

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

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STATE ENGINEER



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

CROP INVENTORY

2013

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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 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 action, 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 **8,572 acres** with a total duty of 33,965 acre-feet within Big Smoky Valley (Northern Part). An estimated **3,300 acres** were irrigated and 11,906 acre-feet pumped during 2013.

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 2013 (ACRE-FEET)	11,906*

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: 33,965 ACRE-FEET
DATE: FEBRUARY 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 2013.

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 (10-153) 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 Toquima 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 (all elevations listed are 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).

FIGURE 1. LOCATION MAP OF BIG SMOKY VALLEY - NORTHERN PART (HYDROGRAPHIC BASIN 10-137B).

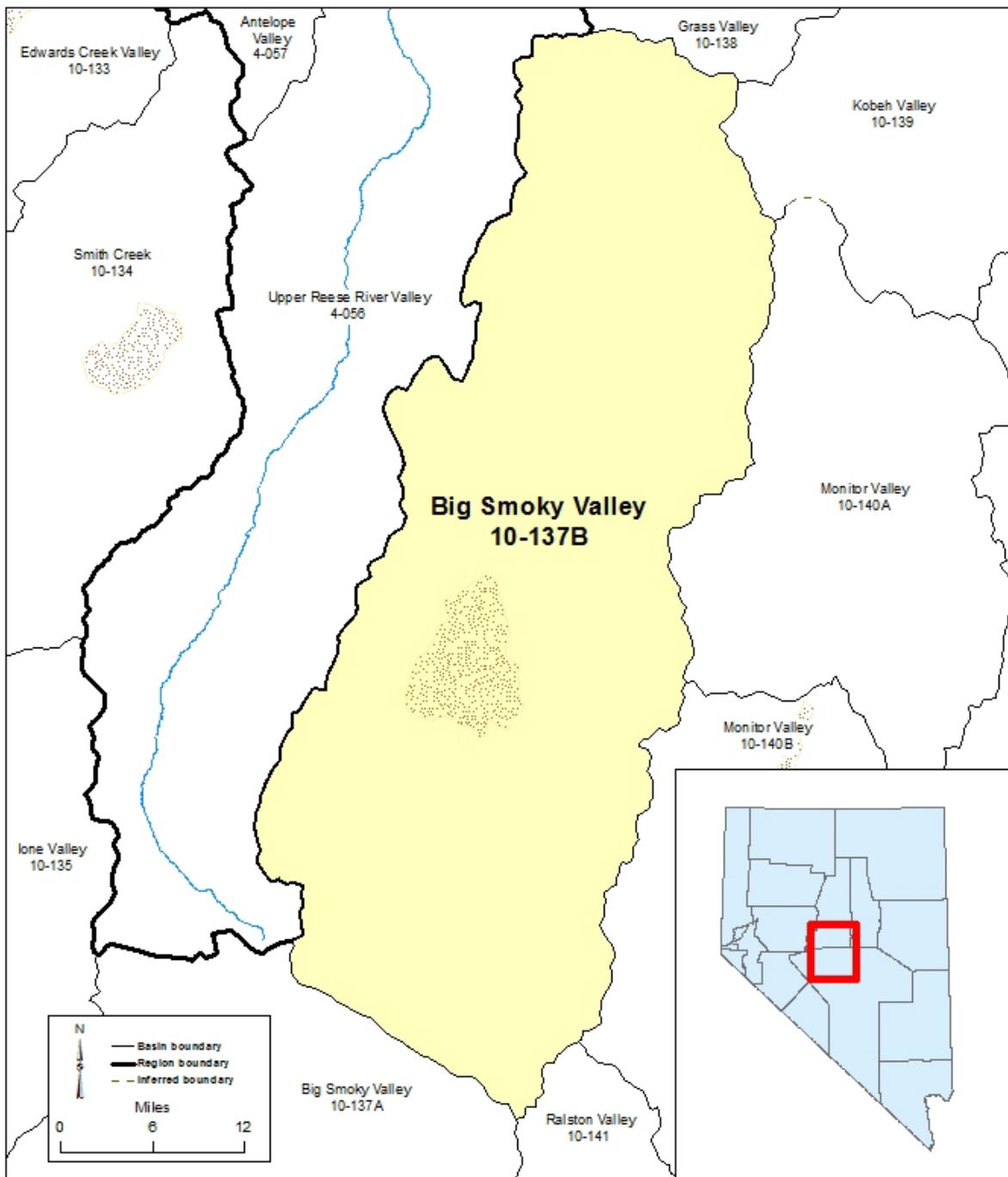
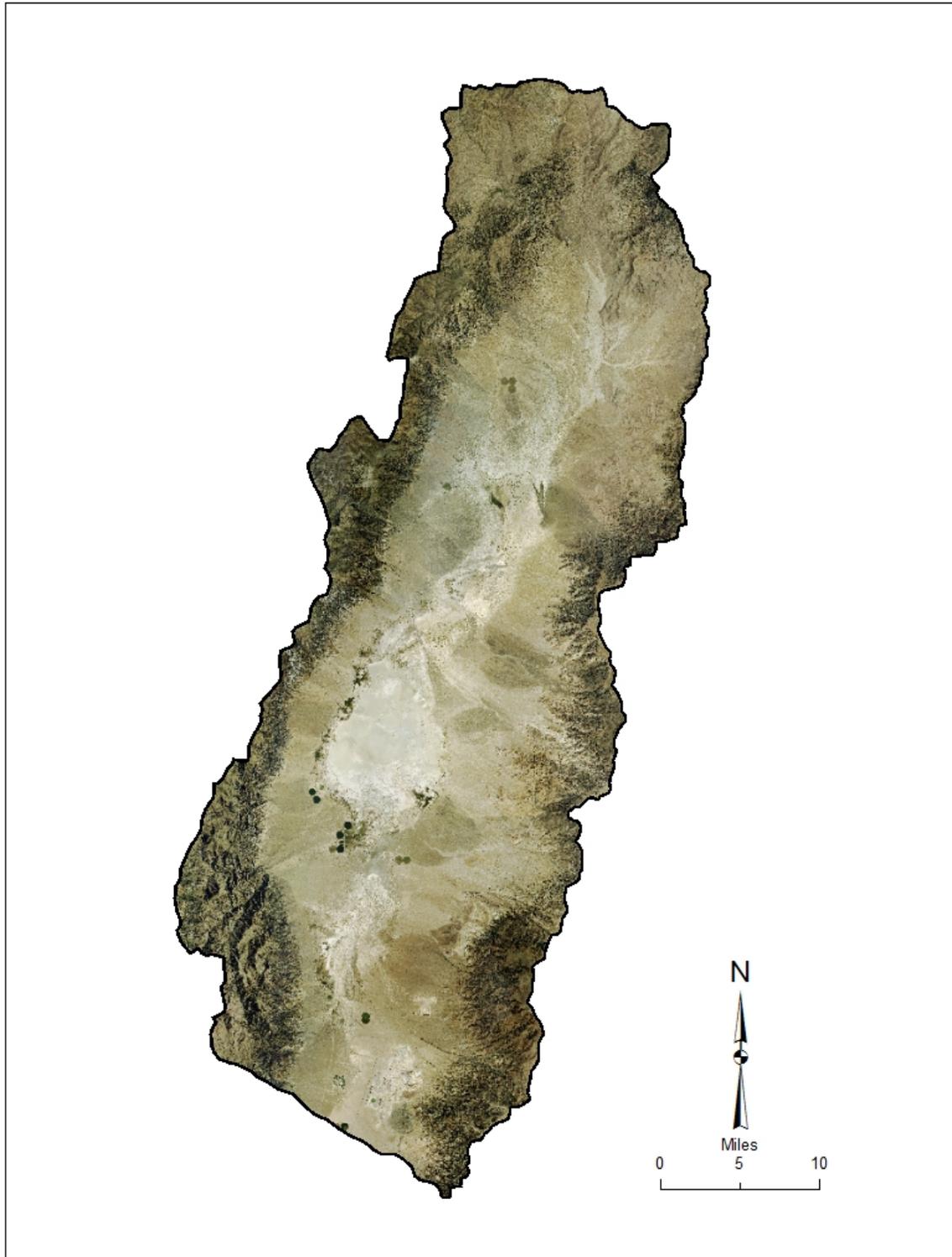


