

STATE OF NEVADA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
DIVISION OF WATER RESOURCES

JASON KING, P.E.
STATE ENGINEER



BIG SMOKY VALLEY - NORTHERN PART
HYDROGRAPHIC BASIN 10-137B

CROP INVENTORY

CALENDAR YEAR 2014

Prepared by: Shannon McDaniel, P.E.
and Landon Harris

TABLE OF CONTENTS

	Page
ABSTRACT.....	1
HYDROGRAPHIC BASIN SUMMARY	2
PURPOSE AND SCOPE.....	3
DESCRIPTION OF THE STUDY AREA	3
GROUNDWATER LEVELS	3
METHODS TO ESTIMATE IRRIGATED ACREAGE.....	5
METHODS TO ESTIMATE PUMPAGE.....	5
TABLES	7
FIGURES.....	8
APPENDIX A. 2014 BIG SMOKY VALLEY - NORTHERN PART CROP INVENTORY.	11

LIST OF TABLES

	Page
Table 1. Big Smoky Valley – Northern Part historical irrigated acreage and pumpage data.	7

LIST OF FIGURES

	Page
Figure 1. Physiographic map of Big Smoky Valley – Northern Part (Hydrographic Basin 10-137B).....	8
Figure 2. Map showing Big Smoky Valley – Northern Part irrigated acreage and water level monitoring sites.....	9
Figure 3. Graph showing Big Smoky Valley – Northern Part historical irrigated acreage and pumpage. The NIWR method to estimate pumpage was used starting in 2014; estimates may differ significantly from previous years.....	10

ABSTRACT

This inventory represents the status and usage of all permitted and certificated groundwater rights for irrigation purposes located within Big Smoky Valley (Northern Part), Hydrographic Basin 10-137B, for the year 2014. **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 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 2014, the permitted and certificated groundwater rights for irrigation purposes totaled **10,111 acres** with a total duty of 38,979 acre-feet within Big Smoky Valley (Northern Part). An estimated **3,028 acres** were irrigated and 11,343 acre-feet pumped during 2014.

HYDROGRAPHIC BASIN SUMMARY

HYDROGRAPHIC BASIN NUMBER	137B, REGION 10
HYDROGRAPHIC BASIN NAME	BIG SMOKY VALLEY, NORTHERN PART
COUNTIES	LANDER, NYE
MAJOR COMMUNITIES	CARVERS, ROUND MOUNTAIN
DESIGNATED BASIN	DESIGNATED
DENIALS BASED UPON WATER AVAILABILITY	3293 , IRR DEN, 12/19/1985
ESTIMATED IRRIGATION PUMPAGE 2014 (ACRE-FEET)	11,343*

STATE ENGINEER'S ORDERS

[NO. 827 – DESIGNATION OF BASIN](#)
[NO. 852 – AMENDED DESIGNATION](#)
[NO. 1233 – MINE DEWATERING](#)

OCTOBER 24, 1983
APRIL 4, 1985
DECEMBER 20, 2013

COMMITTED GROUNDWATER RESOURCE FOR IRRIGATION PURPOSES: 38,979 ACRE-FEET
DATE: DECEMBER 2014

NOTE: Committed groundwater resource data are accurate for February 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 manners of use 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 (NDWR), and to estimate the amount of groundwater pumped for irrigation purposes within the Big Smoky Valley - Northern Part Hydrographic Basin (10-137B), for the year 2014.

DESCRIPTION OF THE STUDY AREA

The Big Smoky Valley - Northern Part Hydrographic Basin is located in central Nevada (Figure 1), and occupies approximately 1,323 square miles within Lander and Nye Counties. The adjacent hydrographic basins are Upper Reese River Valley (04-056) to the west, Grass Valley (10-138) to the north, Kobeh Valley (10-139) to the northeast, Monitor Valley – Northern Part (10-140A) and Monitor Valley – Southern Part (10-140B) to the east, Ralston Valley (10-141) to the southeast, and Big Smoky Valley - Tonopah Flat (10-137A) to the south.

Big Smoky Valley - Northern Part is bounded on the west by the Toiyabe Range, to the north by the southern reaches of the Simpson Park Range, and to the east by the Toiyabe Range. The southern basin boundary is an administrative delineation just south of the town of Round Mountain. The valley is approximately 24 miles wide by 67 miles long, with elevations ranging from approximately 5,500 feet above mean sea level at the valley floor to over 11,000 feet in the surrounding mountains. Irrigation occurs at various areas throughout the lowland portion of the basin (Figure 2).

The U.S. Geological Survey (USGS) maintains multiple stream flow gauging stations in Big Smoky Valley – Northern Part. Data for those gauges can be accessed on the USGS website (<http://nevada.usgs.gov>).

GROUNDWATER LEVELS

Depths to groundwater in Big Smoky Valley – Northern Part are measured by multiple agencies on an annual basis. Sites at which water level measurements are made by or reported to NDWR include:

[137B N09 E43 01CDDC1](#)
[137B N09 E43 03DBCC1](#)
[137B N10 E43 02B 1](#)
[137B N10 E43 13CABD1](#)
[137B N10 E43 13CACA1](#)
[137B N10 E43 14DCCC2](#)
[137B N10 E43 15BCCC1](#)
[137B N10 E43 15CACA2](#)
[137B N10 E43 15CBBC1](#)
[137B N10 E43 15CBDD2](#)

[137B N09 E43 02DCBD1](#)
[137B N09 E43 10BDCC1](#)
[137B N10 E43 04CA 1](#)
[137B N10 E43 13CABD2](#)
[137B N10 E43 14CDBB1](#)
[137B N10 E43 14DCCC3](#)
[137B N10 E43 15BDAB1](#)
[137B N10 E43 15CBAB1](#)
[137B N10 E43 15CBBC2](#)
[137B N10 E43 15CCCCB1](#)

