

IN THE OFFICE OF THE STATE ENGINEER

IN THE MATTER OF APPLICATIONS 51266)
AND 52327 FILED TO APPROPRIATE FISH)
HATCHERY EFFLUENT WATER)
ORIGINATING FROM AN UNDERGROUND)
SOURCE, LOCATED IN CARSON VALLEY,)
DOUGLAS COUNTY, STATE OF NEVADA.)

RULING

GENERAL

I.

Application 51266 was filed on September 2, 1987, by Paul and Johanna Syphus to appropriate 1.0 c.f.s. of effluent wastewater discharge from the Lahontan National Fish Hatchery, operated by the U.S. Fish and Wildlife Service. The water originates from an underground source, passes through the fish hatchery and is discharged into the Allerman Canal. The intended use is for irrigation purposes on 52 acres of land located within the E $\frac{1}{2}$ NW $\frac{1}{4}$ Section 2, T.12N., R.20E., M.D.B.&M. The point of diversion is described as being from the Allerman Canal within the NE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 23, T.12N., R.20E., M.D.B.&M.

II.

Application 51266 was timely protested on December 16, 1987, by Truckee Carson Irrigation District, Robert W. Pennington, Agent, on the following grounds:

"This appropriation will reduce and adversely affect adjacent and downstream adjudicated surface waters since the diversion for irrigation will consumptively use water which has historically returned to the East Fork of the Carson River."

The protestant requests that the application be "Denied" and that an order be entered for such relief as the State Engineer deems just and proper.¹

¹ Public record in the Office of the State Engineer.

III.

Application 51266 was timely protested on December 11, 1987, by Douglas County. The protest was withdrawn on October 12, 1988.¹

IV.

Application 52327 was filed on July 15, 1988, by John Shahin to appropriate 1.0 c.f.s. of effluent wastewater discharge from the Lahontan National Fish Hatchery, operated by the U.S. Fish and Wildlife Service. The water originates from an underground source, passes through the fish hatchery and is discharged into the Allerman Canal. The intended use is for quasi-municipal (ponds) purposes within Section 23, T.13N., R.20E., M.D.B.&M. The point of diversion is described as being from the Allerman Canal located within the NE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 23, T.12N., R.20E., M.D.B.&M.¹

V.

Application 52327 was timely protested on October 13, 1988, by Truckee Carson Irrigation District on the following grounds:¹

"This application will tend to adversely affect adjacent and downstream adjudicated surface waters since the diversion will consumptively use water which has historically returned to the East Fork of the Carson River."

Therefore the protestant requests that the application be "Denied" and that an order be entered for such relief as the State Engineer deems just and proper.

VI.

Application 52327 was timely protested on October 18, 1988, by David L. Pruett on the following grounds:

Conflicting water control with existing permits.

Potential use periods of water are completely appropriated by existing permits.

Ponds are not a beneficial use priority.

Competitive permit applications on file have superior beneficial use."

Therefore the protestant requests that the application be "Denied" and that an order be entered for such relief as the State Engineer deems just and proper.

VII.

Pursuant to NRS Chapter 533, after notice of public hearing to applicants, protestants, and other interested parties of record, a public administrative hearing was conducted on September 26, 1989, by the Nevada Division of Water Resources to acquire additional evidence and testimony in the matter of protested Applications 51266 and 52327. The applicants, Paul and Johanna Syphus, Application 51266, and John Shahin, Application 52327, were represented by George Benesch, Esq. The protestants, Application 51266 and 52327, Truckee Carson Irrigation District, was represented by Mr. Clare Mahannah; Application 52327, David L. Pruett, represented himself.²

VIII.

Carson River Decree and maps specify and illustrate adjudicated water rights of the Carson River system.^{1,3}

IX.

Permit 21650 was issued on February 3, 1964, and Certificate 7472 was issued on November 23, 1970 to the Bureau of Sport Fisheries and Wildlife, United States of America, to appropriate 1.0 c.f.s. of water from an underground source for operation and maintenance of the fish hatchery located within the NE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 23, T.12N., R.20E., M.D.B.&M. The point of diversion is described as being within the NE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 23, T.12N., R.20E., M.D.B.&M.¹

² In regarding the matter of Application Nos. 51266 and 52327; Transcript of Proceedings; Public Hearing; September 26, 1989, Minden, Nevada; Department of Conservation and Natural Resources, Division of Water. Public Record in the Office of the State Engineer.

