

STATE OF NEVADA  
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

DIVISION OF WATER RESOURCES

JASON KING, P.E.  
STATE ENGINEER



ANTELOPE VALLEY (HYDROGRAPHIC BASIN 9-106)

GROUNDWATER PUMPAGE INVENTORY

WATER YEAR 2009

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## **ABSTRACT**

This inventory represents the status and usage of all permitted, certificated and claim of vested right groundwater rights located within Antelope Valley, Hydrographic Basin 9-106, for water year 2009 (October 1, 2008 through September 30, 2009). Also included for summary purposes are tables, graphs and data associated with streamflow discharge values, reservoir storage and depth to groundwater levels.

The values presented are valid for the time period of this report and may vary from previously published figures as water rights within the basin are subject to administrative action, such as approval, certification, cancellation, forfeiture or withdrawal on a daily basis.

For water year 2009, the permitted, certificated and claim of vested right groundwater rights totaled 6,435 acre-feet of which an estimated 3,192 acre-feet were pumped. Irrigation is the largest manner of use within the basin. For water year 2009, appropriations for irrigation totaled 5,316 acre-feet. Temporary use permits granted for 2,619 acre-feet of water for irrigation, initially permitted for municipal use, included in this amount. Pumpage for the 2009 water year for irrigation was approximately 2,525 acre-feet. The next largest category of use was quasi-municipal with groundwater rights totaling 984 acre-feet with approximately 311 acre feet pumped. There are 109 acre-feet of groundwater rights associated with commercial use with approximately 34 acre-feet pumped. An estimated 315 acre-feet pumped from domestic wells.

## HYDROGRAPHIC BASIN SUMMARY

HYDROGRAPHIC BASIN NUMBER	106, REGION 9
HYDROGRAPHIC BASIN NAME	ANTELOPE VALLEY
COUNTIES	DOUGLAS, LYON
MAJOR COMMUNITIES	TOPAZ RANCH ESTATES, HOLBROOK JUNCTION, TOPAZ LAKE
DESIGNATED	YES
DENIALS BASED UPON WATER AVAILABILITY	IRRIGATION, COMMERCIAL, QUASI- MUNICIPAL
GROUNDWATER LEVEL MEASUREMENTS	NDWR
PUMPAGE INVENTORY, ACRE-FEET IN 2009	3,192
STATE ENGINEER'S ORDERS	714 – DESIGNATION DATE: MAY 25, 1978 1178 - PREFERRED USE DATE: JULY 29, 2005

COMMITTED GROUNDWATER RESOURCE: 6,435 ACRE-FEET, DATE: SEPT. 2009

IRRIGATION.....5,316    COMMERCIAL.....109    DOMESTIC.....2  
 RECREATIONAL.....24    QUASI-MUNICIPAL...984

**COMMENTS:**

- Domestic use, as defined by NRS 534.180, totals approximately 315 acre-feet for Water Year 2009. The domestic use estimate is based upon a count of the domestic wells in the basin multiplied by 1 acre-foot per annum. The number of domestic wells in the basin was estimated by a query of the Nevada Division of Water Resources' Well Log Database and is approximately 315.
- The numbers associated with the committed groundwater resources represent the status for the time frame stated, September 2009. Manner of use category totals vary over time, as rights are not necessarily static. Rights may be subject to change applications, certification, withdrawals, forfeiture and cancellations; each of these circumstances would impact the duty, diversion rate and acreage associated with a given right. The value associated with each manner of use category does not include those portions that have been relinquished in support of domestic wells. A total of 135.25 acre-feet have been relinquished in the basin.

## **PURPOSE AND SCOPE**

The purpose of this report is to detail and inventory all the groundwater resources allocated and described by the Office of the State Engineer, Nevada Division of Water Resources and to estimate the amount of groundwater pumped within the Nevada portion of the Antelope Valley Hydrographic Basin for the water year beginning October 1, 2008, and ending September 30, 2009 (hereafter referred to as the 2009 water year). This report estimates the amount of groundwater pumped under the permits and certificates issued by the State Engineer and the claims of vested right, as well as the amount pumped by domestic wells within the basin. This is a continuing effort of the Nevada Division of Water Resources and will augment data developed and reported in water years 2006 through 2008 for the basin.

## **DESCRIPTION OF THE STUDY AREA**

Antelope Valley is located in west central Nevada and east central California. This report deals exclusively with the Nevada portion of this valley. The Nevada portion of this basin occupies approximately 115 square miles in Douglas County, and a small portion of Lyon County. The adjacent hydrographic areas are Smith Valley (9-107) to the east and Carson Valley (8-105) to the northwest (see Figure 1); the exterior boundary of the Antelope Valley Hydrographic Basin 106 is as described by Designation Order 714 issued by the Nevada State Engineer dated May 25, 1978.

Antelope Valley is bounded on the north by the Pinenut Range that rises to elevations greater than 9,000 feet, and on the east by the Sweetwater Mountains, rising to elevations greater than 10,000 feet (all elevations in this text are above mean sea level). Antelope Valley as a whole is bound by the Sierra Nevada to the west. Although the range does not lie directly within the Nevada part of Antelope Valley, the Sierra Nevada exerts a strong climatic control throughout the entire valley. Surface water drainage from this mountain system also dominates the annual streamflow of the West Walker River.

## **HYDROLOGY**

The dominant hydrologic features of Antelope Valley are the West Walker River and Topaz Lake. Topaz Lake is a man-made reservoir located on the California-Nevada border. The lake was formed by diverting waters from the West Walker River into a nearby basin that had previously contained a smaller, natural lake. The initial construction took place in 1922, resulting in a reservoir with a capacity of 45,000 acre-feet. In 1937 a new levee raised the capacity to its current 59,440 acre-feet, with an average area of 1,790 acres (Department of Water Resources, State of California, 1964).

