

STATE OF NEVADA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

DIVISION OF WATER RESOURCES

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STATE ENGINEER



EAGLE VALLEY (HYDROGRAPHIC BASIN 8-104)

GROUNDWATER PUMPAGE INVENTORY

WATER YEAR 2008

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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 Eagle Valley, Hydrologic Basin 8-104, for water year 2008 (Oct 1, 2007 through September 30, 2008). Also included for summary purposes are tables, graphs and data associated with water imported to the basin, effluent re-use, streamflow discharge values and depth to groundwater levels.

The values that follow 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 2008 the permitted, certificated and claim of vested right groundwater rights totaled 7,958 acre-feet and an estimated 7,213 acre-feet were pumped. Municipal supply is the largest manner of use within the basin. For water year 2008, appropriations for municipal supply total 6,757 acre-feet and pumpage was 6,027 acre-feet. The next largest category of use was pumping by private domestic wells, at 922 acre-feet.

Carson City was issued a permit to operate an artificial recharge and recovery program in 1990. During water year 2008, 146 acre-feet of imported surface water were released to the Vicee Canyon drainage for infiltration to the Eagle Valley groundwater basin, under recharge permit R-004.

HYDROGRAPHIC BASIN SUMMARY

HYDROGRAPHIC BASIN NUMBER..... 104, REGION 8

HYDROGRAPHIC BASIN NAME EAGLE VALLEY

COUNTIES..... CARSON CITY, DOUGLAS,
WASHOE

MAJOR COMMUNITIES..... CARSON CITY

DESIGNATED YES

DENIALS BASED UPON WATER AVAILABILITY COMMERCIAL,
INDUSTRIAL, IRRIGATION,
QUASI-MUNICIPAL,
RECREATION, OTHER

GROUNDWATER LEVEL MEASUREMENTS NDWR, USGS

ESTIMATED PUMPAGE INVENTORY, ACRE-FEET IN 2008..... 7,213

STATE ENGINEER'S ORDERS

424 - DESIGNATION FEBRUARY 23, 1972

874 - EXTENDED DESIGNATION..... JULY 29, 1985

1119 - DESIGNATION AND PREFERRED USE DECEMBER 07, 1995

1140 - ALLOWING CC TO PUMP 11,700 AC-FT..... JANUARY 27, 1998

1202 - DOMESTIC WELL CREDIT MAY 26, 2009

COMMITTED GROUNDWATER RESOURCE: 7,958 ACRE-FEET..... DATE: SEPT. 2008

IRRIGATION.....	390	COMMERCIAL.....	60	INDUSTRIAL.....	2
ENVIRONMENTAL...	385	QUASI-MUNICIPAL...	355	MUNICIPAL.....	6,757
OTHER	2	STOCK	7		

PURPOSE AND SCOPE

This report is an effort of the Nevada Division of Water Resources, in conjunction with the Carson Water Subconservancy District, to better understand the hydrology of Eagle Valley, Hydrographic Basin 8-104. This is part of a continuing effort to document groundwater usage in the valley.

The purpose of this report is to detail and inventory the groundwater resources as allocated and described by the Office of the State Engineer, Nevada Division of Water Resources and estimate the amount of groundwater pumped within the Eagle Valley Hydrographic Basin for the water year beginning October 1, 2007 and ending September 30, 2008 (hereafter referred to as the 2008 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 in the basin.

Associated information, such as groundwater level measurements, precipitation and streamflow statistics are also presented.

DESCRIPTION OF THE STUDY AREA

Eagle Valley is small basin located in western Nevada. The valley is approximately 10 miles east of Lake Tahoe and 30 miles south of Reno, Nevada, and is within the Carson River Hydrographic Region. Carson City, the Nevada state capital, is the principal community. The majority of the basin is within Carson City County; small portions of it extend into Douglas and Washoe Counties. See Figure 1.

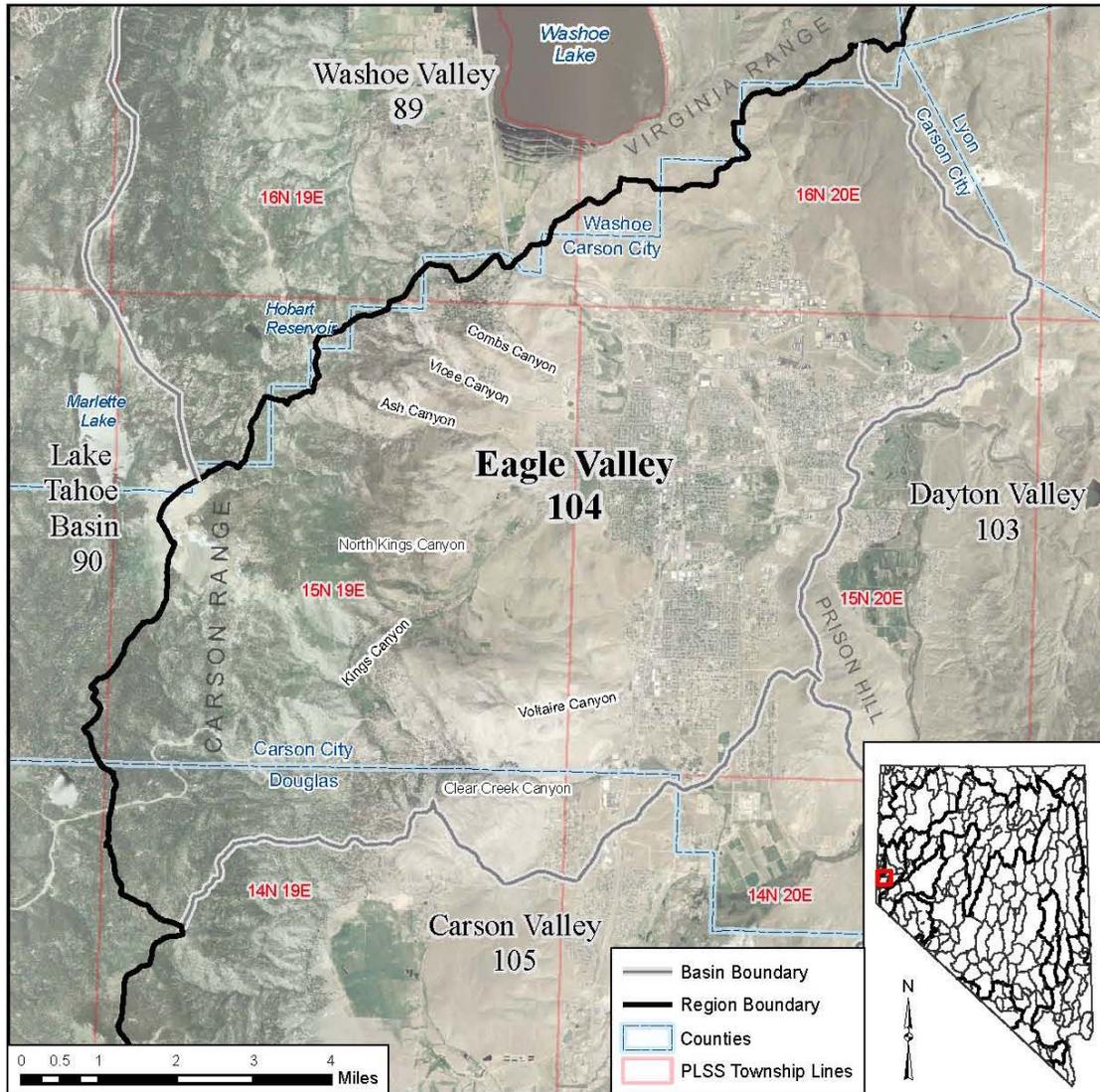
Eagle Valley is bounded on the west by the Carson Range of the Sierra Nevada. This range rises to more than 9,000 feet and is the basin's primary watershed. The Virginia Range forms the north boundary, rising to greater than 7,000 feet (all elevations in this text are above mean sea level). Prison Hill borders the basin to the southeast; a low ridge extending from the Virginia Range south to Prison Hill forms the eastern boundary. The southern boundary is formed by a low alluvial rise and intermittent hills separating Eagle Valley from Carson Valley. The adjacent hydrographic basins are the Lake Tahoe Basin, 6-090, to the west; Washoe Valley, 6-089, to the north; Dayton Valley, 8-103, to the east; and Carson Valley, 8-105, to the south. The exterior boundary of the Eagle Valley Hydrographic Basin is as described by Designation Orders 424 and 874, issued by the Nevada State Engineer February 23, 1972 and July 29, 1985, respectively. The basin covers approximately 71 square miles, about 20 of which cover the valley floor. The slope of the basin is from west to east. Valley floor elevations range from 4,800 feet, along the toe of the Carson Range, to 4,600 feet at the valley outlet.

HYDROLOGY

Stream Flows

Several perennial streams arise in the Carson Range and flow eastward onto and across the valley floor of Eagle Valley. From north to south those streams are Ash Canyon Creek, North Fork Kings Canyon Creek, Kings Canyon Creek, and Clear Creek. Clear Creek crosses

Figure 1
Location Map of Eagle Valley Hydrographic Basin 8-104



into Carson Valley and is tributary to the Carson River. The northern and central portions of the valley are drained by Eagle Valley Creek, which flows east into Dayton Valley and is tributary to the Carson River. The U.S. Geological Survey (USGS) operates streamflow gaging stations on these streams. Table 1 is a summary of the station and streamflow data for water year 2008. The data are from the USGS, Water-Data Report WDR-US-2008. Refer to Figure 2 for gaging station locations.