[137B N09 E43 03AAAD1](#)
[137B N09 E43 14BCAB1](#)
[137B N10 E43 05AA 01](#)
[137B N10 E43 13CABD3](#)
[137B N10 E43 14DCCC1](#)
[137B N10 E43 15BCBB1](#)
[137B N10 E43 15CACA1](#)
[137B N10 E43 15CBAB2](#)
[137B N10 E43 15CBDD1](#)
[137B N10 E43 15CCCCB2](#)

[137B N10 E43 15CDCA1](#)
[137B N10 E43 22BBBA2](#)
[137B N10 E43 23DBCD1](#)
[137B N10 E43 24ACDA1](#)
[137B N10 E43 24ADDB1](#)
[137B N10 E43 24ABABC1](#)
[137B N10 E43 24BDBB3](#)
[137B N10 E43 24CAAA3](#)
[137B N10 E43 24CBCB1](#)
[137B N10 E43 24CCAD1](#)
[137B N10 E43 24CDCD1](#)
[137B N10 E43 24CDDC1](#)
[137B N10 E43 24DBAB2](#)
[137B N10 E43 24DBBC1](#)
[137B N10 E43 24DBCC2](#)
[137B N10 E43 24DCBA1](#)
[137B N10 E43 24DCBD2](#)
[137B N10 E43 24DCCD1](#)
[137B N10 E43 25AACD1](#)
[137B N10 E43 25ABAD1](#)
[137B N10 E43 25ABCA1](#)
[137B N10 E43 25ABCA4](#)
[137B N10 E43 26CCDC1](#)
[137B N10 E43 35DAAA1](#)
[137B N10 E44 08ACBB1](#)
[137B N10 E44 19CAAB1](#)
[137B N10 E44 19CCBA2](#)
[137B N10 E44 19CDCB2](#)
[137B N10 E44 19CDDD1](#)
[137B N10 E44 20CCBB1](#)
[137B N10 E44 20CDBC2](#)
[137B N10 E44 29ACDB2](#)
[137B N10 E44 29BACA2](#)
[137B N10 E44 29BCCC1](#)
[137B N10 E44 29CAAA2](#)
[137B N10 E44 29CDAA1](#)
[137B N10 E44 30ABBB1](#)
[137B N10 E44 30ABDC2](#)
[137B N10 E44 30ACDB1](#)
[137B N10 E44 30ADBD1](#)
[137B N10 E44 30ADDC1](#)
[137B N10 E44 30BCDC2](#)
[137B N11 E43 11A 1](#)

[137B N10 E43 15CDCA2](#)
[137B N10 E43 22BCBA1](#)
[137B N10 E43 23DBCD2](#)
[137B N10 E43 24ACDC1](#)
[137B N10 E43 24ADDC1](#)
[137B N10 E43 24BDBB1](#)
[137B N10 E43 24CAAA1](#)
[137B N10 E43 24CAAC1](#)
[137B N10 E43 24CBCB2](#)
[137B N10 E43 24CCAD2](#)
[137B N10 E43 24CDCD2](#)
[137B N10 E43 24DACC1](#)
[137B N10 E43 24DBAC1](#)
[137B N10 E43 24DBC1](#)
[137B N10 E43 24DBCC3](#)
[137B N10 E43 24DCBA2](#)
[137B N10 E43 24DCBD3](#)
[137B N10 E43 24DCCD2](#)
[137B N10 E43 25AACD2](#)
[137B N10 E43 25ABBB1](#)
[137B N10 E43 25ABCA2](#)
[137B N10 E43 25BAAA1](#)
[137B N10 E43 28C 1](#)
[137B N10 E43 36CCBC1](#)
[137B N10 E44 08CDCA1](#)
[137B N10 E44 19CCAA1](#)
[137B N10 E44 19CDBC1](#)
[137B N10 E44 19CDDA1](#)
[137B N10 E44 19DBAD1](#)
[137B N10 E44 20CCBB2](#)
[137B N10 E44 20CDBC3](#)
[137B N10 E44 29BABA1](#)
[137B N10 E44 29BBCC1](#)
[137B N10 E44 29BCDB1](#)
[137B N10 E44 29CAAA3](#)
[137B N10 E44 29CDAA2](#)
[137B N10 E44 30ABBD1](#)
[137B N10 E44 30ACAC1](#)
[137B N10 E44 30ADAC1](#)
[137B N10 E44 30ADCA1](#)
[137B N10 E44 30BCAD1](#)
[137B N10 E44 30BCDC3](#)
[137B N11 E43 24D 1](#)

[137B N10 E43 22BBBA1](#)
[137B N10 E43 23AABB1](#)
[137B N10 E43 24ACAC1](#)
[137B N10 E43 24ADCC1](#)
[137B N10 E43 24ADDC2](#)
[137B N10 E43 24BDBB2](#)
[137B N10 E43 24CAAA2](#)
[137B N10 E43 24CAAC2](#)
[137B N10 E43 24CBCB3](#)
[137B N10 E43 24CCAD3](#)
[137B N10 E43 24CDCD3](#)
[137B N10 E43 24DBAB1](#)
[137B N10 E43 24DBAD1](#)
[137B N10 E43 24DBCC1](#)
[137B N10 E43 24DCAB1](#)
[137B N10 E43 24DCBD1](#)
[137B N10 E43 24DCCA1](#)
[137B N10 E43 24DDBC1](#)
[137B N10 E43 25AACD3](#)
[137B N10 E43 25ABBD1](#)
[137B N10 E43 25ABCA3](#)
[137B N10 E43 26BDAD1](#)
[137B N10 E43 35CBCA1](#)
[137B N10 E44 05ACCA1](#)
[137B N10 E44 19BAAC1](#)
[137B N10 E44 19CCBA1](#)
[137B N10 E44 19CDBC2](#)
[137B N10 E44 19CDDA2](#)
[137B N10 E44 19DCCD1](#)
[137B N10 E44 20CDBC1](#)
[137B N10 E44 29ACDB1](#)
[137B N10 E44 29BACA1](#)
[137B N10 E44 29BCBB1](#)
[137B N10 E44 29CAAA1](#)
[137B N10 E44 29CBCC1](#)
[137B N10 E44 30AACA1](#)
[137B N10 E44 30ABBD2](#)
[137B N10 E44 30ACAC2](#)
[137B N10 E44 30ADBA1](#)
[137B N10 E44 30ADCA3](#)
[137B N10 E44 30BCDC1](#)
[137B N10 E44 30DBDD1](#)
[137B N11 E43 25DCDB1](#)