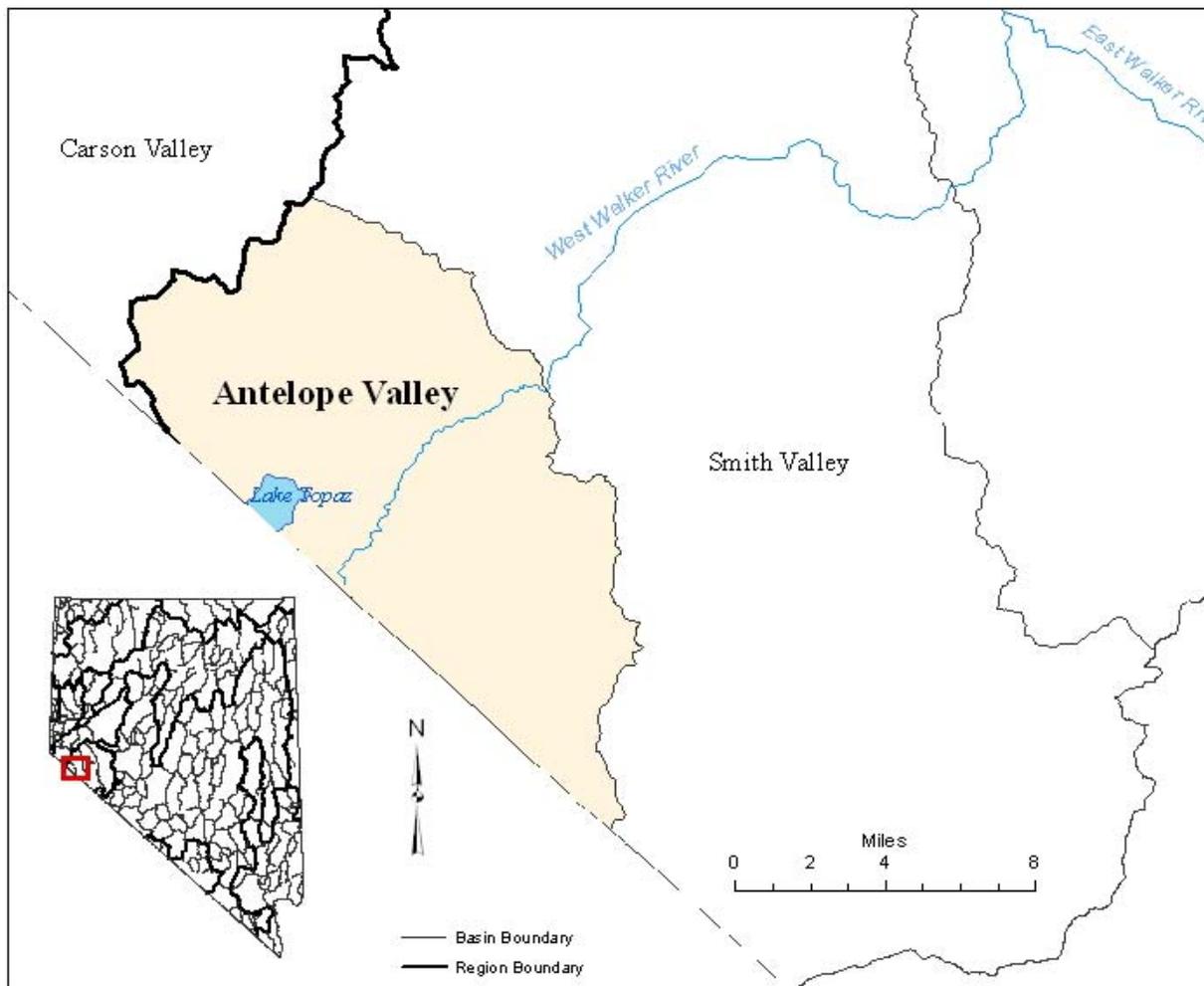


Figure 1. Location Map of Antelope Valley Groundwater Basin 9-106

The U.S. Geological Survey (USGS) operates a streamflow gaging station near the location at which the West Walker River enters Antelope Valley, ([USGS site #10296500 West Walker River near Coleville CA](#)). This gage is located in the NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  section 28, Township 08 North, Range 23 East. The period of record is Oct. 1902-July 1908; March 1909- September 1910; June 1915 – March 1938; May 1957 to the current year. The annual flow at this station for calendar year 2008 was 135,900 acre-feet, and in water year 2009 was 178,600 acre- feet. The average flow from 1903 - 2009 is 202,600 acre-feet annually (USGS, Water-Data Report WDR-US-2009).

The USGS also operates a streamflow gaging station near the location at which the West Walker River exits Antelope Valley, ([USGS site #10297500 West Walker River at Hoye Bridge, near Wellington NV](#)). The gage is located in the NE  $\frac{1}{4}$  SE  $\frac{1}{4}$  section 17, Township 10 North, Range 23 East. The period of record is May to August 1910, July 1920 to September 1923,

March 1924 to August 1925, October 1925 to September 1932, October 1957 to current year. The average annual flow at this station for calendar year 2008 was 100,500 acre-feet, and in water year 2009 was 122,000 acre-feet. The average flow from 1910 - 2009 is 177,400 acre-feet annually (USGS, Water-Data Report WDR-US-2009).

### **GROUNDWATER LEVELS**

A groundwater level monitoring network was instituted as part of the fieldwork done for the inventory. The network consists of twelve sites at the following locations (see Figure 2):

- [106 10N 22E 10 DACC1](#)
- [106 10N 22E 12 CADD1](#)
- [106 10N 22E 12 CDCC1](#)
- [106 10N 22E 15 ADC1](#)
- [106 10N 22E 15 DCBB1](#)
- [106 10N 22E 22 BAB1](#)
- [106 10N 22E 22 BDAC1](#)
- [106 10N 22E 24 BBCA1](#)
- [106 10N 22E 25 BDAC1](#)
- [106 10N 22E 26 ABCD1](#)
- [106 10N 22E 28 DDBC1](#)
- [106 10N 23E 19 BABA1](#)

Water level measurements are conducted on a semi-annual basis, and when additional sites are identified, they will be incorporated into the network. Water level data can be obtained from the Division of Water Resources or at <http://water.nv.gov>.