Several substantial drainages from the Carson Range discharge seasonal runoff to the valley floor. The largest of these, from north to south, are Combs Canyon, Vicee Canyon and Voltaire Canyon. Though streamflow persists throughout the year in the upper reaches of Vicee Canyon, it generally infiltrates into the upper alluvium and only occasionally reaches the valley floor. The channels in both Combs Canyon and Voltaire Canyon are ephemeral drainages.

Table 1
USGS Stream Flow Measurements

USGS Site Number	USGS Site Name	Location	Elevation (in feet)	Period of Record	Annual Runoff (Calendar Year 2007)	Annual Runoff (Water Year 2008)	Average Water Year Runoff
10311200	Ash Canyon Creek Near Carson City, NV	NW1/4 SW1/4 of sec. 12, T.15N., R.19E.	5,080	July 1976 - present	2,140 af	2,070 af	2,610 af
10311090	North Fork Kings Canyon Creek Near Carson City, NV	NE1/4 NW1/4 of sec.23, T.15N., R.19E.	5,530	March 1989 - present	228 af	221 af	404 af
10311100	Kings Canyon Creek Near Carson City, NV	NE1/4 NE1/4 of sec.23, T.15N., R.19E.	5,180	June 1976 - present	260 af	307 af	890 af
10311300	Eagle Valley Creek At Carson City, NV	SE1/4 NW1/4 of sec.15, T.15N. R.20E.	4,620	January 1985 - present	598 af	1,030 af	2,340 af
10310500	Clear Creek Near Carson City, NV	NE1/4 NW1/4 of sec.1, T.14N., R.19E.	5,000	1948 - 1981 (intermittently) and January 1989 - present	2,740 af	2,500 af	3,940 af

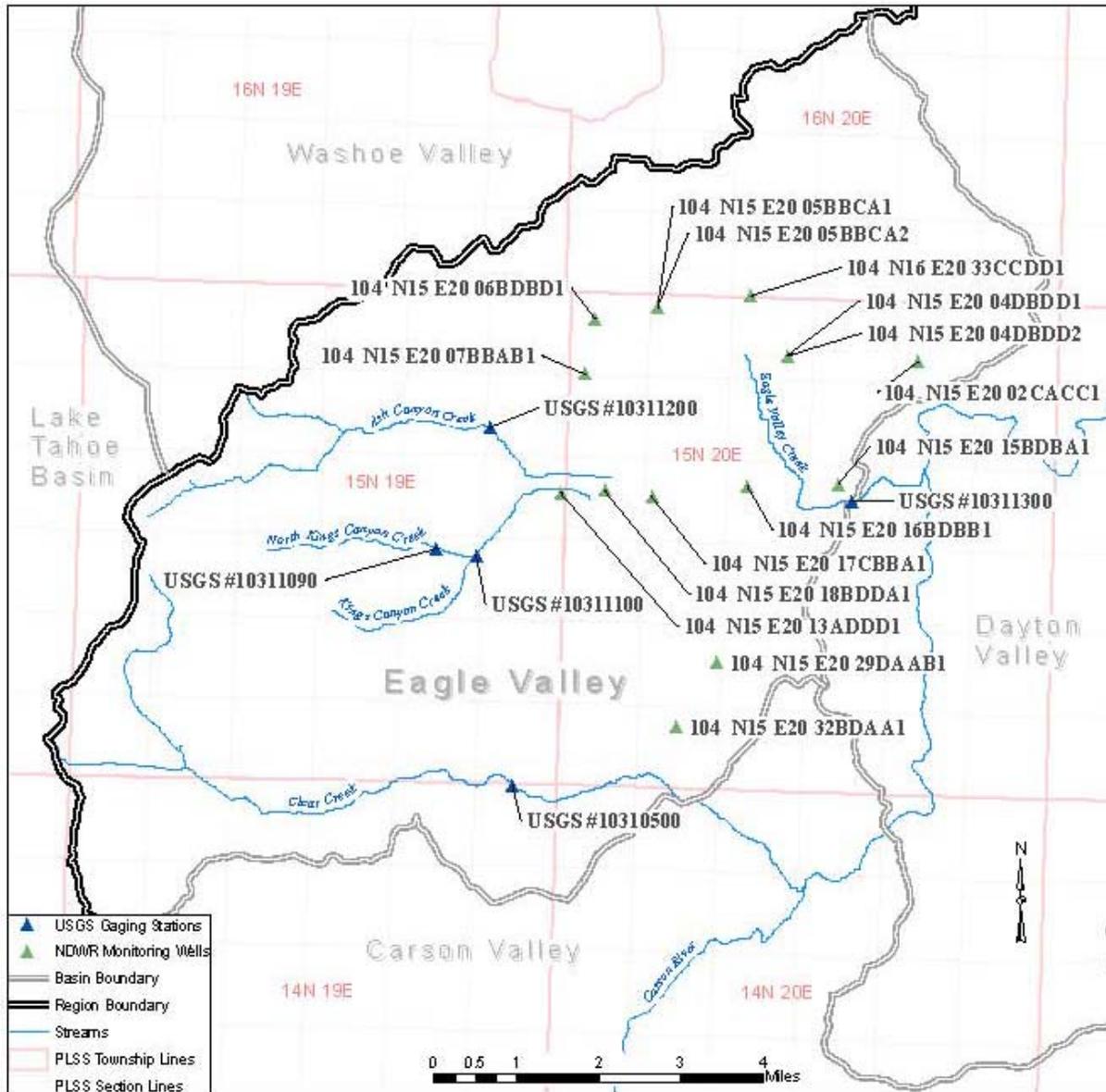
*Runoff values are in acre-feet (af)

Springs

There are many springs located in the mountains bounding Eagle Valley, particularly in the Carson Range. The discharge from the larger springs, or spring complexes, is collected and utilized for domestic use, irrigation, municipal and quasi-municipal supply, and stockwater purposes. The discharge from most of the smaller springs does not travel a significant distance from the source.

There are also numerous springs on the valley floor, the majority of which are associated with a northeast - southwest trending fault. The largest of these springs are the Carson Hot Springs and the Steinheimer Springs. The Carson Hot Springs are located in NE1/4 SE1/4 of section 5, T.15N., R.20E. Worts and Malmberg (1966, p. 30) reported the discharge to be approximately 60 gallons per minute with a water temperature of about 120° F. The water is used for mineral baths at the hot springs resort, and then allowed to drain to wetland areas south and east of the source. The Steinheimer Springs are located in the NW1/4 SE1/4 of section 8, T.15N., R.20E. Worts and Malmberg reported the discharge to be approximately 50 gallons per minute and the water temperature at about 60° F. At the time of this report, discharge from the Carson Hot Springs is comparable to the Worts and Malmberg data. Discharge from the Steinheimer Springs appears to be reduced. Sub-urban development in the area of the spring

Figure 2
Gaging and Monitoring Well Location Map of Eagle Valley Hydrographic Basin 8-104



has obscured the source. A number of residences in the vicinity of the spring have sump pumps which remove water from beneath the houses to the city storm drain system and a portion of the discharge flows to a designated wet land area, east of the source (Kelly Hale, Carson city Public Works, December 18, 2009, written communication).

Groundwater Levels

Depths to groundwater in Eagle Valley have been measured by the Nevada Division of Water Resources consistently since the mid 1970's. There are fifteen sites in the monitoring well

network. The following are the site names and links to the data (refer to Figure 2 for monitoring well locations):

104 N15 E20 02CACCI	104 N15 E20 04DBDD1	104 N15 E20 04DBDD2
104 N15 E20 05BBCA1	104 N15 E20 05BBCA2	104 N15 E20 06BDBD1
104 N15 E20 07BBAB1	104 N15 E20 13 ADDD1	104 N15 E20 15BDDBA1
104 N15 E20 16BDBB1	104 N15 E20 17CBBA1	104 N15 E20 18BDDBA1
104 N15 E20 29DAAB1	104 N15 E20 32BDAA1	104 N16 E20 33CCDD1

Groundwater level data are also collected by the USGS and the Carson City Public Works Department. The USGS data may be accessed through the USGS website (<http://water.usgs.gov>).

IMPORTED WATER

Carson City Utilities (Utility) is the primary water purveyor in Eagle Valley. The Utility uses both surface and groundwater resources within the basin to meet the municipal supply demand. The Utility also imports water from neighboring hydrographic basins for use within its service area, which extends into the neighboring basins as well. These importations include both surface water and groundwater. Surface water is imported from the Lake Tahoe Basin and Washoe Valley via the Marlette / Hobart system; and from the Carson River in Dayton Valley by two induction wells. Groundwater wells located in Carson, Dayton and Washoe Valleys are also used within the system.

The Marlette / Hobart system was originally constructed in the 19th century to meet the water needs of Virginia City. The system continues to supply water to Virginia City, as well as Carson City. The system takes water from Marlette Lake, within the Lake Tahoe Basin, and delivers it to Hobart Reservoir, located in Washoe Valley (See Figure 1). From Hobart, water is delivered by pipeline to Carson City. This water is blended with water from Ash Canyon and North Kings Canyon Creeks, treated, and then delivered to the municipal supply system. During water year 2008, Carson City received **863 acre-feet** of water from the Marlette / Hobart system.

The Utility operates two induction wells located within the Carson River flood plain in Dayton Valley. The wells are located in section 14, T.15N., R.20E., just east of the Eagle Valley and Dayton Valley basin boundary. The source of the water delivered by these wells is the Carson River. During water year 2008, **1,909 acre-feet** of water were pumped from the induction wells. Between the Marlette / Hobart system and the induction wells, a total of **2,772 acre-feet** of surface water was imported for use within the service area of the Utility.

