

STATE OF NEVADA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

DIVISION OF WATER RESOURCES

JASON KING, P.E.
STATE ENGINEER



BUENA VISTA VALLEY (HYDROGRAPHIC BASIN 10-129)

CROP INVENTORY

2013

By:
Kim Davis, Mark Beutner
Steve DelSoldato

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ABSTRACT

This inventory represents the status and usage of all permitted and certificated groundwater rights for irrigation purposes located within Buena Vista Valley, Hydrographic Basin 10-129, for the year 2013. **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 actions, such as certification, cancellation, forfeiture or withdrawal on a continuing basis.

For the year 2013, the permitted and certificated groundwater rights for irrigation purposes totaled **5,329 acres** with a total duty of 21,567 acre-feet within Buena Vista Valley. An estimated **3,198 acres** were irrigated and 9,729 acre-feet were pumped during 2013.

HYDROGRAPHIC BASIN SUMMARY

HYDROGRAPHIC BASIN NUMBER	129, REGION 10
HYDROGRAPHIC BASIN NAME	BUENA VISTA VALLEY
COUNTIES	CHURCHILL, PERSHING
MAJOR COMMUNITIES	UNIONVILLE
DESIGNATED BASIN	DESIGNATED
DENIALS BASED UPON WATER AVAILABILITY	2741 , IRR DEN, 1/29/1982 2757 , IRR DEN, 4/9/1982 2782 , IRR DEN, 11/5/1982 2984 , IRR DEN, 7/13/1984 2998 , IRR DEN, 8/8/1984 4710 , IRR, DEN, 3/23/1999 5362 , IRR DEN, 6/4/2004
ESTIMATED IRRIGATION PUMPAGE 2012 (ACRE-FEET)	9,729*
STATE ENGINEER'S ORDERS	
NO. 732 – DESIGNATION OF BASIN	OCTOBER 2, 1979

COMMITTED GROUNDWATER RESOURCE FOR IRRIGATION PURPOSES: 20,606 ACRE-FEET
DATE: MAY 2014

NOTE: Committed groundwater resource data are accurate for May 2014. 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 Buena Vista Valley Hydrographic Basin 10-129 for the year 2013.

DESCRIPTION OF THE STUDY AREA

The Buena Vista Valley Hydrographic Basin is located in north central Nevada (Figure 1). Buena Vista Valley occupies approximately 742 square miles in Pershing and Churchill Counties. The adjacent hydrographic basins are Grass Valley (4-071) to the northeast, Pleasant Valley (10-130) to the east, Dixie Valley (10-128) to the south and east, Carson Desert (8-101) to the southwest, Carson Desert Packard Valley Subarea (8-101A) and Lovelock Valley – Oreana Subarea (4-073A) to the west, and Imlay Area (4-072) to the north and west.

Buena Vista Valley is open ended in the north and south, but is bounded to the east by the lower lying East and Stillwater Ranges and to the west by the northern echelon of the Humboldt Range. The valley is approximately 22 miles wide by 55 miles long with basin elevations ranging from approximately 5,000 feet above mean sea level on its expansive playa to approximately 9,000 feet above mean sea level in the surrounding mountains. Irrigation occurs primarily in the north portion of the basin (Figure 2).