FIGURE 2. MAP OF BIG SMOKY VALLEY - NORTHERN PART IRRIGATED ACREAGE. BASE IMAGE FROM 2013 NATIONAL AGRICULTURAL IMAGERY PROGRAM DATA.



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 was not practical, aerial and/or satellite imagery were analyzed to determine acreages.

METHODS TO ESTIMATE PUMPAGE

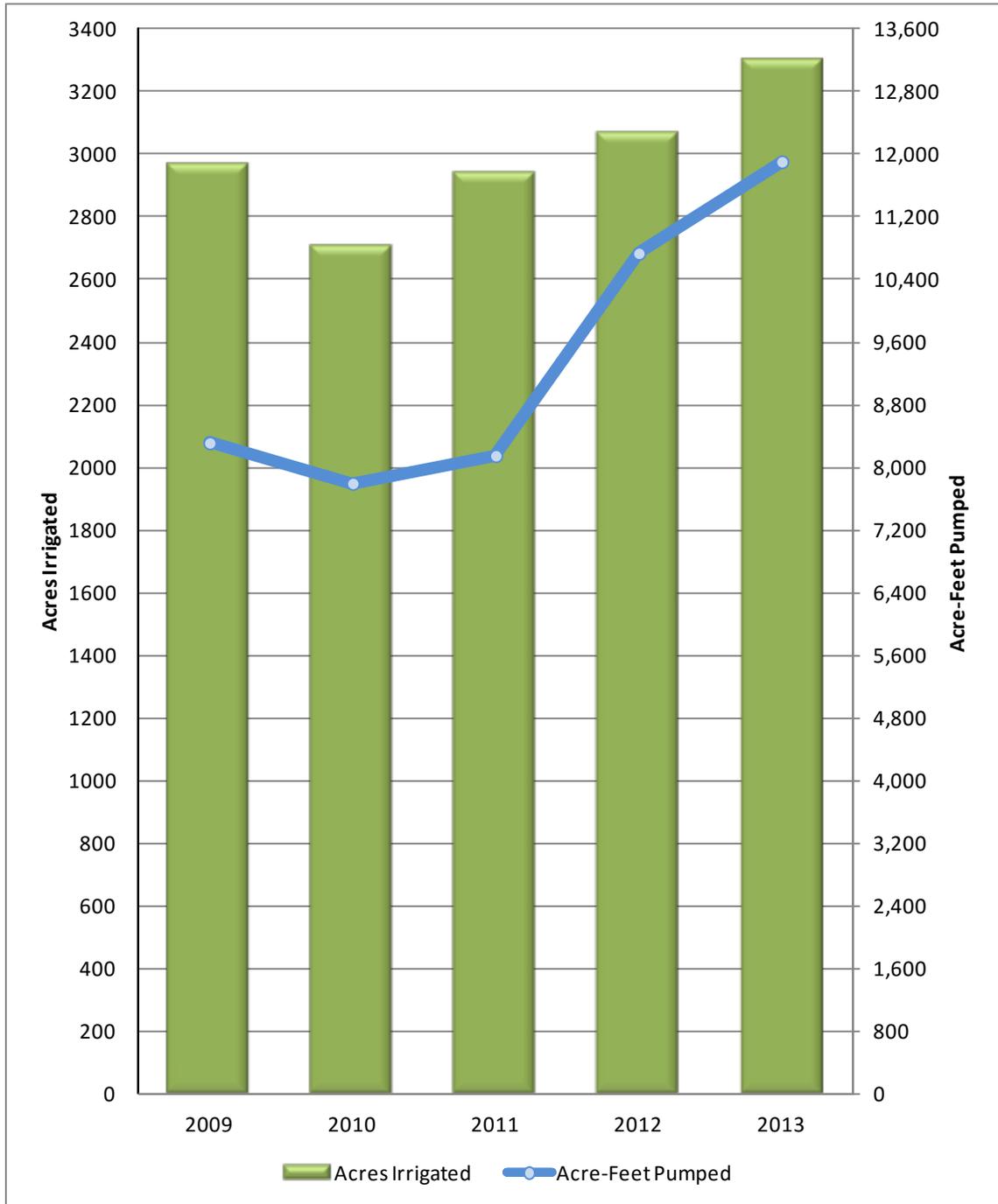
This report also estimates the amount of groundwater pumped under permits and certificates issued by the State Engineer. The following methods were used to arrive at the estimated use:

