

STATE OF NEVADA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

DIVISION OF WATER RESOURCES

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STATE ENGINEER



DESERT VALLEY (HYDROGRAPHIC BASIN 2-031)

CROP INVENTORY

2012

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ABSTRACT

This inventory represents the status and usage of all permitted and certificated groundwater rights for irrigation purposes located within Desert Valley, Hydrographic Basin 2-031, for the year 2012. **Only those groundwater rights associated with irrigation purposes are represented in this report.** For a listing and summary of all other manners of use within the basin please refer to the [Nevada Division of Water Resources Hydrographic Basin Summary](#).

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 certification, cancellation, forfeiture or withdrawal on a continuing basis.

For the year 2012, the permitted and certificated groundwater rights for irrigation purposes totaled **6,680 acres** with a total duty of 27,652 acre-feet within Desert Valley. An estimated **6,252 acres** were irrigated and 24,756 acre-feet were pumped during 2012.

HYDROGRAPHIC BASIN SUMMARY

HYDROGRAPHIC BASIN NUMBER	031, REGION 2
HYDROGRAPHIC BASIN NAME	DESERT VALLEY
COUNTIES	HUMBOLDT, PERSHING
MAJOR COMMUNITIES	N/A
DESIGNATED BASIN	DESIGNATED
DENIALS BASED UPON WATER AVAILABILITY	IRR
ESTIMATED IRRIGATION PUMPAGE 2012 (ACRE-FEET)	24,756*
STATE ENGINEER'S ORDERS	
<u>NO. 535 – DESIGNATION OF BASIN</u>	May 9, 1975

COMMITTED GROUNDWATER RESOURCE FOR IRRIGATION PURPOSES: 27,652 ACRE-FEET
DATE: FEBRUARY 2013

NOTE: Committed groundwater resource data are accurate for February 2013. Rights may be subject to change applications, certification, withdrawals, forfeiture and cancellations; each of these circumstances could impact the duty, diversion rate and acreage associated with a given right. Be advised this report acknowledges that other manner of uses may be present in the basin; however, only those groundwater rights associated with irrigation purposes are represented in this report.

* Acreage represented in this report may have surface water rights appurtenant. This report acknowledges those acres with surface water rights but is not intended to quantify, nor present any definitive use of those surface water rights. The data represent only the pumping of groundwater and the acreage to which it is applied.

PURPOSE AND SCOPE

The purpose of this report is to inventory all of the groundwater resources allocated to irrigation and described by the Office of the State Engineer, Nevada Division of Water Resources, and to estimate the amount of groundwater pumped for irrigation purposes within the Desert Valley Hydrographic Basin 2-031, for the year 2012.

DESCRIPTION OF THE STUDY AREA

The Desert Valley Hydrographic Basin is located in north central Nevada (Figure 1). Desert Valley occupies approximately 1,052 square miles in Humboldt County and Pershing County. The adjacent hydrographic basins are Silver State Valley (2-032) to the west, Kings River Valley – Sod House Subarea (4-030B) to the north and west, Pine Forest Valley (2-029) to the north and east, Black Rock Desert (2-028) to the east and Winnemucca Segment (4-070) to the southwest, Imlay Area (4-072) to the South.

Desert Valley is bounded on the north by the Quinn River, to the east by the Slumbering Hills and the Blue Mountain, to the south by the Eugene Mountains and Alpha Mountain and to the west by the Jackson Mountains. The valley is approximately 30 miles wide by 55 miles long with basin elevations ranging from approximately 4,300 feet above mean sea level on the valley floor to approximately 9,000 feet above mean sea level in the surrounding mountains. Irrigation occurs primarily on the west to northwest part of the basin (Figure 2).