Groundwater wells in Carson, Dayton and Washoe Valleys are used by the Utility to supplement production from sources within Eagle Valley. During water year 2008, **569 acre-feet** were imported from Carson Valley, **1,705 acre-feet** from Dayton Valley, and **zero acre-feet** from Washoe Valley, totaling 2,275 acre-feet of groundwater imported for use within the service area of the Utility.

In summary, a total of 5,046 acre-feet of surface water and groundwater were imported for use within the Utility service area during water year 2008.

RECHARGE, STORAGE AND RECOVERY PROGRAM

Carson City Public Works operates a Recharge Storage and Recovery Program in Eagle Valley. This project is associated with the Nevada State Engineer's Recharge Permit R-004. The recharge permit was issued September 13, 1990 and allows for the recharge of up to 700 acre-feet per year of surface water imported to the Eagle Valley ground water basin from the Lake Tahoe and Washoe Valley hydrographic basins via the Marlette / Hobart system.

Water to be recharged is delivered to the Vicee Canyon drainage channel by pipeline, approximately two miles upstream of the canyon mouth. This water is added to the natural flow within the canyon. A portion of the water infiltrates the streambed, and the amount which reaches the canyon mouth is impounded and infiltrated in rapid infiltration basins. During water year 2008, about 146 acre-feet of water from the Marlette / Hobart system was released to the Vicee Canyon drainage under Permit R-004 (Arnold, 2000).

EFFLUENT

The Carson City Department of Public Works operates a wastewater treatment plant in eastern Eagle Valley, near the basin outlet. The plant is located in the NW1/4 SW1/4 of section 15, T.15N., R.20E. and treats domestic and industrial wastewater received from sewer connections within the Carson City Utilities service area. Though sewer and water connection data were not readily available for 2008, in October 2009, there were 15,413 sewer connections and 16,830 connections for water service, 14,478 of which were for residential use (Carson City Department of Public Works, December 2009, personal communication).

During much of the year, treated effluent is pumped from the plant to various locations and used for irrigation. When demand is low, the effluent is pumped to a storage reservoir in Brunswick Canyon, about three miles east of the facility. Use of the effluent for irrigation is authorized by the Nevada State Engineer under secondary permits issued under Permits 25727 and 30450; and by the Nevada Division of Environmental Protection under Permit NEV90008. Within Eagle Valley, the effluent is applied for irrigation of golf courses, sports fields, landscaping for cemeteries, several street medians and the treatment plant. Effluent is also delivered to users in Carson and Dayton Valleys. For water year 2008, a total of 1,752 acre-feet of effluent were used for irrigation purposes within Eagle Valley, 1,376 acre-feet in Carson Valley and 909 acre-feet in Dayton Valley (Dennis Maple, Carson City Public Works, 2009, written communication).

METHODS TO ESTIMATE PUMPAGE

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

- Where totalizing meters are in place, meter readings were taken and compared with previous data (if available).

- Where meters are not in place and the use was irrigation, use was estimated by multiplying the number of hours the well was operated during the year (determined from hour meter readings or questioning the water user) by the certificated diversion rate (if the water right is perfected); or, the number of acres under cultivation (determined by inspection) multiplied by a duty of four acre-feet per acre.
- Where meters are not present, previous data were not available and the manner of use was not irrigation, use was estimated by applying the annual duty associated with the certificate (if the water right was perfected), permit or claim, if the use was as described in the certificate, permit or claim. If the use was not as described in the certificate, permit or claim, a value was estimated based upon the circumstances of use for the subject year.
- If no water was used under the certificate, permit or claim, zero use was recorded.
- Carson City Utilities (Utility) is the primary water purveyor in Eagle Valley. The Utility provides the Nevada Division of Water Resources with monthly pumping totals on a quarterly basis, as a condition of permits under which the water is appropriated. These data were used to determine the amount pumped under the rights held by the Utility.

PUMPAGE BY MANNER OF USE

Note that all data herein are estimates and are subject to revision. The total estimated groundwater pumpage for water year 2008 was 7,213 acre-feet. The annual duties of the certificates, permits and claims of vested right within the Eagle Valley hydrographic basin totaled 7,958 acre-feet. The appropriated and actually pumped totals, categorized by manner of use, were as follows:

A. Commercial and Industrial (COM & IND)

During water year 2008, appropriations for commercial and industrial purposes totaled 62 acre-feet in the basin. An estimated 24 acre-feet of groundwater were pumped during water year 2008.

B. Environmental (ENV)

During water year 2008, appropriations for environmental purposes totaled 385 acre-feet in the basin. These appropriations are temporary in nature and are issued for site remediation of contaminated groundwater. The environmental permits are issued under the authority granted by Nevada Revised Statutes (NRS) 533.4375, in conjunction with remediation action ordered by the Nevada Division of Environmental Protection. The groundwater is extracted, treated and either re-injected or discharged to the city storm drain system. An estimated 15 acre-feet of groundwater were pumped during water year 2008.

C. Irrigation (IRR)

During water year 2008, appropriations for irrigation purposes totaled 390 acre-feet in the basin. An estimated 28 acre-feet of groundwater were pumped for irrigation purposes during water year 2008.

D. Municipal and Quasi-Municipal (MUN & QM)

During water year 2008, appropriations for municipal and quasi-municipal totaled 7,112 acre-feet in the basin. An estimated 6,223 acre-feet of groundwater were pumped during water year 2008. Carson City is the largest water purveyor in the valley and reports its monthly pumping totals quarterly. The reported values are used in this report.

Under extraordinary circumstances, the amount of groundwater Carson City may pump in a given year may be allowed to exceed the total of its groundwater rights. State Engineer's Order 1140 provides that Carson City may pump up to "...a maximum of 11,700 acre-feet from Eagle Valley for a one year period, provided the average groundwater pumped from Eagle Valley over a period of five consecutive drought years will not exceed 9,900 acre-feet annually." A drought year for the Carson River Basin is defined as a water year which receives 70 percent, or less, of the average annual precipitation, measured as of April 1st of that year, and reported by the U.S. Department of Agriculture, Natural Resources Conservation Service.

E. Other (OTH)

During water year 2008, appropriations under this manner of use totaled 2 acre-feet in the basin. No groundwater was pumped under this manner of use during water year 2008.

F. Stock (STK)

During water year 2008, appropriations for stockwater totaled 7 acre-feet in the basin, and an estimated 1 acre-foot was pumped.

G. Domestic (DOM)

During water year 2008, appropriations for domestic purposes totaled 0 acre-feet in the basin. However, private, individual domestic wells may be drilled and utilized where water service from a purveyor is not available. These wells do not require a permit from the State Engineer. This category of domestic use is defined by the Nevada Revised Statutes (NRS) 534.013 as follows: "Domestic use or domestic purposes extends to culinary and household purposes directly related to a (1) single family dwelling; and (2) An accessory dwelling unit for a single-family dwelling if provided for in an applicable local ordinance, including, without limitation, the watering of a family garden and lawn and the watering of livestock and any other domestic animals or household pets, if the amount of water drawn does not exceed the maximum amount set forth in NRS 534.180.." The maximum draw of water provided by NRS 534.180 for a domestic well as described by 534.013, is two acre-feet annually.

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. Actual domestic well pumpage is not known. As a reference, Carson City delivered a total of 13,942 acre-feet of surface and groundwater to 16,830 customers, 14,478 of which were residential customers. Average delivery was less than 1 acre foot per residence. Because homes with domestic wells are on larger parcels, on average, that those using municipal service, it is estimated that water use is somewhat greater as well. Records of the State Engineer indicate approximately 922 domestic wells

existed in the valley during water year 2008. This totals a draw of 922 acre-feet used by privately owned domestic wells.

Note: The values associated with the committed groundwater resources represent the status for the time frame stated. Manner of use category totals vary over time, as water rights are not static. Rights may be subject to change applications, certification, cancellations, forfeitures, withdrawals, as well as other administrative action. Each of these would potentially impact the duty, diversion rate, place and manner of use of a water right.

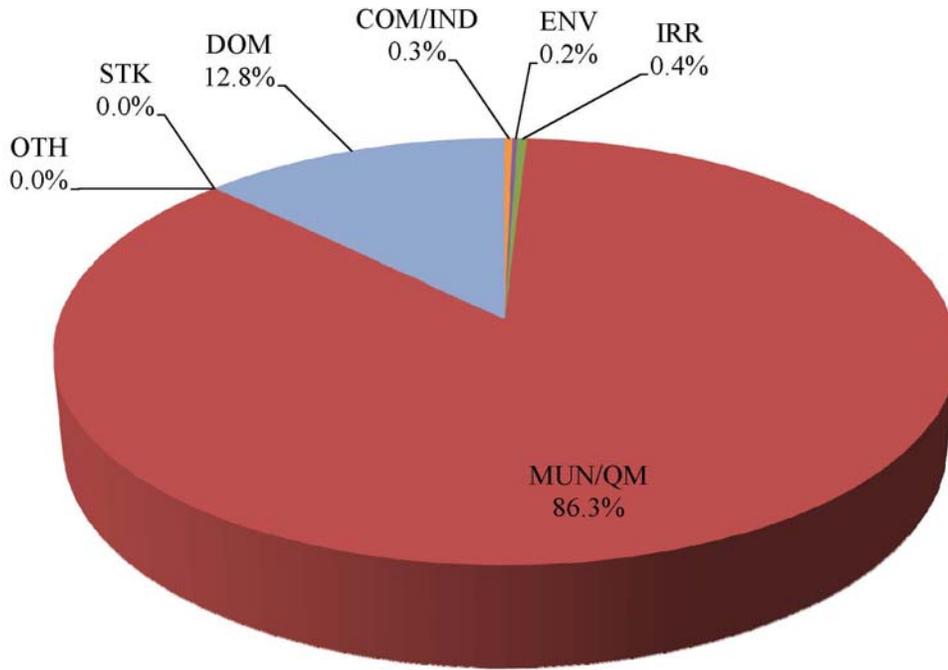
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- Worts , G.F., Jr. and Malmberg, G.T., 1966, Hydrologic appraisal of Eagle Valley, Ormsby County, Nevada: Nevada Department of Conservation and Natural Resources, Water Resources - Reconnaissance Report 39, P 30.