- 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. BIG SMOKY VALLEY – NORTHERN PART HISTORICAL CROP
INVENTORY.**

HISTORICAL CROP INVENTORY

	2009	2010	2011	2012	2013
Acres Irrigated	2,966	2,706	2,940	3,066	3,300
Acre-Feet Pumped	8,316	7,799	8,153	10,737	11,906



APPENDIX B. 2013 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 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
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)

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.
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, 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
46219	CER	NW	NW	2	10N	43E			157.62	157.62	630.48	630.48	BTAZ NEVADA LLC	GRAIN	PIVOT	126.00		504.00	
															TOTAL:	126.00	F	504.00	D
46687	CER	NW	NW	2	10N	43E			78.38	78.38	313.52	313.52	BTAZ NEVADA LLC	GRAIN	5/8 PIVOT	78.38		313.52	
															TOTAL:	78.38	F	313.52	D
52856	CER	NE	SW	4	10N	43E			6.86	6.86	27.44	27.44	BERG, KENNETH W & BARBARA L	ALFALFA	WHEEL LINE	6.80		27.20	
															TOTAL:	6.80	F	27.20	D
38752	CER	NE	NE	5	10N	43E			74.92	74.92	299.68	299.68	BERG, KARL & ALICE	ALFALFA	WHEEL LINES	74.00		296.00	
															TOTAL:	74.00	F	296.00	D
21043	CER	SW	SW	28	10N	43E			191.21	191.21	764.85	764.85	SMOKY VALLEY COMMON OPERATION	NO CROP	FISH POND	0.00		0.00	
															TOTAL:	0.00	F	0.00	
26891	CER	SW	SW	28	10N	43E			46.98	46.98	187.97	187.97	SMOKY VALLEY COMMON OPERATION	NO CROP		0.00		0.00	
															TOTAL:	0.00	F	0.00	
54911	CER	SW	SW	28	10N	43E	Y	54912; 64181	32.79	105.81	131.16	487.24	BARGOLD CORPORATION	GRASS	GOLF COURSE	32.79		131.16	
54912	CER	SW	SW	28	10N	43E	Y	54911; 64181	73.02		292.08		BARGOLD CORPORATION	GRASS	GOLF COURSE	73.02		292.08	
64181	PER	SW	SW	28	10N	43E	Y	54911; 54912	105.81		64.00		ROUND MTN GOLD CORP	GRASS	GOLF COURSE	0.00		0.00	
															TOTAL:	105.81	F	423.24	D
77047	PER	SW	SW	9	11N	43E	Y	77048; 77049	8.14	24.77	32.56	97.07	BERG, BARBARA L	NO CROP	NO IRR EQUIP	0.00		0.00	
