STATE OF NEVADA

DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

DIVISION OF WATER RESOURCES

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STATE ENGINEER

GRASS VALLEY
HYDROGRAPHIC BASIN 4-071

CROP INVENTORY

CALENDAR YEAR 2015

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ABSTRACT

This inventory represents the status and usage of all permitted, certificated, and claims of vested right groundwater rights for irrigation purposes located within Grass Valley, Hydrographic Basin 4-071, for the year 2015. **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 2015, the permitted and certificated groundwater rights for irrigation purposes totaled **7,742 acres** with a total duty of 28,134 acre-feet within Grass Valley. An estimated **6,981 acres** were irrigated and 26,806 acre-feet were pumped during 2015.

HYDROGRAPHIC BASIN SUMMARY

HYDROGRAPHIC BASIN NUMBER	071, REGION 4
HYDROGRAPHIC BASIN NAME	GRASS VALLEY
COUNTIES	HUMBOLDT AND PERSHING
MAJOR COMMUNITIES	WINNEMUCCA
DESIGNATED BASIN	DESIGNATED
DENIALS BASED UPON WATER AVAILABILITY	780, IRR DEN, 6/11/1965 781, IRD DEN, 6/11/1965 860, 861, IRR DEN, 3/31/1966 968, 969, IRR DEN, 4/4/1967 1556, IRR DEN, 9/3/1969 1636, IRR DEN. 12/12/1969 1845, IRR DEN, 4/28/1972 1879, IRR DEN, 11/2/1972 1997, IRR DEN, 9/30/1974 2036, IRR DEN, 3/25/1975 2167, IRR DEN, 10/15/1976 2204, 2205, IRR DEN, 3/30/1977 2213, IRR DEN, 5/11/1977 2269, IRR DEN, 11/7/1977 2936, IRR DEN, 4/11/1984 6319, STK DEN, 4/2/2015
ESTIMATED IRRIGATION PUMPAGE 2015 (ACRE-FEET)	26,806*
STATE ENGINEER'S ORDERS	
NO. 464 –DESIGNATION OF BASIN	JULY 24, 1972
NO. 1171 – AMENDED DESIGNATION	AUGUST 7, 2003
NO. 1247 – CURTAILMENT	NOVEMBER 24, 2014
NO. 1251 – METERS	FEBRUARY 5, 2015

COMMITTED GROUNDWATER RESOURCE FOR IRRIGATION PURPOSES: 28,134 ACRE-FEET
DATE: DECEMBER 2015

NOTE: Committed groundwater resource data are accurate for December 2015. 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 Grass Valley Hydrographic Basin (4-071), for the year 2015.

DESCRIPTION OF THE STUDY AREA

The Grass Valley Hydrographic Basin is located in north central Nevada (Figure 1), occupying approximately 520 square miles in Humboldt and Pershing Counties. The adjacent hydrographic basins are Imlay Area (4-072) to the west, Winnemucca Segment (4-070) to the northwest, north and northeast, Pumpernickel Valley (04-065) to the east, Buffalo Valley (10-131) to the southeast, Pleasant Valley (10-130) to the south and Buena Vista (10-129) to the southwest.

Topographic drainage divides comprise the east, south and west margins of Grass Valley. The basin is bounded on the east by the Sonoma and Tobin Ranges, on the south by Goldbanks Hills and on the west and southwest by the East Range. The northern boundary of Grass Valley coincides with the administrative basin boundary line of the Winnemucca Segment. The valley is approximately 15 miles wide by about 35 miles long with basin elevations ranging from approximately 4,300 feet above mean sea level on the valley floor in the northern portion of the basin to over 4,800 feet in the southern portion of the valley floor of the basin. The highest point in the basin is Sonoma Peak (on the northeast boundary of Grass Valley), at an elevation of 9,396 feet. Irrigation occurs primarily in the central part of the basin with a smaller concentration of irrigation occurring near the administrative basin boundary with the Winnemucca Segment. (Figure 2).

GROUNDWATER LEVELS

Depths to groundwater in Grass Valley are measured by NDWR on a semi-annual basis. Sites at which water level measurements and links to their data include:

071 N31 E39 22CC 1	071 N31 E39 29DCCC1	071 N32 E37 01CCCC1
071 N32 E37 01CCCC2	071 N32 E38 01BAAA1	071 N32 E38 07CCCC1
071 N32 E38 07CDDD1	071 N32 E38 33BCCC1	071 N32 E38 36ABCA1
071 N32 E38 36ABCA2	071 N32 E38 36CBAC2	071 N32 E38 36DAAA1
071 N32 E38 36DAAA2	071 N33 E37 13DDCB1	071 N33 E38 17CDDD1
071 N33 E38 30DAAA1	071 N33 E38 31ADCC1	071 N33 E38 31BDCC1
071 N34 E37 03BBBB2	071 N34 E37 04AABB1	071 N34 E37 22DDD 2
071 N34 E37 26ABCD1	071 N34 E37 26DAAA2	071 N34 E37 26DBAD1
071 N34 E38 29AAAA1	071 N34 E38 30DDDD1	071 N35 E37 25BAAA1
071 N35 E37 25CAAA1	071 N35 E37 26ADDD1	071 N35 E37 26BDDD2
071 N35 E37 26BDDD3	071 N35 E37 26CAA 1	071 N35 E37 26CDDD2
071 N35 E37 36BDBB1	071 N35 E38 31BAAA1	071 N35 E38 31BBBB2

Groundwater level data have also been collected by the U.S. Geological Survey (USGS) and can be accessed through their website (http://nevada.usgs.gov).

METHODS TO ESTIMATE IRRIGATED ACREAGE

This report estimates the number of acres irrigated by the groundwater pumped under permits, certificates, and claims of vested right issued by the State Engineer. Table 1 and Figure 3 present the current and historic irrigated acreage and pumpage; Appendix A presents estimates detailed by certificate, permit, or vested claim number. 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 was not practical, aerial and/or satellite imagery were analyzed to determine acreages.