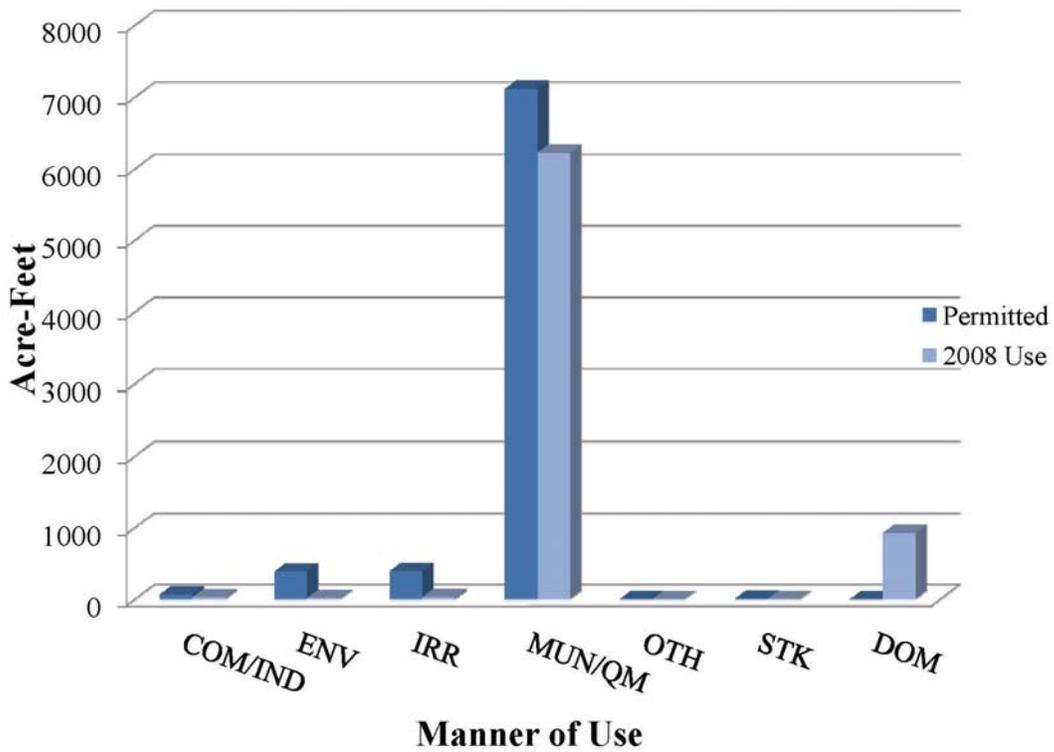
APPENDIX A

**EAGLE VALLEY GROUNDWATER PUMPAGE FOR WATER YEAR 2008
BY MANNER OF USE**

**PERCENTAGE OF GROUNDWATER PUMPAGE WATER YEAR 2008
BY MANNER OF USE**



GROUNDWATER PUMPAGE WATER YEAR 2008 PERMITTED vs. ACTUAL USAGE



APPENDIX B

**EAGLE VALLEY GROUNDWATER PUMPAGE FOR WATER YEAR 2008
BY APPLICATION NUMBER**

**Explanation of Column Headings for Groundwater Pumpage
by Permit Number**

APP NO.	The file number of the Application to Appropriate/Change Water or the Vested Claim of Right.
STATUS	Indicates if the application is a Vested Claim of Right (VST), 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 MUN - Municipal ENV - Environmental OTH - Other IND - Industrial QM - Quasi-Municipal IRR - Irrigation STK - Stock
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 2008, 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 RR - Reservoir Ravine Creek KC - Kings Canyon Creek SPR - Spring
SUPP GW APP NO.	The file number(s) of any supplemental ground water appropriations.

APP NO.	STATUS	MOU	OWNER OF RECORD	QQ	QTR	SEC	T	R	PER ACRES IRR	DUTY (AF)	SUPP ADJ	DUTY USED	UNIT	SUPP SRC	SUPP GW APP NO.
V02449	VST	STK	ANDERSON, D.A.	SW	SE	7	15N	20E		2.79	2.79	0.00	AFA		
V02518	VST	IRR	ALLEN, ROBERT A.	NW	NE	18	15N	20E	1.3	5.20	5.20	1.00	AFA		
V02780	VST	IRR	CARRINGTON, EDME H.	SE	NE	18	15N	20E	0.5	2.00	2.00	1.20	AFA		
V02785	VST	STK	NEWMAN CONSTRUCTION LTD.	SE	SW	7	15N	20E		1.87	1.87	0.00	AFA		
V03704	VST	STK	LOMPA, EVA	NE	SW	16	15N	20E		2.24	2.24	1.00	AFA		
V09127	VST	COM	HONE, DOUGLAS K.	SE	NW	10	15N	20E		0.00	0.00	0.31	AFA		
8961	2492	IRR	CONSOLIDATED CONSTRUCTION CORP.	SE	NE	7	15N	20E	10.84	39.00	39.00	0.40	AFA		
12279	4709	QM	J.D.S. CORPORATION	SE	SE	31	15N	20E		11.29	11.29	0.00	AFA		
12994	3504	IRR	TURMAN, ELIZABETH W. CROZER	NE	SW	18	15N	20E	54.20	216.80	216.80	0.00	AFA	UG/KC	12995
12995	3505	IRR	TURMAN, ELIZABETH W. CROZER	NW	SE	18	15N	20E	54.20	216.80	0.00	0.00	AFA	UG/KC	12994
15313	5076	COM	MARTIN, MARYBELLE M.	SW	NW	29	15N	20E		4.36	4.36	1.04	AFA		
15880	5499	IRR	JOOST, HERMAN	SE	SW	7	15N	20E	17.89	48.38	48.38	0.48	AFA	RR	
17881	4965	OTH	NEVADA NATIONAL GUARD	SW	SW	20	15N	20E		2.24	2.24	0.00	AFA		
17899	5379	IRR	LIPPINCOTT, CLYDE R.	NE	NW	5	15N	20E	1.00	4.00	4.00	4.00	AFA		
18535	5184	COM	CARSON CITY	NE	NE	31	15N	20E		8.59	13.96	0.00	AFA		
18536	5185	COM	CARSON CITY	NE	NE	31	15N	20E		5.37	0.00	0.00	AFA		
19044	6208	QM	SIERRA ESTATES G.I.D.	NW	SW	6	14N	20E		33.88	78.41	0.00	AFA	UG	20935, 53822
20702	7841	COM	NEWMAN, PATRICIA M.	SW	NW	29	15N	20E		5.37	5.37	5.70	AFA		
20935	6209	QM	SIERRA ESTATES G.I.D.	NW	SW	6	14N	20E		33.88	0.00	0.00	AFA	UG	19044, 53822
21258	6707	COM	FULLER, WILLIAM S.	NW	NW	11	15N	20E		9.57	9.57	1.00	AFA		
23672	6471	MUN	CARSON CITY	NE	SE	12	15N	20E		119.99	6696.39	119.99	AFA	UG	*
23673	6472	MUN	CARSON CITY	NE	SE	12	15N	19E		1268.98	0.00	1309.20	AFA	UG	*
23727	7646	QM	STATE OF NEVADA	SE	SE	33	15N	19E		50.67	50.67	2.97	AFA	UG	23728
23728	7647	QM	STATE OF NEVADA	SW	SW	34	15N	19E		50.67	0.00	0.46	AFA	UG	23727
24462	7734	QM	FISCHER, ALBERT J.	SE	NW	5	15N	20E		26.79	26.79	5.05	AFA	UG	24463
24463	7735	QM	FISCHER, ALBERT J.	SE	NW	5	15N	20E		26.79	0.00	15.00	AFA	UG	24462
24986	7366	MUN	CARSON CITY	SE	SE	17	15N	20E		806.51	0.00	0.00	AFA	UG	*
25667	9866	MUN	CARSON CITY	SE	SE	7	15N	20E		470.22	0.00	289.94	AFA	UG	*
25728	9583	QM	NORTH CARSON STREET, LLC	NE	SW	8	15N	20E		72.95	73.44	38.07	AFA	UG	40786
25987	9868	COM	PARKER, BENJAMIN LANCASTER	SW	SE	36	16N	20E		10.37	10.37	2.31	AFA	UG	
26297	8813	QM	WESTERN SUN, LLC	NW	SE	17	15N	20E		4.57	4.57	6.66	AFA		
26453	8865	IND	PEDERSON, BJARNE A.	NW	NW	11	15N	20E		0.40	0.40	0.40	AFA		
26581	9622	MUN	CARSON CITY	NE	SE	6	15N	20E		407.24	0.00	142.52	AFA	UG	*
26582	9623	MUN	CARSON CITY	SE	NE	12	15N	19E		1178.15	0.00	472.34	AFA	UG	*
26821	8948	COM	POZZI MOTOR COMPANY	NW	SW	29	15N	20E		0.43	0.43	0.18	AFA		
26822	9260	IRR	INTERNATIONAL FEED IMPROVEMENT ASSOC	NW	SW	1	15N	20E	10.00	9.26	9.26	3.22	AFA		
26886	9164	COM	WEIR, DONALD V.	NW	SW	29	15N	20E		0.86	0.86	1.66	AFA		
26943	9423	QM	GARICOITZ FAMILY TRUST	SE	SE	31	15N	20E		19.37	19.37	0.00	AFA	UG	26944
26944	9429	QM	GARICOITZ FAMILY TRUST	SE	SE	31	15N	20E		19.37	0.00	0.00	AFA	UG	26943
26945	8761	COM	FIXMER, E. J.	SE	SE	31	15N	20E		0.64	0.64	0.60	AFA		
26985	9428	COM	HARRINGTON, J. P.	SE	SW	2	15N	20E		0.18	0.18	0.18	AFA		
27012	8393	COM	WELLS, LEON D.	SW	SE	16	15N	20E		0.37	0.37	0.67	AFA		
27014	9869	COM	BRANSTETTER, CHAS. H.	SW	NW	29	15N	20E		0.64	0.64	0.00	AFA		
27063	8406	COM	WESTERN INSPIRATIONAL BROADCASTERS	NW	SW	1	15N	20E		0.18	0.18	0.42	AFA		
27076	8783	COM	MELLOW, JERRY A.	SW	SE	2	15N	20E		1.01	1.01	0.40	AFA		
27095	9070	COM	EUSE, CHERYL RUPP MANN	SE	SE	6	15N	20E		1.10	1.10	0.45	AFA		
27164	8828	COM	PECORILLA, ANGELO	SE	NE	31	15N	20E		1.10	1.10	0.24	AFA		
27215	10456	QM	ROBERTS, FRED L.	SW	NW	29	15N	20E		2.55	2.55	1.00	AFA		
27314	9871	MUN	CARSON CITY	SE	NW	29	15N	20E		465.34	0.00	263.71	AFA	UG	*
27320	9872	MUN	CARSON CITY	NW	NW	32	15N	20E		218.66	0.00	238.37	AFA	UG	*
27373	8830	IND	DENTON, DONALD F.	NW	SW	1	15N	20E		0.12	1.23	0.00	AFA	UG	29434
27476	9748	IRR	WADE, BERT A.	NW	SW	35	15N	19E	1.06	2.12	2.12	2.12	AFA		
27477	9749	IRR	DOUD, RICHARD M.	NW	SW	35	15N	19E	3.32	6.32	6.32	2.00	AFA		