<u>137B N11 E43 27CD 1</u>	<u>137B N11 E43 29DC 1</u>	<u>137B N11 E44 31ABBB1</u>
<u>137B N11 E44 31CDBB1</u>	<u>137B N11 E44 31DADD1</u>	<u>137B N11 E44 32AACB1</u>
<u>137B N11 E44 32AACD1</u>	<u>137B N11 E44 32AADA1</u>	<u>137B N11 E44 32AADA2</u>
<u>137B N11 E44 32AADA3</u>	<u>137B N11 E44 32ACAC1</u>	<u>137B N11 E44 32ADAD1</u>
<u>137B N11 E44 32ADAD3</u>	<u>137B N11 E44 32ADBA1</u>	<u>137B N11 E44 32ADBA2</u>
<u>137B N11 E44 32ADBA3</u>	<u>137B N11 E44 32BADD1</u>	<u>137B N11 E44 32BDAD1</u>
<u>137B N11 E44 32BDDA1</u>	<u>137B N11 E44 32BDDC1</u>	<u>137B N11 E44 33BAAD1</u>
<u>137B N11 E44 33BABB1</u>	<u>137B N11 E44 33BCDA1</u>	<u>137B N11 E44 33BDAB1</u>
<u>137B N11 E44 33BDAB2</u>	<u>137B N11 E44 33BDCC1</u>	<u>137B N11 E44 33BDCC2</u>
<u>137B N11 E44 33BDCC3</u>	<u>137B N11 E44 33BDCD1</u>	<u>137B N11 E44 33BDCD2</u>
<u>137B N11 E44 33BDDB1</u>	<u>137B N12 E43 09C 1</u>	<u>137B N12 E43 09D 1</u>
<u>137B N12 E44 18BCC 01</u>	<u>137B N13 E43 30D 1</u>	<u>137B N14 E43 28A 2</u>
<u>137B N15 E44 35DACD1</u>	<u>137B N17 E45 18A 1</u>	<u>137B N17 E45 18C 1</u>
<u>137B N17 E46 06CD 1</u>		

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 Big Smoky Valley – Northern Part Hydrographic Basin. 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 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; this and subsequent pumpage estimates may differ significantly from estimates of previous years.

TABLES

Table 1. Big Smoky Valley – Northern Part historical irrigated acreage and pumpage data.

Year	2010	2011	2012	2013	2014
Acres Irrigated	2,706	2,940	3,066	3,300	3,028
Acre-Foot Pumped	7,799	8,153	10,737	11,906	11,343

