

STATE OF NEVADA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

DIVISION OF WATER RESOURCES

JASON KING, P.E.
STATE ENGINEER



IMLAY AREA (HYDROGRAPHIC BASIN 4-072)

GROUNDWATER PUMPAGE INVENTORY

WATER YEAR 2012

By:
Shannon McDaniel

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ABSTRACT

This inventory represents the status and usage of all permitted, certificated and claims of vested right groundwater rights located within Imlay Area, Hydrographic Basin 4-072, for water year 2012 (October 1, 2011 through September 30, 2012). Also referenced are tables and data associated with streamflow measurements, reservoir storage and depth to groundwater levels.

The data 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 continuing basis.

For water year 2012, the permitted, certificated and claims of vested right groundwater rights totaled **6,522 acre-feet**. The manner of use having the greatest amount of groundwater appropriations was mining and milling, whose appropriations totaled 4,557 acre-feet. Irrigation had the next greatest amount of appropriations, totaling 1,747 acre-feet.

An estimated **2,345 acre-feet** were pumped during the 2012 water year, including an estimated 82 acre-feet by exempt domestic wells. Exempt domestic wells are defined by Nevada Revised Statutes (NRS) 534.013 and do not require a permit issued by the State Engineer. The manner of use having the greatest amount of groundwater pumped was irrigation, whose pumpage totaled 1,394 acre-feet. Mining and milling had the next greatest pumpage amount, totaling 745 acre-feet.

HYDROGRAPHIC BASIN SUMMARY

HYDROGRAPHIC BASIN NUMBER	072, REGION 4
HYDROGRAPHIC BASIN NAME	IMLAY AREA
COUNTIES	PERSHING
MAJOR COMMUNITIES	IMLAY, MILL CITY
DESIGNATED BASIN	YES
DENIALS BASED UPON WATER AVAILABILITY	IRRIGATION
GROUNDWATER LEVEL MEASUREMENTS	USGS, NDWR
PUMPAGE ESTIMATED IN 2012 (ACRE-FEET)	2,345*

COMMITTED GROUNDWATER RESOURCE: 6,522 ACRE-FEET AS OF SEPTEMBER 2012

QUASI-MUNICIPAL.....9	IRRIGATION.....1,747	COMMERCIAL.....48
CONSTRUCTION.....8	STOCK.....116	DOMESTIC.....16
ENVIRONMENTAL.....21	MINING & MILLING....4, 557	

STATE ENGINEER'S ORDERS

[702-DESIGNATION.....DATE: JANUARY 31, 1978](#)

The numbers associated with the committed groundwater resources (water rights) represent the status for the time frame stated (October 1, 2011 through September 30, 2012). Manner of use category totals vary over time, as water rights are not necessarily static. They may be subject to change applications, certification, withdrawal, forfeiture and cancellation. Each of these actions could impact the duty, diversion rate and acreage associated with a given water right.

*Includes pumpage by exempt domestic wells as defined by NRS 534.013. The domestic use estimate is based upon a count of the domestic wells in the basin multiplied by 1.00 acre-feet per annum. The number of wells (82) was determined by a query of the Nevada Division of Water Resources' Well Log database.

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 Imlay Area, Hydrographic Basin 4-072, for the water year beginning October 1, 2011, and ending September 30, 2012 (water year 2012). This report estimates the amount of groundwater pumped under permits and certificates issued by the State Engineer and claims of vested right, as well as the amount pumped by exempt domestic wells.

DESCRIPTION OF THE STUDY AREA

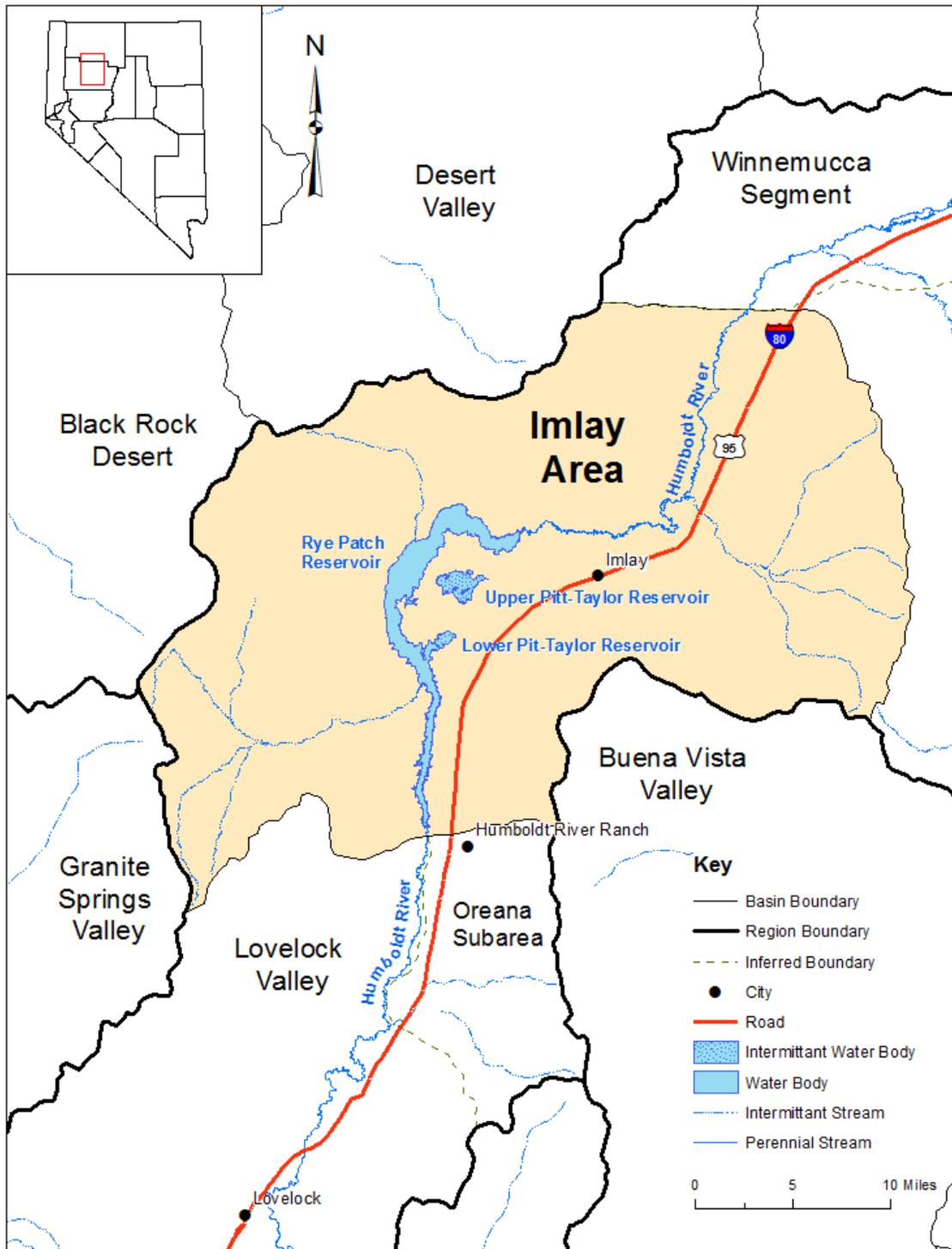
Imlay Area is located in north central Nevada and extends along the Humboldt River from the northern Pershing County line, approximately 15 miles southwest of Winnemucca, to the parallel of Rye Patch Dam about 25 miles north of Lovelock and between the drainage divides of the adjacent mountains. Imlay Area covers approximately 750 square miles in Pershing County. Interstate 80 and the Burlington Northern-Santa Fe railroad traverse the eastern side of the basin, roughly parallel to the Humboldt River. The adjacent hydrographic areas are Desert Valley (2-031) and Winnemucca Segment (4-070) to the north, Black Rock Desert (2-028) and Granite Springs Valley (5-078) to the west, Lovelock Valley (4-073) and Buena Vista Valley (9-129) to the south and Grass Valley (4-071) to the east (see Figure 1.). The exterior boundary of Imlay Area is as described by Designation Order 702 issued by the Nevada State Engineer dated January 31, 1978.