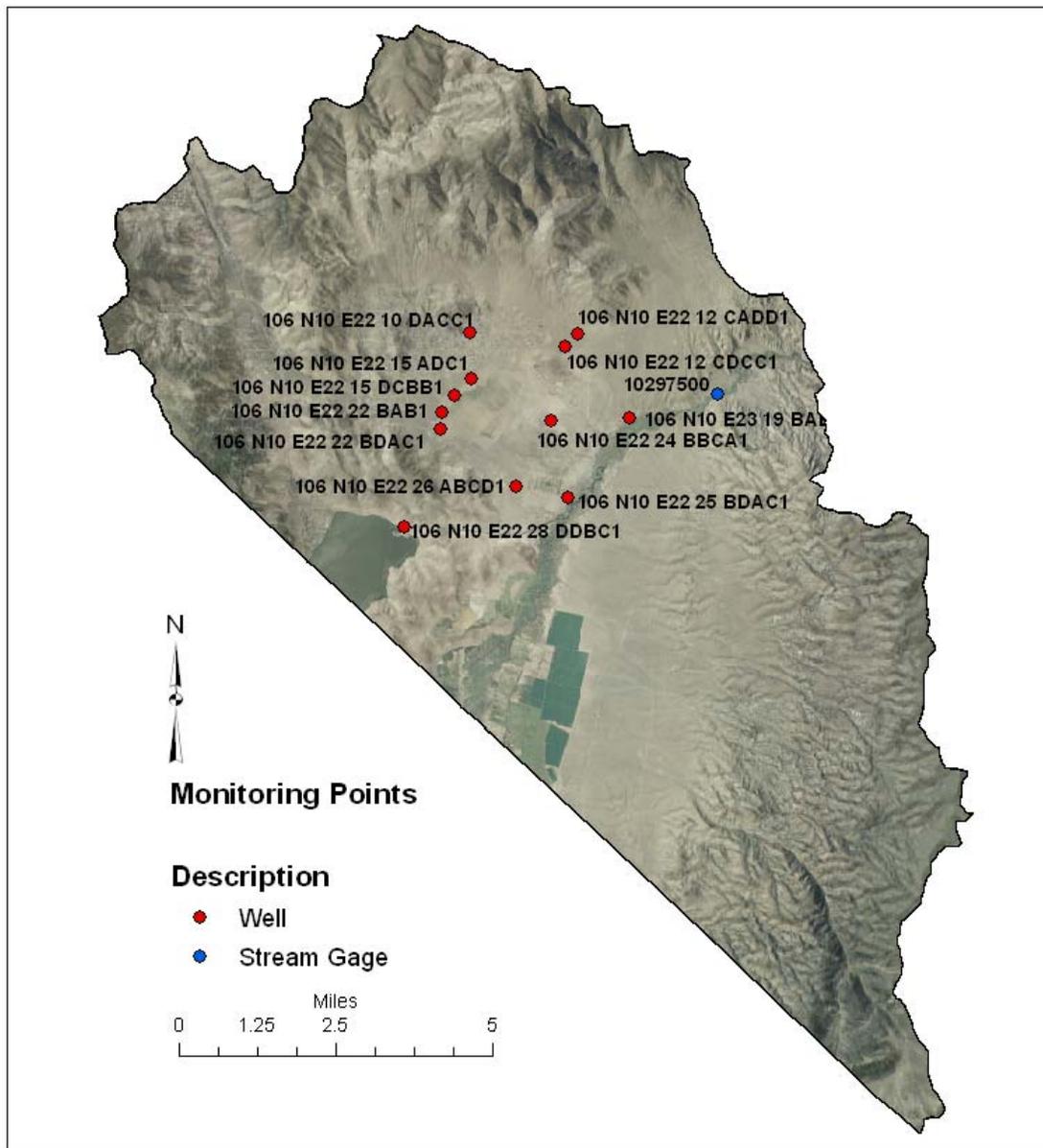


Figure 2. Location map of Antelope Valley Groundwater Level-Monitoring Network and stream gages (Note: Coleville, CA gage not shown).

## METHODS TO ESTIMATE PUMPAGE

This report estimates the amount of groundwater pumped under claims of vested right and the permits and certificates issued by the State Engineer, as well as the amount pumped by domestic wells in the valley. The following methods were used to arrive at the estimated use:

- Where totalizing meters were in place, meter readings were taken and compared with previous data (if available).
- Where meters were not in place and the use was irrigation, use was estimated by taking the number of hours the well was operated during the past year (determined from an hour meter reading or talking with the water user) and expanding it out by the certificated diversion rate; or a survey of the place of use was done to estimate the amount of acreage under cultivation. The number of acres under cultivation would then be multiplied by a duty of 4 acre-feet per acre to estimate the use.
- Where meters were not present, previous data were not available and the use was not irrigation, use was estimated by applying the annual duty associated with the certificate (if the water right is perfected) or permit, if the usage was as described in the certificate or permit. If the use was not as described in the certificate, permit or claim, a value was estimated based upon the circumstances of the actual usage for the subject year.
- If there was no use of the water under the permit, zero use was recorded.
- The primary water purveyor for Antelope Valley is the Topaz Ranch Estates General Improvement District (TRE-GID). This entity provides the Office of the State Engineer with quarterly pumping totals as a condition of the permits, under which the water was appropriated. These data were used to determine the amount pumped by the TRE-GID.
- The amount of water pumped by individual domestic wells was estimated by multiplying the number of domestic wells in the valley by a factor of 1 acre-foot. Domestic wells are defined by Nevada Revised Statutes 534.013 as follows: “Domestic use or domestic purposes extends to culinary and household purposes directly related to a single family dwelling, including, without limitation, the watering of a family garden and lawn and the watering of livestock and any other domestic animals or household pets.” The number of domestic wells in the valley was estimated from the records of the State Engineer at approximately 315. The number of wells was determined by a query of the Nevada Division of Water Resources’ Well Log Database.

## PUMPAGE BY MANNER OF USE

**Note that all data herein are estimates and subject to revision.**

The total estimated groundwater pumpage for the water year 2009 was **3,192 acre-feet**. The annual duties of permitted, certificated and claims of vested rights within the Antelope Valley Hydrographic Basin total approximately **6,435 acre-feet**. This value does not include those portions of rights that have been relinquished in support of domestic wells. The permitted and pumped totals, categorized by manner of use, are as follows (see graphs in Appendix A):

### A. Quasi-Municipal

A total of 984 acre-feet have been granted for quasi-municipal purposes in the basin. An estimated 311 acre-feet were pumped during water year 2009.

**B. Irrigation**

The duty granted for the irrigation in the basin is 5,316 acre-feet, and an estimated 2,525 acre-feet were pumped during water year 2009. Approximately 1237 acres were irrigated during the water year 2009. A significant number of those acres have surface water rights appurtenant as well. This report acknowledges those acres with surface water rights but is not intended to quantify, nor present any definitive place of use of the surface water rights. Approximately 81 acres were irrigated from a non-permitted point of diversion. This water was included in the tabulations but was not a legitimate point of diversion during water year 2009. Approximately 36 acres were irrigated from a permitted point of diversion but were outside the permitted place of use.

**C. Recreation**

A total of 24 acre-feet have been granted for recreational purposes in the basin. An estimated 6 acre-feet were pumped during water year 2009.

**D. Commercial**

One hundred and nine acre-feet have been granted for commercial purposes in the basin. An estimated 34 acre-feet were pumped during water year 2009.

**E. Domestic**

Two acre-feet have been granted for domestic purposes, however; the amount of water pumped for domestic use as described under NRS 534.013 is estimated at 315 acre-feet during the water year 2009.