METHODS TO ESTIMATE PUMPAGE

This report estimates the amount of groundwater pumped under the permits and certificates issued by the Nevada State Engineer as well as claims of vested right in the Grass 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 were not in place and the use was irrigation, pumpage was estimated by multiplying the number of hours the well was operated during the past year (determined from an hour meter reading or asking the water user) by the certificated diversion rate.
- Where there were no flow meters or other reliable options for estimating pumpage and the use was irrigation, pumpage was estimated by dividing the Net Irrigation Water Requirement (NIWR) for the crop grown by the efficiency of the irrigation method used, then multiplying by the number of acres irrigated. Irrigation efficiencies associated with three types of irrigation methods are: pivot at 85%; wheel line or other hand moved sprinklers at 75%; and flood at 60%. The pumpage amount estimated by this method was limited by the duty of the permit. For places where the groundwater rights were supplemental to surface water, groundwater use was estimated using the NIWR method above, but adjusted based on available surface water for the year. Evapotranspiration and NIWR data by basin can be found on the NDWR website at: http://water.nv.gov/mapping/et/et_general.cfm. This approach using the NIWR to estimate pumpage was used starting in 2014, and pumpage estimates for this and subsequent years may differ significantly from estimates of previous years.
- Where lands were irrigated by both surface water and groundwater, the surface water supply for the irrigation season was considered in estimating groundwater pumpage.

TABLES

Table 1. Grass Valley historical irrigated acreage and pumpage data.

Year	2010	2011	2012	2013	2014	2015
Acres Irrigated	6,712	6,897	6,590	6,779	6,989	6,981
Acre Feet Pumped	18,572	18,441	23,051	23,964	25,395	26,806

* The NIWR method to estimate pumpage was used starting in 2014; estimates may differ significantly from previous years.

FIGURES

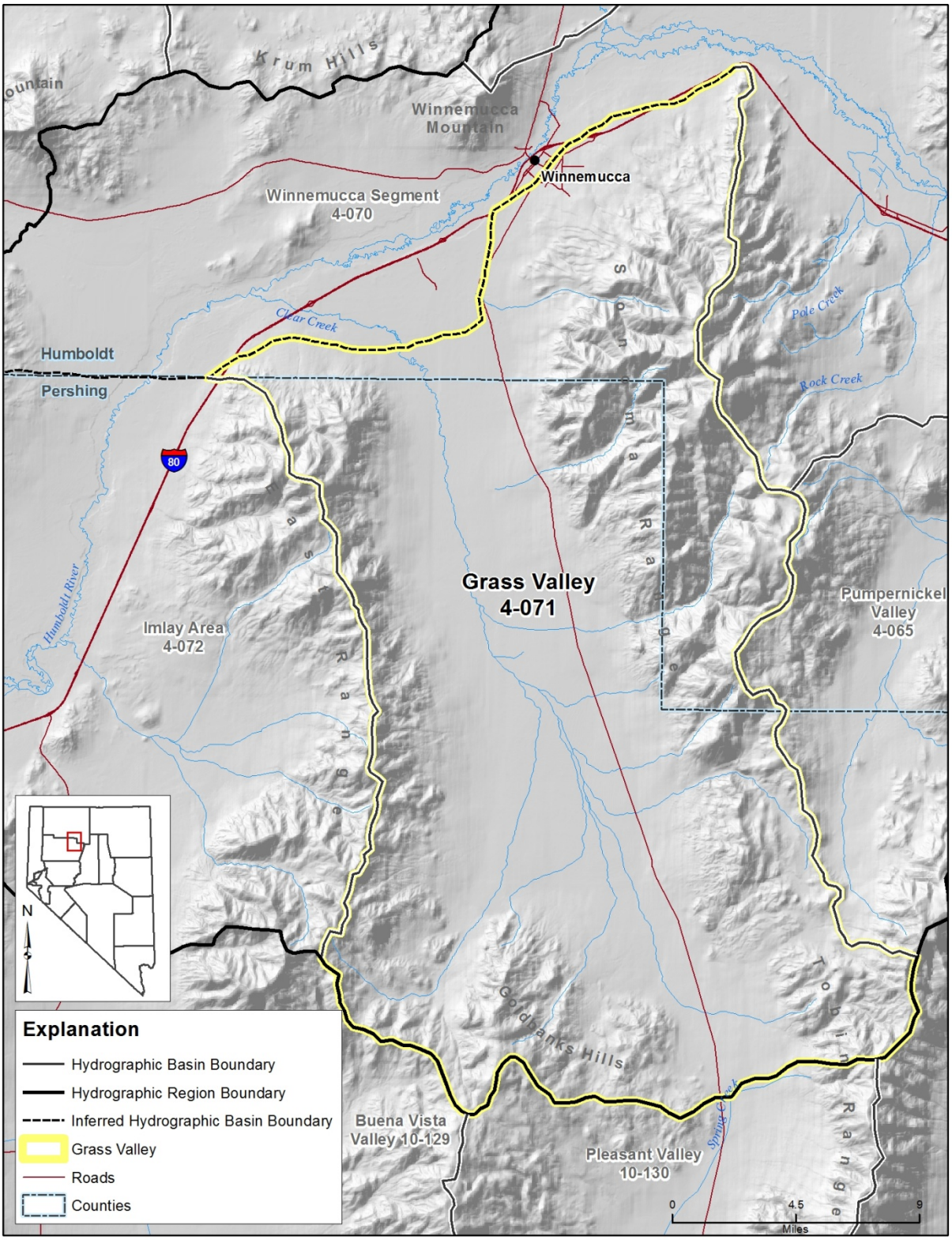

Figure 1. Physiographic map of Grass Valley (Hydrographic Basin 4-071).