APP NO.	STATUS	MOU	OWNER OF RECORD	QQ	QTR	SEC	T	R	PER ACRES IRR	DUTY (AF)	SUPP ADJ	DUTY USED	UNIT	SUPP SRC	SUPP GW APP NO.
27666	9072	IRR	COWPERTHWAIT, JOSEPHINE G.	NE	SW	7	15N	20E	1.24	4.48	4.48	0.22	AFS		
27822	9209	COM	RUTLEDGE, RALPH A.	SW	NW	29	15N	20E		0.71	0.71	2.17	AFA		
27857	9195	IRR	COTTONWOOD MOBILE HOME PARK INC.	NW	NW	5	15N	20E	5.50	11.00	11.00	10.93	AFA		
29002	9904	MUN	CARSON CITY	NW	SE	17	15N	20E		809.76	0.00	354.33	AFA	UG	*
29434	9695	IND	DENTON, DONALD F.	NW	SW	1	15N	20E		1.12	0.00	0.40	AFA	UG	27373
29464	9875	QM	LINDSEY, SUSAN	NE	NW	28	15N	20E		2.03	2.03	2.02	AFA		
29802	13660	QM	ALLEN, EMMA	SE	NE	31	15N	20E		1.72	1.72	1.54	AFA		
29906	9635	MUN	CARSON CITY	SE	SE	1	15N	19E		1219.37	0.00	561.56	AFA	UG	*
29960	9876	IND	NAFCO INDUSTRIES INC	NW	SE	36	16N	20E		0.15	0.15	0.25	AFA		
30167	9877	IND	DESERT ENTERPRISES	SE	SE	2	15N	20E		0.15	0.15	0.15	AFA		
30299	10611	COM	NORTON, GUERIN A., JR.	NW	SE	36	16N	20E		0.55	0.55	0.31	AFA		
30441	9878	MUN	CARSON CITY	SE	SE	1	15N	19E		1462.93	0.00	0.00	AFA	UG	*
34088	11291	COM	MATTHEUS, H. E.	NW	NE	6	15N	20E		0.25	0.25	0.97	AFA		
34808	PER	QM	EAGLE VALLEY CHILDREN'S HOME (DBA)	SW	SW	31	16N	20E		21.48	21.48	2.23	AFA	SPR	
34842	11227	COM	ACME MOBILE CONCRETE	NW	SW	1	15N	20E		1.29	1.29	0.35	AFA		
35219	10143	COM	INVESTORS ENTERPRISE ASSOCIATION	NW	NW	32	15N	20E		0.06	0.06	0.06	AFA		
35255	11032	COM	PICK N PULL	NW	SE	36	16N	20E		1.12	1.12	0.48	AFA		
35637	9405	COM	DOSSEY, L. J. JR.	SE	SE	2	15N	20E		3.28	3.28	1.21	AFA		
35826	14651	COM	INTRNATNL. CHURCH OF 4 SQUARE CHURCH	NW	SE	6	14N	20E		0.80	0.80	1.50	AFA		
36083	PER	MUN	CARSON CITY	NE	NE	2	15N	19E		723.95	0.00	21.22	AFA	UG	*
36084	PER	MUN	CARSON CITY	NW	SW	36	16N	19E		136.84	0.00	0.00	AFA	UG	*
39393	14012	COM	SNELLING, HARRIE H.	SE	SW	31	15N	20E		1.04	1.23	0.93	AFA	UG	59843
40786	13923	QM	NORTH CARSON STREET, LLC	NE	SW	8	15N	20E		0.49	0.00	0.21	AFA	UG	25728
42725	13870	COM	HARRY W AND EILEEN M FERGUSON	NW	SE	36	16N	20E		0.43	0.43	0.11	AFA		
47704	PER	MUN	CARSON CITY	SE	SE	2	15N	20E		901.34	0.00	65.63	AFA	UG	*
48275	CAN	QM	LANDS DIVISION - NEVADA	SW	SE	32	15N	20E		0.00	0.00	38.21	AFA		
48542	PER	MUN	CARSON CITY	NE	NE	17	15N	20E		1176.00	0.00	114.92	AFA	UG	*
49953	14842	IRR	GOLD LOCK CORPORATION	NW	SE	6	15N	20E	1.91	5.30	5.30	2.02	AFA		
50893	PER	MUN	BUILDINGS AND GROUNDS DIVISION	NE	SW	17	15N	20E		61.00	61.00	0.00	AFA		
51278	14288	QM	THE LEPIRE TRUST OF 1977	SE	SE	31	15N	20E		0.55	14.33	1.18	AFA	UG	51279
51279	14289	QM	VIDLER WATER COMPANY AND CARSON CITY	NE	SE	31	15N	20E		13.78	0.00	0.00	AFA	UG	51278
52239	PER	MUN	CARSON CITY	NE	NW	11	15N	20E		34.00	0.00	0.00	AFA	UG	*
52584	PER	ENV	MALLORY, INC.	SE	NW	20	15N	20E		32.29	32.29	2.65	AFA		
53822	PER	QM	SIERRA ESTATES G.I.D.	NW	SW	6	14N	20E		78.41	0.00	54.23	AFA	UG	19044, 20935
54110	PER	ENV	MALLORY, INC.	SW	NE	20	15N	20E		9.39	9.39	0.00	AFA		
54111	PER	ENV	MALLORY, INC.	SW	NE	20	15N	20E		9.39	9.39	0.00	AFA		
54112	PER	ENV	MALLORY, INC.	SW	NE	20	15N	20E		9.39	9.39	2.65	AFA		
54113	PER	ENV	MALLORY, INC.	SW	NE	20	15N	20E		9.39	9.39	0.00	AFA		
54114	PER	ENV	MALLORY, INC.	SW	NE	20	15N	20E		9.39	9.39	0.00	AFA		
54115	PER	ENV	MALLORY, INC.	SW	NE	20	15N	20E		9.39	9.39	0.00	AFA		
54116	PER	ENV	MALLORY, INC.	SW	NE	20	15N	20E		9.39	9.39	0.00	AFA		
54117	PER	ENV	MALLORY, INC.	NE	NE	20	15N	20E		9.39	9.39	0.00	AFA		
54118	PER	ENV	MALLORY, INC.	NW	NE	20	15N	20E		9.39	9.39	0.00	AFA		
54119	PER	ENV	MALLORY, INC.	NW	NE	20	15N	20E		9.39	9.39	0.00	AFA		
54120	PER	ENV	MALLORY, INC.	NW	NE	20	15N	20E		9.39	9.39	0.00	AFA		
57186E	PER	ENV	TEXACO REFINING & MARKETING INC.	SW	NW	17	15N	20E		16.14	16.14	0.00	AFA		
57187E	PER	ENV	TEXACO REFINING & MARKETING INC.	NW	NW	20	15N	20E		16.14	16.14	0.00	AFA		
57407E	PER	ENV	ARCO PRODUCTS COMPANY	SW	SW	17	15N	20E		65.15	65.15	0.00	AFA		
57541	PER	IRR	DOUGLAS COUNTY	NE	SW	16	15N	20E	8.139	32.50	32.50	0.00	AFA		
57898E	PER	ENV	PDQ FOOD STORES OF NEVADA INC.	NW	SW	16	15N	20E		16.14	32.28	0.00	AFA	UG	58128E
58128E	PER	ENV	PDQ FOOD STORES OF NEVADA INC.	SW	SW	16	15N	20E		16.14	0.00	0.00	AFA	UG	57898E
58737	14423	IRR	LIPPINCOTT FARMS	NW	NE	32	15N	20E	0.25	1.00	1.00	0.30	AFA		
58952	14424	IRR	SINNOTT, DAWN E	SW	NE	32	15N	20E	0.75	3.00	3.00	0.00	AFA		