Imlay Area is bounded on the north by the Eugene Mountains with their highest peak at about 7,200 feet (all elevations in this text are above mean sea level). On the east the Humboldt Range and East Range rise to altitudes of 8,000 feet or more. The highest peak in the area is Star Peak, at an altitude of 9,835 feet, in the Humboldt Range. On the west side Imlay Area is bounded by the Antelope Range on the northern end and continuing southward is Majuba Mountain and in the southwest is the Trinity Range. The mountains on the west side have altitudes that are less than 7,000 feet (Eakin 7-8).

HYDROLOGY

The dominant hydrologic features of Imlay Area are the Humboldt River and the Pitt-Taylor and Rye Patch Reservoirs. The Humboldt River flows from the northeast to the southwest through the basin. The majority of other streams are ephemeral, flowing only during the spring runoff and for short times after heavy precipitation events. The larger drainages in the Humboldt Range do maintain flow over short reaches throughout much of the year, but do not reach the Humboldt River, infiltrating shortly after emerging onto the alluvial fans. The Pitt-Taylor Reservoirs were completed in 1912 to provide storage for irrigation. The Rye Patch Dam and reservoir were completed in 1936 to provide flood control and to increase storage for irrigation. Rye Patch Dam is a 78 foot tall earthen dam which impounds approximately 200,000 acre feet of water in the Rye Patch Reservoir (U.S.D.I., Bureau of Reclamation).

Figure 1. Location Map of Imlay Area Hydrographic Basin 4-072



The U.S. Geological Survey (USGS) operates a streamflow gaging station at Imlay, near where the Humboldt River enters the north end of the Rye Patch Reservoir (USGS #[10333000](#) Humboldt River near Imlay, Nevada). This gage is located in the NW¹/₄SE¹/₄ Section 25, Township 33 North, Range 33 East. The period of record is June 1935 to December 1941, and April 1945 to present. The average annual runoff for the

period of record for the station is 199,700 acre-feet. The annual runoff for water year 2012 was 50,810 acre-feet (USGS, Water Data Report 2012).

The USGS also operates a streamflow gaging station on the Humboldt River downstream of the Rye Patch Dam (USGS #[10335000](#) Humboldt River near Rye Patch, Nevada). The gage is located in the SE¼NE¼ Section 18, Township 30 North, Range 33 East. The period of record is January 1896 to June 1898, June 1899 to December 1909, September 1910 to June 1917, September 1917 to September 1922, September 1924 to September 1930 (fragmentary), October 1930 to September 1932, October 1935 to September 1941, October 1943 to current year. Prior to October 1935, published as "Near Oreana." The average annual runoff for the period 1936 to present is 179,600 acre-feet. The annual runoff for water year 2012 was 130,600 acre-feet (USGS Water Data Report 2012). The locations for these two gaging stations are shown on Figure 2.

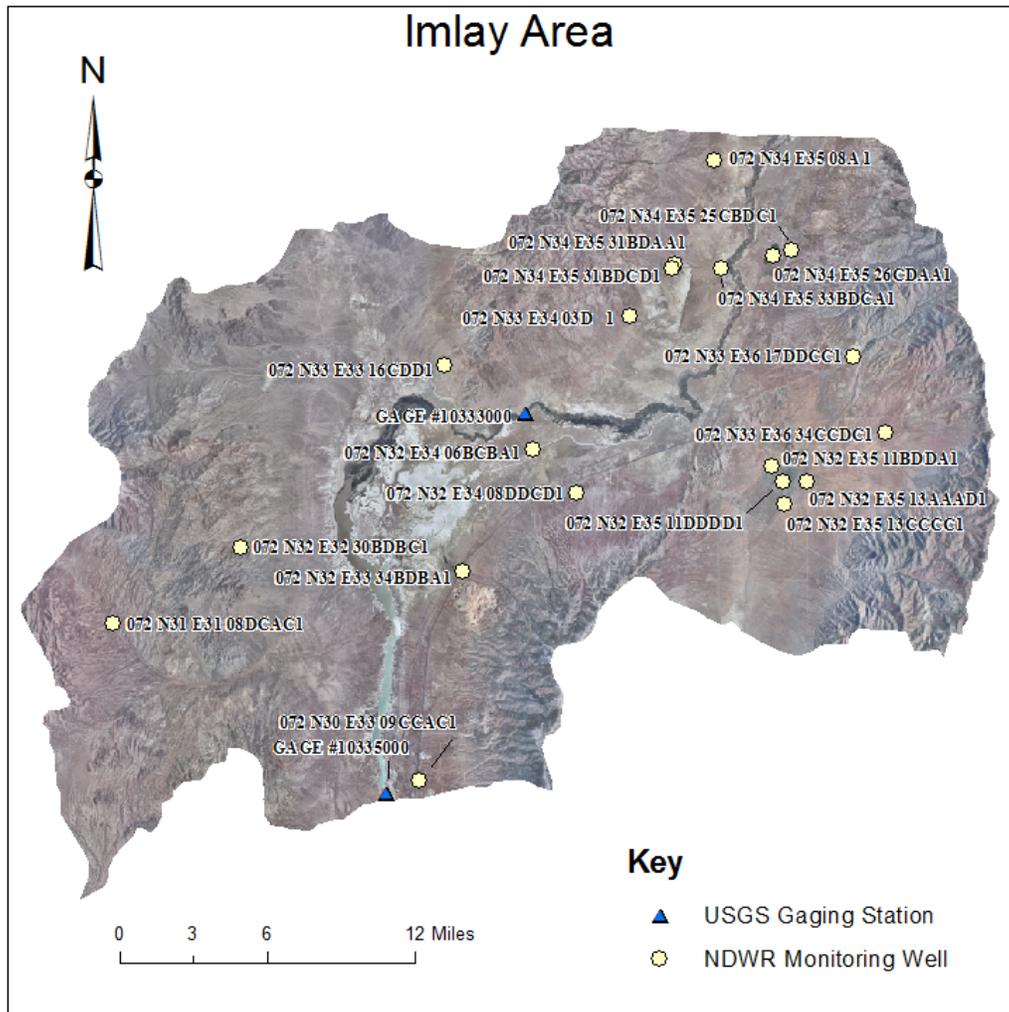
Groundwater Levels

Water level measurements conducted by the Nevada Division of Water Resources are done on a semi-annual basis at the following twenty locations (see Figure 2):

- [072 N30 E33 09CCAC2](#)
- [072 N31 E31 08DCAC1](#)
- [072 N32 E32 30BDBC1](#)
- [072 N32 E33 34BDBA1](#)
- [072 N32 E34 06BCBA1](#)
- [072 N32 E34 08DDCD1](#)
- [072 N32 E35 11BDDA1](#)
- [072 N32 E35 11DDDD1](#)
- [072 N32 E35 13AAAD1](#)
- [072 N32 E35 13CCCC1](#)
- [072 N33 E33 16CDD 1](#)
- [072 N33 E34 03D 1](#)
- [072 N33 E36 17DDCC1](#)
- [072 N33 E36 34CCDC1](#)
- [072 N34 E34 35BBDA1](#)
- [072 N34 E35 25CBDC1](#)
- [072 N34 E35 26CDAA1](#)
- [072 N34 E35 31BDAA1](#)
- [072 N34 E35 31BDCD1](#)
- [072 N34 E35 33BDCA1](#)

The water level data and hydrograph for each site are available from the Water Level Data page of the Nevada Division of Water Resources website (<http://water.nv.gov/data/waterlevel/>). Data retrievals are organized by hydrographic basin. In addition to the sites monitored by the Nevada Division of Water Resources, the USGS monitors a network of different wells whose data is available directly from the USGS, or from their website, <http://nevada.usgs.gov>.