FIGURE 1. LOCATION MAP OF DESERT VALLEY, BASIN 2-031

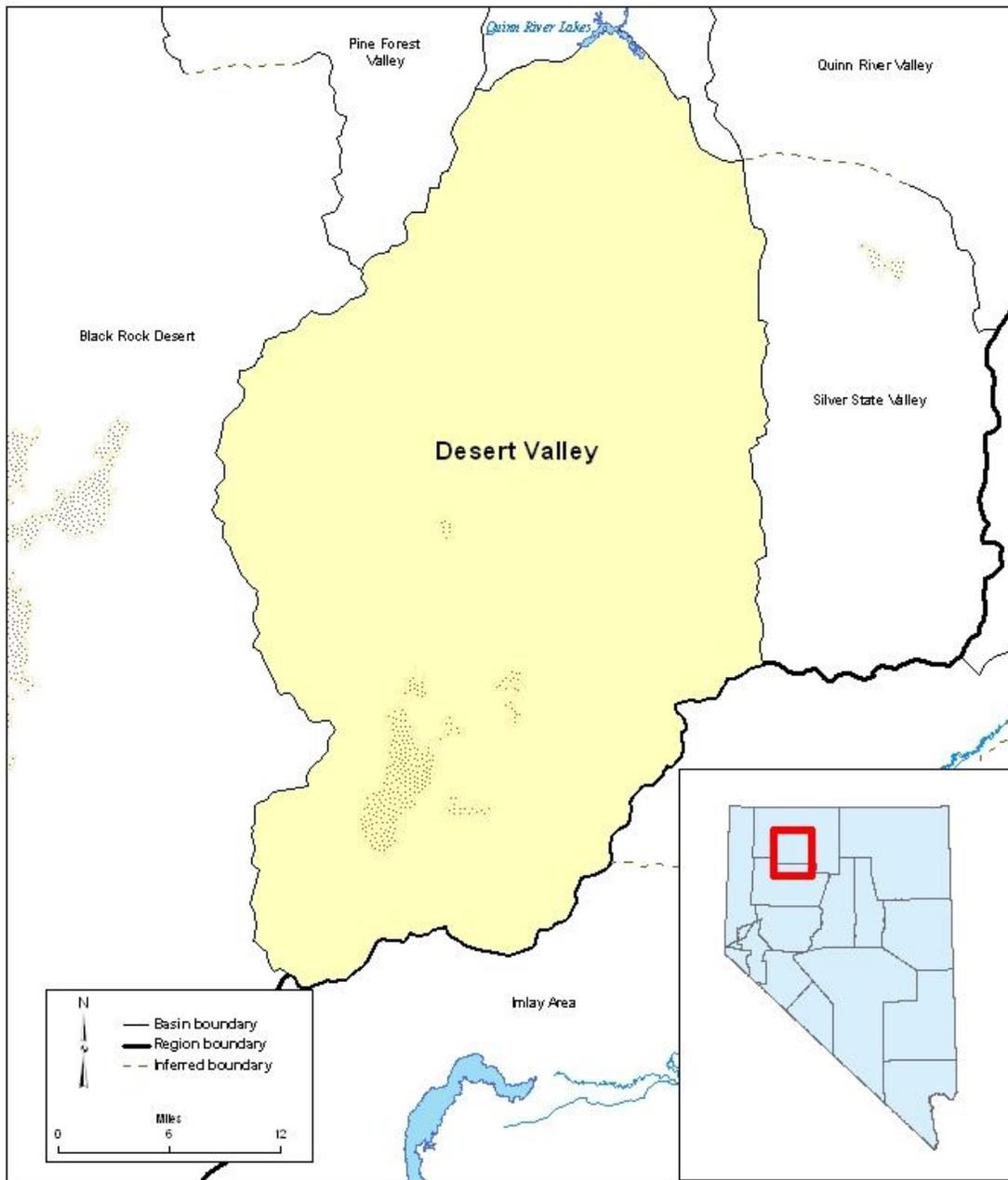
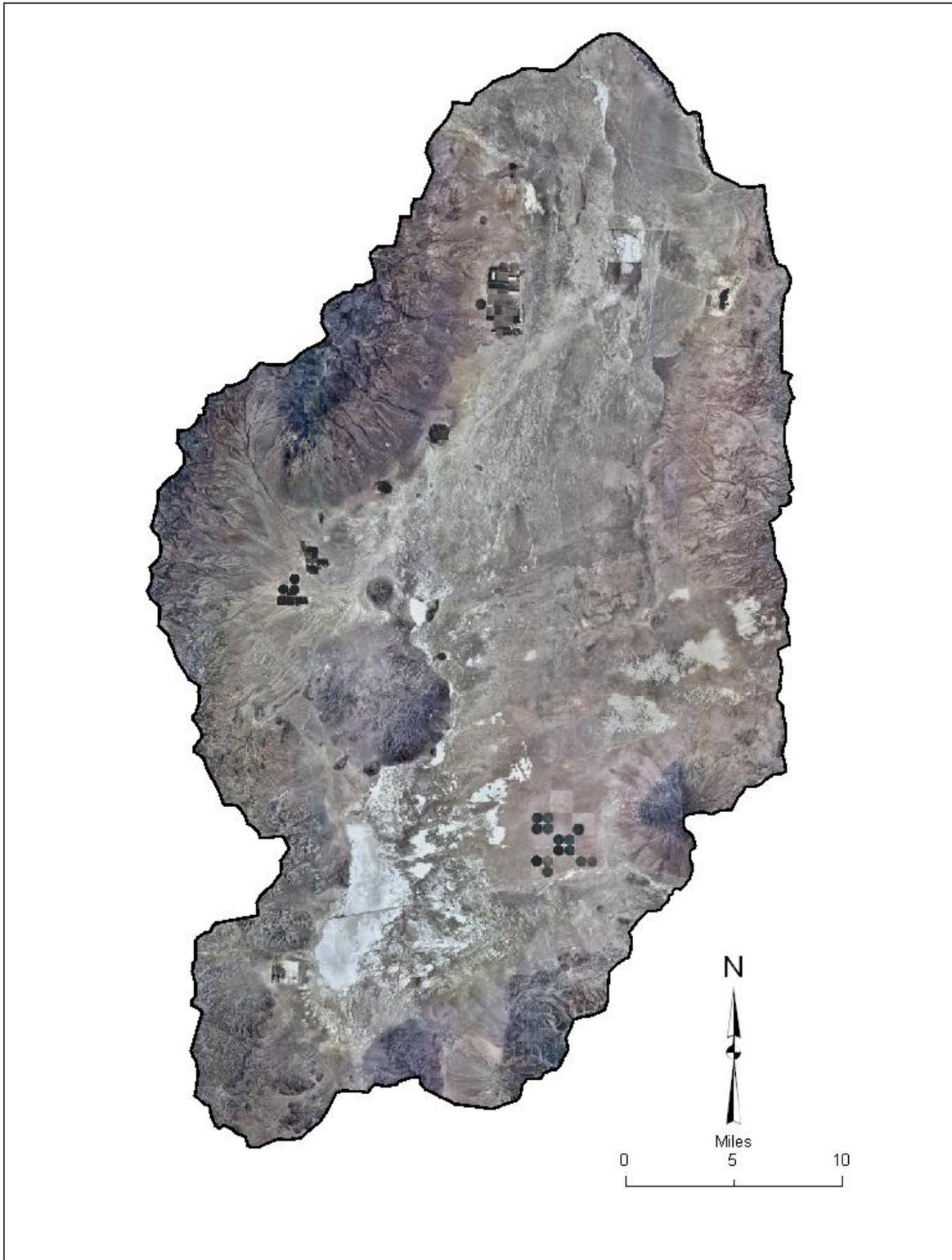


