STATE OF NEVADA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

DIVISION OF WATER RESOURCES

JASON KING, P.E.
STATE ENGINEER

Dixie Creek-Tenmile Creek Area (HYDROGRAPHIC BASIN 4-048)

CROP INVENTORY

2012

By:
P. Luke Opperman, P.E.
Richard M. Perry
Landon Harris

Table of Contents

ABSTRACT

This inventory represents the status and usage of all permitted and certificated groundwater rights for irrigation purposes located within Dixie Creek-Tenmile Creek Area, Hydrographic Basin 4-048, for the year 2012. **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 2012, the permitted and certificated groundwater rights for irrigation purposes totaled **420 acres** with a total duty of 1,257 acre-feet within Dixie Creek-Tenmile Creek Area. An estimated **100.8 acres** were irrigated and 301.1 acre-feet were pumped during 2012.

HYDROGRAPHIC BASIN SUMMARY

HYDROGRAPHIC BASIN NUMBER	048, REGION 4
HYDROGRAPHIC BASIN NAME	DIXIE CREEK-TENMILE CREEK AREA
COUNTIES	ELKO
MAJOR COMMUNITIES	SPRING CREEK
DESIGNATED BASIN	PARTIALLY
DENIALS BASED UPON WATER AVAILABILITY	N/A
ESTIMATED IRRIGATION PUMPAGE 2012 (ACRE-FEET)	301.1*
STATE ENGINEER'S ORDERS	
NO. 848 – PARTIAL DESIGNATION OF BASIN	SEPTEMBER 6, 1984
NO. 1120 – NOTICE OF CURTAILMENT (PORTION)	APRIL 4, 1996

COMMITTED GROUNDWATER RESOURCE FOR IRRIGATION PURPOSES: 1,257 ACRE-FEET
DATE: FEBRUARY 2013

NOTE: Committed groundwater resource data are accurate for February 2013. 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 Dixie Creek-Tenmile Creek Area Hydrographic Basin 4-048, for the year 2012.

DESCRIPTION OF THE STUDY AREA

The Dixie Creek-Tenmile Creek Area Hydrographic Basin is located in central Nevada (Figure 1). Dixie Creek-Tenmile Creek Area occupies approximately 392 square miles in west central Elko County. The adjacent hydrographic basins are Pine Valley (0-053) to the west, Elko Segment (4-049) to the north, Lamoille Valley (4-045) to the east, and Huntington Valley (4-047) and South Fork Area (4-046) to the south.

Dixie Creek-Tenmile Creek Area is bounded on the north by the Elko Hills, to the east by Cedar Ridge in the south and the Spring Creek area in the north. This Hydrographic Basin includes the South Fork Reservoir. The valley is approximately 11 miles wide by 30 miles long, trending to the north-west, with basin elevations ranging from approximately 5,200 feet above mean sea level on the valley floor to approximately 10,000 feet above mean sea level in the surrounding Ruby Mountains. Irrigation occurs primarily in the central part of the basin (Figure 2).