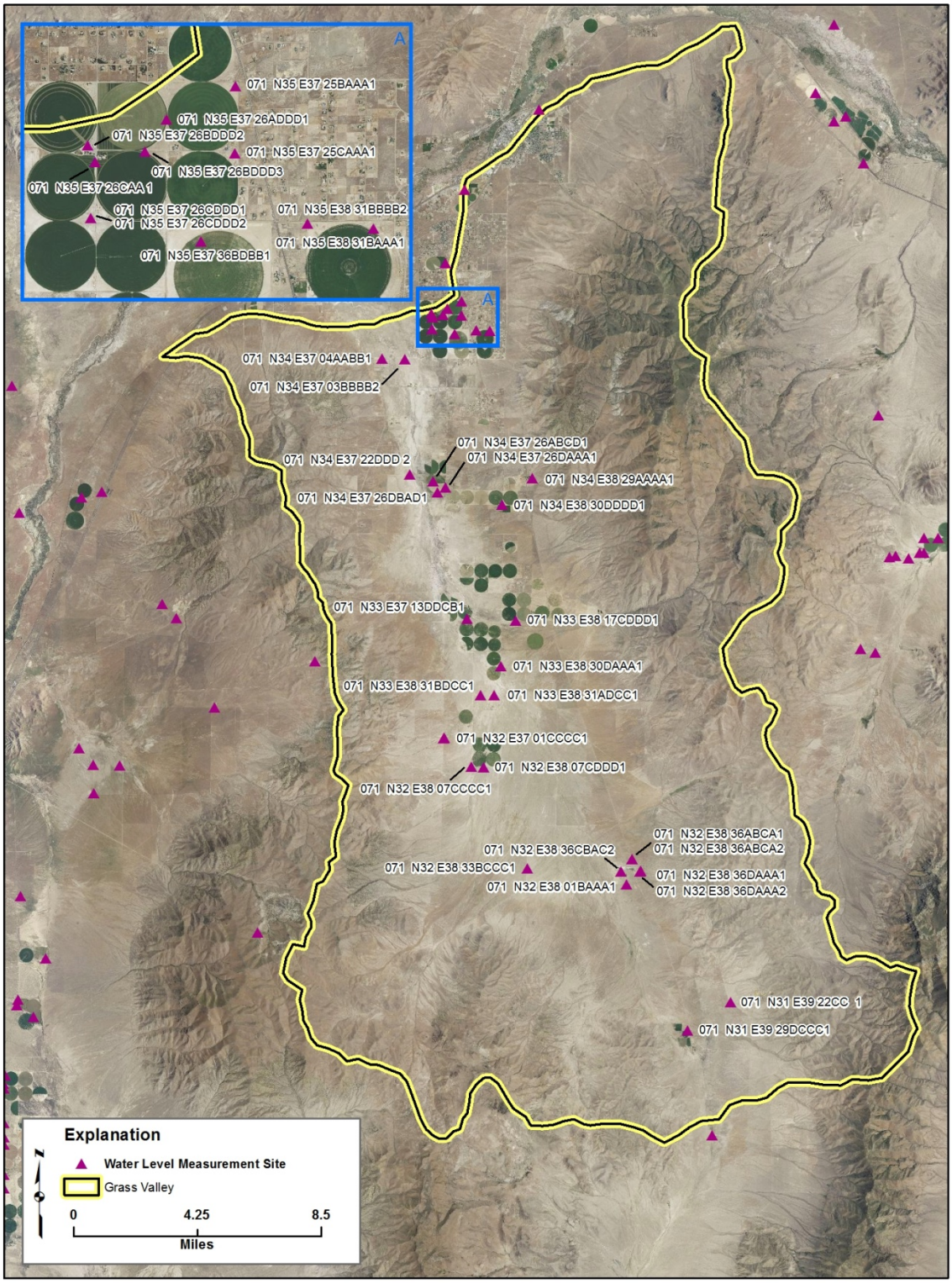

Figure 2. Map showing Grass Valley irrigated acreage and water level monitoring sites.