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

FIGURES

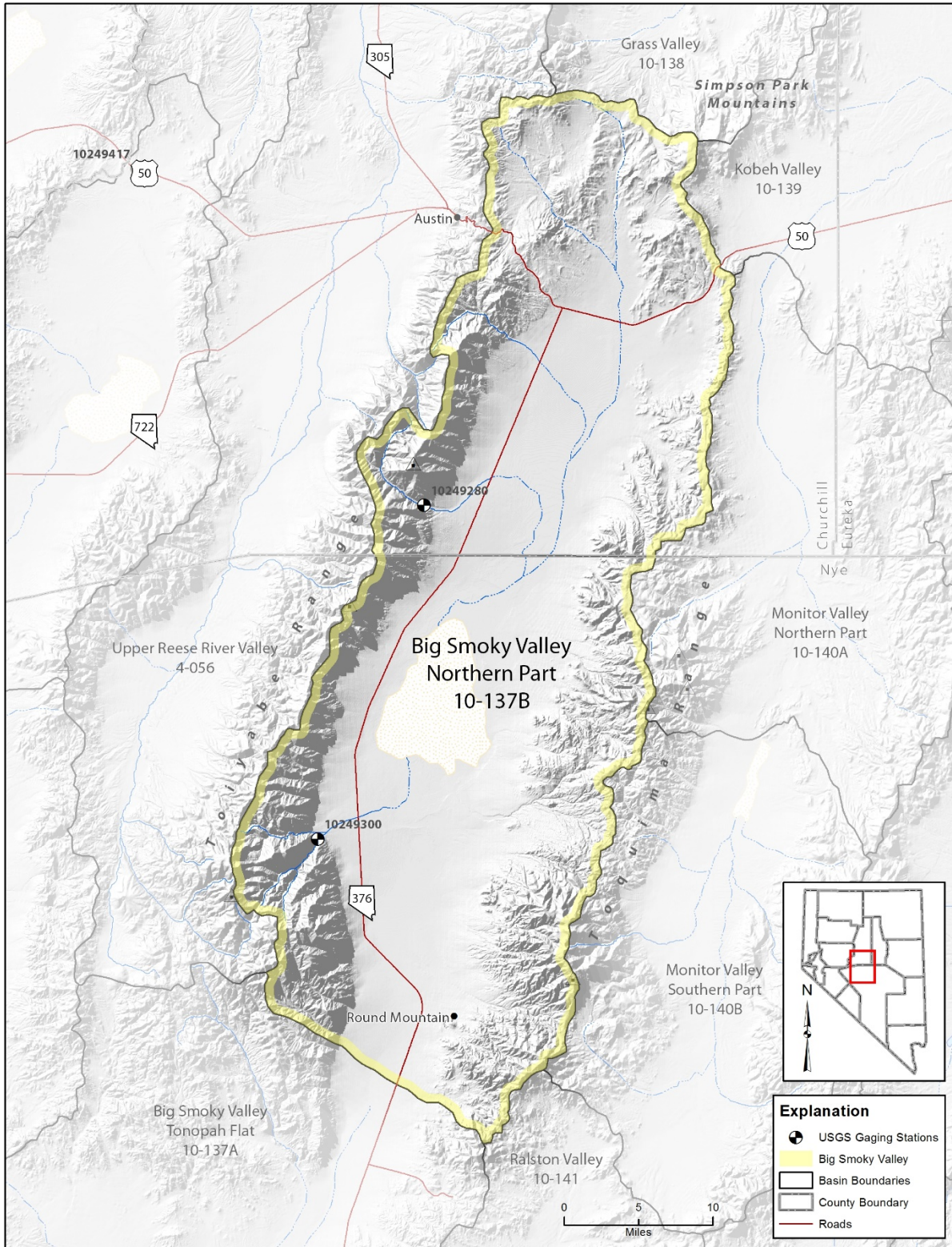


Figure 1. Physiographic map of Big Smoky Valley – Northern Part (Hydrographic Basin 10-137B).

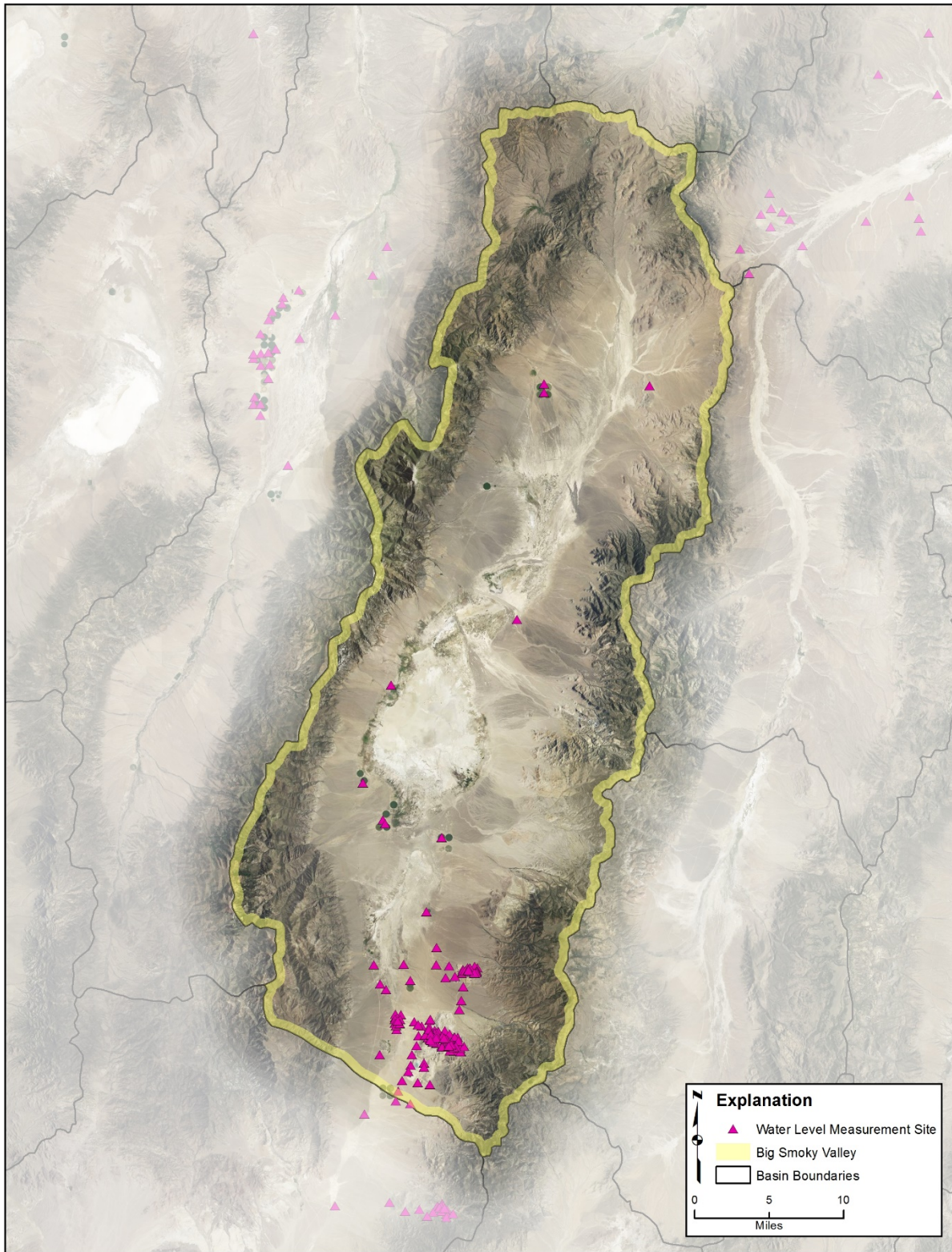


Figure 2. Map showing Big Smoky Valley – Northern Part irrigated acreage and water level monitoring sites.