FIGURE 2. MAP OF DESERT VALLEY IRRIGATED ACREAGE



NATIONAL AGRICULTURAL IMAGERY PROGRAM (NAIP) 2010

METHODS TO ESTIMATE IRRIGATED ACREAGE

This report estimates the number of acres irrigated by the groundwater pumped under permits and certificates issued by the State Engineer. The following methods were used to arrive at the estimated acreage:

- Field inspection of the place of use was conducted to estimate the number of acres under cultivation.
- In cases where field inspection of the place of use is not practical, aerial and/or satellite imagery are analyzed to determine acreages.

METHODS TO ESTIMATE PUMPAGE

This report estimates the amount of groundwater pumped under permits and certificates issued by the State Engineer. The following methods were used to arrive at the estimated use:

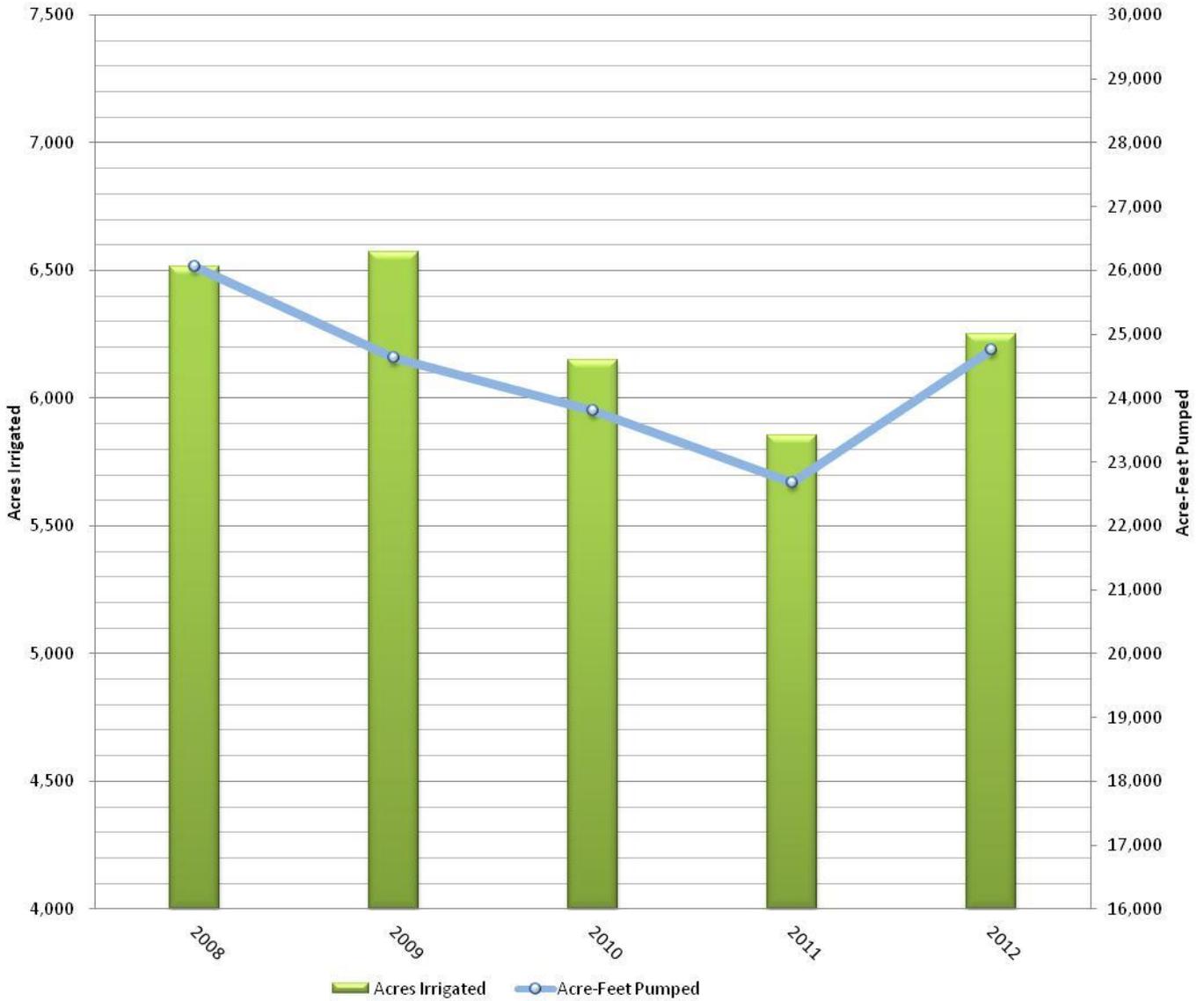
- Where totalizing meters were in place, meter readings were taken and compared with previous data (if available).
- Where meters were not in place, the place of use was inspected to estimate the amount of acreage under cultivation. The number of acres under cultivation was then multiplied by certificated or permitted duty rate associated with that acreage.
- If there were no acres under cultivation, zero pumpage was recorded.

APPENDIX A

DESERT VALLEY HISTORICAL CROP INVENTORY

HISTORICAL CROP INVENTORY

Year	2008	2009	2010	2011	2012
Acres Irrigated	6,516	6,573	6,150	5,856	6,252
Acre-Feet Pumped	26,066	24,626	23,813	22,673	24,756



Note: Historical pumpage data modified from previously published data.

