, 38508, 38509, 38511, 38512, 38519, 38527, 38529, 38530, 38531, 38532, 38717, 38728, 38729, 38730, 38731, 38732, 38774, 38863, 38864, 39045, 39046, 40274, 40275, 40320, 40329, 40330, 40545, 40831, 41775, 41835, 41836, 42493, 42494, 42496, 42497, 42498, 42500, 42501, 42503, 42505, 44448, 44449, 45069, 45072 and 45116, 45117 would result in the withdrawal of substantial amounts of ground water in excess of the perennial yield of the ground water basin and would, therefore, adversely affect existing rights and be detrimental to the public interest and welfare. In addition, the granting of these applications could significantly affect existing surface rights within the Humboldt River system since the Marys River area is an integral part of the Humboldt River hydrologic network and contributes a substantial amount of water to the Humboldt River via surfacing ground water flow.

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<sup>10</sup> NRS 533.370.

RULING

Applications 32394, 32395, 38500, 38501, 38502, 38504, 38505, 38507, 38508, 38509, 38511, 38512, 38519, 38527, 38529, 38530, 38531, 38532, 38717, 38728, 38729, 38730, 38731, 38732, 38774, 38863, 38864, 39045, 39046, 40274, 40275, 40320, 40329, 40330, 40545, 40831, 41775, 41835, 41836, 42493, 42494, 42496, 42497, 42498, 42500, 42501, 42503, 42505, 44448, 44449, 45069, 45072, 45116 and 45117 are herewith denied on the grounds that the granting thereof would adversely affect existing rights and would be detrimental to the public interest and welfare.

No ruling is made as to the protests to the granting of Application 40831.

Respectfully submitted



Peter G. Morros  
State Engineer

PGM/CT/bl

Dated this 26th day of

OCTOBER, 1984.

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