

STATE OF NEVADA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

DIVISION OF WATER RESOURCES

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KOBEH VALLEY (HYDROGRAPHIC BASIN 10-139)

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 Kobeh Valley, Hydrographic Basin 10-139, 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 219 **acres** with a total duty of 884 acre-feet within Kobeh Valley. An estimated **51 acres** were irrigated and **119 acre-feet** were pumped during 2013.

HYDROGRAPHIC BASIN SUMMARY

HYDROGRAPHIC BASIN NUMBER	139, REGION 10
HYDROGRAPHIC BASIN NAME	KOBEH VALLEY
COUNTIES	EUREKA AND LANDER
MAJOR COMMUNITIES	NONE
DESIGNATED BASIN	DESIGNATED
DENIALS BASED UPON WATER AVAILABILITY	NONE
ESTIMATED IRRIGATION PUMPAGE 2013 (ACRE-FEET)	119*
STATE ENGINEER'S ORDERS	
<u>NO. 816 – DESIGNATION OF BASIN</u>	APRIL 4, 1983

COMMITTED GROUNDWATER RESOURCE FOR IRRIGATION PURPOSES: 884 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 as 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 Kobeh Valley Hydrographic Basin 10-139, for the year 2013.

DESCRIPTION OF THE STUDY AREA

The Kobeh Valley Hydrographic Basin is located in central Nevada (Figure 1). Kobeh Valley occupies approximately 868 square miles in Eureka and Lander County. The adjacent hydrographic basins are Pine Valley (4-053) to the north, Diamond Valley (10-153) and Stephens Basin (10-152) to the east, Antelope Valley (10-151) to the southeast, Monitor Valley – Northern Part (10-140A) to the south, Big Smokey Valley – Northern Part (10-137B) to the west, and Grass Valley (10-138) to the northwest.

Kobeh Valley is bounded on the north by the Roberts Mountains, on the east by the Whistler Mountains and Mahogany Hills, Mountain Boy Range, on the south by the Monitor Range and on the west by the Simpson Park Mountains. The southeast boundary is an administrative delineation with adjacent Antelope Valley and the southwest boundary is an administrative delineation with adjacent Monitor Valley. Kobeh Valley is approximately 25 miles wide by 30 miles long with basin elevations ranging from approximately 5,860 feet above mean sea level on the valley floor to approximately 10,400 feet above mean sea level in the surrounding mountains. Irrigation is sparse and scattered throughout the basin (Figure 2).