³ Carson River Decree, more specifically described as: The United States of America vs. Alpine Land & Reservoir Company; In the United States District Court for the District of Nevada; Civil Case No. D-183 BRT, Final Decree, October 28, 1980. Public record in the office of the State Engineer.

X.

Permit 21651 was issued on February 3, 1964, and Certificate 7473 was issued on November 23, 1970 to the United States of America, Bureau of Sport Fisheries and Wildlife to appropriate 0.05 c.f.s. of water from an underground source for operation and maintenance of the fish hatchery located within the NE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 23, T.12N., R.20E., M.D.B.&M. The point of diversion is described as being within the NE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 23, T.12N., R.20E., M.D.B.&M.

XI.

Permit 22065 was approved October 20, 1964, and Certificate 7338 was issued April 21, 1970, to the U.S. Fish and Wildlife Service (Lahontan National Fish Hatchery) to appropriate 1.147 cubic-feet per second, but not to exceed 828.55 acre-feet annually of water from an underground source for nonconsumptive use in the operation and maintenance of the fish hatchery within the NE $\frac{1}{4}$ of SE $\frac{1}{4}$, Section 23, T.12N., R.20E., M.D.B.&M. The point of diversion of water is described as being Well #3 located within the NE $\frac{1}{4}$ of NE $\frac{1}{4}$, Section 23, T.12N., R.20E., M.D.B.&M.¹

XII.

Permit 22249 was approved August 12, 1965, and Certificate 7778 was issued March 10, 1972, to Arthur Arnold Settlemyer and Lawrence Settlemyer to appropriate 1.14 cubic-feet per second, but not to exceed 814.0 acre-feet annually of effluent wastewater discharge from the Lahontan National Fish Hatchery, U.S. Fish and Wildlife Service, the water of an underground source, for irrigation purposes on 203.5 acres of land within the place of use specified by the certificate. The point of diversion of the water from the underground source is described as being within the NE $\frac{1}{4}$ of NE $\frac{1}{4}$, Section 23, T.12N., R.20E., M.D.B.&M. The point of diversion of water from the underground source under Permit 22249 is the same as the well under Permit 22065, (Well #3). Permit 22249 is supplemental to Permit 22942.¹

XIII.

Permit 22448 was approved June 4, 1965, and Certificate 7328 was issued April 10, 1970, to the U.S. Fish and Wildlife Service (Lahontan National Fish Hatchery) to appropriate 3.966 cubic-feet per second, but not to exceed 935.6 million gallons annually, i.e. 2871.25 acre-feet annually, of water from an underground source for nonconsumptive use in the operation and maintenance of the fish hatchery within the NE $\frac{1}{4}$ of SE $\frac{1}{4}$, Section

23, T.12N., R.20E., M.D.B.&M. The point of diversion of water is described as being Well #4 located within the SE $\frac{1}{4}$ of NE $\frac{1}{4}$, Section 14, T.12N., R.20E., M.D.B.&M.¹

XIV.

Permit 22942 was approved June 4, 1968, and Certificate 7779 was issued March 10, 1972, to the Settlemyer Ranches to appropriate 1.849 cubic-feet per second, but not to exceed 814.0 acre-feet annually of effluent wastewater discharge from the Lahontan National Fish Hatchery, U.S. Fish and Wildlife Service, the water of an underground source is described as being within SE $\frac{1}{4}$ of NW $\frac{1}{4}$, Section 23, T.12N., R.20E., M.D.B.&M., (Well #6). Permit 22942 is supplemental to Permit 22249.¹

XV.

Permit 25180 (Well #6) was approved December 29, 1969, and Certificate 7364 was issued May 29, 1970, to the U.S. Fish and Wildlife Service (Lahontan National Fish Hatchery) to appropriate 1.782 cubic-feet per second of water from an underground source for operation and maintenance of the fish hatchery within the NE $\frac{1}{4}$ of SE $\frac{1}{4}$, Section 23, T.12N., R.20E., M.D.B.&M. The point of diversion of water is described as being Well #6 located within SE $\frac{1}{4}$ of NW $\frac{1}{4}$, Section 23, T.12N., R.20E., M.D.B.&M. The point of diversion under Permit 25180 is the same as the well under Permit 22539. Permit 25180 replaces cancelled Permit 22539.¹

XVI.