Figure 2. Location Map of Imlay Area Groundwater Level-Monitoring Network



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 exempt domestic wells. The following methods were used to arrive at the estimated pumpage:

- 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 manner of use was irrigation, the place of use was inspected to estimate the amount of acreage under cultivation. Pumpage was then estimated by multiplying the number of acres under cultivation by 3 or 4 acre-feet per acre, depending on the duty specified by the permit or certificate.
- Where meters were not present, previous data were not available, and the manner of use was not irrigation, pumpage was estimated using the annual duty associated with the certificate or permit if the use of the water was as described in the certificate or permit; if the use of the water was not as described in the certificate or permit, pumpage was estimated based on how the water was being used.
- If there was no use of the water under the permit, zero pumpage was recorded.
- Stockwater wells are not required to be equipped with totalizing meters. Estimates of pumpage were derived from a combination of sources, including information from the Bureau of Land Management (BLM, [Rangeland Administration System](#)) and documentation from the water right permit files and the certificated duty for the permit.
- Exempt domestic wells may be drilled and utilized where water service from a purveyor is not available. These types of wells do not require a permit from the State Engineer if they do not pump more than 2 acre-feet per year as provided by Nevada Revised Statutes (NRS) 534.180. NRS 534.013 defines this category of domestic use 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 exempt domestic wells in the basin was determined by a query of the Nevada Division of Water Resources’ Well Log Database. The amount of water pumped by exempt domestic wells is estimated to average one acre-foot per well.
- Florida Canyon Mining, Inc. reports monthly pumping totals on a quarterly basis as a condition of the permits under which the groundwater was appropriated. These reports are used directly as the amount pumped by Florida Canyon Mining, Inc.

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 2012 was **2,345 acre-feet**. The annual duties of permitted, certificated and claims of vested right groundwater rights within the Imlay Area Hydrographic Basin total approximately **6,522 acre-feet** (some minor differences in totals may result from rounding). The appropriation and pumpage totals, categorized by manner of use, are as follows:

A. Quasi-Municipal (QM)

During water year 2012, appropriations for quasi-municipal purposes totaled 9 acre-feet. An estimated 15 acre-feet were pumped during water year 2012.

B. Irrigation (IRR)

During water year 2012, appropriations for irrigation totaled 1,747 acre-feet. An estimated 1,394 acre-feet were pumped during water year 2012.

C. Commercial (COM)

During water year 2012, appropriations for commercial purposes totaled 48 acre-feet. An estimated 33 acre-feet were pumped during water year 2012.

D. Stock (STK)

During water year 2012, appropriations for stockwater totaled 116 acre-feet. An estimated 69 acre-feet were pumped during water year 2012.

E. Mining and Milling (MM)

During water year 2012, appropriations for mining and milling totaled 4,557 acre-feet. An estimated 745 acre-feet were pumped during water year 2012.

F. Construction (CON)

During water year 2012, appropriations for construction totaled 8 acre-feet. No permitted water was pumped for construction purposes during water year 2012.

G. Domestic (DOM)

During water year 2012, appropriations for domestic use totaled 16 acre-feet. No water was pumped for domestic purposes under this appropriation during water year 2012; however, the amount of water pumped for domestic use by exempt domestic wells was estimated to be 82 acre-feet during water year 2012. The amount of water pumped by exempt domestic wells was estimated by multiplying the number of

domestic wells in the basin by the estimated average use of 1.00 acre-foot per well.

H. Environmental (ENV)

During water year 2012, appropriations for environmental purposes totaled 21 acre-feet. The reported pumpage for these water rights was 7 acre-feet during water year 2012. Reported quarterly pumpage is required pursuant to the terms of these permits.

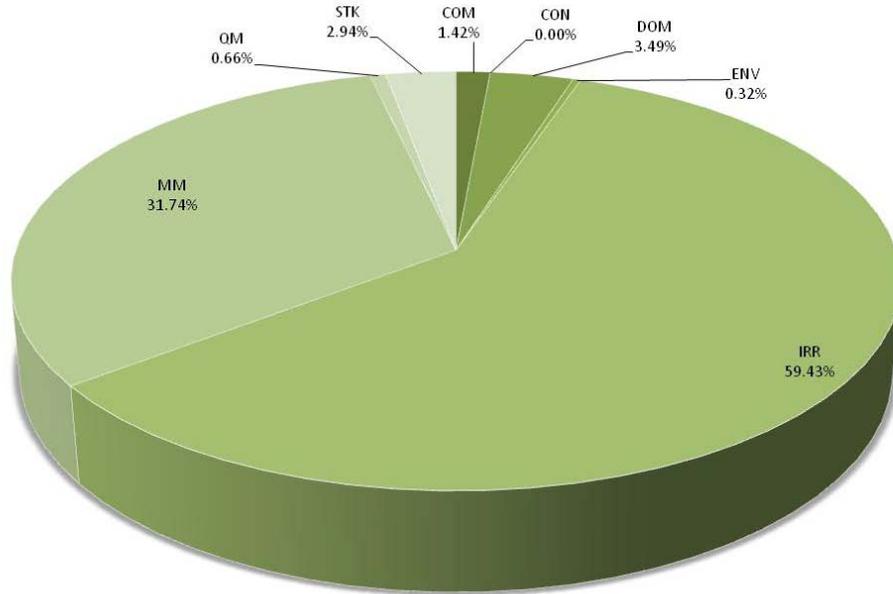
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- Eakin, Thomas E., Ground-Water Resources – Reconnaissance Series Report 5. *Ground-Water Appraisal of the Imlay Area, Humboldt River Basin, Pershing County, Nevada*. Carson City: State of Nevada Department of Conservation and Natural Resources, February 1962, p. 7-8.
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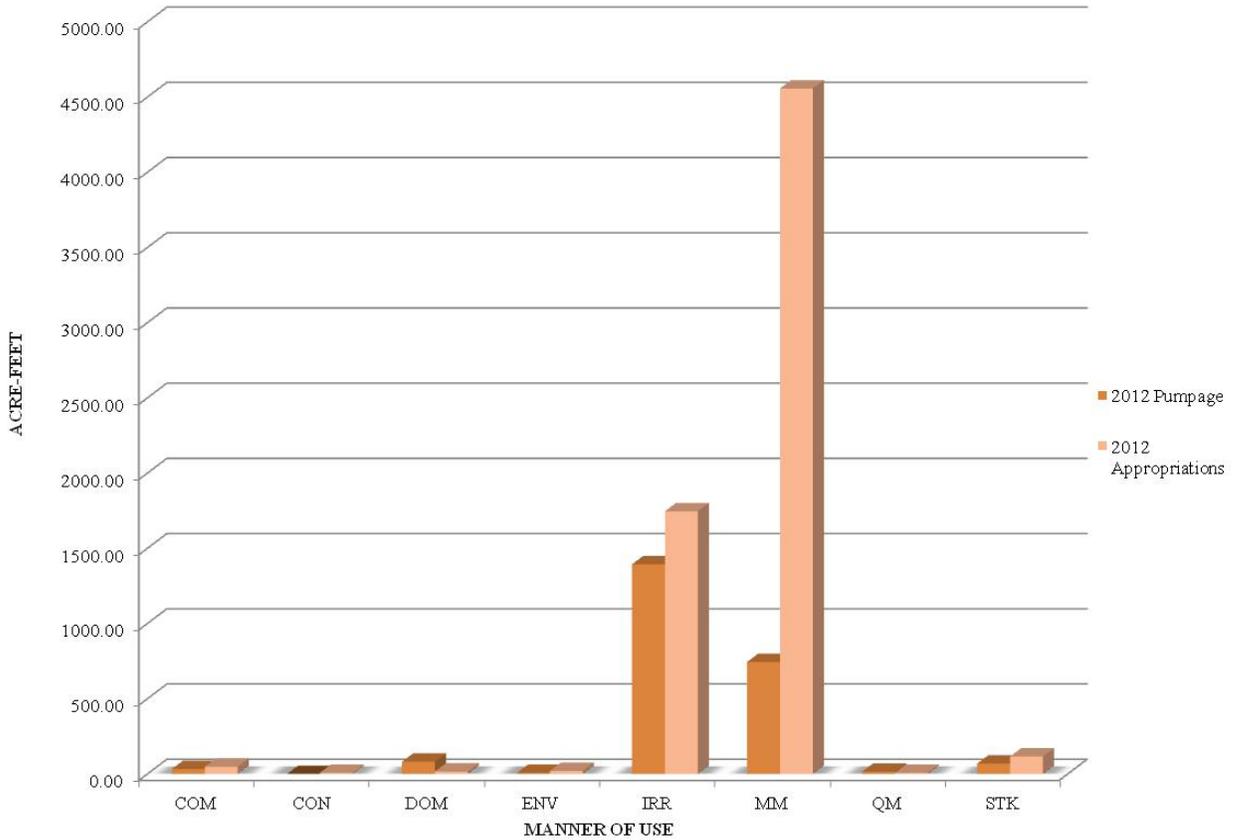
APPENDIX A