APPENDIX B
2012 DESERT VALLEY CROP INVENTORY

EXPLANATION OF COLUMN HEADINGS

BASIN	The hydrographic basin in which the water right resides.
APP	The file number of the Application to Appropriate/Change Water or the Claim of Vested of Right.
CERT	The certificate number that was issued under the Application to Appropriate/Change Water.
FILE DATE	The date when the Application to Appropriate/Change Water or the Claim of Vested Right was filed in the Office of the State Engineer.
SOURCE	States the source of water: underground (UG), stream (STR), or spring (SPR).
STATUS	Indicates the status of an application: Permit (PER), Certificated, or a Claim of Vested Right (VST).
QTR	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.
TWN	The Township in which the point of diversion is located.
RNG	The Range in which the point of diversion is located.
SUP	Indicates whether the groundwater right is part of a group of groundwater rights used to irrigate all or a portion of the same acreage (supplemental). A “Y” in this column signifies the groundwater right is supplemental.
SUP PERMIT NO.	The application number(s) of the water right(s) that are supplemental.
PERMITTED ACRES	The number of acres defined by the permit or certificate that are eligible to be irrigated.
DUTY	The amount of water that may be pumped in a given year, or season, as defined by the permit, certificate, or claim of vested right. If there is a supplemental group, the total combined duty may be listed at the end of the supplemental group in bold .
UNITS	The units associated with the duty, expressed as acre-feet annually (AFA) or acre-feet per season (AFS).
COUNTY	The County in which the point of diversion is located.

OWNER OF RECORD	The owner of the water right as recorded in the records of the State Engineer. A water right may have more than one owner of record. Only the first, alphabetically, is listed in this table.
CROP Y/N	Indicates whether or not a crop was in production during the water year. A “Y” in this column signifies a crop was in production while a “N” signifies no crop was in production.
TYPE	The common name description of the plants under cultivation (e.g. alfalfa).
IRR	The method by which the water is applied to the crop and ground (e.g. pivot).
IRR ACRES	The estimate of the number of acres irrigated associated with a particular water right.
DUTY USED/ PUMPAGE	The estimate of the amount of water pumped under a particular water right, expressed in acre-feet. One acre-foot equals 325,851 gallons.

2012 DESERT VALLEY CROP INVENTORY

Basin	App	Cert	File Date	Status	Source	Qtr	Qtr	Sec	Twn	Rng	Sup	Supplemental		Units	County	Owner of Record	Crop	Type	Irrigation	Irr Acre	A/F Pumped		
												Permit No	Permitted Acres										
31	41576	10995	6/24/80	CER	UG	SW	SE	11	40N	33E	Y		141.4	AFA	HU	Giordano, Charles M.	Y	Grass Hay	Pivot	137.00	548.00		
	35642	10987	7/18/78										227.35					909.40	AFA	Alfalfa	sprinkler	62.00	248.00
31	41579	11279	6/24/80	CER	UG	SE	SE	11	40N	33E	Y		202.42	AFA	HU	Giordano, Charles M.	Y	Alfalfa	Pivot	132.00	528.00		
	27786	10985	9/24/73										202.42									809.68	AFA
31	20683	7386	8/31/62	CER	UG	SW	SW	14	40N	33E	Y		300.4	AFA	HU	Giordano, Charles M.	Y	Alfalfa	Flood	160.00	640.00		
	31334	10375	4/14/77										22.73									90.92	AFA
31	23316	7463	8/16/66	CER	UG	SE	NW	14	40N	33E	Y		398.18	AFA	HU	Giordano, Charles M.	Y	Alfalfa	Flood	87.70	350.80		
																		Grain	Flood	80.00	320.00		
31	31331	10750	4/14/77	CER	UG	SE	NW	14	40N	33E	Y		280.6	AFA	HU	Giordano Farming Co.	Y	Alfalfa	Flood	171.00	684.00		
31	31332	10751	4/14/77	CER	UG	SE	SW	14	40N	33E	Y		300.4	AFA	HU	Giordano Farming Co.	Y	Alfalfa	Flood	167.00	668.00		
31	31335	10752	4/14/77	CER	UG	NW	SE	14	40N	33E	Y		160	AFA	HU	Giordano Farming Co.	Y	Alfalfa	Flood	131.30	525.20		
31	23315	7381	8/16/66	CER	UG	NE	NE	15	40N	33E	Y		280.6	AFA	HU	Giordano, Charles M.	Y	Alfalfa	Flood	70.00	280.00		
	31333	10374	4/14/77										19.69									78.76	AFA
Total Supplemental Right													All Above	1286.87	5,147.48	AFA	HU						
																		Alf	Pivot & Flood	981.00	3,924.00		
																		Gass Hay/Grain	Pivot & Flood	284.00	1,136.00		
																		Total Acres / Acre Feet		1,265.00	5,060.00		