Permit 47267 was issued September 12, 1984, to the U.S. Fish and Wildlife Service (Lahontan National Fish Hatchery) to change the point of diversion of 2.228 cubic-feet per second, but not to exceed 1612.57 acre-feet annually of water from an underground source as previously granted under Permit 22447, Certificate 7190, for use in the operation of the fish hatchery within the NE $\frac{1}{4}$ of SE $\frac{1}{4}$, Section 23, T.12N., R.20E., M.D.B.&M. The point of diversion of water under Permit 47267 is described as being within the SE $\frac{1}{4}$ of NE $\frac{1}{4}$, Section 14, T.12N., R.20E., (Well #4).¹

XVII.

Permit 49409 was approved on August 12, 1988, to Robert L. Pruett to appropriate 1.88 c.f.s., but not to exceed 360 acre-feet annually of effluent wastewater discharge from the Lahontan National Fish hatchery, U.S. Fish and Wildlife Service, the water of an underground source, for irrigation purposes on 90 acres within the SE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 11,

and E $\frac{1}{2}$ E $\frac{1}{2}$ Section 14, T12N., R.20E., M.D.B.&M. The point of diversion of the effluent wastewater is described as being located within the NE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 23, T.12N., R.20E., M.D.B.&M. The point of diversion from an underground source is described as being the Fish Hatchery well, Permit No. 19723, owned by U.S.A., but located on the Robert L. Pruett Ranch, (Well #4).¹

FINDINGS OF FACT

I.

Effluent discharge between "March 1 and October 31st" was calculated at 1093 acre-feet per season based on fish hatchery pumpage during 1985, 1986, and 1987.⁴

The place of use of Application 51266 for Paul and Johanna Syphus was revised during the hearing from 52 acres to 36 acres of irrigation.⁵

The manner of use of Application 52327 is described as being quasi-municipal use for filling a landscape pond around which residential development would be built.⁶ Consumptive use was described as being 100 acre-feet per year losses due to the surface area evaporation of the pond.⁵

II.

Existing permits to appropriate effluent from the Lahontan National Fish Hatchery for irrigation purposes have a combined diversion rate of 4.869 c.f.s. and a combined duty of 1,174 acre-feet per season^{1, 7} and are summarized as follows: Permit 22249, Certificate 7778; and Permit 22942, Certificate 7779; currently held in the ownership of Lawrence Settlemyer and Arthur Arnold Settlemyer for a combined diversion rate of 2.989 c.f.s. and a combined duty of 814 acre-feet annually. Permit 49409 is currently held in the ownership of the original applicant, Robert L. Pruett and was issued for a diversion rate of 1.88 c.f.s. and has a duty of 360 acre-feet annually.^{1, 7}

⁴ Applicants' Exhibit B, p. 121 Hearing Before the State Engineer; September 26, 1989; Applications 51266 and 52327; Prepared For: Paul Syphus, John Shahin.

⁵ Hearing Transcript - p. 100 Testimony of Mr. George Thiel.

⁶ Hearing Transcript - p. 103-4 Testimony of Mr. George Thiel.

⁷ Hearing Transcript - p. 50 Testimony of Mr. Clare Mahannah.

III.

The preferred period of use under Application 51266 is March 1st to October 31st. This time frame was described as the "normal" irrigation season. The period of use as requested in Application 51266 is "annual" use in the event that a sufficient quantity of water is not available during the "normal" irrigation season.⁸

IV.

Pumpage figures (Tables 1-4) from the Lahontan National Fish Hatchery indicate that pumpage for the period March 1 to October 31 was 1160 acre-feet in 1986, 925 acre-feet for 1987, 1,487 acre-feet for 1988, and 988 acre-feet for 1989.^{1, 9}

V.

Evidence and testimony in other hearings before the State Engineer yield the fact that the Carson River goes on regulation by the Federal Water Master about July 15 on a normal water year and of course earlier in the season on a dry year. The State Engineer finds that in order to complete the crop requirements supplemental sources are needed in most areas of the Carson Valley.¹⁰

VI.

National Oceanographic and Atmospheric Administration (N.O.A.A.) records for 1988 and 1989 indicate that pan evaporation rates peak during June through August. Evaporation during this period in 1988 was 26.77 inches and 28.16 inches in 1989. Evaporation for the irrigation season beginning April 1 and ending October 31 was 51.03 inches in 1988 and 53.50 inches in 1989.¹¹

⁸ Hearing Transcript - p. 101 Testimony of Mr. George Thiel.