**IMLAY AREA GROUNDWATER PUMPAGE FOR WATER YEAR 2012 BY
MANNER OF USE**

PERCENTAGE OF GROUNDWATER PUMPAGE FOR WATER YEAR 2012 BY MANNER OF USE



**GROUNDWATER PUMPAGE FOR WATER YEAR 2012
APPROPRIATIONS vs. ACTUAL PUMPAGE**



APPENDIX B

**IMLAY AREA WATER YEAR 2012 GROUNDWATER PUMPAGE BY
APPLICATION NUMBER**

Explanation of Column Headings for Groundwater Pumpage by Application Number

UNIQUE IDENTIFIER	An ID assigned to each well, based on its geographic location. POC – Proof of Completion. No POC Filed indicates no POC filed with the office of the state engineer.
APP NO	The file number of the Application to Appropriate/Change Water.
STAT	Indicates the status of an application: Permit (PER), Certificated (CER), Application (APP) or a Claim of Vested Right (VST). If an application has been certificated, the certificate number will be listed in the column.
MOU	The manner of use of the appropriated water. QM Quasi-Municipal IRR Irrigation COM Commercial STK Stock MM Mining & Milling CON Construction ENV Environmental DOM Domestic
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 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, in acre-feet, as determined by review of records and or field investigation.
UNITS	Acre-feet annually (AFA) and acre-feet seasonally (AFS). AFS limits water usage to certain months of the year.
SUPP SRC	The source of the supplemental water: Underground (UG), Surface Water (SW), or as noted.
SUPP APP NO	The file number(s) of any supplemental water appropriations.