APP NO.	STATUS	MOU	OWNER OF RECORD	QQ	QTR	SEC	T	R	PER ACRES IRR	DUTY (AF)	SUPP ADJ	DUTY USED	UNIT	SUPP SRC	SUPP GW APP NO.
59226	PER	MUN	CARSON CITY	NW	NE	26	15N	20E		401.07	0.00	199.79	AFA	UG	*
59599E	PER	ENV	CARSON CITY HEALTH DEPARTMENT	NW	SE	17	15N	20E		9.70	9.70	0.00	AFA		
59600E	PER	ENV	CARSON CITY HEALTH DEPARTMENT	NW	SE	17	15N	20E		9.70	9.70	0.00	AFA		
59827	PER	MUN	CARSON CITY	NW	NE	29	15N	20E		5.60	0.00	0.00	AFA	UG	*
59843	16057	COM	SNELLING, HARRIE H.	SE	SW	31	15N	20E		0.18	0.00	0.00	AFA	UG	39393
60122E	PER	ENV	SOUTHLAND CORPORATION			9	15N	20E		13.03	13.03	0.00	AFA		
60831	PER	MUN	CARSON CITY WATER UTILITY	NE	NW	7	15N	20E		163.62	0.00	86.87	AFA	UG	*
60832	PER	MUN	CARSON CITY WATER UTILITY	NE	NW	7	15N	20E		1.95	0.00	0.00	AFA	UG	*
60833	PER	MUN	CARSON CITY WATER UTILITY	NE	NW	7	15N	20E		40.30	0.00	0.00	AFA	UG	*
60834	PER	MUN	CARSON CITY WATER UTILITY	NE	NW	7	15N	20E		723.90	0.00	0.00	AFA	UG	*
61487	PER	MUN	CARSON CITY	NE	SE	12	15N	19E		81.60	0.00	81.60	AFA	UG	*
61505	PER	MUN	CARSON CITY	NE	SE	12	15N	19E		800.00	0.00	0.00	AFA	UG	*
61506	PER	MUN	CARSON CITY	SE	NE	12	15N	19E		800.00	0.00	0.00	AFA	UG	*
61507	PER	MUN	CARSON CITY	SE	SE	1	15N	19E		800.00	0.00	0.00	AFA	UG	*
61508	PER	MUN	CARSON CITY	NE	NW	7	15N	20E		800.00	0.00	0.00	AFA	UG	*
62402	PER	QM	USFS	NW	SW	6	14N	19E		1.23	1.23	1.23	AFA		
62639E	PER	ENV	CARSON CITY	NW	SE	17	15N	20E		1.00	1.00	0.00	AFA		
63262E	PER	ENV	WELLS FARGO BANK	SW	NW	17	15N	20E		16.14	16.14	0.00	AFA		
63499E	PER	ENV	MALLORY, INC.	SE	NW	20	15N	20E		16.10	16.10	2.65	AFA		
64042	PER	QM	DOUGLAS COUNTY	NW	SE	6	14N	20E		3.00	3.00	0.45	AFA		
66708	PER	MUN	CARSON CITY	NW	NW	18	15N	20E		235.90	0.00	220.19	AFA	UG	*
66709	PER	MUN	CARSON CITY	NW	NW	18	15N	20E		50.66	0.00	0.00	AFA	UG	*
66926	PER	ENV	BERRY HINCKLY INDUSTRIES	SW	SW	9	15N	20E		32.59	32.59	0.00	AFA		
68758	PER	MUN	CONSOLIDATED MUNICIPALITY OF CARSON	SE	SW	17	15N	20E		2.07	0.00	2.07	AFA	UG	*
69042	PER	MUN	CARSON CITY	NW	SW	7	15N	20E		34.00	0.00	0.00	AFA	UG	*
69043	PER	MUN	CARSON CITY	SE	SW	7	15N	20E		34.00	0.00	0.00	AFA	UG	*
69344	PER	MUN	CARSON CITY WATER UTILITY	SE	SW	17	15N	20E		181.00	0.00	176.09	AFA	UG	*
69346	PER	MUN	CARSON CITY	SE	SW	17	15N	20E		5.12	0.00	0.00	AFA	UG	*
70521	PER	MUN	CARSON CITY	SW	SE	31	15N	20E		15.93	0.00	0.00	AFA	UG	*
70522	PER	MUN	CARSON CITY	SW	SE	31	15N	20E		94.00	0.00	0.00	AFA	UG	*
70662	RFA	MUN	CARSON CITY	SE	NE	18	15N	20E		456.00	0.00	52.41	AFA	UG	*
71674	PER	QM	DOUGLAS COUNTY	NW	NE	6	14N	20E		12.28	43.97	12.28	AFA	UG	α
71675	PER	QM	DOUGLAS COUNTY	NW	NE	6	14N	20E		1.00	0.00	1.00	AFA	UG	α
71676	PER	QM	DOUGLAS COUNTY	NW	NE	6	14N	20E		30.69	0.00	11.70	AFA	UG	α
71678	PER	MUN	CARSON CITY	NW	SW	7	15N	20E		292.60	0.00	641.08	AFA	UG	*
71749	PER	MUN	CARSON CITY	NE	NE	12	15N	19E		292.60	0.00	613.55	AFA	UG	*
72189E	PER	ENV	AHMAD, MOHAMMAD	NW	NW	20	15N	20E		21.72	21.72	6.75	AFA		

*Comingled rights in Carson City Municipal System: 23672, 23673, 24986, 25667, 26581, 26582, 27314, 27320, 29002, 29906, 30441, 36083, 36084, 47704, 48542, 52239, 59226, 59827, 60831, 60832, 60833, 60834, 61487, 61505, 61506, 61507, 61508, 66708, 66709, 68758, 69042, 69043, 69344, 69346, 70521, 70522, 70662, 71678, 71749.

α Douglas County total combined duty permit numbers: 71674, 71675, 71676 = TCD 43.97 AFA

APPENDIX C

**EAGLE VALLEY WATER YEAR 2008 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 or the Vested Claim of Right.
STATUS	Indicates if the application is a Vested Claim of Right (VST), 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 2008, 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), KC (Kings Canyon Creek), or RR (Reservoir Ravine Creek).
SUPP GW APP NO.	The file number of the supplemental ground water appropriation.

APP NO.	STATUS	OWNER OF RECORD	QQ	QTR	SEC	T	R	PER ACRES	PER IRR ACRES 2008	SUPP ACRES	SUPP SOURCE	SUPP GW APP NO.
V02518	VST	ALLEN, ROBERT A.	SW	NW	17	15N	20E	0.30	0.00			
			SE	NE	18	15N	20E	1.00	0.50			
						Total:		1.30	0.50	0.00		
V02780	VST	CARRINGTON, EDME H.	SE	NE	18	15N	20E	0.50	0.50			
						Total:		0.50	0.50	0.00		
8961	2492	CONSOLIDATED CONSTRUCTION CORP.	SE	NE	7	15N	20E	10.84	0.10			
						Total:		10.84	0.10	0.00		
12994	3504	TURMAN, ELIZABETH W. CROZER	NE	SW	18	15N	20E	3.65	0.00	3.65	UG/KC	12995
			NW	SE	18	15N	20E	29.45	0.00	29.45	UG/KC	12995
			SW	SE	18	15N	20E	21.10	0.00	21.10	UG/KC	12995
						Total:		54.20	0.00	54.20		
12995	3505	TURMAN, ELIZABETH W. CROZER	NE	SW	18	15N	20E	3.65	0.00	3.65	UG/KC	12994
			NW	SE	18	15N	20E	29.45	0.00	29.45	UG/KC	12994
			SW	SE	18	15N	20E	21.10	0.00	21.10	UG/KC	12994
						Total:		54.20	0.00	54.20		
15880	5499	JOOST, HERMAN	SE	SW	7	15N	20E	17.89	17.89	17.89	RR	
						Total:		17.89	17.89	17.89		
17899	5379	LIPPINCOTT, CLYDE R.	NE	NW	5	15N	20E	1.00	0.30			
						Total:		1.00	0.30	0.00		
26822	9260	INTERNATIONAL FEED IMPROVEMENT ASSOC	NE	SW	1	15N	20E	3.00	0.00			
			NW	SW	1	15N	20E	7.00	0.00			
						Total:		10.00	0.00	0.00		
27476	9748	WADE, BERT A.	NW	SW	35	15N	19E	1.06	0.50			
						Total:		1.06	0.50	0.00		
27477	9749	DOUD, RICHARD M.	SW	SW	35	15N	19E	0.32	0.00			
			NW	SW	35	15N	19E	3.00	0.50			
						Total:		3.32	0.50	0.00		
27666	9072	COWPERTHWAITTE, JOSEPHINE G.	N2	SW	7	15N	20E	1.24	0.50			
						Total:		1.24	0.50	0.00		
27857	9195	COTTONWOOD MOBILE HOME PARK INC.	NW	NW	5	15N	20E	5.50	5.50			
						Total:		5.50	5.50	0.00		
49953	14842	GOLD LOCK CORPORATION	SW	NE	6	15N	20E	0.30	0.00			
			N2	SE	6	15N	20E	1.61	0.50			
						Total:		1.91	0.50	0.00		
57541	PER	DOUGLAS COUNTY	SW	NE	16	15N	20E		0.00			
			NW	SE	16	15N	20E		0.00			
			NE	SW	16	15N	20E		0.00			
			SE	NW	16	15N	20E		0.00			
						Total:		8.14	0.00	0.00		