⁹ Compiled from records obtained from the Lahontan National Fish Hatchery.

¹⁰ Hearing Transcript - p. 76, 77. Arnold Settlemyer testified that "the Carson River does not supply a full need of water." He also states: "on these soils, to raise pasture as we are doing, it takes a considerable amount of water, even in excess of what the decree will allow us."

¹¹ N.O.A.A. records obtained from the Office of the State Climatologist for the Fallon, Nevada, University of Nevada Experiment Station.

VII.

The Lahontan National Fish Hatchery, estimates a loss of about 15 percent at the hatchery on water they pump from wells. The loss occurs in the denitrification tower and in swab water use for cleaning.¹²

VIII.

Transporation losses in the Allerman Canal have not historically been taken into account by the Allerman Upper Irrigation Company.¹³

CONCLUSIONS

I.

The State Engineer has jurisdiction of the parties and the subject matter of this action.¹⁴

II.

The State Engineer is prohibited by law from granting a permit under an application to appropriate the public waters where:¹⁵

- A. There is no unappapropriated water at the proposed source, or
- B. The proposed use or change conflicts with existing rights, or
- C. The proposed use or change threatens to prove detrimental to the public interest.

¹² Applicants Exhibit B - p. 54 State of Nevada, Department of Conservation and Natural Resources, Division of Water Resources; In Re The Matter of Application Number 49409; Transcript of Proceedings, Public Hearing, Tuesday, February 9, 1988, Minden, Nevada. Testimony of Mr. Dwayne L. Wainwright.

¹³ Hearing Transcript - p. 79-80 Testimony of Mr. Arnold Settlemyer.

¹⁴ NRS Chapters 533 and 534.

¹⁵ NRS 533.370(3).

III.

Water diverted from Wells #1, #2, #3, #4 and #6 are appropriated by Lahontan National Fish Hatchery under Permits 21650, 21651, 22065, 22448, 47267 and 25180, and are comingled to produce process water for fish hatchery operations, a substantially nonconsumptive use; then these comingling waters are discharged as effluent wastewater from the fish hatchery into the Allerman Canal. The entire portion of effluent wastewater diverted from Well #3 and a substantial portion of the effluent wastewater diverted from Well #6 are appropriated by Settlemeier Ranches and Arnold Settlemeier under Permits 22249 and 22942 for irrigation purposes. A portion of the effluent wastewater diverted from Well #4 is appropriated by Robert L. Pruett under Permit 49409.

IV.

Diversions from Wells #1, #2, #3, #4 and #6 are intermittent, variable and not seasonally dependent.

V.

Total production (Tables 1, 2, 3, and 4) from Wells #1, #2, #3, #4, and #6 during the irrigation season from March through October yielded 1,160 acre-feet in 1986, 926 acre-feet in 1987, 1,487 acre-feet in 1988, and 988 acre-feet in 1989. Water diverted from Well #3 for the irrigation season totaled 57 acre-feet in 1986, 194 acre-feet in 1987, 65 acre-feet in 1988, and 36 acre-feet in 1989. Water diverted from Well #6 for the irrigation season totaled 273 acre-feet in 1986, 188 acre-feet in 1987, 467 acre-feet in 1988, and 251 acre-feet in 1989. Combined diversion from Wells #3 and #6 yielded 330 acre-feet in 1986, 382 acre-feet in 1987, 532 acre-feet in 1988, and 287 acre-feet in 1989. Permit 22249, Certificate 7778, and Permit 22942, Certificate 7779, allowed the withdrawal of 814.0 acre-feet per year of fish hatchery effluent from the Allerman Canal for use on lands owned by Settlemeier Ranches and Arnold Settlemeier.¹

Water production from Wells #3 and #6 was not adequate to meet potential irrigation season requirements for Settlemeier Ranches in 1986, 1987, 1988, and 1989.

VI.

Permit 49409 (Well #4) is located on land owned by Robert L. Pruett. Water production from Well #4 during the March through October irrigation season totaled 804

acre-feet in 1986, 519 acre-feet in 1987, 934 acre-feet in 1988, and 679 acre-feet in 1989 (Tables 1, 2, 3, and 4).

VII.