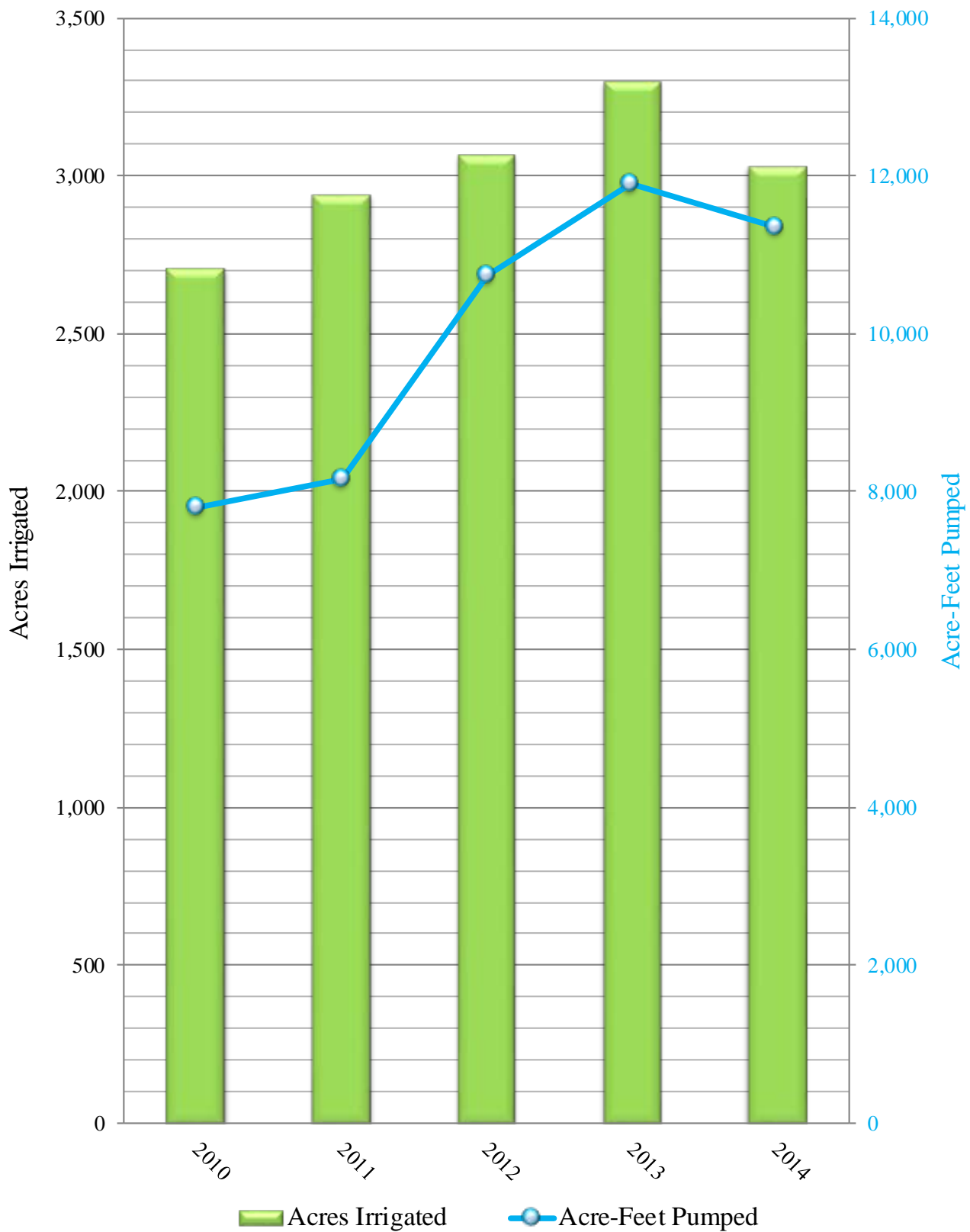


Figure 3. Graph showing Big Smoky Valley – Northern Part historical irrigated acreage and pumpage. The NIWR method to estimate pumpage was used starting in 2014; estimates may differ significantly from previous years.

APPENDIX A. 2014 BIG SMOKY VALLEY - NORTHERN PART 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.
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. A “-” in this field indicates that pumpage was attributed to a senior supplemental permit or certificated 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. A “-” in this field indicates that pumpage was attributed to a senior supplemental permit or certificated water right.
Pumpage Estimation	The method used to estimate the amount of water pumped. M – Totalizing meter readings. N – NIWR Method. D – Duty.
Remarks	Description of circumstances pertaining to the well, the acreage, or the use of the water that are not accommodated by the other fields in the table.

Crop Inventory and Groundwater Pumpage for Irrigation - Big Smoky Valley, Basin 137B, 2014