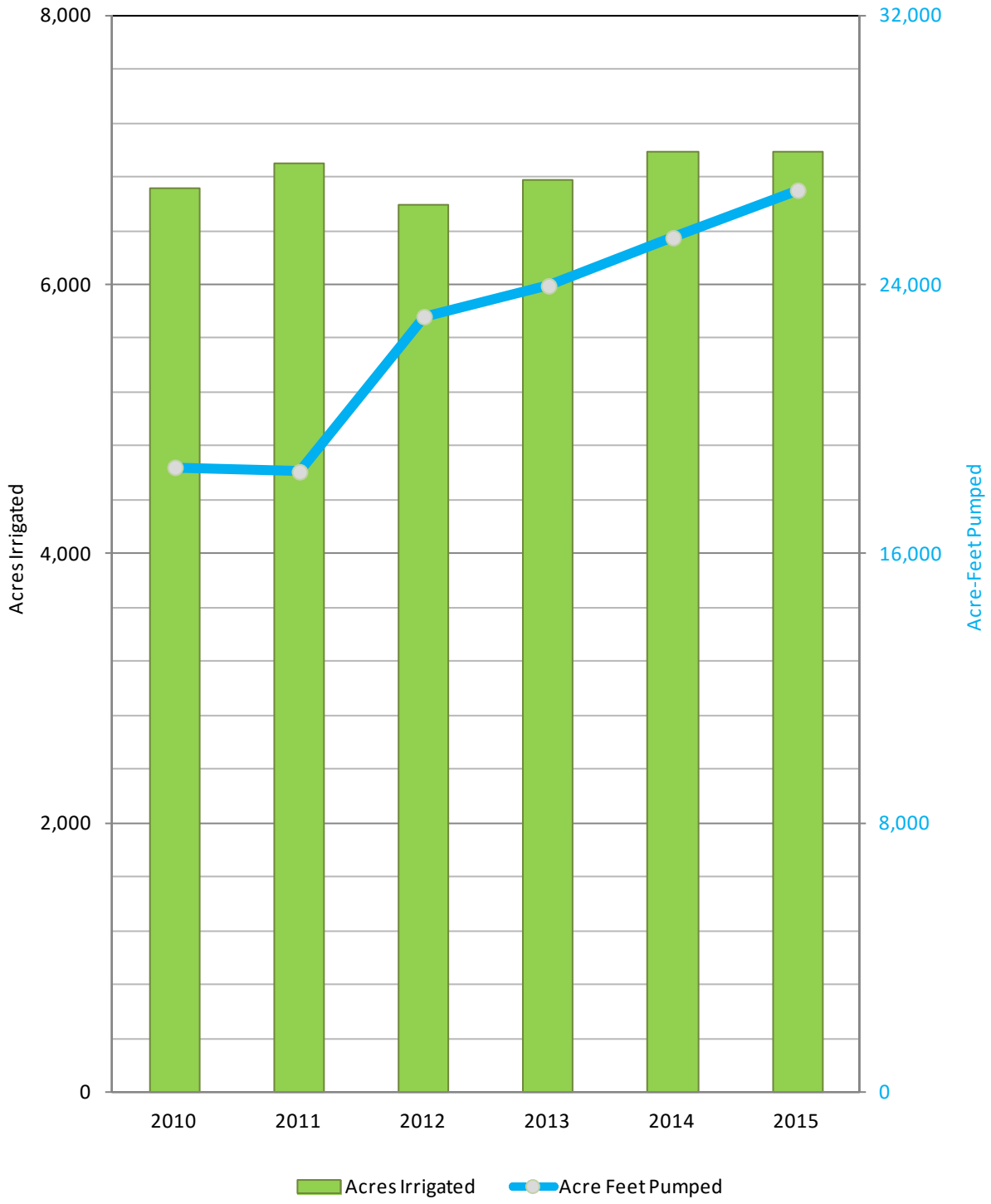

Figure 3. Graph showing Grass Valley historical irrigated acreage and pumpage. The NIWR method to estimate pumpage was used starting in 2014; estimates may differ significantly from previous years.

APPENDIX A. 2015 GRASS VALLEY CROP INVENTORY.

EXPLANATION OF COLUMN HEADINGS

App No	The file number of the Application to Appropriate/Change Water or the Claim of Vested Right.
Status	Indicates the status of an application: Permit (PER), Certificated (CER), 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 other groundwater rights.
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 irrigated.
Supple-mentally 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.
Supple-mentally 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).

NIWR (ft)	Net Irrigation Water Requirement, defined to be equal to the annual crop evapotranspiration less the effective precipitation entering the root zone that is available for evaporation or transpiration.
Irrigation Method	The method by which the water is applied to the crop and ground (e.g. pivot).
Irrigation Efficiency	The estimated efficiency of the desired irrigation method used.
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	The method used to estimate the amount of water pumped. M – Totalizing meter readings. N – NIWR Method. D – Duty.
Remarks	Additional information. Numbers in this column correspond to footnotes at the end of the table.

2015 GRASS VALLEY CROP INVENTORY

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	NIWR	Irrigation Method	Irrigation Efficiency	Irrigated Acreage	Acreage Estimation Method	Acre-Feet Pumped	Pumpage Estimation Method	Remarks
V02839	VST	SE	NW	6	35N	38E			10	10			Howard, Melvin B. Jr					0	I	0		
12521	CER	NE	SE	24	33N	37E	Y	22578, 22579	61.81	228.05	247.24	912.2	Big W Ranch	Alfalfa	3.3	Pivot	85%	75	F-I	291.18	N	Meter not working
22578	CER	NW	NE	19	33N	38E		12521, 22579	191.78	--	690.4	--	Casey, Inger M.					--	I	--		
22579	CER	SE	NE	24	33N	37E	Y	12521, 22578	242.65	--	767.12	--	Big W Ranch	Alfalfa	3.3	Pivot	85%	130	F-I	504.71	N	Meter not working
									Total	**228.05**	**Acres**	**912.2**	**Acre-Feet**				**Total**	**205**	**Acres**	**795.89**	**Acre-Feet**	
13970	CER	NE	SW	26	35N	37E			128.33	128.33	385.45	385.45	Tomkins Family Trust	Alfalfa	3.3	Pivot	85%	121	F-I	469.76	N	
14404	CER	NE	SE	30	33N	38E			94.8	94.8	379.2	379.2	Gordon,Carol D.	Alfalfa	3.3	Pivot	85%	117	F-I	454.24	N	
17154	CER	NE	NW	25	35N	37E	Y	20091	1.755	1.755	7.02	7.02	Krosp, James C.					1.75	I	7.02		
20091	CER	NE	SW	25	35N	37E	Y	17154	1.755	--	7.02	--	Krosp, James C.					--	I	--		
									Total	**1.755**	**Acres**	**7.02**	**Acre-Feet**				**Total**	**118.75**	**Acres**	**461.26**	**Acre-Feet**	
17569	CER	NW	NE	32	31N	39E	Y	29357, 29358	145.09	200	24.21	556.15						--	I	--		
29357	CER	SW	SE	29	31N	39E	Y	17569, 29358	145.09	--	556.15	--	Marvel Family Trust January 23, 2006	Pasture	3.3	Flood	60%	61	F-I	332.08	N	
29358	CER	SW	SE	29	31N	39E	Y	17569, 29357	91.37	--	354.72	--	Marvel Family Trust January 23, 2006					--	I	--		