## REFERENCES CITED

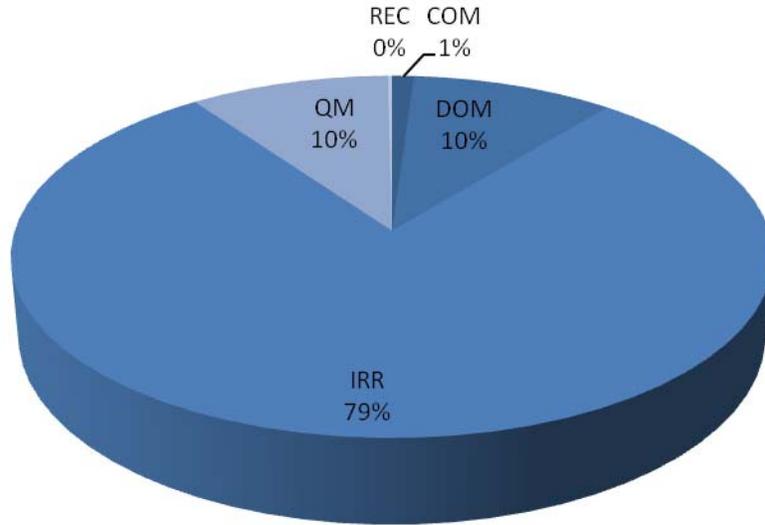
Department of the Interior, U.S. Geological Survey. Water-Data Report WDR-US-2009. [Online] 1 April 2010.( <http://wdr.water.usgs.gov/wy2009>.)

Department of Water Resources, State of California, *West Walker River Investigation*, Bulletin No. 64, April 1964, page 51.

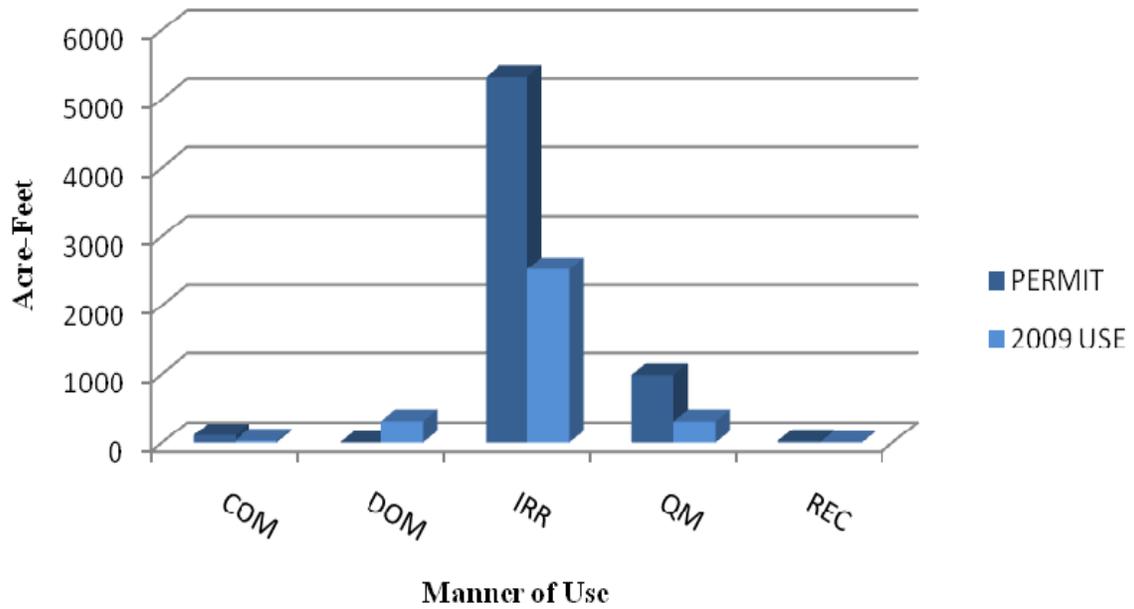
**APPENDIX A**

**ANTELOPE VALLEY 2009 GROUNDWATER PUMPAGE BY MANNER OF USE**

**PERCENTAGE OF GROUNDWATER PUMPAGE 2009 BY MANNER OF USE**



**GROUNDWATER PUMPAGE 2009 PERMITTED vs. ACTUAL PUMPAGE**



## **APPENDIX B**

### **ANTELOPE VALLEY 2009 GROUNDWATER PUMPAGE BY PERMIT NUMBER**

**EXPLANATION OF COLUMN HEADINGS FOR GROUNDWATER PUMPAGE BY PERMIT NUMBER**

UNIQUE IDENTIFIER	An ID assigned to each well, based on its geographic location.
APP NO.	The file number of the Application to Appropriate/Change Water.
STATUS	Indicates if the application is a Permit (PER) or if it has been certificated. If an application has been certificated, the Certificate number will be listed in the column.
MOU	The manner of use of the appropriated water. COM - Commercial DOM - Domestic IRR - Irrigation QM - Quasi-Municipal REC - Recreational
OWNER OF RECORD	The owner of the water right as recorded in the files of the state engineer. A water right may have more than one owner of record.
QQ	The quarter quarter of the section in which the point of diversion is located.
QTR	The quarter of the section in which the point of diversion is located.
SEC	The section in which the point of diversion is located.
T	The township in which the point of diversion is located.
R	The range in which the point of diversion is located.
PER ACRES	
IRR	The number of acres that are permitted to be irrigated.
DUTY (AF)	The number of acre-feet of water that the permittee may pump. An acre-foot equals 325,851 gallons.
SUPP ADJ	Where more than one permit is appurtenant to the same place of use, the permits are considered supplemental. Permits may be either completely or partially supplemental. In these cases, a total combined duty for the subject permits is employed.
DUTY USED	The amount of water used during water-year 2009, in acre-feet, as determined by review of records and/or field investigation.
UNIT	AFA stands for acre-feet annually, and AFS stands for acre-feet seasonally. AFS limits water usage to certain months out of the year.
SUPP SRC	The source of the supplemental water; UG (underground), WR (Walker River).
SUPP GW APP NO.	The file number(s) of the supplemental water appropriations.