77048	PER	SW	SW	9	11N	43E	Y	77047; 77049	8.81		35.23		BERG, BARBARA L	NO CROP	NO IRR EQUIP	0.00		0.00	
77049	PER	SW	SW	9	11N	43E	Y	77047; 77048	7.82		31.28		BERG, BARBARA L	NO CROP	NO IRR EQUIP	0.00		0.00	
															TOTAL:	0.00	F	0.00	
27213	CER	SE	NE	11	11N	43E	Y	76664; 76978	14.69	320.00	58.76	1240.00	KNIEFEL, RICHARD & TWILA	NO CROP	WHEEL LINE	0.00		0.00	
76664	PER	SE	NE	11	11N	43E	Y	27213; 76978	160.00		640.00		KNIEFEL, RICHARD & TWILA	NO CROP		0.00		0.00	
76978	PER	SW	W	1	11N	43E	Y	76664; 27213	240.00		960.00		KNIEFEL, RICHARD & TWILA	NO CROP		0.00		0.00	
															TOTAL:	0.00	F	0.00	
31271	CER	NE	NE	19	11N	43E	Y	52194; 52730	204.07	204.07	150.70	450.94	BTAZ NEVADA LLC	MEADOW HAY	FLOOD	204.07		150.70	
52194	CER	NE	NE	19	11N	43E	Y	31271; 52730	204.07		150.12		BTAZ NEVADA LLC	MEADOW HAY	FLOOD	0.00		150.12	
52730	CER	NE	NE	19	11N	43E	Y	31271; 52194	204.07		150.12		BTAZ NEVADA LLC	MEADOW HAY	FLOOD	0.00		150.12	
															TOTAL:	204.07	F	450.94	D
16866	CER	SE	NW	29	11N	43E	Y	18840; 41150; 41151; 41152	25.00	101.20	100.00	404.48	CARVER, MARGARET WELDON	ALFALFA		25.00		100.00	
18840	CER	SE	NW	29	11N	43E	Y	16866; 41150; 41151; 41152	100.00		400.00		CARVER, MARGARET WELDON	ALFALFA		15.00		60.00	
41150	CER	SW	NW	29	11N	43E	Y	16866; 18840; 41151; 41152	98.00		50.68		CARVER, MARGARET	NO CROP	SUBDIVIDED	0.00		0.00	
41151	CER	SW	NW	29	11N	43E	Y	16866; 18840; 41150; 41152	98.00		54.30		CARVER, MARGARET	NO CROP		0.00		0.00	
41152	CER	SE	NW	29	11N	43E	Y	16866; 18840; 41150; 41151	98.00		72.40		CARVER, MARGARET	NO CROP		0.00		0.00	
															TOTAL:	40.00	D	160.00	D
26278	CER	SW	SE	29	11N	43E			46.90	46.90	187.60	187.60	BERG, RONALD LEE	ALFALFA	4-T PIVOT	41.00		164.00	
															TOTAL:	41.00	D	164.00	D
22606	CER	SW	NW	33	11N	43E			15.00	15.00	60.00	60.00	STONIER, CAROL L	NO CROP	WHEEL LINE	0.00		0.00	
															TOTAL:	0.00		0.00	
56678	PER	NW	SW	3	12N	43E	Y	14014; 14015; 30130; 32420; 44373; 44374; 45528; 45529; 45530; 56192; 59759	0.00	5120.00	4343.82	20480.00	BTAZ NEVADA, LLC	NO CROP		0.00		0.00	