FIGURE 1. LOCATION MAP OF KOBEH VALLEY HYDROGRAPHIC BASIN 10-139

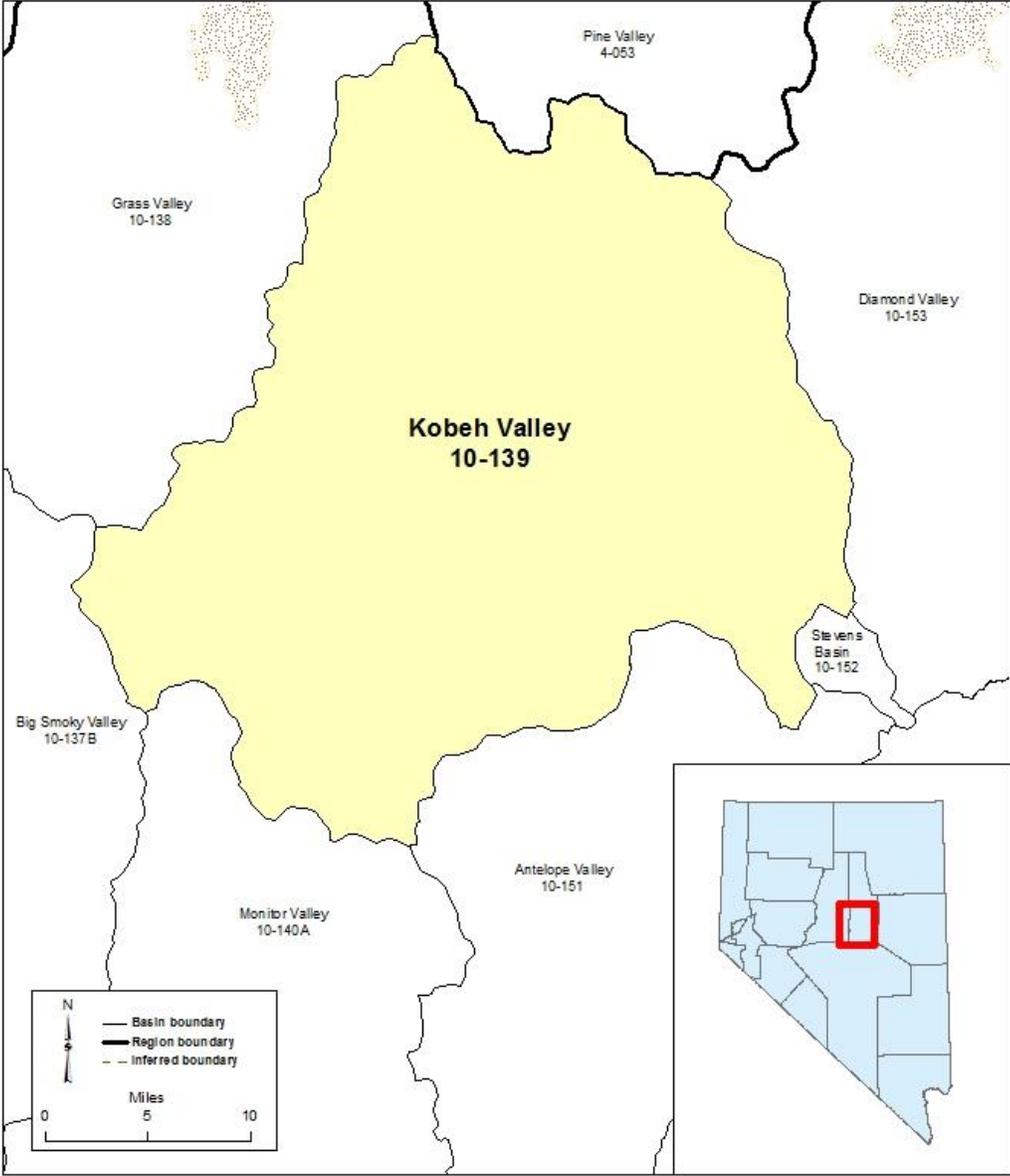
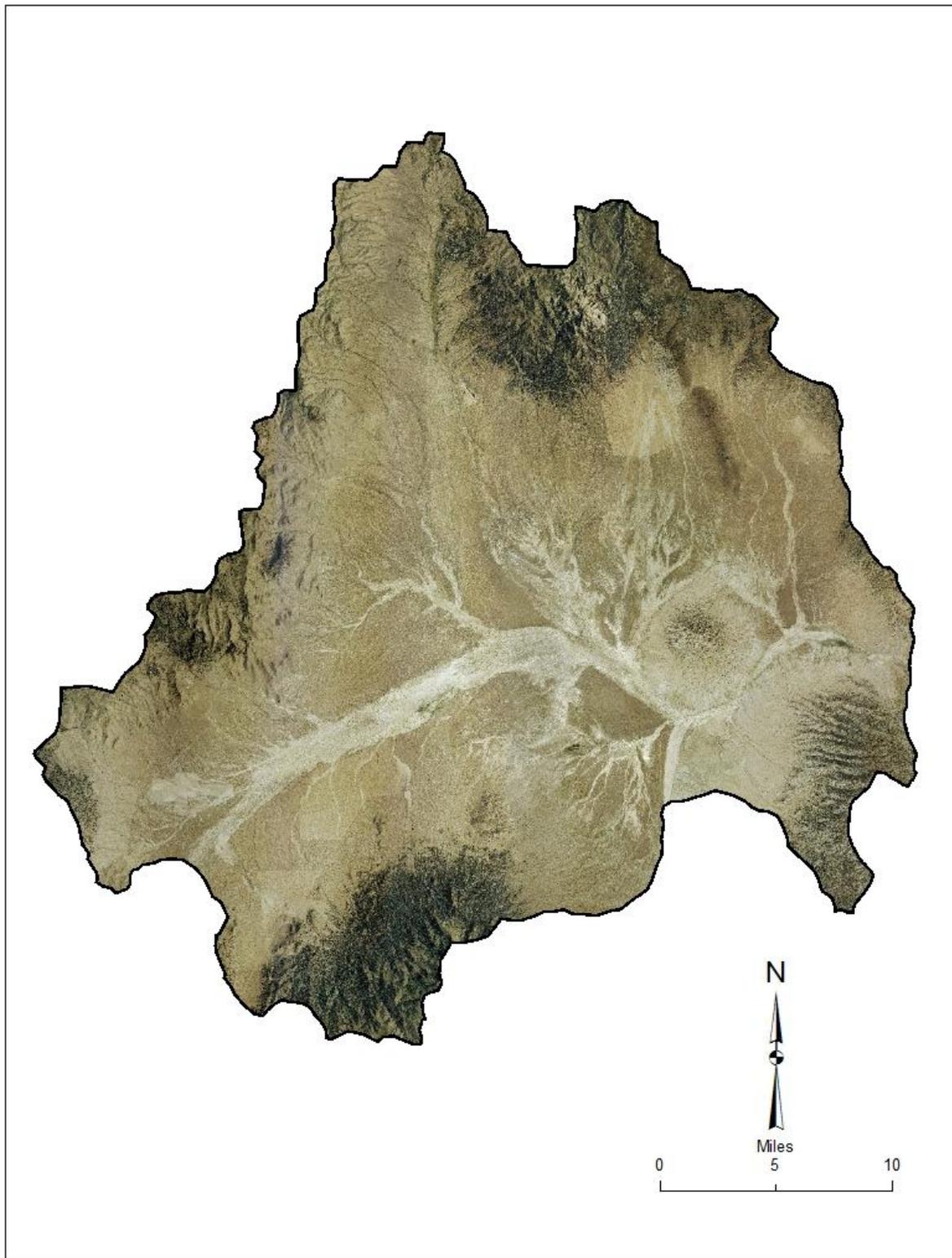