UNIQUE IDENTIFIER	APP NO.	STATUS	MOU	OWNER OF RECORD	QQ	QTR	SEC	T	R	PER ACRES	DUTY (AF)	SUPP ADJ	DUTY USED	UNIT	SUPP SRC	SUPP GW APP NO.
106 N10 E23 19BABA1	13013	04928	IRR	MATHEWSON, CHARLES N. TRUST	NE	NW	19	10N	23E	49.85	74.78	74.78	0.00	AFA		
106 N10 E22 29DCC1	16425	05398	QM	TOPAZ LODGE INC.	SW	SE	29	10N	22E		6.44	16.14	6.44	AFA		53073
106 N10 E22 22ADAD1	16789	05732	IRR	ALLRED, EVAN L.	SE	NE	22	10N	22E	28.60	114.40	114.40	0.00	AFS	UG	
106 N10 E21 14DDCD1	23243	07202	DOM	AMERICAN TELEPHONE & TELEGRAPH	SE	SE	14	10N	21E		1.63	1.63	0.01	AFA		
106 N10 E22 18ACDA1	24469	07845	IRR	LODATO, JOSEPH S.	SW	NE	18	10N	22E	10.10	40.40	40.40	0.00	AFA		
106 N10 E22 22BAB 1	24470	CAN	IRR	GRANT AND COMPANY	NE	NW	22	10N	22E		N.A.	N.A.	228.00	AFA		1
106 N09 E22 13CCDA1	27311	09639	IRR	PARK, DAVID WALLACE	SW	SW	13	09N	22E	426.80	1707.20	1707.20	524.70	AFA	WR	
106 N10 E22 10DACC1	28779	PER	QM	TOPAZ RANCH ESTATES G.I.D.	NE	SE	10	10N	22E		879.45	879.45	18.70	AFA	UG	3
106 N10 E22 10BDDA1	28781	PER	QM	TOPAZ RANCH ESTATES G.I.D.	NW	NW	10	10N	22E		879.45		21.26	AFA	UG	3
106 N10 E22 18ABDA1	31341	14132	QM	HOLBROOKE STATION, L.L.C.	NW	NE	18	10N	22E		32.44	32.44	0.00	AFA	UG	41463
106 N10 E22 29CBDB1	33662	10614	COM	TOPAZ LODGE INC.	NW	SW	29	10N	22E		1.44	28.26	3.26	AFA	UG	5
106 N10 E22 17CCDB1	34649	12452	COM	MOSCHOGIANIS, PETER C.	SW	SW	17	10N	22E		0.31	0.31	0.31	AFA		
106 N10 E22 18ACDA1	34906	PER	COM	DANIEL BRENTS BOLTON & KDM	SW	NE	18	10N	22E		2.58	2.58	0.00	AFA		
106 N10 E22 18BADA1	35246	13017	QM	ROACH, HEIDI D. AND ROY B.	NE	NW	18	10N	22E		7.06	7.06	6.80	AFA		
106 N10 E22 32BCDA1	35495	PER	COM	KAHN, MORRIS.	SW	NW	32	10N	22E		4.35	4.35	0.37	AFA		
106 N10 E22 18ABDD1	41463	14134	QM	HOLBROOKE STATION, L.L.C.	NW	NE	18	10N	22E		32.44		25.29	AFA	UG	31341
106 N09 E22 13CCDA1	46841	11663	IRR	PARK, DAVID WALLACE	SW	SW	13	09N	22E	141.80	567.20	567.20	174.90	AFA	WR	
106 N10 E22 18ADBD1	47318	PER	COM	HEIDI D. & ROY B. ROACH 2002 TRUST	SE	NE	18	10N	22E		5.04	5.04	0.00	AFA		
106 N10 E22 29CCAA1	48040	14943	COM	TOPAZ LODGE, INC.	SW	SW	29	10N	22E		17.86	55.85	10.37	AFA	UG	4
106 N10 E22 29CDCC1	48041	14944	COM	TOPAZ LODGE, INC.	SE	SW	29	10N	22E		6.44		5.88	AFA	UG	4
106 N10 E22 29CCAA1	48299	14945	COM	TOPAZ LODGE, INC.	SW	SW	29	10N	22E		5.16		5.16	AFA	UG	4
106 N10 E22 29CDCC1	48300	14946	COM	TOPAZ LODGE, INC.	SE	SW	29	10N	22E		7.73		7.73	AFA	UG	4
106 N10 E22 29DCCC1	53073	PER	QM	TOPAZ LODGE, INC.	SW	SE	29	10N	22E		16.14		7.91	AFA	UG	16425
106 N10 E22 18ADAC1	55478	16360	QM	PINION PINES MHC, LLC	SE	NE	18	10N	22E		7.73	7.73	10.96	AFA		
106 N10 E22 12CDCC1	56490	PER	QM	LAZY S LODGE	SE	SW	12	10N	22E		4.00	4.00	14.29	AFA		
106 N10 E22 18ADCD1	56925	PER	COM	HEIDI D. & ROY B. ROACH 2002 TRUST	SE	NE	18	10N	22E		2.97	2.97	0.00	AFA		
106 N10 E22 10BDDA1	57681	PER	QM	TOPAZ RANCH ESTATES G.I.D.	NW	NW	10	10N	22E		38.67		0.00	AFA	UG	3
106 N10 E22 10DACC1	57682	PER	QM	TOPAZ RANCH ESTATES G.I.D.	NE	SE	10	10N	22E		38.67		0.00	AFA	UG	3
106 N10 E22 12CADD1	57683	PER	QM	TOPAZ RANCH ESTATES G.I.D.	NE	SW	12	10N	22E		88.05		0.00	AFA	UG	3
106 N10 E22 09BBAB1	57684	PER	QM	TOPAZ RANCH ESTATES G.I.D.	NW	NW	09	10N	22E		879.45		0.00	AFA	UG	3
106 N10 E22 10ADAB1	57685	PER	QM	TOPAZ RANCH ESTATES G.I.D.	SE	NE	10	10N	22E		879.45		21.72	AFA	UG	3
106 N10 E22 15CADD1	57686	PER	QM	TOPAZ RANCH ESTATES G.I.D.	NE	SW	15	10N	22E		879.45		174.71	AFA	UG	3
106 N10 E22 09BBAB1	57716	PER	QM	TOPAZ RANCH ESTATES G.I.D.	NW	NW	09	10N	22E		150.13		0.00	AFA	UG	3
106 N10 E22 32BBAD1	59892	PER	QM	BAUER, CLYNE P.	NW	NW	32	10N	22E		4.24	4.24	0.00	AFA		
106 N10 E22 29CDCC1	63415	PER	QM	K & K WATER COMPANY, INC.	SE	SW	29	10N	22E		15.68	15.68	3.50	AFA		
106 N10 E22 17DDAD1	65494	PER	COM	SHEERIN, CHRISTOPHER H. & KERI A.	SE	SE	17	10N	22E		4.00	4.00	0.76	AFA		
106 N10 E22 28DDBC1	65918	PER	REC	DOUGLAS COUNTY	SE	SE	28	10N	22E		24.49	24.49	5.63	AFA		
106 N10 E22 29CDCC1	67426	PER	COM	TOPAZ LODGE, INC.	SE	SW	29	10N	22E		21.28		0.00	AFA	UG	4
106 N10 E22 17CCAD1	68739	PER	IRR	KOTTKE LVNG TRST, DENNIS L & DIANE V	SW	SW	17	10N	22E	6.25	25.00	192.90	25.00	AFA	UG	68740
106 N10 E22 17CCAD1	68740	PER	IRR	KOTTKE LVNG TRST, DENNIS L & DIANE V	SW	SW	17	10N	22E	41.98	167.90		68.90	AFA	UG	68739
106 N10 E22 18DBDA1	70877	PER	QM	NORTHERN NEVADA URGENT CARE, LLP	NW	SE	18	10N	22E		5.00	5.00	0.33	AFA		
No POC filed 9/30/2008	70902	PER	QM	GREGORY FAMILY TRUST	SW	SE	12	10N	22E		7.84	7.84	0.00	AFA		
No POC filed 9/30/2008	71039	PER	QM	DA DEVELOPMENT, INC	NE	SE	17	10N	22E		3.94	3.94	0.00	AFA		
106 N10 E22 17DDAD1	71130	PER	COM	SHEERIN, CHRIS	SE	SE	17	10N	22E		4.00	4.00	0.00	AFA		
106 N10 E22 18ADBD2	74486	PER	COM	SIERRA ROADHOUSE	SE	NE	18	10N	22E		2.02	2.02	0.43	AFA		
106 N10 E22 22BDAC1	76889T	PER	IRR	ELEPHANT, LLC	SE	NW	22	10N	22E		813.00	1737.00	0.00	AFA	UG	2
106 N10 E22 14ACBD1	76890T	PER	IRR	ELEPHANT, LLC	SW	NE	14	10N	22E		660.00		273.27	AFA	UG	2
106 N10 E22 22ADAD1	76891T	PER	IRR	ELEPHANT, LLC	SE	NE	22	10N	22E		205.60		294.08	AFA	UG	2
106 N10 E22 15DCBB1	76892T	PER	IRR	ELEPHANT, LLC	SW	SE	15	10N	22E		434.00		434.00	AFA	UG	2
106 N10 E22 15ADC1	76893T	PER	IRR	ELEPHANT, LLC	SE	NE	15	10N	22E		470.00		0.00	AFA	UG	2
106 N10 E22 26ABCD1	76894T	PER	IRR	FAIRFIELD TOPAZ, LLC	NW	NE	26	10N	22E		591.00	881.86	256.87	AFA	UG	6
106 N10 E22 25BDAC1	76895T	PER	IRR	FAIRFIELD TOPAZ, LLC	SE	NW	25	10N	22E		274.36		245.54	AFA	UG	6
106 N10 E22 25BDAC1	76896T	PER	IRR	FAIRFIELD TOPAZ, LLC	SE	NW	25	10N	22E		16.50		0.00	AFA	UG	6
106 N10 E22 29CCDD1	78567T	PER	COM	TOPAZ LODGE, INC.	SW	SW	29	10N	22E		26.82		0.00	AFA	UG	5