Crop Inventory and Groundwater Pumpage for Irrigation - Big Smoky Valley, Basin 137B, 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				
30130	CER	NW	SE	4	12N	43E	Y	14014; 14015; 32420; 44373; 44374; 45528; 45529; 45530; 56192; 56678; 59759	198.50		794.00		BTAZ NEVADA, LLC	ALFALFA	1 PIVOT	126.00		352.80					
14014	CER	NW	SW	9	12N	43E	Y	14015; 30130; 32420; 44373; 44374; 45528; 45529; 45530; 56192; 56678; 59759	781.87		3127.50		BTAZ NEVADA, LLC	ALFALFA	1 PIVOT	126.00		352.80					
14015	CER	SW	SE	8	12N	43E	Y	14014; 30130; 32420; 44373; 44374; 45528; 45529; 45530; 56192; 56678; 59759	969.66		487.80		BTAZ NEVADA, LLC	ALFALFA	1 PIVOT	126.00		352.80					
32420	PER	SW	NW	9	12N	43E	Y	14014; 30130; 14015; 44373; 44374; 45528; 45529; 45530; 56192; 56678; 59759	960.00		2895.18		BTAZ NEVADA, LLC	ALFALFA	PIVOTS & WL	126.00		352.80					
44374	PER	SW	SE	4	12N	43E	Y	14014; 30130; 14015; 44373; 32420; 45528; 45529; 45530; 56192; 56678; 59759	1000.00		4000.00		BTAZ NEVADA, LLC	ALFALFA	WHEEL LINES	65.00		182.00					
44373	PER	NW	SE	4	12N	43E	Y	14014; 30130; 14015; 44373; 32420; 45528; 45529; 45530; 56192; 56678; 59759	1120.00		486.00		BTAZ NEVADA, LLC	ALFALFA	WHEEL LINES	65.00		182.00					
45528	PER	SE	SE	9	12N	43E	Y	14014; 30130; 14015; 44373; 44374; 32420; 45528; 45529; 45530; 56192; 56678; 59759	1160.00		1280.00		BTAZ NEVADA, LLC	ALFALFA	PIVOTS & WL	65.00		182.00					
45529	PER	NW	SE	33	13N	43E	Y	14014; 30130; 14015; 44373; 44374; 32420; 45528; 45530; 56192; 56678; 59759	1520.00		1280.00		BTAZ NEVADA, LLC	ALFALFA	1/4 PIVOT	0.00		0.00					
56192	PER	NW	SE	9	12N	43E	Y	14014; 30130; 14015; 44373; 44374; 32420; 45528; 45529; 45530; 56678; 59759	0.00		4343.82		BTAZ NEVADA, LLC	ALFALFA	PIVOTS & WL	0.00		0.00					
59759	PER	NE	NE	9	12N	43E	Y	14014; 30130; 14015; 44373; 44374; 32420; 45528; 45529; 45530; 56678; 56192	1000.00		0.00		BTAZ NEVADA, LLC	ALFALFA	WHEEL LINES	65.00		182.00					
45530	PER	SE	NW	33	13N	43E	Y	14014; 30130; 14015; 44373; 44374; 32420; 45528; 45529; 59759; 56678; 56192	1520.00		1280.00		BTAZ NEVADA, LLC	EST 30% SURFACE, 70% UG FOR GROUP, PER RANCH MANAGER		0.00		0.00					
														TOTAL:	764.00	F	2139.20	D					
73564	PER	SW	NW	18	12N	44E			300.00	300.00	1200.00	1200.00	BTAZ NEVADA, LLC	ALFALFA	2 PIVOTS	252.00		1008.00					
														TOTAL:	252.00	F	1008.00	D					
73563	PER	SW	NW	19	12N	44E			300.00	300.00	1200.00	1200.00	Beck, Karen A.	GRAIN STARTER	2 PIVOTS	252.00		1008.00					
														TOTAL:	252.00	F	1008.00	D					
73565	PER	NW	SE	30	12N	44E			300.00	300.00	1200.00	1200.00	Beck, Lawrence E.	GRAIN	2 PIVOTS	252.00		1008.00					
														TOTAL:	252.00	F	1008.00	D					
76073	PER	SW	SE	7	13N	43E	Y	V-05759; V-05760; 16560	153.90	153.90	615.60	615.60	BERG, RONALD L & GLENDA G	PASTURE GRASS	FLOOD	153.00		612.00					
														TOTAL:	153.00	F	612.00	D					