FIGURE 1. LOCATION MAP OF BUENA VISTA VALLEY, BASIN 10-129

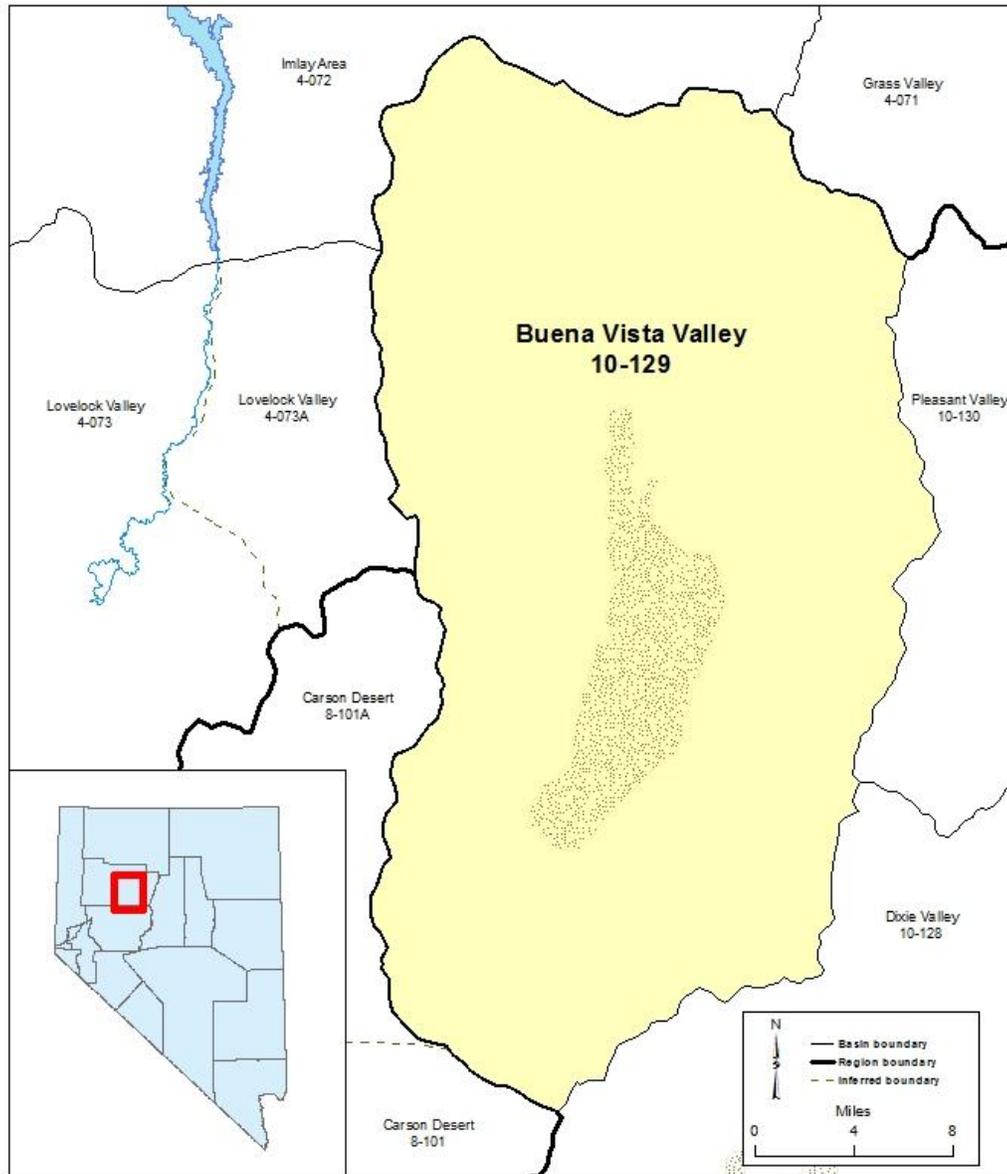
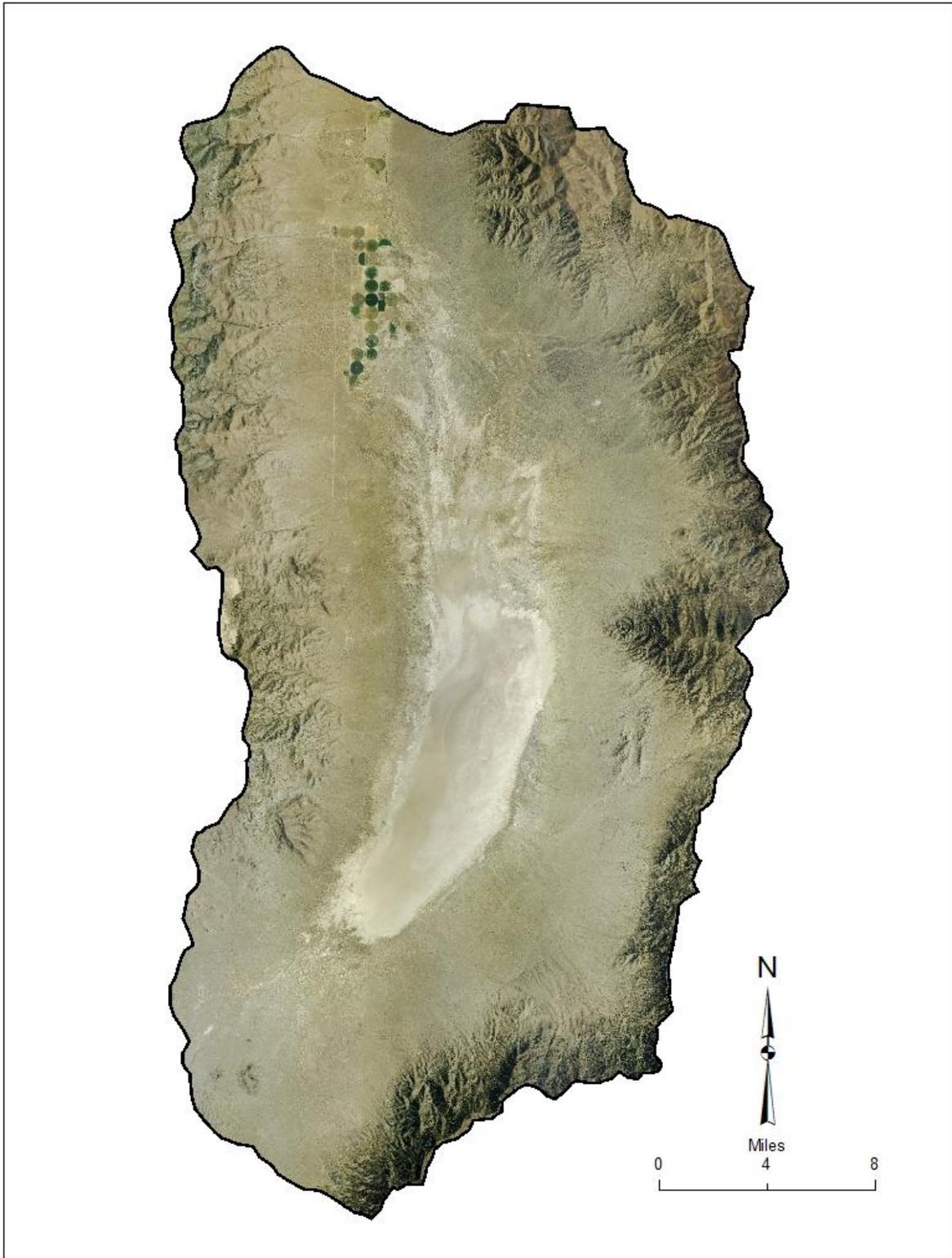