2012 DESERT VALLEY CROP INVENTORY

Basin	App	Cert	File Date	Status	Source	Qtr	Qtr	Sec	Twn	Rng	Sup	Supplemental		Duty	Units	County	Owner of Record	Crop	Type	Irrigation	Irr Acre	A/F Pumped	
												Permit No	Permitted Acres										
31	26503	8307	1/25/72	CER	UG	SW	NE	22	40N	33E	Y	26504, 23663	450.4	1,042.26	AFA	HU	Hummel, Melvin Leslie .	Y	Alf.	Pivot	122.00	488.00	
												Supp. Total	450.4	1,042.26	AFA		& Deborah L						
31	26504	8063	1/25/72	CER	UG	SE	NE	22	40N	33E	Y	26503, 23663	204	816.00	AFS	HU	Hummel, Melvin Leslie .	Y	Alf.	Pivot	122.00	488.00	
												Supp. Total	450.4	1,042.26	AFA		& Deborah L						
31	23663	6543	2/1/67	CER	UG	NE	NW	23	40N	33E	Y	26503, 26504	189.3	757.20	AFA	HU	Hummel, Melvin Leslie .	Y	Alf.	Pivot	122.00	488.00	
												Supp. Total	450.4	1,801.60	AFA		& Deborah L						
31	14831	5177	2/5/53	CER	UG	SE	SE	22	40N	33E	Y	14832, 25034	455.15	1,820.60	AFA	HU	Bottle Creek Ranch Co.	Y	Alfalfa	Flood	329.00	1,316.00	
	25035	7350	3/1/61	CER	UG	SE	SE	22	40N	33E		25035, Surface											
31	14832	4535	2/5/53	CER	UG	SW	SW	23	40N	33E	Y	14831, 25034	374.54	1,498.16	AFA	HU	Bottle Creek Ranch Co.	Y	Alfalfa	Flood	284.00	1,136.00	
												25035, Surface											
31	25034	7474	3/1/61	CER	UG	SE	SW	23	40N	33E	Y	14831, 14832	320	1,280.00	AFS	HU	Bottle Creek Ranch Co.	N					
												25035, Surface											
												Total Supplemental Right		642.7	2,570.80	AFA	HU	Bottle Creek Ranch Co.		Alf	Flood	799.00	
31	27787		9/24/73	CAN	UG	NE	NE	27	40N	33E			0	0.00		HU	Bottle Creek Ranch Co.	Y	Alfalfa	Flood	186.00	744.00	