Crop Inventory and Groundwater Pumpage for Irrigation - Big Smoky Valley, Basin 137B, 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
51563	CER	SW	SE	30	13N	43E			125.36	125.36	501.44	501.44	RAKER, MICHAEL ROY & LINDA M	ALFALFA	1 PIVOT	126.00		504.00	
															TOTAL:	126.00	F	504.00	D
62459	CER	SW	NE	30	13N	43E			127.56	127.56	510.24	510.24	RAKER, MICHAEL ROY & LINDA M	ALFALFA	1 PIVOT	126.00		504.00	
															TOTAL:	126.00	F	504.00	D
73160	PER	NW	SE	2	14N	43E			9.00	9.00	36.00	36.00	WALTERS, GORDON	PASTURE	GARDEN & YARD	0.50		2.00	
															TOTAL:	0.50	F	2.00	D
54495	PER	SE	NW	10	14N	43E			10.13	10.13	40.52	40.52	WALTERS, GORDON C	PASTURE GRASS & DOMESTIC		5.00		20.00	
															TOTAL:	5.00	F	20.00	D
56692	CER	NE	SW	10	14N	43E		SEE MAP	4.76	4.76	11.82	11.82	KASTEN, GEORGIA L	SPRINKLERS		4.76		11.82	
															TOTAL:	4.76	F	11.82	D
70212	PER	SW	NE	15	14N	43E		SENNIGER FLOWMETER	100.00	100.00	400.00	400.00	TWIST RANCH COMMUNITY, A NEVADA LP	STKWATER ARTESIAN		0.00		0.00	
															TOTAL:	0.00	F	0.00	D
16847	CER	SW	NE	28	14N	43E		16848; 40007; 61473	1.25	87.92	5.00	351.68	BERG, BERTIE W	GRASS		0.00		0.00	
16848	CER	NW	SE	28	14N	43E		16847; 40007; 61473	20.47		81.88		BERG, BERTIE W	GRASS		0.00		0.00	
40007	CER	SW	NE	28	14N	43E		16847; 16848, 61473	47.00		179.07		BERG, BERTIE W	HAY		33.00		125.73	
61473	CER	SW	NE	28	14N	43E		16847; 16848, 40007	38.50		147.07		BERG, BERTIE W	GRASS		0.00		0.00	
															TOTAL:	33.00	F	125.73	D
V02427	VST	SW	NE	28	14N	43E			5.00	5.00	25.00	25.00	BERG, HENRY L & BERTIE W	GRASS		5.00		20.00	
															TOTAL:	5.00	F	20.00	D
V02428	VST	NW	SE	28	14N	43E			20.47	20.47	102.35	102.35	BERG, HENRY L & BERTIE W	GRASS		20.47		81.88	
															TOTAL:	20.47	F	81.88	D
77220	PER	NW	SW	20	15N	44E			480.00	480.00	1560.00	1560.00	BATZ NEVADA, LLC	NO CROP	NO IRR EQUIP	0.00		0.00	
															TOTAL:	0.00	F	0.00	
77641	PER	NE	NE	21	16N	44E			320.00	320.00	1280.00	1280.00	YOUNG BROTHERS	ALFALFA	PIVOT	116.00		464.00	
															TOTAL:	116.00	F	464.00	D
66537	PER	NW	SE	18	17N	45E			240.00	240.00	960.00	960.00	YOUNG, RALPH	ALFALFA	2 PIVOTS	240.00		960.00	
															TOTAL:	240.00	F	960.00	D
66538	PER	NW	NE	18	17N	45E			240.00	240.00	960.00	960.00	YOUNG, PATRICIA	ALFALFA	2 PIVOTS	240.00		960.00	
															TOTAL:	240.00	F	960.00	D
18509	CER	NW	SW	35	19N	45E			34.70	34.70	138.80	138.80	PARSONS, CHARLES W	PASTURE GRASS	FLOOD	34.70		138.80	
															TOTAL:	34.70	F	138.80	D
									GRAND TOTAL:	8572.52		33964.72			GRAND TOTAL:	3300.49		11906.33	