IMLAY AREA WATER YEAR 2012
GROUNDWATER PUMPAGE BY APPLICATION NUMBER

APP NO	UNIQUE IDENTIFIER	STAT	MOU	OWNER OF RECORD	QQ	QTR	SEC	T	R	PER ACRES	DUTY (AF)	SUPP ADJ	DUTY USED	UNITS	SUPP SRC	SUPP APP NO
13333	072 N32 E33 28CCCC1	5181	IRR	CAMPBELL, BARTT	SE	SE	28	32N	33E	38.96	155.84	155.84	0.00	AFA	SW	4342
17562	072 N33 E36 15BBBC1	5395	MM	TAHOE MILLING, INC.	NW	NW	15	33N	36E	0.00	168.79	168.79	0.00	AFA		
18296	072 N32 E34 10BBCC1	5112	DOM	TRANSPORTATION DEPARTMENT-NEVADA	NW	NW	10	32N	34E	0.00	15.93	15.93	0.00	AFA		
27052	072 N34 E35 25CBDC1	9173	COM	TELUM, INC.	NW	SW	25	34N	35E	0.00	1.69	1.69	1.00	AFA		
29407	072 N32 E35 05ACAD1	9064	COM	DONALD V ESENARRO AND DUSTI D ESENARRO 1994 TRUST	SW	NE	05	32N	35E	0.00	11.20	11.20	7.02	AFA	UG	
42141	072 N32 E32 30BDBC1	12650	MM	MEYERS, DANIEL J.	SE	NW	30	32N	32E	0.00	269.00	319.70	0.00	AFA		45554
44275	072 N33 E35 33BDAA1	13463	COM	TA OPERATING CORP. DBA TRAVELCENTERS	SE	NW	33	33N	35E	0.00	4.48	27.50	0.00	AFA	UG	1
45554	072 N32 E32 30CAAD1	12651	MM	MEYERS, DANIEL J.	NE	SW	30	32N	32E	0.00	50.70		0.00	AFA		42141
47059	072 N32 E35 13AAAD1	11879	STK	HUNTSMAN RANCH, LLC	NE	NE	13	32N	35E	0.00	10.86	10.86	10.86	AFA		
48997	072 N34 E35 03BACA1	13237	MM	FLORIDA CANYON MINING, INC.	NE	NW	03	31N	33E	0.00	102.24	2,415.22	99.72	AFA	UG	2
48998	072 N31 E33 03BDCA1	13238	MM	FLORIDA CANYON MINING, INC.	SE	NW	03	31N	33E	0.00	58.66		0.00	AFA	UG	2
50061	072 N32 E33 34BDBA1	13953	QM	FLORIDA CANYON MINING, INC.	SE	NW	34	32N	33E	0.00	3.13		0.00	AFA	UG	2
50248	072 N32 E33 34BCDD1	14448	QM	FLORIDA CANYON MINING, INC.	SW	NW	34	32N	33E	0.00	4.32		14.36	AFA	UG	2
51814	072 N32 E35 05ACAD1	15635	COM	DONALD V ESENARRO DUSTI D ESENARRO 1994 TRUST	SW	NE	05	32N	35E	0.00	3.04	3.04	1.00	AFA	UG	
52262	072 N32 E34 02CBBB1	12215	IRR	JOHNSON, WORTH H.	NW	SW	02	32N	34E	18.84	75.36	75.36	0.00	AFA		
55021	072 N32 E34 08DDCD1	13626	CON	FREHNER, GARTH	SE	SE	08	32N	34E	0.00	7.50	7.50	0.00	AFA		
57096	072 N34 E35 03BACA1	PER	MM	FLORIDA CANYON MINING, INC.	NE	NW	03	31N	33E	0.00	32.78		0.00	AFA	UG	2
57097	072 N31 E33 03BDCA1	PER	MM	FLORIDA CANYON MINING, INC.	SE	NW	03	31N	33E	0.00	248.03		0.00	AFA	UG	2
57710	072 N33 E35 33BCAA1	15084	COM	TA OPERATING CORP DBA TRAVEL CENTERS	SW	NW	33	33N	35E	0.00	4.48		4.48	AFA	UG	1
57711	072 N33 E35 33BCAA1	15085	COM	TA OPERATING CORP DBA TRAVEL CENTERS	SW	NW	33	33N	35E	0.00	15.41		8.64	AFA	UG	1
58321	072 N33 E36 34CCDC1	15597	MM	GEODESY RESOURCES, LLC	SW	SW	34	33N	36E	0.00	5.74	5.74	0.00	AFA		
58419	072 N32 E35 11BDDA1	15439	STK	HUNTSMAN RANCH, LLC	SE	NW	11	32N	35E	0.00	11.20	11.20	5.60	AFA		
58505	072 N33 E35 33BABA1	15087	COM	TA OPERATING CORP DBA TRAVEL CENTERS	NE	NW	33	33N	35E	0.00	7.61		10.25	AFA	UG	1
59196	072 N32 E34 06BCBA1	14801	STK	DELONG, MARGARITA J.	SW	NW	06	32N	34E	0.00	7.83	7.83	3.26	AFA		
59198	072 N31 E31 23CDDC1	14802	STK	DELONG, MARGARITA J.	SE	SW	23	31N	31E	0.00	5.92	5.92	3.10	AFA		
59199	072 N31 E31 08DCAC1	PER	STK	BLM	SW	SE	08	31N	31E	0.00	11.20	11.20	3.10	AFA		
61203	072 N34 E35 03BACA1	PER	MM	FLORIDA CANYON MINING, INC.	NE	NW	03	31N	33E	0.00	79.64		0.00	AFA	UG	2
61643	072 N31 E33 03BDBD1	PER	MM	FLORIDA CANYON MINING, INC.	SE	NW	03	31N	33E	0.00	780.98		1.35	AFA	UG	2
61644	072 N31 E33 03BACD1	PER	MM	FLORIDA CANYON MINING, INC.	NE	NW	03	31N	33E	0.00	796.37		188.29	AFA	UG	2
61706	072 N33 E36 24BDCB1	PER	MM	CARL, MARCI (1/2 INTEREST), NATCHEZ PASS, LLC (1/4 INTEREST) & GEODESY RES. LTD (1/4 INTEREST)	SE	NW	24	33N	36E	0.00	158.39	158.39	0.00	AFA		
61707	072 N32 E33 34DAAB1	PER	MM	FLORIDA CANYON MINING, INC.	NE	SE	34	32N	33E	0.00	72.40		28.02	AFA	UG	2
64020	072 N34 E35 25CCAD1	16031	QM	TRANSPORTATION DEPARTMENT-NEVADA	SW	SW	25	34N	35E	0.00	1.08	1.08	1.07	AFA		
68032	072 N33 E34 23AAAA1	16555	STK	TIM DELONG FAMILY TRUST AGREEMENT	NE	NE	23	33N	34E	0.00	11.20	11.20	3.26	AFA		
68033	072 N33 E34 19AAAA1	16556	STK	TIM DELONG FAMILY TRUST AGREEMENT	NE	NE	19	33N	34E	0.00	11.20	11.20	3.26	AFA		
68127	072 N32 E35 08DBCC1	PER	MM	CHRISTENSEN, MILTON	NW	SE	08	32N	35E	0.00	13.20	13.20	0.00	AFA		
69775	072 N30 E33 08ABAA1	PER	MM	NEVADA CEMENT COMPANY	NW	NE	08	30N	33E	0.00	39.00	39.00	0.00	AFA	UG	3
69776	072 N30 E33 08ABCC1	PER	MM	NEVADA CEMENT COMPANY	NW	NE	08	30N	33E	0.00	39.00		0.00	AFA	UG	3
69796	072 N33 E35 27ABBB1	16653	STK	HUNTSMAN RANCH, LLC	NW	NE	27	33N	35E	0.00	11.20	11.20	5.60	AFA		
70068	072 N31 E32 17DDCA1	17311	STK	TIM DELONG FAMILY TRUST AGREEMENT	SE	SE	17	31N	32E	0.00	11.20	11.20	3.10	AFA		