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	Remarks
14014	CER	NW	SW	9	12N	43E	Y	1	781.87	5,120.00	3,127.50	20,480.00	BTAZ NEVADA, LLC	Alf	Pivot, Wheel Line	132.31	I	519.12	N	30% Surface use.
14015	CER	SW	SE	8	12N	43E	Y	1	969.66		487.80		BTAZ NEVADA, LLC	Alf	Pivot	141.68	F	18.22	N	30% Surface use.
16847	CER	SW	NE	28	14N	43E	Y	2	1.25	87.92	5.00	351.68	MCLEOD RANCH & FISHERY LLC	Hay	Wheel Line	--	F	--	N	20% Surface use.
16848	CER	NW	SE	28	14N	43E	Y	2	20.47		81.88		MCLEOD RANCH & FISHERY LLC	Hay	Wheel Line	--	F	--	N	20% Surface use.
16866	CER	SE	NW	29	11N	43E	Y	3	25.00	101.20	100.00	404.48	CARVER, MARGARET WELDON	Alf, Grass	Wheel Line	5.36	I	25.73	N	
18509	CER	NW	SW	35	19N	45E			34.70	34.70	138.80	138.80	PARSONS, CHARLES W	None	None	0.00	F	0.00		
18840	CER	SE	NW	29	11N	43E	Y	3	100.00		400.00		CARVER, MARGARET WELDON	Alf, Grass	Wheel Line	22.74	I	109.15	N	
22606	CER	SW	NW	33	11N	43E			15.00	15.00	60.00	60.00	STONIER, CAROL L	None	Wheel Line	0.00	F	0.00	N	
26278	CER	SW	SE	29	11N	43E			46.90	46.90	187.60	187.60	BERG, RONALD LEE	Alf	Pivot	35.00	I	148.24	N	
27213	CER	SE	NE	11	11N	43E	Y	4	14.69	320.00	58.76	1,240.00	KNIEFEL, RICHARD & TWILA	None	None	0.00	F	0.00		141.5 acre-feet from Barker Creek.
30130	CER	NW	SE	4	12N	43E	Y	1	198.50		794.00		BTAZ NEVADA, LLC	Alf	Pivot	74.04	F	309.43	N	30% Surface use.
31271	CER	NE	NE	19	11N	43E	Y	5	204.07	204.07	150.70	450.95	BTAZ NEVADA LLC	Meadow Hay	Flood	51.28	I	302.55	N	20% Surface use.
32420	PER	SW	NW	9	12N	43E	Y	1	960.00		3,840.00		BTAZ NEVADA, LLC	Alf	Pivot, Wheel Line	220.11	F	925.00	N	30% Surface use.
38752	CER	NE	NE	5	10N	43E			74.92	74.92	299.68	299.68	BERG, KARL & ALICE	Alf	Wheel Line	58.00	I	278.40	N	
40007	CER	SW	NE	28	14N	43E	Y	2	47.00		179.07		MCLEOD RANCH & FISHERY LLC	Hay	Wheel Line	--	F	--	N	20% Surface use.
41150	CER	SW	NW	29	11N	43E	Y	3	98.00		50.68		CARVER, MARGARET	Alf, Grass	Wheel Line	--	I	--	N	
41151	CER	SW	NW	29	11N	43E	Y	3	98.00		54.30		CARVER, MARGARET	Alf, Grass	Wheel Line	--	I	--	N	
41152	CER	SW	NW	29	11N	43E	Y	3	98.00		72.40		CARVER, MARGARET	Alf, Grass	Wheel Line	--	I	--	N	
44373	PER	NW	SE	4	12N	43E	Y	1	1,120.00		486.00		BTAZ NEVADA, LLC	Alf	Pivot, Wheel Line	--	F	--	N	30% Surface use.
44374	PER	SW	SE	4	12N	43E	Y	1	1,000.00		4,000.00		BTAZ NEVADA, LLC	Alf	Wheel Line	68.73	F	306.97	N	30% Surface use.
45528	PER	SE	SE	9	12N	43E	Y	1	1,160.00		1,280.00		BTAZ NEVADA, LLC	Alf	Wheel Line	0.46	F	1.84	N	30% Surface use.
45529	PER	NW	SE	33	13N	43E	Y	1	1,520.00		1,280.00		BTAZ NEVADA, LLC	None	None	0.00	F	0.00		30% Surface use.
45530	PER	SE	NW	33	13N	43E	Y	1	1,520.00		1,280.00		BTAZ NEVADA, LLC	None	None	0.00	F	0.00		30% Surface use.
46219	CER	NW	NW	2	10N	43E			157.62	157.62	630.48	630.48	BTAZ NEVADA LLC	Alf	Pivot	136.06	I	576.25	N	
46687	CER	NW	NW	2	10N	43E			78.38	78.38	313.52	313.52	BTAZ NEVADA LLC	Alf	Pivot	62.91	I	266.44	N	
51563	CER	SW	SE	30	13N	43E			125.36	125.36	501.44	501.44	CANDEE, WILLIAM AND JOAN M.	Alf	Pivot	125.36	I	501.44	D	
52194	CER	NE	NE	19	11N	43E	Y	5	204.07		150.12		BTAZ NEVADA LLC	Meadow Hay	Flood	--	F	--	N	20% Surface use.
52730	CER	NE	NE	19	11N	43E	Y	5	204.07		150.12		BTAZ NEVADA LLC	Meadow Hay	Flood	--	F	--	N	20% Surface use.
52856	CER	NE	SW	4	10N	43E			6.86	6.86	27.44	27.44	JONES, EVERETTE E. & VIRGINIA P.	Alf	Wheel Line	6.86	I	32.93	N	
54495	PER	SE	NW	10	14N	43E		6	10.13	10.13	40.52	40.52	WALTERS, GORDON C	Pasture	Sprinkler	5.00	F	18.47	N	
54911	CER	SW	SW	28	10N	43E	Y	54912, 64181	32.79	105.81	131.16	487.24	BARGOLD CORPORATION	Grass	Sprinkler	105.81	I	131.16	M	
54912	CER	SW	SW	28	10N	43E	Y	54911, 64181	73.02		292.08		BARGOLD CORPORATION	Grass	Sprinkler	--	F	78.66	M	
56192	PER	NW	SE	9	12N	43E	Y	1	1,160.00		4,343.82		BTAZ NEVADA, LLC	Alf	Pivot, Wheel Line	97.32	F	936.12	N	30% Surface use.
56678	PER	NW	SW	3	12N	43E	Y	1	1,720.00		4,343.82		BTAZ NEVADA, LLC	Alf	Pivot, Wheel Line	--	F	--	N	30% Surface use.
56692	CER	NE	SW	10	14N	43E			4.76	4.76	11.82	11.82	KASTEN, GEORGIA L	Pasture, Trees	Sprinkler	2.45	I	9.05	N	
59759	PER	NE	NE	9	12N	43E	Y	1	1,000.00		4,000.00		BTAZ NEVADA, LLC	Alf	Pivot, Wheel Line	--	F	--	N	30% Surface use.
62459	CER	SW	NE	30	13N	43E			127.56	127.56	510.24	510.24	CANDEE, WILLIAM AND JOAN M.	Alf	Pivot	126.00	I	533.65	N	
64181	PER	SW	SW	28	10N	43E	Y	54911, 54912	105.81		64.00		ROUND MTN GOLD CORP	Grass	Sprinkler	--	F	--	M	
66537	PER	NW	SE	18	17N	45E			320.00	320.00	960.00	960.00	YOUNG, RALPH	Alf	Pivot	240.00	I	720.00	D	
66538	PER	NW	NE	18	17N	45E			320.00	320.00	960.00	960.00	YOUNG, PATRICIA	Alf	Pivot	240.00	I	720.00	D	
70212	PER	NW	NE	15	14N	43E	Y	7	100.00	100.00	400.00	400.00	TWIST RANCH COMMUNITY, A NEVADA LP	Pasture	Flood	93.00	I	123.65	N	20% Surface use.
73160	PER	NW	SE	2	14N	43E			9.00	9.00	36.00	36.00	WALTERS, GORDON	Pasture	Sprinkler	1.00	I	3.69	N	
73563	PER	SW	NW	19	12N	44E			300.00	300.00	1,200.00	1,200.00	BECK, KAREN A.	Alf	Pivot	252.00	I	1,067.29	N	
73564	PER	SW	NW	18	12N	44E			300.00	300.00	1,200.00	1,200.00	BTAZ NEVADA, LLC	Alf	Pivot	252.00	I	1,067.29	N	
73565	PER	NW	SE	30	12N	44E			300.00	300.00	1,200.00	1,200.00	BECK, LAWRENCE E.	No Crop	Pivot	0.00	F	0.00		
76073	PER	SW	SE	7	13N	43E	Y	8	153.90	153.90	615.60	615.60	BERG, RONALD L & GLENDA G	Pasture	Flood	139.40	F	514.85	N	20% Surface use.
76664	PER	SE	NE	11	11N	43E	Y	4	160.00		640.00		KNIEFEL, RICHARD & TWILA	Alf	Pivot	43.00	I	40.54	N	141.5 acre-feet from Barker Creek.