FIGURE 2. MAP OF BUENA VISTA VALLEY IRRIGATED ACREAGE



NATIONAL AGRICULTURAL IMAGERY PROGRAM (NAIP) 2013

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:

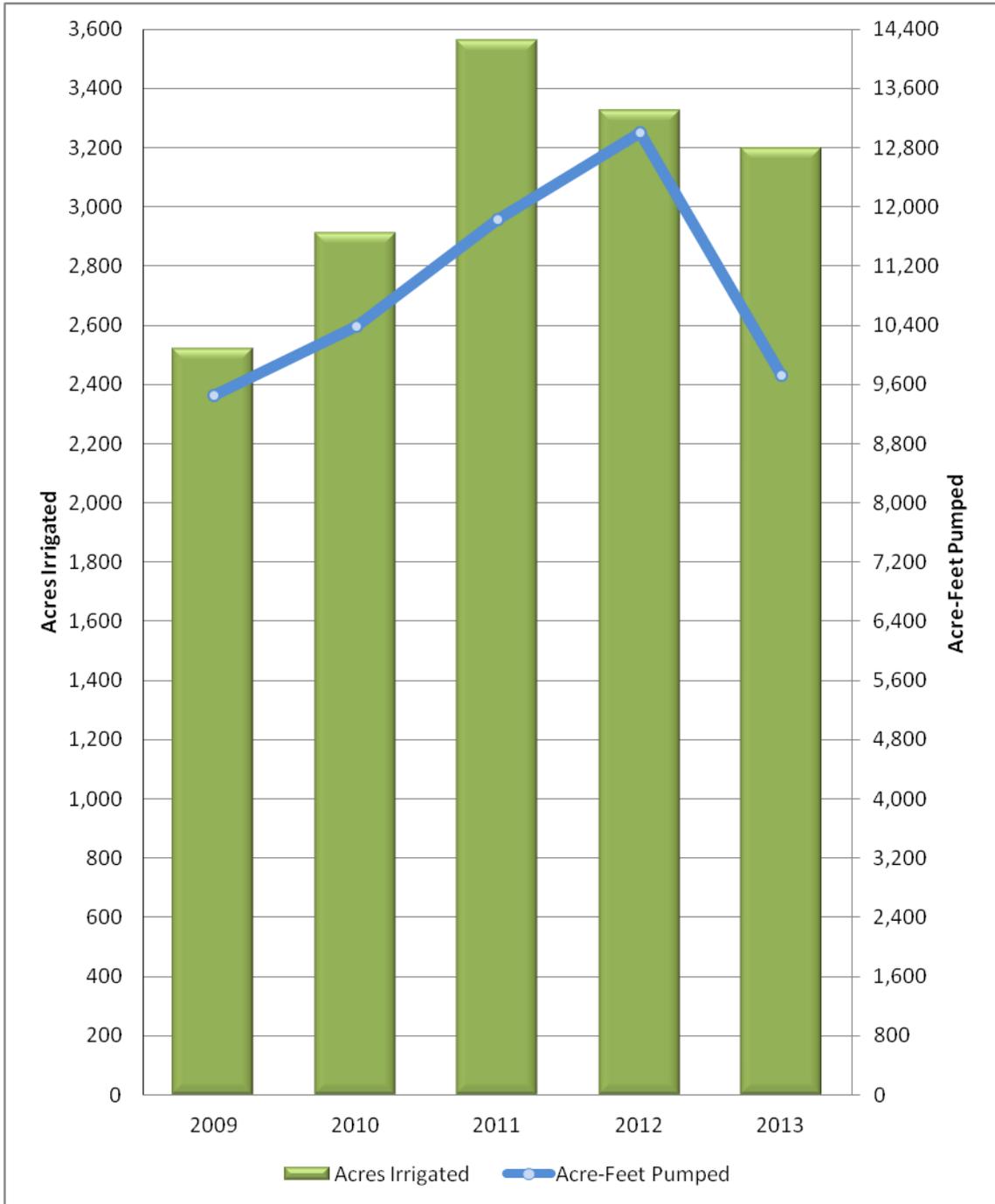
- Where totalizing meters were in place, meter readings were taken and compared with previous data (if available).
- Where meters were not in place, the place of use was inspected to estimate the amount of acreage under cultivation. The number of acres under cultivation was then multiplied by certificated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

APPENDIX A

BUENA VISTA VALLEY HISTORICAL CROP INVENTORY

BUENA VISTA VALLEY HISTORICAL CROP INVENTORY

Year	2009	2010	2011	2012	2013
Acres Irrigated	2,520	2,911	3,562	3,326	3,198
Acre-Feet Pumped	9,458	10,382	11,829	13,000	9,729



Note: Historical pumpage data modified from previously published data.