IMLAY AREA WATER YEAR 2012
GROUNDWATER PUMPAGE BY APPLICATION NUMBER

APP NO	UNIQUE IDENTIFIER	STAT	MOU	OWNER OF RECORD	QQ	QTR	SEC	T	R	PER ACRES	DUTY (AF)	SUPP ADJ	DUTY USED	UNITS	SUPP SRC	SUPP APP NO
71309	072 N33 E37 30ACDB1	18415	MM	NATCHEZ PASS, LLC	SW	NE	30	33N	37E	0.00	3.33	3.33	1.00	AFA		
73258	072 N33 E36 17DDCC1	17586	MM	SUNRISE MINERALS LLC	SE	SE	17	33N	36E	0.00	35.00	150.00	17.25	AFA	UG	4
73807	072 N30 E33 10DDDD1	PER	MM	NEVADA CEMENT COMPANY	SE	SE	10	30N	33E	0.00	30.00	30.00	0.00	AFA	UG	
75397	072 N32 E34 09BCBA1	PER	COM	CANNIZZARO TRUST, DATED 4/9/2002	SW	NW	09	32N	34E	0.00	4.00	4.00	0.00	AFA		
76621	072 N31 E33 35CAAA1	PER	MM	FLORIDA CANYON MINING, INC.	NE	SW	35	31N	33E	0.00	327.67		390.76	AFA	UG	2
76665	072 N33 E36 17DDAA1	PER	MM	SUNRISE MINERALS LLC	SE	SE	17	33N	36E	0.00	40.00		18.41	AFA	UG	4
77375	072 N30 E33 09CCAC1	PER	COM	AZZARELLO, CHARLES G. & KRITKOS, JUDY R.	SW	SW	09	30N	33E	0.00	0.56	0.56	1.01	AFA		
77399	072 N32 E35 34DCBA1	18573	STK	PRUITT REVOCABLE LIVING TRUST	SW	SE	34	32N	35E	0.00	11.20	11.20	11.20	AFA		
77521	072 N34 E35 31BDAA1	PER	MM	GOLDEN PREDATOR MINES US INC	SE	NW	31	34N	35E	0.00	395.00	1,282.00	0.00	AFA	UG	5
77738	072 N34 E34 35BBDA1	PER	MM	GOLDEN PREDATOR MINES US INC	NW	NW	35	34N	34E	0.00	191.83		0.00	AFA	UG	5
77739	072 N34 E34 35BBDA1	PER	MM	GOLDEN PREDATOR MINES US INC	NW	NW	35	34N	34E	0.00	121.51		0.00	AFA	UG	5
77979	072 N34 E35 26CDA1	PER	IRR	SPRINGER MINING COMPANY	SE	SW	26	34N	35E	505.13	1,515.40	1,515.40	920.52	AFA	UG	6
77980	072 N34 E35 35DABB1	PER	IRR	SPRINGER MINING COMPANY	NE	SE	35	34N	35E	505.13	735.91		473.90	AFA	UG	6
77981	072 N34 E35 35DABB1	PER	IRR	SPRINGER MINING COMPANY	NE	SE	35	34N	35E	505.13	466.15		0.00	AFA	UG	6
78152	072 N33 E36 17CABA1	PER	MM	SUNRISE MINERALS LLC	NE	SW	17	33N	36E	0.00	25.00		0.00	AFA	UG	4
79819E	Site Name Not Established	PER	ENV	FLORIDA CANYON MINING, INC.	NE	NW	03	31N	33E	0.00	20.50		1.50	AFA	UG	2
79820E	Site Name Not Established	PER	ENV	FLORIDA CANYON MINING, INC.	SE	NW	03	31N	33E	0.00	20.50		5.41	AFA	UG	2
80098E	072 N31 E33 03BDAD2	PER	ENV	FLORIDA CANYON MINING INC	SE	NW	03	31N	33E	0.00	20.50		0.53	AFA	UG	2
80108	072 N32 E35 05BCCA1	PER	COM	FEDEX FREIGHT INC	SW	NW	05	32N	35E	0.00	0.50	0.50	0.02	AFA		
80174	072 N34 E35 31BDAA1	PER	MM	SPRINGER MINING COMPANY	SE	NW	31	34N	35E	0.00	887.00		0.00	AFA	UG	5
80978	No POC Filed	PER	MM	FLORIDA CANYON MINING INC	SE	NW	35	31N	33E	0.00	44.61		0.00	AFA	UG	2
80979	No POC Filed	PER	MM	FLORIDA CANYON MINING INC	SE	NW	35	31N	33E	0.00	44.61		0.00	AFA	UG	2
81505T	072 N33 E36 17BDCC1	PER	MM	SUNRISE MINERALS LLC	SE	NW	17	33N	36E	0.00	50.00		0.00	AFA	UG	4
82177	Site Name Not Established	APP	STK	TIM DELONG FAMILY TRUST AGREEMENT	SE	SE	03	33N	34E				11.20	AFA		
V05891	072 N32 E35 11BDDA1	VST	STK	FISHER, JEROME R.	SW	NE	11	32N	35E	0.00	2.24	2.24	2.24	AFA		
V07663	072 N33 E33 16CDD 1	VST	STK	TIM DELONG FAMILY TRUST AGREEMENT	SE	SW	16	33N	33E	0.00	11.20	11.20	3.10	AFA		

Footnotes

¹ PERMITS 44275, 57710, 57711 & 58505 HAVE A TOTAL COMBINED DUTY OF 27.50 AFA.

² PERMITS 48997, 48998, 50061, 50248, 57096, 57097, 61203, 61643, 61644, 61707, 75772, 76621, 79819E, 79820E, 80098E, 80978, 80979 & 81080T HAVE A TOTAL COMBINED DUTY OF 2,415.22 AFA. THIS INCLUDES A TOTAL COMBINED DUTY OF 20.5 AFA FOR ENVIRONMENTAL PURPOSES UNDER PERMITS 79819E, 79820E & 80098E, AND A TOTAL COMBINED DUTY OF 7.45 AFA FOR QM PURPOSES UNDER PERMITS 50061 & 50248.

³ PERMITS 69775 AND 69776 HAVE A TOTAL COMBINED DUTY OF 39 AFA.

⁴ PERMITS 73258, 76665, 78152 & 81505T HAVE A TOTAL COMBINED DUTY OF 150 AFA.

⁵ PERMITS 77521, 77738, 77739 & 80174 HAVE A TOTAL COMBINED DUTY OF 1,282 AFA.

⁶ PERMITS 77979, 77980 AND 77981 HAVE A TOTAL COMBINED DUTY OF 1,515.40 AFA. PLACE OF USE IS SAME FOR ALL PERMITS.

APPENDIX C

**IMLAY AREA WATER YEAR 2012 IRRIGATION BY GROUNDWATER
PERMITS AND CERTIFICATES**

Explanation of Column Headings Groundwater Irrigation

APP NO	The file number of the Permit/Application to Appropriate/Change Water.
STAT	Indicates the status of an application: Permit (PER), Certificated (CER) or a Claim of Vested Right (VST). If an application has been certificated, the certificate number will be listed in the column.
CERT NO	If a permit has been certificated, this is the certificate number.
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 that is part of the place of use.
QTR	The quarter of the Section that is part of the place of use.
SEC	The Section that is part of the place of use.
T	The Township that is part of the place of use.
R	The Range that is part of the place of use.
PER ACRES	The number of acres that are permitted to be irrigated.
IRR 2012	The number of acres irrigated within the place of use of the associated permit, during water year 2012, as determined by field inspection.
SUPP ACRES	The number of acres by quarter quarter that have more than one appropriation appurtenant.
SUPP SRC	The source of the supplemental water: Underground (UG), Surface Water (SW), or as noted.
SUPP APP NO	The file number(s) of any supplemental water appropriations.

IMLAY AREA WATER YEAR 2012 IRRIGATION
BY GROUNDWATER PERMITS AND CERTIFICATES

APP NO	STAT	CERT NO	OWNER OF RECORD	QQ	QTR	SEC	T	R	PER ACRES	IRR 2012	SUPP ACRES	SUPP SRC	SUPP APP NO
13333	CER	5181	CAMPBELL, BARTT	SW	NE	28	32N	33E	1.54	0.00			
				NW	SE	28	32N	33E	16.16	0.00	14.13	SW	4342 ¹
				SW	SE	28	32N	33E	13.09	0.00	13.09	SW	4342 ¹
				SE	SE	28	32N	33E	7.44	0.00	7.44	SW	4342 ¹
				NE	NE	33	32N	33E	0.73	0.00			
Total Acres Permitted:								38.96	0.00	34.66			
52262	CER	12215	JOHNSON, WORTH H.	SW	NW	2	32N	34E	17.76	0.00			
				NW	SW	2	32N	34E	1.08	0.00			
Total Acres Permitted:								18.84	0.00				
77979	PER		SPRINGER MINING COMPANY	NE	SE	26	34N	35E	10.00	10.00	10.00	UG	2
77980				NE	SW	26	34N	35E	26.70	26.70	26.70	UG	2
77981				NW	SE	26	34N	35E	40.00	40.00	40.00	UG	2
				SE	NE	26	34N	35E	0.50	0.50	0.50	UG	2
				SE	NW	26	34N	35E	5.20	5.20	5.20	UG	2
				SE	SE	26	34N	35E	5.40	1.30	5.40	UG	2
				SE	SW	26	34N	35E	27.33	27.28	27.33	UG	2
				SW	NE	26	34N	35E	15.10	15.10	15.10	UG	2
				SW	SE	26	34N	35E	31.25	20.35	31.25	UG	2
				SW	SW	26	34N	35E	10.23	10.23	10.23	UG	2
				NE	NE	35	34N	35E	27.90	0.00	27.90	UG	2
				NE	NW	35	34N	35E	40.00	40.00	40.00	UG	2
				NE	SW	35	34N	35E	40.00	40.00	40.00	UG	2
				NW	NE	35	34N	35E	24.20	5.89	24.20	UG	2
				NW	NW	35	34N	35E	30.15	30.15	30.15	UG	2
NW	SE	35	34N	35E	16.07	16.07	16.07	UG	2				
NW	SW	35	34N	35E	22.71	22.71	22.71	UG	2				
SE	NE	35	34N	35E	14.50	1.59	14.50	UG	2				
SE	NW	35	34N	35E	25.19	21.14	25.19	UG	2				
SE	SW	35	34N	35E	35.31	35.31	35.31	UG	2				
SW	NE	35	34N	35E	24.31	0.19	24.31	UG	2				
SW	NW	35	34N	35E	7.50	7.50	7.50	UG	2				
SW	SE	35	34N	35E	10.14	10.14	10.14	UG	2				
SW	SW	35	34N	35E	15.44	15.44	15.44	UG	2				
Total Acres Permitted:								505.13	402.79	505.13			