Crop Inventory and Groundwater Pumpage for Irrigation - Big Smoky Valley, Basin 137B, 2014

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	Remarks	
76978	PER	SW	W	1	11N	43E	Y	4	240.00		960.00		KNIEFEL, RICHARD & TWILA	Alf	Pivot	--	F	--	N	141.5 acre-feet from Barker Creek.	
77047	PER	SW	SW	9	11N	43E	Y	77048, 77049	8.14	24.77	32.56	99.07	BERG, BARBARA L	No Crop	None	0.00	F	0.00			
77048	PER	SW	SW	9	11N	43E	Y	77047, 77049	8.81		35.23		BERG, BARBARA L	No Crop	None	0.00	F	0.00			
77049	PER	SW	SW	9	11N	43E	Y	77047, 77048	7.82		31.28		BERG, BARBARA L	No Crop	None	0.00	F	0.00			
77220	PER	NW	SW	20	15N	44E	Y	9	480.00	480.00	1,560.00	1,560.00	BATZ NEVADA, LLC	No Crop	None	0.00	F	0.00			
77641	PER	NE	NE	21	16N	44E	Y	10	320.00	320.00	1,280.00	1,280.00	YOUNG BROTHERS	Alf	Pivot	240.00	I	813.18	N	20% Surface use.	
82350	PER	NW	NW	7	17N	45E	Y	11	127.87	127.87	511.48	511.48	YOUNG BROS.	No Crop	None	0.00	F	0.00			
82643	PER	NW	SW	5	11N	43E	Y	12	302.10	302.10	1,208.40	1,208.40	BERG, RUSSEL	No Crop	None	0.00	F	0.00			
82671	PER	NE	NE	2	14N	43E	Y	13	117.40	117.40	469.60	469.60	CHAMBERS, TODD AND MEGAN	No Crop	None	0.00	F	0.00			
83147	PER	SW	NE	28	14N	43E	Y	2	38.60		147.07		MCLEOD RANCH & FISHERY LLC	Hay	Wheel Line	--	F	--	N	20% Surface use.	
83148	PER	SE	NE	28	14N	43E	Y	14	80.00	80.00	320.00	320.00	MCLEOD RANCH & FISHERY LLC			No Estimate		No Estimate			
83606T	PER	SW	NE	28	14N	43E	Y	2	85.60		342.40		MCLEOD RANCH & FISHERY LLC	Hay	Wheel Line	24.53	I	116.20	N	20% Surface use.	
83637T	PER	NW	NE	4	12N	43E	Y	1	1,520.00		1,280.00		BTAZ NEVADA LLC	None	None	0.00	F	0.00		30% Surface use.	
V02427	VST	SW	NE	28	14N	43E	Y	2	5.00		25.00		MCLEOD RANCH & FISHERY LLC	Hay	Wheel Line	5.00	I	25.00	N	20% Surface use.	
V02428	VST	NW	SE	28	14N	43E	Y	2	20.47		102.35		MCLEOD RANCH & FISHERY LLC	Hay	Wheel Line	20.47	I	102.35	N	20% Surface use.	
V10331	VST	SE	NE	19	13N	43E	Y	V10332, V10333	60.00	60.00	210.00	210.00	PEAVINE RANCHES			No Estimate		No Estimate			
V10332	VST	SE	NE	19	13N	43E	Y	V10331, V10333	60.00		210.00		PEAVINE RANCHES			No Estimate		No Estimate			
V10333	VST	SE	NE	19	13N	43E	Y	V10331, V10332	60.00		210.00		PEAVINE RANCHES			No Estimate		No Estimate			
V10334	VST	NE	NE	30	13N	43E			120.00	120.00	420.00	420.00	PEAVINE RANCHES			No Estimate		No Estimate			
V10335	VST	NW	NW	29	13N	43E			55.00	55.00	192.50	192.50	PEAVINW RANCHES			No Estimate		No Estimate			
Total Supplementally Adjusted Permitted/Certificated Acreage												10,111.23		Total Estimated Acreage		3,027.88					
Total Supplementally Adjusted Permitted/Certificated Pumpage												38,978.54		Total Estimated Pumpage		11,342.87					

¹ PERMITS 14014, 14015, 30130, 32420, 44373, 44374, 45528, 45529, 45530, 56192, 56678, 59759 AND 83637T HAVE A TOTAL COMBINED DUTY OF 20,480.00 AFA FOR THE IRRIGATION OF 5,120 ACRES, OF WHICH 3,648.2 ACRES ARE SUPPLEMENTAL TO THE DECREED WATERS OF NORTH TWIN RIVER AND SOUTH TWIN RIVER AND TRIBUTARIES UNDER V02408 AND THE DECREED WATERS OF LAST CHANCE, OPHIR, WISCONSIN AND SUMMIT CREEKS.