APPENDIX B

2013 BUENA VISTA VALLEY CROP INVENTORY

EXPLANATION OF COLUMN HEADINGS

App No	The file number of the Application to Appropriate/Change Water or the Claim of Vested of Right.
Status	Indicates the status of an application: Permit (PER), Certificated, or a Claim of Vested Right (VST).
QQ	The quarter-quarter of the Section in which the point of diversion is located.
Q	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 to others.
Supplemental Application Number	The application number(s) of the water right(s) that are supplemental to one another.
Permitted Acres	The number of acres defined by the permit or certificate that is eligible to be
Supplementally Adjusted Permitted Acres	The supplementally adjusted, total number of acres that is eligible to be irrigated under a supplemental group of water rights.
Permitted Duty Acre-Feet	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 is listed as a supplementally adjusted duty.
Supplementally Adjusted Duty Acre-Feet	The supplementally adjusted, total combined duty that may be pumped in a given year, or season, for a supplemental group of water rights, expressed in acre-feet. The supplementally adjusted, total combined duty is listed at the end of a supplemental group in bold .
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 Type	Indicates whether or not a crop was in production during the water year. If a crop was in production, the common name description of the plants under cultivation if given (e.g. alfalfa)

Irrigation Method	The method by which the water is applied to the crop and ground (e.g. pivot).
Irrigated Acreage	The estimate of the number of acres irrigated associated with a particular water right.
Acreage Estimation Method	The method by which the number of acres irrigated was determined. F – Field inspection. I – Aerial or satellite imagery.
Acre-Feet Pumped	The estimate of the amount of water pumped under a particular water right, expressed in acre-feet. One acre-foot equals 325,851 gallons.
Pumpage Estimation Method	The method used to estimate the amount of water pumped. M – Totalizing meter readings. D – The estimate was made by multiplying the number of irrigated acres by the acre-feet per acre duty rate, as defined in the permit or certificate.