APP NO.	STATUS	OWNER OF RECORD	QQ	QTR	SEC	T	R	PER ACRES	PER IRR ACRES 2008	SUPP ACRES	SUPP SOURCE	SUPP GW APP NO.
58737	14423	LIPPINCOTT FARMS	NW	NE	32	15N	20E	0.25	0.00			
							Total:	0.25	0.00	0.00		
58952	14424	SINNOTT, DAWN E	SW	NE	32	15N	20E	0.75	0.00			
							Total:	0.75	0.00	0.00		

APPENDIX D

EAGLE VALLEY HISTORICAL PUMPAGE

APP NO.	STATUS	MOU	OWNER OF RECORD	DUTY USED 2003	DUTY USED 2004	DUTY USED 2005	DUTY USED 2006	DUTY USED 2007	DUTY USED 2008
V02449	VST	STK	ANDERSON, D.A.	0.00	0.00	0.00	0.00	0.00	0.00
V02518	VST	IRR	ALLEN, ROBERT A.	1.00	1.00	1.00	1.00	1.00	1.00
V02780	VST	IRR	CARRINGTON, EDME H.	1.20	1.20	1.20	1.20	1.20	1.20
V02785	VST	STK	NEWMAN CONSTRUCTION LTD.	0.00	0.00	0.00	0.00	0.00	0.00
V03704	VST	STK	LOMPA, EVA	0.27	0.27	1.00	1.00	1.00	1.00
V09127	VST	COM	HONE, DOUGLAS K.	0.31	0.31	0.31	0.31	0.31	0.31
8961	2492	IRR	CONSOLIDATED CONSTRUCTION CORP.	0.40	0.40	0.40	0.40	0.40	0.40
12279	4709	QM	J.D.S. CORPORATION	2.18	2.18	2.00	0.00	0.00	0.00
12994	3504	IRR	TURMAN, ELIZABETH W. CROZER	0.00	0.00	0.00	0.00	0.00	0.00
12995	3505	IRR	TURMAN, ELIZABETH W. CROZER	0.00	0.00	0.00	0.00	0.00	0.00
15313	5076	COM	MARTIN, MARYBELLE M.	1.04	1.04	1.04	1.04	1.04	1.04
15880	5499	IRR	JOOST, HERMAN	0.00	0.00	0.00	0.00	0.00	0.48
17881	4965	OTH	NEVADA NATIONAL GUARD	0.00	0.00	0.00	0.00	0.00	0.00
17899	5379	IRR	LIPPINCOTT, CLYDE R.	4.00	4.00	4.00	4.00	4.00	4.00
18535	5184	COM	CARSON CITY	8.59	8.59	8.59	2.00	2.00	0.00
18536	5185	COM	CARSON CITY	5.37	5.37	5.37	2.00	0.00	0.00
19044	6208	QM	SIERRA ESTATES G.I.D.	0.00	0.00	0.00	0.00	0.00	0.00
20702	7841	COM	NEWMAN, PATRICIA M.	5.70	5.70	5.70	5.70	5.70	5.70
20935	6209	QM	SIERRA ESTATES G.I.D.	0.00	0.00	0.00	0.00	0.00	0.00
21258	6707	COM	FULLER, WILLIAM S.	1.00	1.00	1.00	1.00	1.00	1.00
23672	6471	MUN	CARSON CITY	119.99	119.99	119.99	119.99	119.99	119.99
23673	6472	MUN	CARSON CITY	940.92	1093.28	964.67	947.51	1268.98	1309.20
23727	7646	QM	STATE OF NEVADA	34.26	15.68	18.25	8.37	0.01	2.97
23728	7647	QM	STATE OF NEVADA				5.84	4.02	0.46
24462	7734	QM	FISCHER, ALBERT J.	0.81	1.13	0.16	0.14	0.26	5.05
24463	7735	QM	FISCHER, ALBERT J.	14.05	6.77	1.57	4.23	10.46	15.00
24986	7366	MUN	CARSON CITY	23.03	153.82	72.73	58.45	0.00	0.00
25667	9866	MUN	CARSON CITY	348.12	312.64	137.12	220.63	226.66	289.94
25728	9583	QM	NORTH CARSON STREET, LLC	51.36	44.39	33.23	37.30	38.78	38.07
25987	9868	COM	PARKER, BENJAMIN LANCASTER	3.77	3.65	2.87	3.24	3.44	2.31
26297	8813	QM	WESTERN SUN, LLC	4.72	3.95	4.06	3.49	5.03	6.66
26453	8865	IND	PEDERSON, BJARNE A.	0.38	0.38	0.31	0.40	0.40	0.40
26581	9622	MUN	CARSON CITY	138.08	114.45	104.18	150.59	127.56	142.52
26582	9623	MUN	CARSON CITY	428.29	494.39	536.59	458.48	455.74	472.34
26821	8948	COM	POZZI MOTOR COMPANY	0.31	0.28	0.36	0.41	0.38	0.18
26822	9260	IRR	INTERNATIONAL FEED IMPROVEMENT ASSOC	0.12	0.12	0.12	0.12	2.72	3.22
26886	9164	COM	WEIR, DONALD V.	1.97	1.74	1.38	1.51	2.18	1.66
26943	9423	QM	GARICOITZ FAMILY TRUST	0.00	0.00	0.00	0.00	0.00	0.00
26944	9429	QM	GARICOITZ FAMILY TRUST	0.00	0.00	0.00	0.00	0.00	0.00
26945	8761	COM	FIXMER, E. J.	0.60	0.60	0.60	0.60	0.60	0.60
26985	9428	COM	HARRINGTON, J. P.	0.18	0.18	0.18	0.18	0.18	0.18
27012	8393	COM	WELLS, LEON D.	0.55	0.55	0.55	0.34	0.75	0.67

APP NO.	STATUS	MOU	OWNER OF RECORD	DUTY USED 2003	DUTY USED 2004	DUTY USED 2005	DUTY USED 2006	DUTY USED 2007	DUTY USED 2008
27014	9869	COM	BRANSTETTER, CHAS. H.	0.00	0.00	0.01	0.00	0.00	0.00
27063	8406	COM	WESTERN INSPIRATIONAL BROADCASTERS	0.71	0.30	0.19	0.53	0.28	0.42
27076	8783	COM	MELLOW, JERRY A.	0.39	0.39	0.31	0.40	0.40	0.40
27095	9070	COM	EUSE, CHERYL RUPP MANN	0.00	1.10	0.32	0.46	0.52	0.45
27164	8828	COM	PECORILLA, ANGELO	1.10	1.10	1.10	1.10	0.24	0.24
27215	10456	QM	ROBERTS, FRED L.	0.35	0.35	0.35	0.91	1.00	1.00
27314	9871	MUN	CARSON CITY	448.09	484.89	382.45	276.50	297.54	263.71
27320	9872	MUN	CARSON CITY	121.52	155.83	190.27	205.79	289.44	238.37
27373	8830	IND	DENTON, DONALD F.	0.00	0.00	0.00	0.00	0.00	0.00
27476	9748	IRR	WADE, BERT A.	2.12	2.12	2.12	2.12	2.12	2.12
27477	9749	IRR	DOUD, RICHARD M.	3.12	3.12	3.12	3.12	2.00	2.00
27666	9072	IRR	COWPERTHWAIT, JOSEPHINE G.	0.41	0.44	0.29	0.31	0.27	0.22
27822	9209	COM	RUTLEDGE, RALPH A.	2.17	2.17	2.17	2.17	2.17	2.17
27857	9195	IRR	COTTONWOOD MOBILE HOME PARK INC.	11.68	10.70	8.48	10.61	10.05	10.93
29002	9904	MUN	CARSON CITY	306.76	384.37	222.71	381.14	385.23	354.33
29434	9695	IND	DENTON, DONALD F.	1.24	0.78	0.78	0.80	0.63	0.40
29464	9875	QM	LINDSEY, SUSAN	2.02	2.02	2.02	2.02	2.02	2.02
29802	13660	QM	ALLEN, EMMA	1.89	1.28	0.06	0.00	1.54	1.54
29906	9635	MUN	CARSON CITY	919.44	876.36	517.59	330.31	385.02	561.56
29960	9876	IND	NAFCO INDUSTRIES INC	0.38	0.37	0.29	0.27	0.25	0.25
30167	9877	IND	DESERT ENTERPRISES	0.14	0.14	0.14	0.14	0.15	0.15
30299	10611	COM	NORTON, GUERIN A., JR.	0.46	0.31	0.31	0.10	0.31	0.31
30441	9878	MUN	CARSON CITY	0.00	0.00	0.00	0.00	0.00	0.00
34088	11291	COM	MATTHEUS, H. E.	0.78	0.74	0.55	0.74	0.90	0.97
34808	PER	QM	EAGLE VALLEY CHILDREN'S HOME (DBA)	0.02	6.02	0.09	9.55	9.54	2.23
34842	11227	COM	ACME MOBILE CONCRETE	0.45	0.76	0.59	0.48	0.27	0.35
35219	10143	COM	INVESTORS ENTERPRISE ASSOCIATION	0.06	0.06	0.06	0.06	0.06	0.06
35255	11032	COM	PICK N PULL	0.36	1.65	0.48	1.11	1.23	0.48
35637	9405	COM	DOSSEY, L. J. JR.	1.21	1.00	1.00	1.00	1.21	1.21
35826	14651	COM	INTRNATNL. CHURCH OF 4 SQUARE CHURCH	1.77	1.65	1.48	1.24	1.74	1.50
36083	PER	MUN	CARSON CITY	0.00	0.00	0.00	0.00	15.25	21.22
36084	PER	MUN	CARSON CITY	0.00	0.00	0.00	0.00	0.00	0.00
39393	14012	COM	SNELLING, HARRIE H.	1.55	1.21	1.09	0.64	0.91	0.93
40786	13923	QM	NORTH CARSON STREET, LLC	0.31	0.31	0.25	0.16	0.24	0.21
42725	13870	COM	HARRY W AND EILEEN M FERGUSON	0.00	0.11	0.11	0.11	0.11	0.11
47704	PER	MUN	CARSON CITY	24.24	75.32	54.75	26.09	73.65	65.63
48275	CAN	QM	LANDS DIVISION-NEVADA	49.31	45.61	36.79	54.79	53.65	38.21
48542	PER	MUN	CARSON CITY	405.77	459.24	454.65	48.53	161.90	114.92
49953	14842	IRR	GOLD LOCK CORPORATION	2.02	2.02	2.02	2.02	2.02	2.02
50893	PER	MUN	BUILDINGS AND GROUNDS DIVISION	0.00	0.00	0.00	0.00	0.00	0.00
51278	14288	QM	THE LEPIRE TRUST OF 1977	1.18	1.18	1.18	1.18	1.18	1.18
51279	14289	QM	VIDLER WATER COMPANY AND CARSON CITY	0.00	0.00	0.00	0.00	0.00	0.00