									Total	**200**	**Acres**	**556.15**	**Acre-Feet**				**Total**	**61**	**Acres**	**332.08**	**Acre-Feet**	
18529	CER	SW	NW	6	35N	38E			6.15	6.15	24.6	24.6	Toland, Don L. & Miriam W.					0	F-I	0		
19213	CER	SW	SE	13	35N	37E			17.52	17.52	70.08	70.08	Cowley, Stan and Jeannie	Pasture	3.3	Flood	60%	17.5	F-I	70	D	
19438	CER	SE	NW	6	35N	38E			5.83	5.83	21.72	21.72	Phillips, James W.	Pasture	3.3	Sprinklers	75%	5	F-I	20	D	
19581	CER	NW	SW	36	32N	38E	Y	80545	30.53	31.1	122.13	125.2	A&B Paradise Enterprises					0	I	0		
80545	PER		LT03	1	31N	38E	Y	19581	31.3	--	67.7	--	Morey, Earl Lewis and Donna Marie					0	I	0		
									Total	**31.1**	**Acres**	**125.2**	**Acre-Feet**				**Total**	**0**	**Acres**	**0**	**Acre-Feet**	
19640	CER	NE	NW	31	35N	38E			179.2	179.2	716.8	716.8	Tomkins Family Trust	Alfalfa	3.3	Pivot	85%	189	F-I	733.76	N	
20357	CER	NW	SE	1	32N	37E			122.48	122.48	489.92	489.92	Gordon, Robert & Carol	Alfalfa	3.3	Pivot	85%	123	F-I	477.53	N	
20720	CER	NW	SE	17	33N	38E			245.66	245.66	982.64	982.64	ZEBADIAH ALBERT HARRISON	Alfalfa	3.3	Pivot	85%	240.6	F-I	928.48	M	
20722	CER	SW	NE	7	33N	38E			10.95	10.95	43.8	523.8	Garret Van Diest, INC	Alfalfa	3.3	Pivot	85%	116	F-I	450.35	N	
20722	CER	SW	NE	7	33N	38E			111.47	111.47	445.88	--	Mader, Kirk D. & Madonna L.	Grass Hay	3.2	Sprinklers	75%	--	F-I	--	D	
76066	PER	SW	NE	7	33N	38E			8.53	8.53	34.12	--	Mader, Kirk D. & Madonna L.					0	I	0		
									Total	**130.95**	**Acres**	**523.8**	**Acre-Feet**				**Total**	**116**	**Acres**	**450.35**	**Acre-Feet**	
20767	CER	NW	NW	32	36N	38E			2	2	8	8	Miller, Alice M.					0	F-I	0		
21511	CER	NW	NE	32	31N	39E			80	80	145.94	145.94	Marvel Family Trust January 23, 2006					0	F-I	0		
29356	CER	SW	SE	29	31N	39E			80	80	145.95	145.95	Marvel, Michael G. & Theresa Y.	Alfalfa	3.3	Flood	60%	59	F-I	557.19	M	
21758	CER	NE	NE	30	33N	38E			155.68	155.68	622.73	622.73	Gordon,Carol D.	Alfalfa	3.3	Pivot, Flood	85%	117	F-I	454.24	N	
21808	CER	NW	NW	31	35N	38E			139.04	139.04	556.16	556.16	Tomkins Family Trust	Alfalfa	3.3	Pivot	85%	111	F-I	454.25	N	Meter not working
22577	CER	SE	SE	13	33N	37E	Y	Clear Creek	207.18	207.18	745.85	745.85	Big W Ranch	Alfalfa	3.3	Pivot	85%	242	F-I	939.53	N	
22924	CER	SE	SW	26	35N	37E	Y	22926, {20590 (070)}	48.7	262.72	502.08	1,050.08	Tomkins Family Trust	Alfalfa	3.3	Pivot	85%	130	F-I	1035.28	M	
22926	CER	SE	NW	26	35N	37E	Y	22924, {20590 (070)}	262.52	--	1,050.08	--	Tomkins Family Trust					--	F-I	--		
									Total	**262.72**	**Acres**	**1,050.08**	**Acre-Feet**				**Total**	**130**	**Acres**	**1,035.28**	**Acre-Feet**	
22925	CER	NW	SE	35	35N	37E			262.52	262.52	1,050.08	1,050.08	Tomkins Family Trust	Alfalfa	3.3	Pivot	85%	257	F-I	997.76	N	
23692	CER	NE	NW	31	35N	38E			44.8	44.8	179.2	179.2	Tomkins Family Trust	Alfalfa	3.3	Pivot	85%	0	F-I	0	N	317.8 acres of water in section 36, irrigating 361
24088	CER	NW	SE	36	35N	37E			17.42	17.42	69.68	69.68	Pioneer Land & Livestock					0	F-I	0		
24098	CER	SE	SW	17	33N	38E			298.7	298.7	1194.8	1194.8	Burrus, Verna L.	Alfalfa	3.3	Pivot	85%	243	F-I	943.41	N	
24543	CER	SW	NW	7	33N	38E			250.21	250.21	1,000.84	1,000.84	Great Western Agrinomics	Alfalfa	3.3	Pivot	85%	232	F-I	496.06	M	Meter not working