FIGURE 2. LOCATION MAP OF KOBEH VALLEY IRRIGATED ACREAGE



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

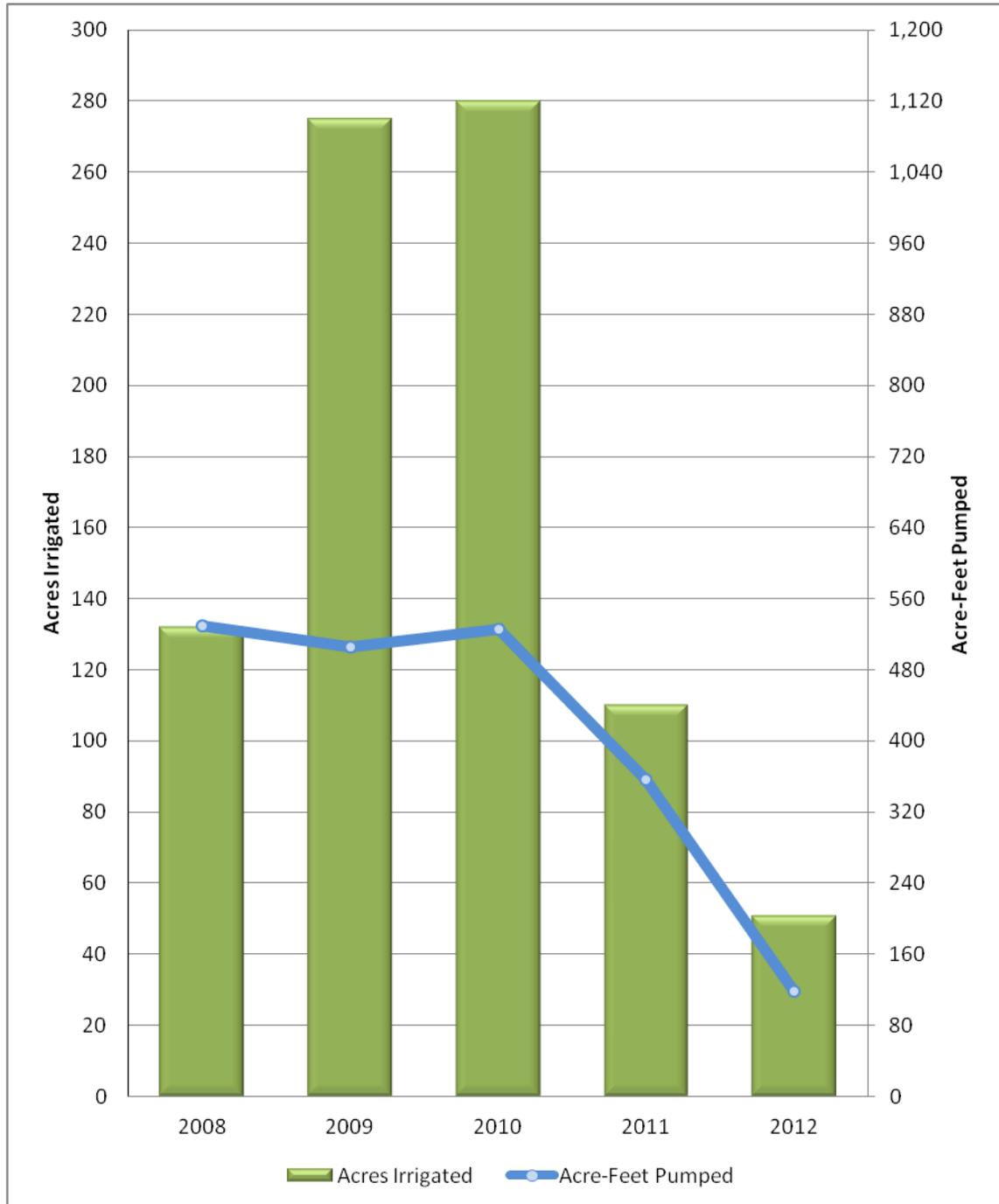
This report estimates the amount of groundwater pumped under permits and certificates issued by the State Engineer. The following methods were used to arrive at the estimated use:

- 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
KOBEH VALLEY HISTORICAL CROP INVENTORY

KOBEB VALLEY HISTORICAL CROP INVENTORY

	2009	2010	2011	2012	2013
Acres Irrigated	132	275	280	110	51
Acre-Foot Pumped	529	506	526	357	119



APPENDIX B

2013 KOBEH 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 - Kobeh Valley, Basin 139, 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
76059	PER	SW	SW	16	19N	47E	Y	76592	37.62	37.62	150.48	150.48	PETER JOE & TOM DAMELE	NO CROP	FLOOD	0		0	
76592	PER	SW	SW	16	19N	47E	Y	76059	37.62		150.48		PETER JOE & TOM DAMELE	NO CROP	STOCK WATER	0		0	
																0	F	0	D
11072	CER	NE	SE	17	19N	50E			0	0	8	8	FISH CREEK RANCH, LLC	PASTURE GRASS	FLOOD, FLOWING WELL	45	F	95	D
13956	CER	SE	SW	9	20N	49E			169.4	169.4	677.6	677.6	M W CATTLE CO	NO CROP	FLOOD	0	F	0	D
23549	CER	NW	SE	20	20N	52E			12	12	48	48	EUREKA COUNTY	PASTURE	FLOOD	6	F	24	D
								TOTAL:		219.02		884.08			TOTALS:	51		119	