¹ SOURCE OF WATER FOR PERMIT 4342 IS HUMBOLDT CREEK (CANYON)

² SPRINGER MINING COMPANY UNDER PERMITS 77979, 77980 & 77981 HAVE THE SAME PLACE OF USE, WITH A TOTAL ACREAGE OF 505.13 ACRES.

ACREAGES ARE ESTIMATES BASED ON INFORMATION CONTAINED IN THE APPLICATION, PREVIOUS REFERENCED MAPS AND AERIAL PHOTOGRAPHY. FINAL ACREAGES WILL BE DETERMINED BY FUTURE PROOF OF BENEFICIAL USE AND CERTIFICATES.

APPENDIX D

IMLAY AREA HISTORIC PUMPAGE BY POINT OF DIVERSION

IMLAY AREA HISTORIC PUMPAGE BY MANNER OF USE

IMLAY AREA HISTORICAL
PUMPAGE BY POINT OF DIVERSION

UNIQUE IDENTIFIER	PERMITS	USE	OWNER OF RECORD	2006	2007	2008	2009	2010	2011	2012
072 N30 E33 08ABAA1	69775	MM	NEVADA CEMENT COMPANY			0.00	0.00	0.00	0.00	0.00
072 N30 E33 08ABCC1	69776	MM	NEVADA CEMENT COMPANY			0.00	0.00	0.00	0.00	0.00
072 N30 E33 09CCAC1	60415, 77375	COM	AZZARELLO, CHARLES G. & KRITKOS, JUDY R.		0.00		0.00	0.56	0.56	1.01
072 N30 E33 10DDDD1	73807	MM	NEVADA CEMENT COMPANY			0.00	0.00	0.00	0.00	0.00
072 N31 E31 08DCAC1	59199	STK	BLM	11.20	11.20	11.20	11.20	11.20	3.08	3.10
072 N31 E31 23CDDC1	59198	STK	DELONG, MARGARITA J.	5.92	5.92	5.92	5.92	5.92	3.08	3.10
072 N31 E32 17DDCA1	70068	STK	TIM DELONG FAMILY TRUST AGREEMENT	11.20	11.20	11.20	11.20	11.20	3.08	3.10
072 N31 E33 03ACBC1	75879	MM	FLORIDA CANYON MINING, INC.	0.00		0.00	0.00			
072 N31 E33 03BACD1	61644	MM	FLORIDA CANYON MINING, INC.	0.00	0.00	0.00	162.85	248.74	193.50	188.29
072 N31 E33 03BADD1	75770, 75877, 77008	MM	FLORIDA CANYON MINING, INC.	0.00		0.00	2.69			
072 N31 E33 03BADD2	75875	MM	FLORIDA CANYON MINING, INC.	0.00		0.00	1.33			
072 N31 E33 03BCDA1	57098	MM	FLORIDA CANYON MINING, INC.	0.00	0.00	0.00				
072 N31 E33 03BDAA1	75873	MM	FLORIDA CANYON MINING, INC.	0.00		0.00	0.97			
072 N31 E33 03BDAA2	75874	MM	FLORIDA CANYON MINING, INC.	0.00		0.00	1.69			
072 N31 E33 03BDAD1	75878	MM	FLORIDA CANYON MINING, INC.	0.00		0.00	1.33			
072 N31 E33 03BDAD2	80098E	ENV	FLORIDA CANYON MINING, INC.						0.00	0.53
072 N31 E33 03BDBD1	61643	MM	FLORIDA CANYON MINING, INC.	0.00	0.00	0.00	232.59	0.00	0.00	1.35
072 N31 E33 03BDCA1	48998, 48999, 57097	MM	FLORIDA CANYON MINING, INC.	0.00	0.00	0.00	0.00	149.16	0.00	0.00
072 N31 E33 03BDDA1	75876	MM	FLORIDA CANYON MINING, INC.	0.00		0.00	0.69			
072 N31 E33 11BBBA1	49931	MM	FLORIDA CANYON MINING, INC.		0.00					
072 N31 E33 21DCDA1	60881	IND	PRESKO ENERGY INC	0.00	0.00	0.00	0.00	0.00		
072 N31 E33 21DDCC1	31850	IND	PRESKO ENERGY INC	0.00	0.00	0.00	0.00	0.00		
072 N31 E33 28ABCD1	60884	IND	PRESKO ENERGY INC	0.00	0.00	0.00	0.00	0.00		
072 N31 E33 28ACDB1	60883	IND	PRESKO ENERGY INC	0.00	0.00	0.00	0.00	0.00		
072 N31 E33 28BDDA1	60882	IND	PRESKO ENERGY INC	0.00	0.00	0.00	0.00	0.00		
072 N31 E33 35ABBB1	75771, 75772	MM	FLORIDA CANYON MINING, INC.	0.00		0.00	0.00	0.00	0.00	
072 N31 E33 35BDDD1	81080T	MM	FLORIDA CANYON MINING INC						7.44	
072 N31 E33 35CAAA1	76621	MM	FLORIDA CANYON MINING, INC.	0.00		0.00	140.44	59.49	139.48	390.76
072 N32 E32 30BDBC1	42141	MM	MEYERS, DANIEL J.	0.00	0.00	0.00	0.00	0.00	1.00	0.00
072 N32 E32 30CAAD1	45554	MM	MEYERS, DANIEL J.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
072 N32 E33 28CCCC1	13333	IRR	CAMPBELL, BARTT	0.00	0.00	0.00	0.00	0.00	0.00	0.00
072 N32 E33 34BCDD1	50248	QM	FLORIDA CANYON MINING, INC.	1.00	2.36	2.36	1.44	1.48	11.13	14.36
072 N32 E33 34BDBA1	50061	QM	FLORIDA CANYON MINING, INC.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
072 N32 E33 34DAAB1	61707	MM	FLORIDA CANYON MINING, INC.	0.00	0.00	0.00	27.23	21.58	23.09	28.02
072 N32 E34 02CBBB1	52262	IRR	JOHNSON, WORTH H.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
072 N32 E34 06BCBA1	59196	STK	DELONG, MARGARITA J.	7.83	7.83	7.83	7.83	7.83	2.58	3.26
072 N32 E34 08DDCD1	55021	CON	FREHNER, GARTH	0.00	0.00	0.00	0.00	0.00	0.00	0.00
072 N32 E34 09BCBA1	75397	COM	CANNIZZARO TRUST, DATED 4/9/2002				0.00	0.00	0.00	0.00
072 N32 E34 10BBCC1	18296	DOM	TRANSPORTATION DEPARTMENT-NEVADA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
072 N32 E34 30BADB1	54311	MM	WAGNER, ROGER L.		0.00					
072 N32 E35 05ACAD1	29407, 51814	COM	DONALD V ESENARRO DUSTI D ESENARRO 1994 TRUST	14.24	6.46	6.46	7.28	5.59	5.37	8.02