<sup>1</sup> Approximately 81 acres were irrigated in Water Year 2009 from this cancelled permit POI  
<sup>2</sup> Elephant, LLC total combined duty permit #'s 76889T, 76890T 76891T, 76892T, 76893T = TCD 1737.00 AFA  
<sup>3</sup> Topaz Ranch Estates total combined duty permit #'s 28779, 28781, 57681, 57682, 57683, 57684, 57685, 57686, 57716 = TCD 879.45 AFA  
<sup>4</sup> Topaz Lodge Inc. total combined duty permit #'s 48040, 48041, 48229, 48300, 67426 = TCD 55.85 AFA  
<sup>5</sup> Topaz Lodge Inc. total combined duty permit #'s 33662, 52865, 78567T = TCD 28.26 AFA  
<sup>6</sup> Fairfield Topaz, LLC total combined duty permit #'s 76894T, 76895T, 76896T = TCD 881.86 AFA

## **APPENDIX C**

### **ANTELOPE VALLEY 2009 PERMITTED ACRES IRRIGATED BY GROUNDWATER**

**EXPLANATION OF COLUMN HEADINGS FOR PLACE OF USE OF  
GROUNDWATER IRRIGATION RIGHTS**

APP NO.	The file number of the Application to Appropriate/Change Water.
STATUS	Indicates if the application is a Permit (PER) or if it has been certificated. If an application has been certificated, the Certificate number will be listed in the column.
OWNER OF RECORD	The owner of the water right as recorded in the files of the state engineer. A water right may have more than one owner of record.
QQ	The quarter quarter of the section in which the point of diversion is located.
QTR	The quarter of the section in which the point of diversion is located.
SEC	The section in which the point of diversion is located.
T	The township in which the point of diversion is located.
R	The range in which the point of diversion is located.
PER ACRES	The number of acres, by quarter quarter that are permitted to be irrigated.
PER IRR ACRES 2008	The number of acres irrigated within the place of use of the associated permit, during water-year 2009, as determined by field inspection.
SUPP ACRES	The number of acres by quarter quarter that have more than one appropriation appurtenant.
SUPP SOURCE	Source of the supplemental water, UG (ground water) or WR (Walker River).
SUPP GW APP NO.	The file number of the supplemental water appropriation.

APP NO.	STATUS	CERT NO	OWNER OF RECORD	QQ	QTR	SEC	T	R	PER ACRES	PER IRR ACRES	SUPP ACRES	SUPP SOURCE	SUPP GW APP NO.
13013	CERT	4928	MATHEWSON, CHARLES N. TRUST	N2	NE	19	10N	23E	25.85	0.00	0.0		
				N2	NW	19	10N	23E	24.00	0.00	0.0		
				Total:			49.85	0.00					
16789	CERT	5732	ALLRED, EVAN L.	SE	NE	22	10N	22E	7.00	0.00	0.0		
				NE	SE	22	10N	22E	3.00	0.00	0.0		
				SW	NW	23	10N	22E	6.60	0.00	0.0		
				NW	SW	23	10N	22E	12.00	0.00	0.0		
				Total:			28.60	0.00					
24469 <sup>1</sup>	CERT	7845	LODATO, JOSEPH S.	SE	NE	18	10N	22E	4.80	0.00		UG	1581
				SW	NE	18	10N	22E	5.30	0.00		UG	1581
				Total:			10.10	0.00					
27311 <sup>2</sup>	CERT	9639	PARK, DAVID WALLACE	S2	NE	11	09N	22E	21.90	18.65	0.0		
					SE	11	09N	22E	105.10	105.10	0.0		
					SW	12	09N	22E	51.70	51.70		WR	
				SW	NW	12	09N	22E	1.10	1.10		WR	
				NW	NW	13	09N	22E	25.40	25.40	0.0		
				SW	NW	13	09N	22E	25.70	25.70		WR	
				NW	SW	13	09N	22E	27.50	27.50		WR	
					TR41	13	09N	22E	21.00	21.00		WR	
					NE	14	09N	22E	94.00	94.00		WR	
					TR42	14	09N	22E	53.40	38.46		WR	
Total:			426.80	408.61									
46841 <sup>2</sup>	CERT	11663	PARK, DAVID WALLACE	S2	NW	12	09N	22E	32.30	32.30		WR	
				SW	NE	12	09N	22E	2.70	2.70	0.0		
				NW	SW	12	09N	22E	12.20	12.20		WR	
				NE	SW	12	09N	22E	40.00	40.00		WR	
				NW	SE	12	09N	22E	24.20	18.90		WR	
				SE	SW	12	09N	22E	20.90	20.90		WR	
				SW	SE	12	09N	22E	9.50	6.40	0.0		
				Total:			141.80	133.40					
68739 <sup>3</sup>	PER		KOTTKE LVNG TRST, DENNIS L & DIANE V		SW	17	10N	22E		34.96		UG	68740
				W2	SE	17	10N	22E				UG	68740
				E2	SE	18	10N	22E				UG	68740
				NE	NE	19	10N	22E				UG	68740
				Total:			6.25	34.96					