Crop Inventory and Groundwater Pumpage for Irrigation - Buena Vista Valley - Basin 129, 2013																				
App No	Status	QQ	Q	Sec	Twn	Rng	Sup	Supplemental Application Number	Permitted Acres	Supplementally Adjusted Permitted Acres	Permitted Duty Acre-Feet	Supplementally Adjusted Duty Acre-Feet	Owner of Record	Crop Type	Irrigation Method	Irrigated Acres	Acreage Estimation Method	Acre-Feet Pumped	Pumpage Estimation Method	
50920	CER	NW	SW	4	30N	35E	Y	50920-50924	890.6		396.71		Huntsman Ranch LLC	Alfalfa	Pivot	125	I	645.67	M	
50922	CER	NW	SW	4	30N	35E	Y	Coyote Creek	890.6		1,393.36		Huntsman Ranch LLC	Grain	Pivots	250				
50924	CER	NW	SW	4	30N	35E	Y	50920-50924	890.6		233.84		Huntsman Ranch LLC							
50921	CER	SE	SE	5	30N	35E	Y	50920-50924	890.6		1,094.20		Huntsman Ranch LLC	Alfalfa	Pivots	250	I	515.80	M	
50923	CER	NW	NW	9	30N	35E	Y	50920-50924	890.6		3,554.80		Huntsman Ranch LLC	Alfalfa	Pivot	125	I	326.95	M	
								Coyote Creek					Huntsman Ranch LLC	Alfalfa	Pivot	60	I			
								Supplemental Total:		890.60		3,813.68								
47575	CER	SW	NW	16	30N	35E	Y	47577	515		1664		Evert, Gary & Magdalena	Alfalfa	Pivot	120	I	245.83	M	
													Evert, Gary & Magdalena	Alfalfa	Pivot	120	I			
47577	CER	NW	SW	16	30N	35E	Y	47575	515		2060		Evert, Gary & Magdalena	Grain	Pivot	122	I	387	M	
								Supplemental Total:		515.00		2,060.00								
13264	CER	SW	NW	21	30N	35E	Y	28267	322.76		1,291.04		Mike F. Maestri Trust	Alfalfa	Pivot	123	I	492	D	
													Mike F. Maestri Trust	Grass Hay	Pivot	56	I	224	D	
28267	CER	NW	NW	21	30N	35E	Y	13264	584.16		2,336.64		Mike F. Maestri Trust	Alfalfa	Pivot	122	I	488	D	
								Supplemental Total:		584.16		2,336.64								
														Grass Hay	Pivot	126	I	504	D	
58570	CER	SW	SW	16	30N	35E	Y	43403 - 43406	270.38		115.15		Harmon, John R.	Alfalfa	Sprinklers	225	I	900	D	
58571	CER	SW	SW	16	30N	35E	Y		270.38		141.98		Harmon, John R.			0	I			
58572	CER	SW	SW	16	30N	35E	Y	29524, 47736	270.38		105.7		Harmon, John R.			0	I			
58573	CER	SW	SW	16	30N	35E	Y		270.38		271.07		Harmon, John R.			0	I			
43403	CER	NW	NW	22	30N	35E	Y	43405, 29524	124.9		382.89		Harmon, John R. & Peggy J.	Alfalfa	Sprinklers	6	I	24	D	
43405	CER	SW	NW	22	30N	35E	Y	43403, 29524	124.9		499.6		Harmon, John R. & Peggy J.	Alfalfa	Sprinklers	0.5	I	0.1176	M	
29524	CER	SW	NW	22	30N	35E	Y	43403, 43405	124.9		262.73		Harmon, John R. & Peggy J.			0	I	0	M	
43404	CER	NE	NW	22	30N	35E	Y	43406, 47736	145.48		114.38		Harmon, John & Peggy			0	I			
43406	CER	NW	SW	22	30N	35E	Y	43404, 47736	145.48		361.99		Harmon, John R. & Peggy J.			0	I			
47736	CER	SW	NE	22	30N	35E	Y	43404, 43406	145.48		144.05		Harmon, John R. & Peggy J.			0	I			
								Supplemental Total:		270.38		1,081.52								
40892	PER	NW	NW	27	30N	35E	Y	1	166.75		667		Kendricks, Charles & Carlinda			0	I			
40893	PER	SW	NW	28	30N	35E	Y	1	468		863.8		Kendricks, Charles & Carlinda			0	I			
40894	PER	NW	NW	28	30N	35E	Y	1	468		1872		Kendricks, Charles & Carlinda	Alfalfa	Pivot	125	I	42.25	M	
29065	PER	NW	NW	28	30N	35E	Y	1	1920		7680		Kendricks, Charles & Carlinda	Grain	Pivot	250	I	1,000	D	
29066	PER	NW	NW	28	30N	35E	Y	1	1920		7680		Kendricks, Charles & Carlinda			0	I			
29067	PER	SW	SW	28	30N	35E	Y	1	1920		7680		Kendricks, Charles & Carlinda	Alfalfa	Pivots	265	I	749.36	M	
31208	PER	NE	SW	28	30N	35E	Y	1	1,919.34		7,677.38		Kendricks, Charles & Carlinda			0	I			
								Supplemental Total:		1919.34		7,677.38								
45191	PER	SE	SE	29	30N	35E	Y	2	520		2080		McCart, Dorothy F. 10%	Alfalfa	Pivot	256	I	1024	D	
67237	PER	SE	SE	29	30N	35E	Y	2	920		3680		McCart, Darlene	Grass Hay	Pivot	130	I	520	D	
13432	CER	SW	SE	32	30N	35E	Y	2	160.87		6,43.48		McCart, Darlene	Alfalfa	Flood	34	I	136	D	
67238	PER	SE	NW	22	29N	35E	Y	2	920		3680		McCart, Darlene							
								Supplemental Total:		920.00		3,680.00			Pasture	Pivot	60	I	240	D
23425	CER	NE	NW	28	31N	35E	Y	79700, 79701	190.52		762.08		Pruitt Greta E.	Alfalfa	Pivot	80	I	267.22	M	
79700	PER	NE	NW	28	31N	35E	Y	23425, 79701	80.29		321.16		Pruit Revocable Living Trust	Alfalfa	Pivot	129	I	996.62	M	
79701	PER	NE	NW	28	31N	35E	Y	23425, 79700	76.59		306.36		Pruit Revocable Living Trust	Alfalfa	Flood	39	I			
								Supplemental Total:		229.50		918.00								
								TOTAL:		5,328.98		21,567.22			TOTAL:	3,198.5		9,729.04		

¹ Permits 29065, 29066, 29067, 31208, 40892, 40893, and 40894 have a total combined duty of 7,677.38.

² Permits 13432, 45191, 67237, and 67238 have a total combined duty of 3,680.00.