APP NO.	STATUS	MOU	OWNER OF RECORD	DUTY USED 2003	DUTY USED 2004	DUTY USED 2005	DUTY USED 2006	DUTY USED 2007	DUTY USED 2008
52239	PER	MUN	CARSON CITY	0.00	0.00	0.00	0.00	0.00	0.00
52584	PER	ENV	MALLORY, INC.					2.61	2.65
53822	PER	QM	SIERRA ESTATES G.I.D.	49.60	55.99	66.70	52.86	56.96	54.23
54110	PER	ENV	MALLORY, INC.					0.00	0.00
54111	PER	ENV	MALLORY, INC.					0.00	0.00
54112	PER	ENV	MALLORY, INC.					2.61	2.65
54113	PER	ENV	MALLORY, INC.					0.00	0.00
54114	PER	ENV	MALLORY, INC.					0.00	0.00
54115	PER	ENV	MALLORY, INC.					0.00	0.00
54116	PER	ENV	MALLORY, INC.					0.00	0.00
54117	PER	ENV	MALLORY, INC.	0.00	0.00	0.00	0.00	0.00	0.00
54118	PER	ENV	MALLORY, INC.	0.00	0.00	0.00	0.00	0.00	0.00
54119	PER	ENV	MALLORY, INC.	0.00	0.00	0.00	0.00	0.00	0.00
54120	PER	ENV	MALLORY, INC.					0.00	0.00
57186E	PER	ENV	TEXACO REFINING & MARKETING INC.					0.00	0.00
57187E	PER	ENV	TEXACO REFINING & MARKETING INC.					0.00	0.00
57407E	PER	ENV	ARCO PRODUCTS COMPANY	4.23	0.29	0.00	0.00	0.00	0.00
57541	PER	IRR	DOUGLAS COUNTY	0.00	0.00	0.00	0.00	0.00	0.00
57898E	PER	ENV	PDQ FOOD STORES OF NEVADA INC.					0.00	0.00
58128E	PER	ENV	PDQ FOOD STORES OF NEVADA INC.					0.00	0.00
58737	14423	IRR	LIPPINCOTT FARMS	0.30	0.49	0.52	0.45	0.43	0.30
58952	14424	IRR	SINNOTT, DAWN E.	20.44	11.78	7.45	8.71	1.82	0.00
59226	PER	MUN	CARSON CITY	364.09	309.57	144.42	229.82	237.28	199.79
59599E	PER	ENV	CARSON CITY HEALTH DEPARTMENT					0.00	0.00
59600E	PER	ENV	CARSON CITY HEALTH DEPARTMENT					0.00	0.00
59827	PER	MUN	CARSON CITY	0.00	0.00	0.00	0.00	0.00	0.00
59843	16057	COM	SNELLING, HARRIE H.	0.00	0.00	0.00	0.00	0.00	0.00
60122E	PER	ENV	SOUTHLAND CORPORATION					0.00	0.00
60831	PER	MUN	CARSON CITY WATER UTILITY	163.62	163.62	163.62	163.62	163.62	86.87
60832	PER	MUN	CARSON CITY WATER UTILITY	1.95	1.95	1.95	1.95	1.95	0.00
60833	PER	MUN	CARSON CITY WATER UTILITY	40.30	40.30	40.30	40.30	40.30	0.00
60834	PER	MUN	CARSON CITY WATER UTILITY	164.75	460.38	362.56	351.84	24.57	0.00
61487	PER	MUN	CARSON CITY	0.00	0.00	0.00	0.00	34.56	81.60
61505	PER	MUN	CARSON CITY	0.00	0.00	0.00	0.00	0.00	0.00
61506	PER	MUN	CARSON CITY	0.00	0.00	0.00	0.00	0.00	0.00
61507	PER	MUN	CARSON CITY	0.00	0.00	0.00	0.00	0.00	0.00
61508	PER	MUN	CARSON CITY	0.00	0.00	0.00	0.00	0.00	0.00
62402	PER	QM	USFS						1.23
62639E	PER	ENV	CARSON CITY					0.00	0.00
63262E	PER	ENV	WELLS FARGO BANK					0.00	0.00
63499E	PER	ENV	MALLORY, INC.					2.61	2.65
64042	PER	QM	DOUGLAS COUNTY	0.26	0.26	0.29	1.35	0.76	0.45

APP NO.	STATUS	MOU	OWNER OF RECORD	DUTY USED 2003	DUTY USED 2004	DUTY USED 2005	DUTY USED 2006	DUTY USED 2007	DUTY USED 2008
66708	PER	MUN	CARSON CITY	235.90	235.90	235.90	89.47	201.12	220.19
66709	PER	MUN	CARSON CITY	28.02	43.80	5.29	0.00	0.00	0.00
66926	PER	ENV	BERRY HINCKLY INDUSTRIES					0.00	0.00
68758	PER	MUN	CONSOLIDATED MUNICIPALITY OF CARSON	64.22	2.07	2.07	2.07	2.07	2.07
69042	PER	MUN	CARSON CITY		0.00	0.00	0.00	0.00	0.00
69043	PER	MUN	CARSON CITY		0.00	0.00	0.00	0.00	0.00
69344	PER	MUN	CARSON CITY WATER UTILITY		181.00	181.00	63.20	181.00	176.09
69346	PER	MUN	CARSON CITY		65.15	121.55	0.00	15.01	0.00
70521	PER	MUN	CARSON CITY			0.00	0.00	0.00	0.00
70522	PER	MUN	CARSON CITY			0.00	0.00	0.00	0.00
70662	RFA	MUN	CARSON CITY		1.32	74.62	59.50	59.18	52.41
71674	PER	QM	DOUGLAS COUNTY						12.28
71675	PER	QM	DOUGLAS COUNTY						1.00
71676	PER	QM	DOUGLAS COUNTY						11.70
71678	PER	MUN	CARSON CITY			0.00	311.46	524.51	641.08
71749	PER	MUN	CARSON CITY			0.00	395.83	487.86	613.55
72189E	PER	ENV	AHMAD, MOHAMMAD					7.21	6.75

HISTORICAL GROUNDWATER PUMPAGE BY MANNER OF USE

	COM	DOM	ENV	IND	IRR	MUN	OTH	QM	STK
1994	60	953		3	86	4580	0	244	0
1995	53	968		3	48	3639	0	219	3
1996	45	967		2	40	2212	0	208	3
1997	49	969		2	32	3603	0	228	3
1998	53	966		2	28	3324	0	200	2
1999	54	957		2	45	3677	0	151	2
2000	20	950		2	58	5107	0	162	2
2001	51	945		2	46	6225	0	256	2
2002	42	944	1	2	51	6263	0	187	0
2003	40	945	4	2	47	5287	0	212	0
2004	42	949	0	2	26	6230	0	187	0
2005	38	941	0	2	23	5091	0	167	1
2006	28	929	0	2	25	4933	0	182	1
2007	28	925	15	1	28	5780	0	187	1
2008	23	922	15	1	28	6027	0	196	1

*All values are in acre-feet

**Pumpage estimates were not available for Environmental for water years 1994-2001.