APP NO.	STATUS	CERT NO	OWNER OF RECORD	QQ	QTR	SEC	T	R	PER ACRES	PER IRR ACRES	SUPP ACRES	SUPP SOURCE	SUPP GW APP NO.
68740 <sup>3</sup>	PER		KOTTKE LVNG TRST, DENNIS L & DIANE V		SW	17	10N	22E	41.98	34.96		UG	68739
				W2	SE	17	10N	22E				UG	68739
				E2	SE	18	10N	22E				UG	68739
				NE	NE	19	10N	22E				UG	68739
				Total:									
76889T, 76890T, 76891T, 76892T, 76893T, 76894T, 76895T, 76896T	TEMP		ELEPHANT, LLC & FAIRFIELD TOPAZ, LLC	SE	SE	12	10N	22E				UG	4
				E2	E2	13	10N	22E				UG	
				NW	NE	13	10N	22E				UG	
				SW	NE	13	10N	22E				UG	
				NW	SE	13	10N	22E				UG	
				SW	SE	13	10N	22E				UG	
				NE	SW	13	10N	22E				UG	
				NW	SW	13	10N	22E				UG	
				S2	SW	13	10N	22E				UG	
				NW	NE	14	10N	22E				UG	
				SE	NE	14	10N	22E		0.00		UG	
				SW	NE	14	10N	22E		0.30		UG	
				NE	NW	14	10N	22E		0.00		UG	
				NW	NW	14	10N	22E		0.00		UG	
				S2	NW	14	10N	22E		31.10		UG	
				NE	SE	14	10N	22E		0.00		UG	
				NW	SE	14	10N	22E		4.40		UG	
				S2	SE	14	10N	22E		7.70		UG	
					SW	14	10N	22E		123.10		UG	
				SE	NE	15	10N	22E		0.00		UG	
				SW	NE	15	10N	22E		0.00		UG	
				SE	NW	15	10N	22E		0.00		UG	
					SE	15	10N	22E		89.80		UG	
				NE	SW	15	10N	22E		0.00		UG	
				NW	SW	15	10N	22E		0.00		UG	
				S2	SW	15	10N	22E		0.00		UG	
				NE	SE	16	10N	22E		0.00		UG	
				SE	SE	16	10N	22E		0.00		UG	
					NW	22	10N	22E		6.40		UG <sup>5</sup>	
					NE	22	10N	22E		91.50		UG <sup>5</sup>	
				N2	S2	22	10N	22E		0.00		UG	
					NE	23	10N	22E		36.00		UG <sup>6</sup>	
				NE	NW	23	10N	22E		40.50		UG	
				NW	NW	23	10N	22E		11.70		UG	

APP NO.	STATUS	CERT NO	OWNER OF RECORD	QQ	QTR	SEC	T	R	PER ACRES	PER IRR ACRES	SUPP ACRES	SUPP SOURCE	SUPP GW APP NO.
				S2	NW	23	10N	22E		19.80		UG	
				S2	SE	23	10N	22E		2.00		UG	
				SE	SW	23	10N	22E				UG	
						24	10N	22E				UG	
					NE	25	10N	22E				UG	
					NW	25	10N	22E		98.70		UG	
				NE	SE	25	10N	22E				UG	
				SE	SE	25	10N	22E				UG	
				SW	SW	25	10N	22E				UG	
				N2	SW	25	10N	22E		8.30		UG	
					NE	26	10N	22E		88.20		UG	
					NW	26	10N	22E				UG	
				NE	SE	26	10N	22E		0.60		UG	
				NW	SE	26	10N	22E				UG	
				N2	SW	26	10N	22E				UG	
				S2	SE	26	10N	22E				UG	
				S2	SW	26	10N	22E				UG	
				SE	SE	7	10N	23E				UG	
				NW	SW	7	10N	23E				UG	
				SE	SW	7	10N	23E				UG	
				SE	SE	8	10N	23E				UG	
				SE	NE	17	10N	23E				UG	
				NW	NW	17	10N	23E				UG	
				NE	SE	17	10N	23E				UG	
				NE	SW	17	10N	23E				UG	
					N2	18	10N	23E				UG	
				W2	SW	18	10N	23E				UG	
				W2	NW	19	10N	23E				UG	
					S2	19	10N	23E				UG	
					SW	20	10N	23E				UG	
					N2	30	10N	23E				UG	
				N2	S2	30	10N	23E				UG	
				S2	S2	30	10N	23E				UG	
				E2	E2	31	10N	23E				UG	
				Total:						660.10			

<sup>1</sup> Permit # 24469 may be supplemental to permit # 1581.

<sup>2</sup> Permit #s 27311, 46841 are supplemental to a portion of Walker River Decree, Claim #2.

<sup>3</sup> Permit #s 68739, 68740 have same proposed place of use, with a total combined acreage of 48.23

<sup>4</sup> Permits 76889T, 76890T, 76891T, 76892T, 76893T, 76894T, 76895T, 76896T have the same place of use and are supplemental.

<sup>5</sup> 6.4 acres in the NW¼ section 22 and 74.3 acres in the NE¼ section 22, T10N, R22E were irrigated by a non-permitted POD.

<sup>6</sup> 36.0 acres in the NE¼ Section 23, T10N, R22E were irrigated outside the permitted POU.