2015 GRASS VALLEY CROP INVENTORY

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	NIWR	Irrigation Method	Irrigation Efficiency	Irrigated Acreage	Acreage Estimation Method	Acre-Feet Pumped	Pumpage Estimation Method	Remarks
24978	CER	SE	NW	31	33N	38E			120	120	480	480	Big W Ranch	Grain	3.3	Pivot	85%	0	F-I	0	N	
25501	CER	SE	SW	25	34N	37E			120.2	120.2	480.8	480.8	Biasi, Bonnie P.	Alfalfa	3.3	Pivot	85%	120	F-I	465.88	N	
26733	CER	NW	NE	25	34N	37E			34.79	34.79	139.16	139.16	Weagant, Joanne, & Kesner &					0	I	0		
27438	CER	SW	SE	7	32N	38E			243.76	243.76	975.04	975.04	Federal Land Bank of Sac.	Alfalfa	3.3	Pivot	85%	243	F-I	943.41	N	
27439	CER	SW	SW	7	32N	38E			251.32	251.32	1,005.28	1,005.28	Federal Land Bank of Sac.	Alfalfa	3.3	Pivot	85%	248	F-I	962.82	N	
28314	CER	NW	SW	5	33N	38E			40	40	160	160	Shier Family Preservation Trust	Pasture	3.3	Pivot	85%	35	F-I	135.88	N	
28315	CER	NW	SW	5	33N	38E			38.49	38.49	153.94	153.94	Shier Family Preservation Trust	Pasture	3.3	Pivot	85%	35	F-I	135.88	N	
28596	CER	SE	SE	22	34N	37E			80	80	320	320	Hummel, Laura	Pasture	3.3	Flood	60%	60	F-I	240	D	
29904	CER	NE	NW	6	35N	38E			2	2	8	8	Forgnone, Carlo G.	Pasture	3.3	Sprinklers	75%	2	F-I	8	D	
30468	CER	SE	NW	30	34N	38E	Y	35395 - 97, 30468, 31163	186.62	311.12	373.24	1,244.48	Ceballos, Alicia	Alfalfa	3.3	Pivot	85%	145	I	550.28	N	
31163	CER	SE	SW	30	34N	38E	Y	35395 - 97, 30468, 31163	186.62	--	373.24	--	Ceballos, Alicia	Alfalfa	3.3	Pivot	85%	--	I	--	N	
35395	CER	SE	SE	30	34N	38E	Y	35395 - 97, 30468, 31163	24.03	--	48.06	--	Ceballos, Alicia	Alfalfa	3.3	Pivot	85%	--	I	--	N	
35396	CER	SE	SE	30	34N	38E	Y	35395 - 97, 30468, 31163	24.03	--	48.06	--	Ceballos, Carlos & Alicia	Alfalfa	3.3	Pivot	85%	--	I	--	N	
35397	CER	SE	SE	30	34N	38E	Y	35395 - 97, 30468, 31163	100.47	--	401.88	--	Ceballos, Carlos & Alicia	Alfalfa	3.3	Sprinklers	75%	111.53	I	423.26	N	
									Total	**311.12**	**Acres**	**1,244.48**	**Acre-Feet**				**Total**	**256.53**	**Acres**	**973.54**	**Acre-Feet**	
30603	CER	NE	NE	13	35N	37E			5	5	20	20	Kyllo, Lyle & Betty	Pasture	3.3	Sprinklers	75%	0	F-I	0	D	
30604	CER		LT6	7	35N	38E			2	2	8	8	Putnam, Lorraine	Pasture	3.3	Sprinklers	75%	1	F-I	4	D	
30605	CER		LT3	6	35N	38E			1	1	4	4	Forgnone, Carlo G.	Pasture	3.3	Sprinklers	75%	1	F-I	4	D	
34875	CER	NE	NE	28	36N	38E			2.5	2.5	10	10	Ingle, Cathy A.					0	F-I	0		
34957	CER	SW	SE	23	34N	37E			58.08	58.08	232.32	232.32	Cassinelli, Peter & Bonnie	Grass Hay	3.2	Sprinklers	75%	102	F-I	362.59	D	80 Acres of water rights, irrigating 102 acres
35032	CER	SW	SE	4	34N	37E	Y	35033	19.51	19.51	78.04	78.04	Curtis, Sheryl					0	I	0		
35033	CER	SW	SE	4	34N	37E	Y	35032	19.51	--	78.04	--	Curtis, Sheryl					0	I	0		
									Total	**19.51**	**Acres**	**78.04**	**Acre-Feet**				**Total**	**0**	**Acres**	**0**	**Acre-Feet**	
41482	CER	SE	SE	23	34N	37E			90	90	360	360	Villalobos, Margaret	Alfalfa	3.4	Pivot	85%	60	F-I	234.6	N	
45268	CER	NW	SE	12	35N	37E			7	7	28	28	Kearns, Barbara	Pasture	3.4	Sprinklers	75%	1	F-I	3.6	N	
45775	CER	SW	SE	7	34N	38E			5.261	5.261	21.04	21.04	Anderson, Fred S.					0	F-I	0		
45899	CER	SE	SE	23	34N	37E			9.62	9.62	38.48	38.48	Villalobos, Margaret	Grass Hay	3.2	Pivot	85%	0	F-I	155.29	M	
46236	PER	NW	NE	19	33N	38E	Y	46236 - 38, 46240 - 44	40.45	467.84	161.8	1,871.36	Big W Ranch	Alfalfa	3.3	Pivot	85%	227	F-I	1,041.82	M	
46237	PER	NW	NE	19	33N	38E	Y	46236 - 38, 46240 - 44	68.72	--	274.88	--	Big W Ranch					--	I	--		
46238	PER	NW	NE	19	33N	38E	Y	46236 - 38, 46240 - 44	49.05	--	196.2	--	Big W Ranch					--	I	--		
46240	PER	NW	NE	19	33N	38E	Y	46236 - 38, 46240 - 44	68.68	--	274.72	--	Big W Ranch					--	I	--		
46241	PER	SW	SE	19	33N	38E	Y	46236 - 38, 46240 - 44	69.79	--	279.16	--	Big W Ranch					224	F-I	538.14		
46242	PER	SW	SE	19	33N	38E	Y	46236 - 38, 46240 - 44	10.42	--	37.51	--	Big W Ranch					--	I	--		
46243	PER	SW	SE	19	33N	38E	Y	46236 - 38, 46240 - 44	76.24	--	304.96	--	Big W Ranch					--	I	--		
46244	PER	SW	SE	19	33N	38E	Y	46236 - 38, 46240 - 44	84.49	--	337.96	--	Big W Ranch	Alfalfa	3.3	Pivot	85%	0	F-I	0	M	
									Total	**467.84**	**Acres**	**1,871.36**	**Acre-Feet**				**Total**	**451**	**Acres**	**1579.96**	**Acre-Feet**	
47042	CER	NE	NE	13	35N	37E			25	25	86.07	86.07	Kyllo, Betty	Pasture	3.3	Sprinklers	75%	0	F-I	60	D	
52873	CER	NW	NE	7	34N	38E			3	3	8.26	8.26	Poche, Joe	Pasture	3.3	Sprinklers	75%	3	F-I	8.26	D	
57743	PER	SW	SE	13	35N	37E			15	15	60	60	Sanchez, Jesus, Ch	Pasture	3.4	Sprinklers	75%	15	F-I	60	N	
59283	PER	SW	SE	12	35N	37E			1	1	4	4	Smith, Adrienne M.	Pasture	3.3	Sprinklers	75%	1	F-I	4	D	
59736	CER	NW	NE	26	34N	37E	Y	59736 - 59740	70	254.06	85.99	1,016.24	Finlayson, Dana Robert & Christine Jo	Alfalfa/ Grass	3.3	Pivot	85%	188	F-I	850.22	M	
59737	CER	SE	NE	26	34N	37E	Y	59736 - 59740	70	--	194.01	--	Finlayson, Dana Robert & Christine Jo					--	I	--		Meter not working
59738	CER	NW	SE	26	34N	37E	Y	59736 - 59740	112.95	--	414.35	--	Finlayson, Dana Robert & Christine Jo	Alf alfa/ Grass	3.3	Flood	60%	58	F-I	232	D	
59739	CER	NW	SE	26	34N	37E	Y	59736 - 59740	74.71	--	283.09	--	Finlayson, Dana Robert & Christine Jo					--	I	--		
59740	CER	NW	SE	26	34N	37E	Y	59736 - 59740	56.05	--	212.39	--	Finlayson, Dana Robert & Christine Jo					--	I	--		
									Total	**254.06**	**Acres**	**1,016.24**	**Acre-Feet**				**Total**	**246**	**Acres**	**1,082.22**	**Acre-Feet**	