FIGURE 1. MAP OF DIXIE CREEK-TENMILE CREEK AREA, BASIN 4-048

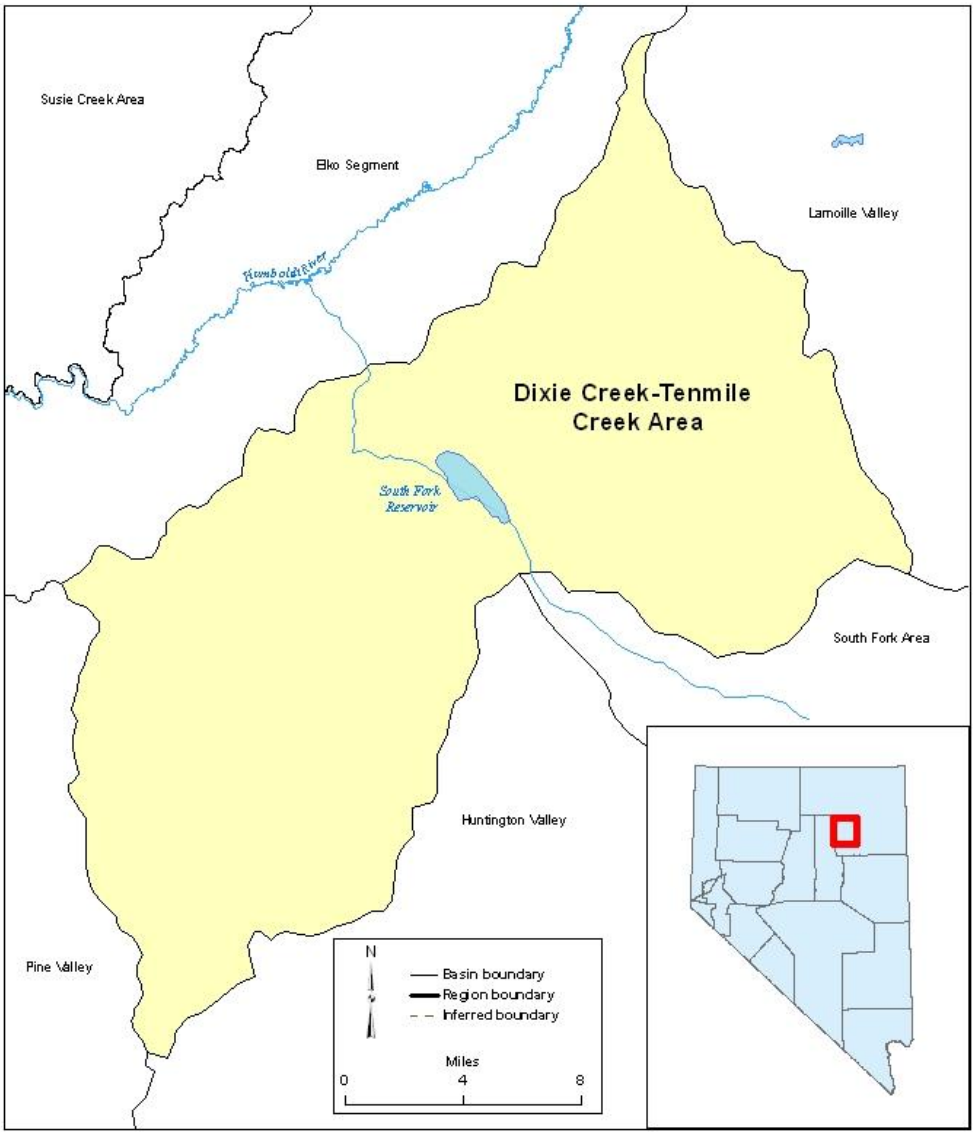
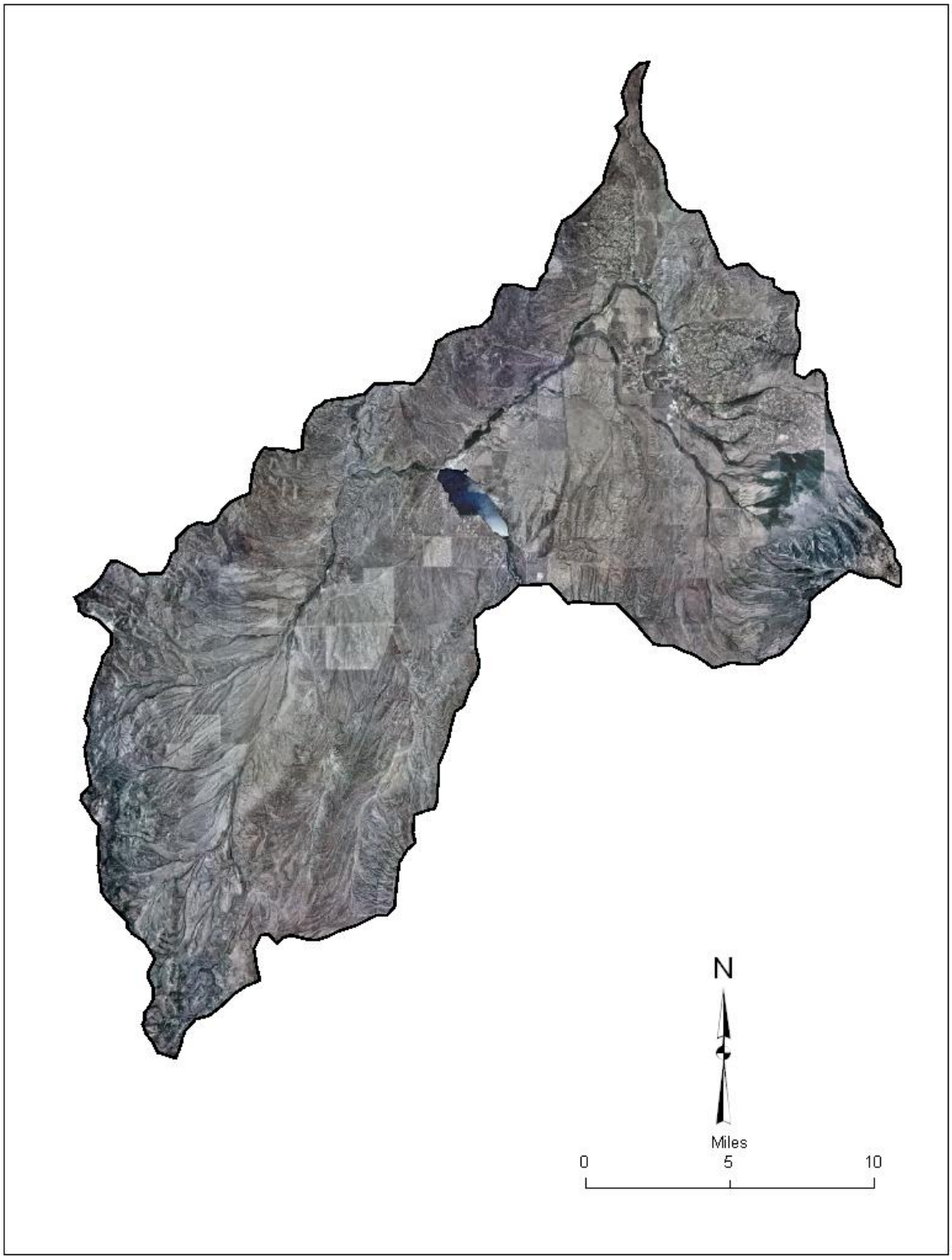