System loss through the fish hatchery is estimated to be 15 percent of the total pumpage utilized in the operation and maintenance of the Lahontan National Fish Hatchery. With the application of this loss factor to the seasonal pumpage the State Engineer concludes the yield to be 986 acre-feet in 1986, 787 acre-feet in 1987, 1,264 acre-feet in 1988, and 840 acre-feet in 1989.

In addition, the transportation loss in the Allerman Canal must be accounted for in the above estimates.

The State Engineer concludes that actual effluent water available for use at the proposed places of use is substantially less than the pumpage from the hatchery wells.

VII.

The State Engineer concludes that it would not be in the public interest to construct a landscape pond under Application 52372 as a focal point for a residential subdivision based on the following:

1. The availability of the water is intermittent, variable by rate and volume, and not seasonally dependent or annually consistent.
2. Water for a pond must be available during peak evaporation period and not just during the winter months.

VIII.

The State Engineer concludes that additional water is not available during the irrigation season to support irrigation of 36 acres under Application 51266.

RULING

I.

No ruling is made on the Truckee-Carson Irrigation District's protest of Application 51266 since return flow is no longer allowed to enter the East Fork of the Carson River.

Application 51266 is hereby denied on the grounds that because of the intermittent and variable nature of the source it is not feasible for irrigation use without interfering with other decreed rights in the Carson River. Additionally it is not in the public interest to issue another permit on a water source that cannot meet the demands of existing water rights.

II.

The protest of David L. Pruett to the issuance of Application 52327 is upheld in part and found irrelevant in part. The State Engineer affirms that potential use periods of water are completely appropriated by existing permits. The State Engineer does not rule on the grounds of "conflicting water control," or "ponds are not a beneficial use priority."

No ruling is made on Truckee Carson Irrigation District's protest of Application 52327 since return flow is no longer allowed to enter the East Fork of the Carson River.

Application 52327 is hereby denied on the grounds that the source of water is intermittent and variable and it would not be in the public interest to issue another permit on a water source that cannot meet the demands of existing water rights.

Respectfully submitted,


R. MICHAEL TURNIPSEED
State Engineer

RMT/SW/bk

Dated this 30th day of

October, 1990.

TABLE 1: LAHONTAN NATIONAL FISH HATCHERY PUMPAGE FOR 1986.

| MONTH | WELL NO. | WELL NO. | WELL NO. | WELL NO. | WELL NO. | TOTAL | IRR |
|--------------|-------------|------------|-------------|---------------|--------------|---------------|---------------|
| | 1 | 2 | 3 | 4 | 6 | | ANNUAL TOTAL |
| JAN. | 3.2 | | | 154.8 | | 158.0 | |
| FEB. | 2.8 | | | 139.8 | | 142.6 | |
| MAR. | 3.2 | | | 89.9 | 34.5 | 127.6 | 127.6 |
| APR. | 3.1 | | | 5.0 | 82.2 | 90.3 | 90.3 |
| MAY | 3.2 | | 25.8 | 5.0 | 31.8 | 65.8 | 65.8 |
| JUN. | 3.1 | | 14.3 | 89.9 | 7.9 | 115.2 | 115.2 |
| JUL. | 3.2 | | 17.2 | 154.8 | 45.1 | 220.3 | 220.3 |
| AUG. | 3.2 | | | 154.8 | 68.9 | 226.9 | 226.9 |
| SEP. | 3.1 | | | 149.8 | 2.6 | 155.5 | 155.5 |
| OCT. | 3.2 | | | 154.8 | | 158.0 | 158.0 |
| NOV. | 3.1 | | | 149.8 | | 152.9 | |
| DEC. | 3.2 | | | 154.8 | | 158.0 | |
| TOTAL | 37.6 | 0.0 | 57.3 | 1403.2 | 273.0 | 1771.1 | 1159.6 |