2012 DESERT VALLEY CROP INVENTORY

Basin	App	Cert	File Date	Status	Source	Qtr	Qtr	Sec	Twn	Rng	Sup	Supplemental		Duty	Units	County	Owner of Record	Crop	Type	Irrigation	Irr Acre	A/F Pumped
												Permit No	Permitted Acres									
31	81158		9/8/11	PER	UG	SE	SW	26	40N	33E	Y			239.16	AFA	HU	Giordano,	Y	Alf	Flood	168.00	440.39
	81159		9/8/11	PER	UG	SE	SW	26	40N	33E	Y			202.26	AFA	HU	Giovanni & Shannon					
	81161		9/8/11	PER	UG	SE	SW	26	40N	33E	Y			411.50	AFA	HU						
													239.38									
31	81160		7/29/94	PER	UG	NE	SE	26	40N	33E	Y			229.99	AFA	HU	Giordano,	Y	Alf	Flood	72.00	288.00
	81162		4/23/04	PER	UG	NE	SE	26	40N	33E	Y			76.92	AFA	HU	Giovanni & Shannon					
31	22934	7948	1/24/66	CER	UG	SW	NE	20	39N	33E	Y	29131, Surf.	383.55	1,534.20	AFA	HU	Hoенck, Robert E.	Y	Alf	Pivot	80.00	320.00
31	29131	10391	1/9/75	CER	UG	NE	NW	20	39N	33E	Y	22934, Surf.	406.44	1,625.76	AFA	HU	Hoенck, Robert E.	Y	Alf	Flood	237.00	948.00
31					UG													Past.	Flood	60.00	240.00	
													428.18	1,712.72	AFA					377.00	1,508.00	
31	24657	7098	8/22/68	CER	UG	SE	SE	35	39N	32E	Y	51419, V01335	100.4	401.60	AFA	HU	McKernan, Luara	Y	Alf	Flood	52.70	210.80
																			Past.	Flood	10.20	40.80
31	51419	13612	10/8/87	CER	UG	SE	SW	36	39N	32E	Y	24657, V01335	137.91	551.64	AFA	HU	McKernan, Luara	Y	Past.	Pivot	138.60	200.52
													138.33	553.32	AFA					201.50	452.12	
31	17577	5771	6/3/58	CER	UG	SE	SE	17	38N	32E	Y	20209, 23444 23792	140.82	563.28	AFS	HU	DeLong Ranches INC.	Y	Past.	Flood	24.00	96.00
31	20209	6431	12/21/61	CER	UG	NW	NE	20	38N	32E	Y	17577, 23444 23792	60.4	241.60	AFS	HU	DeLong Ranches INC.	Y	Alf.	Flood	76.00	304.00
31	23444	7788	10/12/66	CER	UG	NE	NE	20	38N	32E	Y	17577, 20209 23792	177.2	708.80	AFA	HU	DeLong Ranches INC.	Y	Past.	Flood	76.00	920.31
31	23792	7445	4/7/67	CER	UG	SW	NW	21	38N	32E	Y	17577, 20209	126.2	504.80	AFS	HU	DeLong Ranches INC.	Y	Past.	Flood	124.00	496.00
													277.98	1,111.92	AFS							

2012 DESERT VALLEY CROP INVENTORY

Basin	App	Cert	File Date	Status	Source	Qtr	Qtr	Sec	Twn	Rng	Sup	Supplemental		Duty	Units	County	Owner of Record	Crop	Type	Irrigation	Irr Acre	A/F Pumped						
												Permit No	Permitted Acres															
31	27948	9374	12/6/73	CER	UG	NW	NW	29	38N	32E	Y	27948-52 35651-54		171.00	AFA	HU	ST. Clair, Rodney& Virginia	Y	Alf.	Pivot	122.00	488.00						
31	27949	9375	12/6/73	CER	UG	NW	SE	30	38N	32E	Y	27948-52 35651-54		1,571.00	AFA	HU	ST. Clair, Rodney& Virginia	Y	Alf.	Pivot	124.00	496.00						
31	27950	9376	12/6/73	CER	UG	NW	SW	29	38N	32E	Y	27948-52 35651-54		1,712.90	AFA	HU	ST. Clair, Rodney& Virginia	Y	Alf.	Pivot	127.00	508.00						
31	27951	9337	12/6/73	CER	UG	NW	NE	31	38N	32E	Y	27948-52 35651-54		2,260.96	AFA	HU	ST. Clair, Rodney& Virginia	N										
31	27952	9378	12/6/73	CER	UG	NW	NW	32	38N	32E	Y	27948-52 35651-54		1,940.20	AFA	HU	ST. Clair, Rodney& Virginia	Y	Alf.	Pivot	125.00	500.00						
31	35651	10790	7/24/78	CER	UG	NE	NE	31	38N	32E	Y	27948-52		1,838.43	AFA	HU	ST. Clair, Rodney& Virginia	Y	Alf.	Pivot	125.00	500.00						
	35654	10793	7/24/78	CER	UG	NE	NE	31	38N	32E	Y	35651-54		1,679.22	AFA													
31	35652	10791	7/24/78	CER	UG	NW	NE	31	38N	32E	Y	27948-52		2,048.34	AFA	HU	ST. Clair, Rodney& Virginia	Y	Alf.	Pivot	125.00	500.00						
	35653	10792	7/24/78	CER	UG	NW	NE	31	38N	32E	Y	35651-54		1,396.93	AFA													
Total Supplemental Right																												
													973.64	3,894.56	AFA													
31	31300	9525	4/7/77	CER	UG	SE	NW	19	36N	34E	N			125.66	502.64	AFA	HU	Crawford, Brenda D.	Y	Alf.	Pivot	130.00	520.00					
31	31301	9526	4/7/77	CER	UG	SE	NE	19	36N	34E	N			125.66	502.64	AFA	HU	Crawford, Brenda D.	Y	Alf.	Pivot	130.00	445.33					
31	31302	9527	4/7/77	CER	UG	SE	SW	19	36N	34E	N			125.66	502.64	AFA	HU	Crawford, Brenda D.	Y	Alf.	Pivot	129.00	557.08					
31	31303	9533	4/7/77	CER	UG	SE	SE	19	36N	34E	N			125.66	502.64	AFA	HU	Crawford, Brenda D.	Y	Alf.	Pivot	130.00	538.64					