IMLAY AREA HISTORICAL
PUMPAGE BY POINT OF DIVERSION

UNIQUE IDENTIFIER	PERMITS	USE	OWNER OF RECORD	2006	2007	2008	2009	2010	2011	2012
072 N32 E35 05BCCA1	80108	COM	FEDEX FREIGHT INC						0.50	0.02
072 N32 E35 08DBCC1	68127	MM	CHRISTENSEN, MILTON	0.00	0.00	0.00	0.00	0.00	0.00	0.00
072 N32 E35 11BDDA1	V05891, 58419	STK	FISHER, JEROME R.; HUNTSMAN RANCH, LLC	13.44	13.44	13.44	13.44	13.44	13.44	7.84
072 N32 E35 13AAAD1	47059	STK	HUNTSMAN RANCH, LLC	10.86	10.86	10.86	10.86	10.86	10.86	10.86
072 N32 E35 34DCBA1	77399	STK	PRUITT REVOCABLE LIVING TRUST				11.20	11.20	11.20	11.20
072 N32 E36 13DDDD2	70744	MM	CASCADE GOLD, LLC.			0.00	0.00	0.00	0.00	
072 N32 E36 24ACBA2	70746	MM	CASCADE GOLD, LLC.			0.00	0.00	0.00	0.00	
072 N32 E36 24ADBC2	70748	MM	CASCADE GOLD, LLC.			0.00	0.00	0.00	3.36	
072 N32 E37 19CADB1	80555T	MM	CASCADE GOLD LLC						0.00	
072 N32 E37 30BDCC2	70750	MM	CASCADE GOLD, LLC.			0.00	0.00	0.00		
072 N33 E33 16CDD 1	V07663	STK	TIM DELONG FAMILY TRUST AGREEMENT	11.20	11.20	11.20	11.20	11.20	3.08	3.10
072 N33 E34 01DDCC1	76865	MM	SPRINGER MINING COMPANY					0.00		
072 N33 E34 19AAAA1	68033	STK	TIM DELONG FAMILY TRUST AGREEMENT	11.20	11.20	11.20	11.20	11.20	2.58	3.26
072 N33 E34 23AAAA1	68032	STK	TIM DELONG FAMILY TRUST AGREEMENT	11.20	11.20	11.20	11.20	11.20	2.58	3.26
072 N33 E35 27ABBB1	69796	STK	HUNTSMAN RANCH, LLC	11.20	11.20	11.20	11.20	11.20	11.20	5.60
072 N33 E35 33BABA1	58505	COM	TA OPERATING CORP DBA TRAVEL CENTERS	7.61	16.17	16.17	13.78	13.29	10.88	10.25
072 N33 E35 33BCAA1	57710, 57711	COM	TA OPERATING CORP DBA TRAVEL CENTERS	19.89	11.33	11.33	15.65	17.01	14.36	13.12
072 N33 E35 33BDAA1	44275	COM	TA OPERATING CORP DBA TRAVELCENTERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
072 N33 E36 15BBBC1	17562	MM	TAHOE MILLING, INC.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
072 N33 E36 17BDCC1	81505T	MM	SUNRISE MINERALS LLC							0.00
072 N33 E36 17CABA1	78152	MM	SUNRISE MINERALS LLC				0.00	0.00	75.00	0.00
072 N33 E36 17DDAA1	76665	MM	SUNRISE MINERALS LLC			2.31	32.63	37.73	13.93	18.41
072 N33 E36 17DDCC1	71091, 73258	MM	SUNRISE MINERALS LLC	0.00	0.00	34.04	25.44	10.89	11.55	17.25
072 N33 E36 24BDCB1	61706	MM	CARL, MARCI (1/2 INTEREST), NATCHEZ PASS, LLC (1/4 INTEREST) & GEODESY RES. LTD (1/4 INTEREST)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
072 N33 E36 34CCDC1	58321	MM	GEODESY RESOURCES, LLC	0.00	5.74	5.74	0.00	0.00	17.62	0.00
072 N33 E37 30ACDB1	71309	MM	NATCHEZ PASS, LLC	0.00	3.36	3.36	0.00	1.00	1.00	1.00
072 N34 E34 35BBDA1	39074, 76078, 77738, 77739	MM	GOLDEN PREDATOR MINES US INC	0.00	0.00	0.00	0.00	0.00	0.00	0.00
072 N34 E35 03BACA1	48997, 57096, 61203	MM	FLORIDA CANYON MINING, INC.	424.10	771.88	771.88	174.40	2.23	166.21	99.72
072 N34 E35 25CBDC1	27052	COM	TELUM, INC.	0.00	0.00	0.00	0.00	0.00	1.00	1.00
072 N34 E35 25CCAD1	64020	QM	TRANSPORTATION DEPARTMENT-NEVADA	1.08	1.08	1.08	1.08	1.08	1.08	1.07
072 N34 E35 26CDAA1	43950, 77979	IRR	SPRINGER MINING COMPANY	1,212.90	675.62	675.62	61.10	550.00	613.83	920.52
072 N34 E35 31BDAA1	42465, 42466, 76446, 77521, 80174	MM	GOLDEN PREDATOR MINES US INC; SPRINGER MINING COMPANY		0.00		20.85	1.10	0.00	0.00
072 N34 E35 31BDCD1	12726, 76447	MM	SPRINGER MINING COMPANY	0.00	27.60	27.60	0.00			
072 N34 E35 31BDCD2	42464, 77521	MM	SPRINGER MINING COMPANY		0.00		0.00			
072 N34 E35 33BDCA1	12727	MM	SPRINGER MINING COMPANY	0.00	0.00	0.00	0.00			
072 N34 E35 35DABB1	45454, 45455, 77980, 77981	IRR	SPRINGER MINING COMPANY	0.00	515.31	515.31	476.91	434.10	753.98	473.90
No POC Filed	80978, 80979	MM	FLORIDA CANYON MINING, INC.							0.00
Site Name Not Established	82177	STK	TIM DELONG FAMILY TRUST AGREEMENT							11.2
Site Name Not Established	79819E, 79820E	ENV	FLORIDA CANYON MINING, INC.					0.00	5.56	6.91
TOTALS				1,786.07	2,142.16	2,178.51	1,518.82	1,671.48	2,138.19	2,264.39

Note: Pumpage in acre-feet.

IMLAY AREA HISTORICAL PUMPAGE BY MANNER OF USE

	2006	2007	2008	2009	2010	2011	2012
QM	2	2	3	3	3	12	15
IRR	1,213	1,191	1,191	538	984	1,368	1,394
COM	42	34	34	37	36	33	33
REC	0	0	0	0	0	0	0
STK	105	105	105	116	116	67	69
MM	424	809	845	825	532	653	745
CON	0	0	0	0	0	0	0
ENV	0	0	0	0	0	6	7
DOM	75	75	75	78	68	77	82
TOTAL	1,861	2,217	2,254	1,597	1,739	2,215	2,345

All values are in acre-feet.

Note: Totals may vary due to rounding.