² PERMITS 16847, 16848, 40007, 83146, 83147 AND 83606T AND PROOFS OF APPROPRIATION V02427 AND V02428 HAVE A TOTAL COMBINED DUTY OF 351.68 AFA. PORTIONS OF THE LAND APPURTENANT TO THE PERMITS AND PROOFS OF APPROPRIATION MAY BE SUPPLEMENTAL TO THE WATERS OF MCLEOD CREEK UNDER PROOF OF APPROPRIATION V05777.

³ PERMITS 16866, 18840, 41150, 41151 AND 41152 HAVE A TOTAL COMBINED DUTY OF 404.48 AFA.

⁴ PERMITS 27213, 76664 AND 76978 HAVE A TOTAL COMBINED DUTY OF 1,120.00 AFA. PERMITS 27213, 45395 (BARKER CREEK), 76664, 76978 AND PROOF OF APPROPRIATION V01285 (BARKER CREEK) HAVE A TOTAL COMBINED DUTY OF 1,240.00 AFA FOR THE IRRIGATION OF 320 ACRES.

⁵ PERMITS 31271, 52194 AND 52730 HAVE A TOTAL COMBINED DUTY OF 450.95 AFA FOR THE IRRIGATION OF 204.07ACRES, OF WHICH 56.97 ACRES ARE SUPPLEMENTAL TO THE WATERS OF BROAD CREEK UNDER PROOF OF APPROPRIATION V01594, 147.10 ACRES ARE SUPPLEMENTAL TO THE WATERS OF BROAD CREEK AND TRIBUTARIES UNDER PROOF OF APPROPRIATION V02864 AND 204.07 ACRES ARE SUPPLEMENTAL TO THE WATERS OF DEVIL'S CANYON CREEK UNDER

⁶ APPROXIMATELY 4.81 ACRES WITHIN THE DESCRIBED PLACE OF USE OF PERMIT 54495, CERTIFICATE 18542 ARE SUPPLEMENTAL TO THE WATERS OF SOUTH AIKEN CREEK UNDER PERMIT 25481, CERTIFICATE 7440.

⁷ PERMIT 70212 IS SUPPLEMENTAL TO THE WATERS OF SOUTH AIKEN CREEK UNDER PERMIT 25481, CERTIFICATE 7440; ALICE GENDRON CREEK UNDER PERMIT 27731, CERTIFICATE 10499 AND DECKER CREEK UNDER PERMIT 301

⁸ PERMIT 76073 IS SUPPLEMENTAL TO THE WATERS OF CLAY AND WILDCAT CREEKS UNDER PERMIT 16560, CERTIFICATE 4813; CLAY CREEK UNDER PROOF OF APPROPRIATION V05759 AND WILDCAT CREEK UNDER PROOF OF APPROPRIATION V05760, HAVING A TOTAL COMBINED DUTY OF 615.6 AFA FOR THE IRRIGATION OF 153.9 ACRES.

⁹ PERMIT 77220 IS PARTIALLY SUPPLEMENTAL TO THE WATERS OF CLEAR CREEK UNDER PROOF OF APPROPRIATION V01609, HAVING A TOTAL COMBINED DUTY OF 1,560 AFA FOR THE IRRIGATION OF 480 ACRES.

¹⁰ PERMIT 77641 IS SUPPLEMENTAL TO THE WATERS OF FRENCHMAN CREEK UNDER DECREED CLAIM V02416 AND PERMIT 13059, CERTIFICATE 3437; GILLMAN SPRINGS UNDER DECREED CLAIM V01527; KINGSTON CREEK (BIG SMOKY CREEK, BIG SMOKEY CREEK) UNDER PERMIT 26284, CERTIFICATE 8878; PERMIT 26285, CERTIFICATE 8906; PERMIT 30138, CERTIFICATE 9753; PERMIT 67295, 18771 (DECREED); PERMIT 67296, CERTIFICATE 18772 AND PERMIT 67297, CERTIFICATE 18773 (DECREED); ROCK CREEK UNDER DECREED CLAIMS V01527 AND V02414 AND PERMIT 13062, CERTIFICATE 3438; SANTA FE CREEK UNDER DECREED CLAIM V02412 AND PERMIT 13064, CERTIFICATE 3440; SHEEP CREEK UNDER DECREED CLAIMS V01527 AND V02413 AND PERMIT 13063, CERTIFICATE 3439 AND SHOSHONE CREEK UNDER DECREED CLAIM V02411 AND PERMIT 13065, CERTIFICATE 3451.

¹¹ PERMIT 82350 IS SUPPLEMENTAL TO THE WATERS OF BIRCH CREEK UNDER PERMIT 82352 AND SPANISH CANYON CREEK UNDER PERMIT 82351.

¹² PERMIT 82643 IS SUPPLEMENTAL TO THE WATERS OF BELCHER CREEK UNDER PERMIT 6366, CERTIFICATE 1971; PERMIT 13612, CERTIFICATE 5150; PERMIT 15272, CERTIFICATE 5662 AND PROOF OF APPROPRIATION V00706.

¹³ APPROXIMATELY 91.1 ACRES WITHIN THE DESCRIBED PLACE OF USE OF PERMIT 82671 ARE SUPPLEMENTAL TO THE WATERS OF AIKEN CREEK UNDER PERMIT 25482, CERTIFICATE 7441.

¹⁴ PERMIT 83148 MAY BE SUPPLEMENTAL TO THE WATERS OF MCLEOD CREEK UNDER PROOF OF APPROPRIATION V05777.