FIGURE 2. SATELLITE IMAGE OF DIXIE CREEK-TENMILE CREEK AREA



NATIONAL AGRICULTURAL IMAGERY PROGRAM (NAIP) 2010

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:

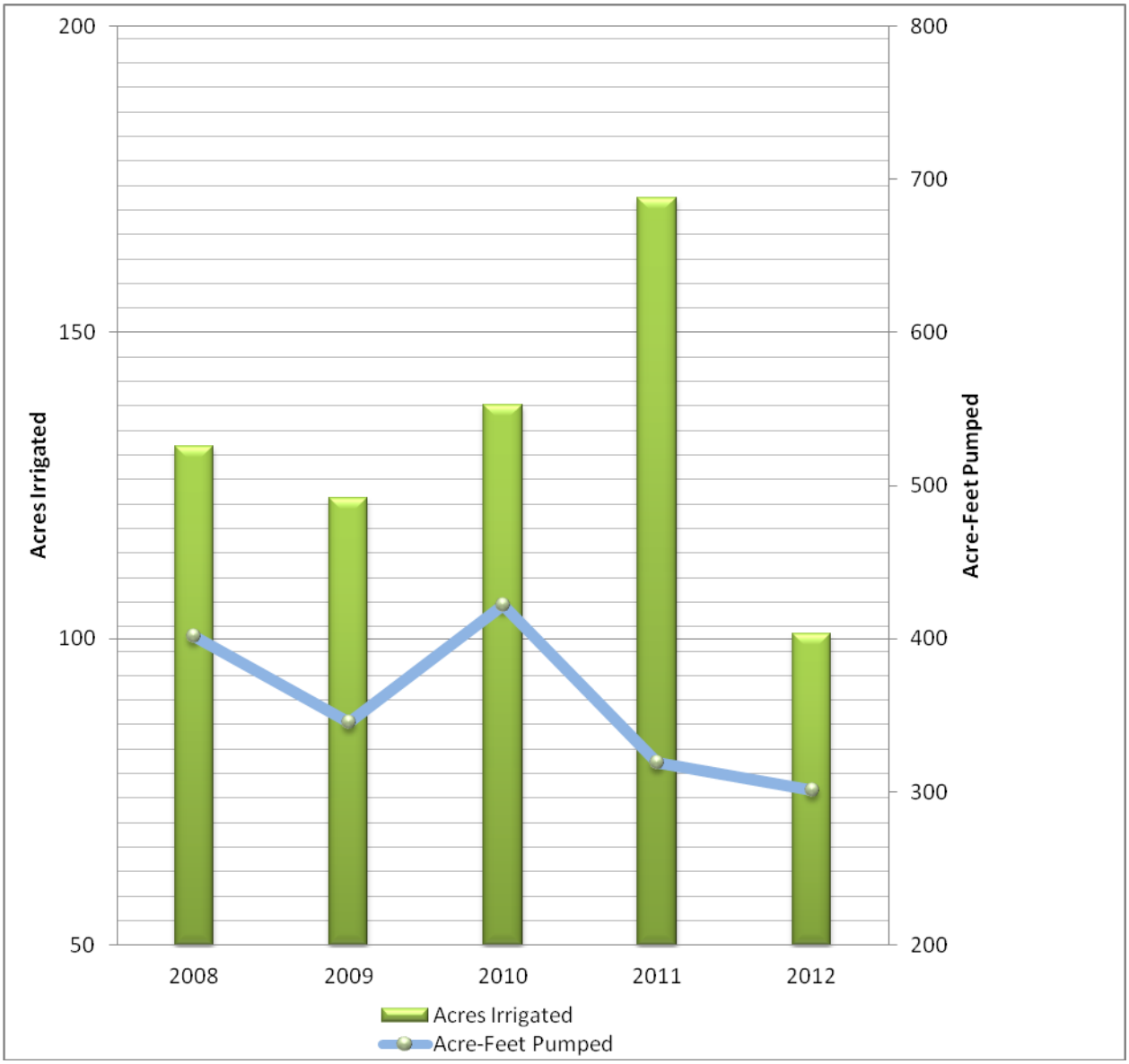
- Where totalizing meters were in place, meter readings were taken and compared with previous data (if available).
- Where meters were not in place, the place of use was inspected to estimate the amount of acreage under cultivation. The number of acres under cultivation was then multiplied by certificated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

APPENDIX A

DIXIE CREEK-TENMILE CREEK AREA VALLEY HISTORICAL CROP INVENTORY

DIXIE CREEK-TENMILE CREEK AREA HISTORICAL CROP INVENTORY

YEAR	2008	2009	2010	2011	2012
Acres Irrigated	132	123	138	172	101
Acre-Feet Pumped	402	345	422	319	301