2015 GRASS VALLEY CROP INVENTORY

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	NIWR	Irrigation Method	Irrigation Efficiency	Irrigated Acreage	Acreage Estimation Method	Acre-Feet Pumped	Pumpage Estimation Method	Remarks
62088	CER	NW	SW	12	34N	37E			10	10	37.87	37.87	Burke Sean M. & Tina M.	Alfalfa	3.3	Sprinklers	75%	10	F-I	33.78	M	
62884	PER	NE	NE	31	34N	38E			29.66	29.66	118.64	118.64	Richards, Roger P.	Pasture	3.3	Flood	60%	3	F-I	12	D	
63012	CER	SW	SE	33	36N	38E			3	3	12	12	Samuel J. Routson	Pasture	3.3	Sprinklers	75%	3	F-I	12	D	
63013	CER	SW	SE	33	36N	38E			3	3	12	12	Grant, Rickey L. & Robbie L.	Pasture	3.3	Sprinklers	75%	3	F-I	12	D	
64420	PER	NE	NW	6	35N	38E			1	1	4	4	Mezenen, Mike L. & Sheila K.					0	F-I	0		Meter not working
65031	CER	SW	NW	8	33N	38E			118.55	118.55	474.2	474.2	Garret Van Diest, INC	Alfalfa	3.3	Pivot	85%	128	F-I	496.94	N	
65719	CER	SW	NW	8	33N	38E			11.8	11.8	47.2	47.2	Kirk D. & Madonna L. Mader	Alfalfa	3.3	Pivot	85%	11.8	I	47.2	D	
67833	PER	NW	NE	12	33N	37E	Y	67833-37, 69587-60	48.72	211.97	194.88	847.88	Murray, Steven R. & Suzanne	Alfalfa	3.3	Pivot	85%	169	F-I	545.05	M	
67834	PER	NW	NE	12	33N	37E	Y	67833-37, 69587-60	12.8	--	51.2	--	Murray, Steven R. & Suzanne					--	I	--		
67835	PER	NW	NE	12	33N	37E	Y	67833-37, 69587-60	126.5	--	71.68	--	Murray, Steven R. & Suzanne					--	I	--		
67836	PER	NW	NE	12	33N	37E	Y	67833-37, 69587-60	18.76	--	75.04	--	Murray, Steven R. & Suzanne					--	I	--		
67837	PER	NW	NE	12	33N	37E	Y	67833-37, 69587-60	23.77	--	95.08	--	Murray, Steven R. & Suzanne					--	I	--		
69857	PER	NW	NE	12	33N	37E	Y	67833-37, 69587-60	30	--	120	--	Murray, Steven R. & Suzanne	Alfalfa	3.3	Pivot	85%	31.5	I	119.5		
69858	PER	NW	NE	12	33N	37E	Y	67833-37, 69587-60	20.37	--	81.48	--	Murray, Steven R. & Suzanne					0	I	0		
69859	PER	NW	NE	12	33N	37E	Y	67833-37, 69587-60	3.31	--	13.24	--	Murray, Steven R. & Suzanne					--	I	--		
69860	PER	NW	NE	12	33N	37E	Y	67833-37, 69587-60	36.32	--	145.28	--	Murray, Steven R. & Suzanne	Alfalfa	3.3	pivot	85%	30	I	113.85		
									Total	**211.97**	**Acres**	**847.88**	**Acre-Feet**				**Total**	**230.5**	**Acres**	**778.4**	**Acre-Feet**	
68031	CER	SW	NW	15	34N	37E			2	2	6.68	6.68	Trost, Martha Lynn	Pasture	3.3	Sprinklers	75%	2	F-I	6.68	D	
68100	CER	SE	SE	36	35N	37E			4	4	16	16	Anderson, Fred S. & Tami M.	Pasture	3.3	Sprinklers	75%	4	F-I	16	D	
69130	CER	NE	NW	18	34N	38E	Y	69130, 69928-30, 76065	0.94	38.17	3.32	142.94	Abell, Gene & Ralph	Alfalfa	3.3	Sprinklers	75%	38	F-I	91.54	M	
69928	CER	NE	NW	18	34N	38E	Y	69130, 69928-30, 76065	13.44	--	47.51	--	Abell, Gene & Ralph					--	I	--		
69929	CER	NE	NW	18	34N	38E	Y	69130, 69928-30, 76065	1.56	--	5.52	--	Abell, Gene & Ralph					--	I	--		
69930	CER	NE	NW	18	34N	38E	Y	69130, 69928-30, 76065	5	--	17.67	--	Abell, Gene & Ralph					--	I	--		
76065	CER	NE	NW	18	34N	38E	Y	69130, 69928-30, 76065	17.23	--	68.92	--	Abell, Gene & Ralph	Alfalfa	3.3	Sprinklers	75%	0	F-I	0	M	
									Total	**38.17**	**Acres**	**142.94**	**Acre-Feet**				**Total**	**38**	**Acres**	**91.54**	**Acre-Feet**	
84891	PER	NW	SE	3	35N	38E			6.02	6.02	24.08	24.08	C.J. & S.C. Mitchell Family Trust AGR.					0	F-I	0		
84892	PER	NW	SE	3	35N	38E			0.98	0.98	3.92	3.92	C.J. & S.C. Mitchell Family Trust AGR.					0	I	0		
70619	PER	SE	NE	36	35N	37E			3.9	3.9	15.6	15.6	Halter, Kennith A. & Almand, Carol	Pasture	3.3	Sprinklers	75%	3	F-I	12	D	
75600	PER	NE	SW	25	35N	37E	Y	75600-75604	119.49	677.76	477.96	2,711.04	TNT Farms, LLC	Grass Hay	3.2	Pivot	85%	128	F-I	496.94	N	
75601	PER	NE	NW	25	35N	37E	Y	75600-75604	285.85	--	1,143.40	--	TNT Farms, LLC	Grass Hay	3.2	Pivot	85%	125	F-I	738.43	M	317.8 acres of water in section 36, irrigating 361
75602	PER	NE	NW	36	35N	37E	Y	75600-75604	113.02	--	452.08	--	TNT Farms, LLC	Grain	3.3	Pivot	85%	0	F-I	3.15	M	317.8 acres of water in section 36, irrigating 361
75603	PER	NE	NE	36	35N	37E	Y	75600-75604	187.36	--	749.44	--	TNT Farms, LLC	Alfalfa	3.3	Pivot	85%	292	F-I	407.75	M	
75604	PER	NE	NW	25	35N	37E	Y	75600-75604	49.64	--	198.56	--	TNT Farms, LLC	Alfalfa	3.3	Pivot	85%	102	F-I	387.09	N	
									Total	**677.76**	**Acres**	**2,711.04**	**Acre-Feet**				**Total**	**647**	**Acres**	**2,033.36**	**Acre-Feet**	
76702	PER	SW	SE	33	36N	38E			2	2	8	8	Michael & Kimberly Snow	Pasture	3.3	Sprinklers	75%	2	F-I	8	D	Meter not working
76707	PER	SW	SW	16	33N	38E	Y	Clear Creek	591.84	591.84	434	434	Parlasca, Robert J.	Grass	3.2	Pivot	85%	597	F-I	1,817.76	N	
78056	PER	SW	NW	3	35N	38E			2	2	8	8	Turner, Thomas N. & Kathleen B.	Pasture	3.3	Sprinklers	75%	2	F-I	8	D	
78995	PER	SE	NE	28	36N	38E			20	20	80	80	O'Brien, John	Pasture	3.3	Sprinklers	75%	15	F-I	60	D	
80531	PER	SW	SE	23	34N	37E			21.92	21.92	87.68	87.68	Cassinelli, Peter & Bonnie	Alfalfa	3.3	pivot	85%	22.41	I	85.05	N	
81236	PER	NW	NW	21	33N	38E	Y	81236-41	16.89	147.75	67.55	591	Gary & Terri Tompkins Family Trust	Grain	3.3	Pivot	85%	159	F-I	889.55	M	Duty of 591 AF pumped 889 AF
81237	PER	NW	NW	21	33N	38E	Y	81236-41	36.7	--	146.8	--	Gary & Terri Tompkins Family Trust					--	I	--		
81238	PER	NW	NW	21	33N	38E	Y	81236-41	34.48	--	137.92	--	Gary & Terri Tompkins Family Trust					--	I	--		
81239	PER	NW	NW	21	33N	38E	Y	81236-41	11.48	--	45.92	--	Gary & Terri Tompkins Family Trust					--	I	--		
81240	PER	NW	NW	21	33N	38E	Y	81236-41	34.48	--	137.92	--	Gary & Terri Tompkins Family Trust					--	I	--		
81241	PER	NW	NW	21	33N	38E	Y	81236-41	48.2	--	192.8	--	TNT Farms					--	I	--		
									Total	**147.75**	**Acres**	**591**	**Acre-Feet**				**Total**	**159**	**Acres**	**889.55**	**Acre-Feet**	