**APPENDIX D**  
**ANTELOPE VALLEY HISTORICAL PUMPAGE**

**HISTORICAL GROUNDWATER USE BY POINT OF DIVERSION**

UNIQUE IDENTIFIER	PERMITS	MOU	OWNER OF RECORD	DUTY USED 2006	DUTY USED 2007	DUTY USED 2008	DUTY USED 2009
106 N09 E22 13CCDA1	27311, 46841	IRR	PARK, DAVID WALLACE	58.31	810.80	1016.17	699.60
106 N10 E21 14DDCD1	23243	DOM	AMERICAN TELEPHONE & TELEGRAPH	1.63	1.63	0.01	0.01
106 N10 E22 09BBAB1	57684, 57716	QM	TOPAZ RANCH ESTATES G.I.D.	0.00	0.00	0.00	0.00
106 N10 E22 10ADAB1	57685	QM	TOPAZ RANCH ESTATES G.I.D.	5.65	18.92	17.89	21.72
106 N10 E22 10BBDA1	28781, 57681	QM	TOPAZ RANCH ESTATES G.I.D.	7.13	24.22	22.74	21.26
106 N10 E22 10DACC1	28779, 57682	QM	TOPAZ RANCH ESTATES G.I.D.	6.15	20.68	19.36	18.70
106 N10 E22 12CADD1	57683	QM	TOPAZ RANCH ESTATES G.I.D.	0.00	0.00	0.00	0.00
106 N10 E22 12CDCC1	56490	QM	LAZY S LODGE	4.00	9.90	12.58	14.29
106 N10 E22 14ACBD1	13787	IRR	ELEPHANT, LLC <sup>1</sup>	0.00	146.63	464.86	N.A.
106 N10 E22 15ADC1	16989	IRR	ELEPHANT, LLC <sup>1</sup>	0.00	0.00	0.00	N.A.
106 N10 E22 15CADD1	57686	QM	TOPAZ RANCH ESTATES G.I.D.	59.25	201.67	177.72	174.71
106 N10 E22 15DCBB1	16988	IRR	ELEPHANT, LLC	0.00	257.36	544.87	N.A.
106 N10 E22 17CCAD1	68739, 68740	IRR	KOTTKE LVNG TRST, DENNIS L & DIANE V	73.40	67.55	127.96	93.90
106 N10 E22 17CCDB1	34649	COM	MOSCHOGLANIS, PETER C.	0.00	0.31	0.31	0.31
106 N10 E22 17DDAD1	65494, 71130	COM	SHEERIN, CHRISTOPHER H. & KERI A.	4.00	0.60	0.07	0.76
106 N10 E22 18ABDA1	31341	QM	HOLBROOKE STATION, L.L.C.	0.00	0.02	0.31	0.00
106 N10 E22 18ABDD1	41463	QM	HOLBROOKE STATION, L.L.C.	32.44	8.01	28.58	25.29
106 N10 E22 18ACDA1	24469, 34906	IRR/COM	LODATO, JOSEPH S. & DANIEL BRENTS BOLTON & KDM	1.12	0.00	0.00	0.00
106 N10 E22 18ADAC1	55478	QM	PINION PINES MHC, LLC	7.73	13.11	13.70	10.96
106 N10 E22 18ADBD1	47318	COM	HEIDI D. & ROY B. ROACH 2002 TRUST	0.00	0.00	0.00	0.00
106 N10 E22 18ADBD2	74486	COM	SIERRA ROADHOUSE	N.A.	0.00	0.00	0.43
106 N10 E22 18ADCD1	56925	COM	HEIDI D. & ROY B. ROACH 2002 TRUST	0.00	0.01	0.00	0.00
106 N10 E22 18BADA1	35246	QM	ROACH, HEIDI D. AND ROY B.	7.06	9.10	10.33	6.80
106 N10 E22 18DBDA1	70877	QM	NORTHERN NEVADA URGENT CARE, LLP	5.00	0.16	0.27	0.33
106 N10 E22 22ADAD1	16789	IRR	ALLRED, EVAN L.	0.00	0.00	0.00	0.00
106 N10 E22 22BAB 1	24470, 25737	IRR	GRANT AND COMPANY <sup>2</sup>	0.00	0.00	0.00	228.00
106 N10 E22 22BDAC1	13014	IRR	ELEPHANT, LLC <sup>1</sup>	0.00	0.00	0.00	N.A.
106 N10 E22 25BDAC1	70852, 70853	IRR	BAWDEN, J.F. <sup>1</sup>	204.00	597.25	270.56	N.A.
106 N10 E22 26ABCD1	70851	IRR	BAWDEN, J.F. <sup>1</sup>	204.00	299.87	284.93	N.A.
106 N10 E22 28DDBC1	65918	REC	DOUGLAS COUNTY	24.49	24.49	5.57	5.63
106 N10 E22 29CBDB1	33662	COM	TOPAZ LODGE INC.	1.44	1.44	3.71	3.26
106 N10 E22 29CCAA1	48040, 48299	COM	TOPAZ LODGE, INC.	23.02	14.43	21.59	15.53
106 N10 E22 29CDCC1	48041, 48300, 67426	COM	TOPAZ LODGE, INC.	35.47	15.13	11.05	13.61
106 N10 E22 29CDCD1	63415	QM	K & K WATER COMPANY, INC.	15.68	0.43	12.34	3.50
106 N10 E22 29DCCC1	16425, 53073	QM	TOPAZ LODGE INC.	22.58	7.53	12.79	14.35
106 N10 E22 32BBAD1	59892	QM	BAUER, CLYNE P.	0.00	0.00	0.00	0.00
106 N10 E22 32CBDA1	35495	COM	KAHN FAMILY TRUST	14.45	0.28	0.25	0.37
106 N10 E23 19BABA1	13013	IRR	MATHEWSON, CHARLES N. TRUST	0.00	7.32	4.34	0.00
No POC filed 9/30/2008	52865	COM	TOPAZ LODGE, INC. <sup>1</sup>	0.00	0.00	0.00	N.A.
No POC filed 9/30/2008	70902	QM	GREGORY FAMILY TRUST	0.00	0.00	0.00	0.00
No POC filed 9/30/2008	71039	QM	DA DEVELOPMENT, INC	0.00	0.00	0.00	0.00
106 N10 E22 22BDAC1	76889T	IRR	ELEPHANT, LLC	N.A.	N.A.	N.A.	0.00
106 N10 E22 14ACBD1	76890T	IRR	ELEPHANT, LLC	N.A.	N.A.	N.A.	273.27
106 N10 E22 22ADAD1	76891T	IRR	ELEPHANT, LLC	N.A.	N.A.	N.A.	294.08
106 N10 E22 15DCBB1	76892T	IRR	ELEPHANT, LLC	N.A.	N.A.	N.A.	434.00
106 N10 E22 15ADC1	76893T	IRR	ELEPHANT, LLC	N.A.	N.A.	N.A.	0.00
106 N10 E22 26ABCD1	76894T	IRR	FAIRFIELD TOPAZ, LLC	N.A.	N.A.	N.A.	256.87
106 N10 E22 25BDAC1	76895T	IRR	FAIRFIELD TOPAZ, LLC	N.A.	N.A.	N.A.	245.54
106 N10 E22 25BDAC1	76896T	IRR	FAIRFIELD TOPAZ, LLC	N.A.	N.A.	N.A.	0.00
106 N10 E22 29CDD1	78567T	COM	TOPAZ LODGE, INC.	N/A	N.A.	N.A.	0.00

<sup>1</sup> THIS POD ABROGATED BY LATER APPLICATION OR PERMIT.

<sup>2</sup> THIS CANCELLED PERMIT POD IRRIGATED APPROXIMATELY 81 ACRES IN THE N½ SECTION 22, T10N, R22E.

## HISTORICAL GROUNDWATER PUMPAGE BY MANNER OF USE

	2006	2007	2008	2009
COM	79	32	37	34
DOM	2	2	0	315
IRR	540	2187	2714	2525
QM	173	314	329	311
REC	24	24	6	6
TOTAL	818	2559	3085	3191

Values are in Acre-Feet  
(Totals may vary due to rounding)