PUMPAGE REPORTED IN ACRE-FEET/MONTH

TABLE 2: LAHONTAN NATIONAL FISH HATCHERY PUMPAGE FOR 1987

| MONTH | WELL NO. | WELL NO. | WELL NO. | WELL NO. | WELL NO. | TOTAL | IRR |
|--------------|-------------|------------|--------------|---------------|--------------|---------------|--------------|
| | 1 | 2 | 3 | 4 | 6 | | SEASON TOTAL |
| JAN. | 3.2 | | | 154.8 | | 158.0 | |
| FEB. | 2.8 | | | 139.8 | 31.8 | 174.4 | |
| MAR. | 3.2 | | | 114.8 | 76.9 | 194.9 | 194.9 |
| APR. | 3.0 | | 21.5 | | 42.4 | 66.9 | 66.9 |
| MAY. | 3.2 | | 44.5 | | | 47.7 | 47.7 |
| JUN. | 3.0 | | 43.1 | | 13.3 | 59.4 | 59.4 |
| JUL. | 3.2 | | 22.9 | 94.9 | | 121.0 | 121.0 |
| AUG. | 3.2 | | | 154.8 | 55.7 | 213.7 | 213.7 |
| SEP. | 3.0 | | 30.2 | | | 33.2 | 33.2 |
| OCT. | 3.2 | | 31.6 | 154.8 | | 189.6 | 189.6 |
| NOV. | 3.0 | | | 149.8 | | 152.8 | |
| DEC. | 3.2 | | | 154.8 | | 158.0 | |
| TOTAL | 37.2 | 0.0 | 193.8 | 1118.5 | 220.1 | 1569.6 | 926.4 |

PUMPAGE REPORTED IN ACRE-FEET/MONTH

TABLE 3: LAHONTAN NATIONAL FISH HATCHERY PUMPAGE FOR 1988.

| MONTH | WELL NO. | WELL NO. | WELL NO. | WELL NO. | WELL NO. | IRR | |
|--------------|-------------|------------|-------------|---------------|--------------|---------------|---------------|
| | 1 | 2 | 3 | 4 | 6 | ANNUAL TOTAL | SEASON TOTAL |
| JAN. | 3.2 | | | 154.8 | | 158.0 | |
| FEB. | 2.9 | | | 144.8 | 60.1 | 207.8 | |
| MAR. | 3.2 | | | 154.8 | 79.5 | 237.5 | 237.5 |
| APR. | 3.0 | | | 114.9 | 29.2 | 147.1 | 147.1 |
| MAY | 3.2 | | 41.7 | | 10.6 | 55.5 | 55.5 |
| JUN. | | | 1.4 | 49.9 | 45.1 | 96.4 | 96.4 |
| JUL. | 3.2 | | | 154.8 | 71.6 | 229.6 | 229.6 |
| AUG. | 3.2 | | 21.5 | 154.8 | 82.2 | 261.7 | 261.7 |
| SEP. | 3.0 | | | 149.8 | 79.5 | 232.3 | 232.3 |
| OCT. | 3.2 | | | 154.8 | 68.9 | 226.9 | 226.9 |
| NOV. | 3.0 | | | 149.8 | | 152.8 | |
| DEC. | 3.2 | | | 154.8 | 31.8 | 189.8 | |
| TOTAL | 34.3 | 0.0 | 64.6 | 1538.0 | 558.5 | 2195.4 | 1487.0 |

PUMPAGE REPORTED IN ACRE-FEET MONTH

TABLE 4: LAHONTAN NATIONAL FISH HATCHERY PUMPAGE FOR 1989

| MONTH | WELL NO. | TOTAL | IRR |
|-------|----------|----------|----------|----------|----------|--------|--------------|
| | 1 | 2 | 3 | 4 | 6 | | SEASON TOTAL |
| JAN. | 3.2 | | | 154.8 | 82.2 | 240.2 | |
| FEB. | 2.8 | | | 139.8 | 55.7 | 198.3 | |
| MAR. | 3.2 | | | 10.0 | 31.8 | 45.0 | 45.0 |
| APR. | 3.0 | | 24.4 | | | 27.4 | 27.4 |
| MAY | 3.2 | | | | 44.5 | 47.7 | 47.7 |
| JUN. | | | 11.5 | 59.9 | 47.7 | 119.1 | 119.1 |
| JUL. | 3.2 | | | 154.8 | 82.2 | 240.2 | 240.2 |
| AUG. | 3.2 | | | 149.8 | 42.4 | 195.4 | 195.4 |
| SEP. | 3.0 | | | 149.8 | 2.7 | 155.5 | 155.5 |
| OCT. | 3.2 | | | 154.8 | | 158.0 | 158.0 |
| NOV. | 3.0 | 2.0 | | 149.8 | 34.5 | 189.3 | |
| DEC. | 3.2 | 2.0 | | 154.8 | 82.2 | 242.2 | |
| TOTAL | 34.2 | 4.0 | 35.9 | 1278.3 | 605.9 | 1858.3 | 988.3 |

PUMPAGE REPORTED IN ACRE-FEET/MONTH