2012 DESERT VALLEY CROP INVENTORY

Basin	App	Cert	File Date	Status	Source	Qtr	Qtr	Sec	Twn	Rng	Sup	Supplemental		Units	County	Owner of Record	Crop	Type	Irrigation	Irr Acre	A/F Pumped	
												Permit No	Permitted Acres									
31	81512		1/25/12	PER	UG	SE	SW	28	36N	34E			242.99	195.24	AFA	HU	Crawford Family Trust	N				
	81513		1/25/12	PER	UG	SE	SW	28	36N	34E				776.72	AFA	HU	Crawford Family Trust					
	81514		1/25/12	PER	UG	SE	SW	28	36N	34E				387.51	AFA	HU	Crawford Family Trust					
31	31296	9521	4/7/77	CER	UG	SE	SW	29	36N	34E	N		125.66	502.64	AFA	HU	Crawford, Brenda D.	Y	Alf.	Pivot	128.00	512.00
31	31297	9522	4/7/77	CER	UG	NE	SE	29	36N	34E	N		125.66	502.64	AFA	HU	Crawford, Brenda D.	Y	Alf.	Pivot	128.00	468.49
31	31298	9523	4/7/77	CER	UG	SE	NW	29	36N	34E	N		125.66	502.64	AFA	HU	Crawford, Brenda D.	Y	Alf.	Pivot	130.00	482.18
31	31299	9524	4/7/77	CER	UG	NE	NE	29	36N	34E	N		125.66	502.64	AFA	HU	Crawford, Brenda D.	Y	Grain	Pivot	130.00	415.61
31	74128		4/6/06	PER	UG	SW	SW	21	36N	34E	N		0	498.80	AFA	HU	Crawford, Brenda D.	Y	Alf.	Pivot	140.00	646.11
31	31293	9517	4/7/77	CER	UG	SE	SE	31	36N	34E	N		124.66	498.64	AFA	HU	Crawford, Brenda D.	Y	Alf.	Pivot	130.00	585.03
31	31294	9518	4/7/77	CER	UG	SE	NW	31	36N	34E	N		125.66	502.64	AFA	HU	Crawford, Brenda D.	Y	Alf.	Pivot	130.00	579.05
31	31295	9519	4/7/77	CER	UG	SE	NE	31	36N	34E	N		125.66	502.64	AFA	HU	Crawford, Brenda D.	Y	Alf.	Pivot	130.00	473.49
31	80394		1/10/11	PER	UG	SE	SW	31	36N	34E			124	496.00	AFA	HU	Crawford Family Trust		Alf.	Pivot	130.00	431.60
	80395		1/10/11	PER	UG	SE	SW	31	36N	34E				247.32	AFA	HU	Crawford Family Trust					
31	81511		1/25/12	PER	UG	NW	NE	32	36N	34E			242.99	971.96	AFA	HU	Crawford Family Trust	N				
	81515		1/25/12	PER	UG	NW	NE	32	36N	34E				581.13	AFA	HU	Crawford Family Trust					
31	31290	9515	4/7/77	CER	UG	NE	NW	33	36N	34E	N		125.66	502.64	AFA	HU	Crawford, Brenda D.	Y	Grain	Pivot	130.00	328.16
31	31291	9516	4/7/77	CER	UG	NE	NE	33	36N	34E	N		125.66	502.64	AFA	HU	Crawford, Brenda D.	Y	Alf.	Pivot	130.00	556.45

Total Acre Feet Pumped = 24,756.02
Total Acres = 6,251.50