2015 GRASS VALLEY CROP INVENTORY

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	NIWR	Irrigation Method	Irrigation Efficiency	Irrigated Acreage	Acreage Estimation Method	Acre-Feet Pumped	Pumpage Estimation Method	Remarks
81826	PER	SE	NW	24	35N	37E			15.54	27.54	62.16	110.16	Peterson, Kim D. & Yvonne M.	Corn	3.3	Sprinklers	75%	12	F-I	57.346	M	
81827	PER	SE	NW	24	35N	37E			12	--	48	--	Peterson, Kim D. & Yvonne M.	Pasture	3.3	Sprinklers	75%	14	F-I			
									Total	**27.54**	**Acres**	**110.16**	**Acre-Feet**				**Total**	**26**	**Acres**	**57.346**	**Acre-Feet**	
82354	PER	NE	NE	13	35N	37E			5	5	20	20	Kyllo, Lyle & Betty					0	I	0		
82812	PER	SE	NE	26	35N	37E			194.8	194.8	779.2	779.2	Tomkins Family Trust	Alfalfa	3.3	Sprinklers	75%	130	F-I	247	M	
84501	PER	SE	SW	30	34N	38E	Y	84501-84510	20	190.92	80	763.68	Ceballos, Carlos & Alicia					--	I	--		
84502	PER	SE	SW	30	34N	38E	Y	84501-84510	90.285	--	281.14	--	Ceballos, Carlos & Alicia					--	I	--		
84503	PER	NW	SW	29	34N	38E	Y	84501-84510	82.97	--	311.88	--	Ceballos, Carlos & Alicia					133	F-I	752.68	M	
84504	PER	NW	SW	29	34N	38E	Y	84501-84510	30	--	120	--	Ceballos, Carlos & Alicia					22	F-I	--		
84506	PER	SE	SE	30	34N	38E	Y	84501-84510	100.47	--	401.88	--	Ceballos, Carlos & Alicia					160	F-I	642.05	M	
84507	PER	SE	SE	30	34N	38E	Y	84501-84510	24.03	--	48.06	--	Ceballos, Carlos & Alicia					160	F-I	641.11	M	
84508	PER	SE	SE	30	34N	38E	Y	84501-84510	24.03	--	48.06	--	Ceballos, Carlos & Alicia					--	F-I	--		
84509	PER	SE	SW	30	34N	38E	Y	84501-84510	186.62	--	373.24	--	Ceballos, Carlos & Alicia					--	F-I	--		
84510	PER	SE	SW	30	34N	38E	Y	84501-84510	186.82	--	373.24	--	Ceballos, Carlos & Alicia					--	F-I	--		
									Total	**190.92**	**Acres**	**763.68**	**Acre-Feet**				**Total**	**475**	**Acres**	**2,035.84**	**Acre-Feet**	
84572	PER	NW	SE	12	35N	37E			6.68	6.68	1.27	1.27	Lemm, Joshua D.	Pasture	3.3	Sprinklers	75%	1.16	I	4.785	N	
									TOTAL	**7,741.91**	**Acres**	**28,133.64**	**Acre-Feet**				**TOTAL**	**6,981.25**	**Acres**	**26,805.99**	**Acre-Feet**	