APPENDIX B

DIXIE CREEK-TENMILE CREEK AREA CROP INVENTORY

EXPLANATION OF COLUMN HEADINGS

BASIN	The hydrographic basin in which the water right resides.
APP	The file number of the Application to Appropriate/Change Water or the Claim of Vested of Right.
CERT	The certificate number that was issued under the Application to Appropriate/Change Water.
FILE DATE	The date when the Application to Appropriate/Change Water or the Claim of Vested Right was filed in the Office of the State Engineer.
SOURCE	States the source of water: underground (UG), stream (STR), or spring (SPR).
STATUS	Indicates the status of an application: Permit (PER), Certificated, or a Claim of Vested Right (VST).
QTR	The quarter-quarter of the Section in which the point of diversion is located.
QTR	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.
SUP PERMIT NO.	The application number(s) of the water right(s) that are supplemental.
PERMITTED ACRES	The number of acres defined by the permit or certificate that are eligible to be irrigated.
DUTY	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 may be listed at the end of the supplemental group in **bold.**
UNITS	The units associated with the duty, expressed as acre-feet annually (AFA) or acre-feet per season (AFS).
COUNTY	The County in which the point of diversion is located.

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 Y/N	Indicates whether or not a crop was in production during the water year. A "Y" in this column signifies a crop was in production while a "N" signifies no crop was in production.
TYPE	The common name description of the plants under cultivation (e.g. alfalfa).
IRR	The method by which the water is applied to the crop and ground (e.g. pivot).
IRR ACRES	The estimate of the number of acres irrigated associated with a particular water right.
DUTY USED/ PUMPAGE	The estimate of the amount of water pumped under a particular water right, expressed in acre-feet. One acre-foot equals 325,851 gallons.

CROP AND IRRIGATION PUMPAGE INVENTORY, DIXIE TENMILE BASIN 048, 2012

App	Cert	File Date	Status	Source	Qtr	Qtr	Sec	Twn	Rng	Sup	Sup Permit No	Permited Acres	Duty	County	Owner of Record	Crop	Type	Irr By	Irr Ac	Pumpage (acre-feet)
81046		8/8/2011	PER	UG	NE	NW	27	31N	53E			125	375	EL	TOMERA, KEVIN	N	no crop	no irr. Equipment	0	0
																			0	**0**
47090	15055	7/21/1983	CER	UG	NW	NE	23	32N	55E			11.206	33.62	EL	HARRIS, LANDON G.	Y	alfalfa/grass hay	fix-set	11.2	33.6
																			11.2	**33.6**
47973	13909	4/11/1984	CER	UG	NE	SW	23	32N	55E			2.95	8.85	EL	TESTOLIN, BARBARA	Y	pasture/yard	sprinklers	1.1	4.4
																			1.1	**4.4**
43563	13797	4/17/1981	CER	UG	NE	SW	25	33N	55E			20.5	61.51	EL	RINALDO, DANIEL RAE LYNN	Y	meadow grass	hand line	5	15.0
																			5	**15.0**
80885		5/31/2011	PER	UG	NE	NW	25	33N	55E	N		15.03	46.51	EL	O'DONNELL, BLAKE & ELEANOR	N	well not drilled		0	0.0
																			0	**0**
48294	16355	8/14/1984	CER	UG	NE	NE	35	33N	55E			17.52	52.56	EL	CANADAY, MATTHEW & CYNTHIA	N	no crop	fix set sprinklers	0	0.0
																			0	**0.0**
48296	14016	8/14/1984	CER	UG	NE	SW	35	33N	55E	Y	56322	24.97	65.16	EL	GIBSON BILL	Y	meadow hay	hand lines	24.97	65.2
56322	14314	5/16/1991	CER	UG	SW	NW	35	33N	55E	Y	48296	13.29	18.74	EL	LEWIS, CALTON M.	Y	pasture grass	hand lines	13.29	18.7
											Supplemental Totals	**32.02**	**96.06**						**32.02**	**96.06**
70525		10/22/2003	PER	UG	NW	NE	9	33N	56E			40.14	120.4	EL	CARR, RICHARD BRUNO	Y	vegetables/pasture	fixed & hand lines	14.5	58.0
																			14.5	**58.0**
44482	14280	9/24/1981	CER	UG	SW	NE	10	33N	56E			37.14	94.12	EL	BOTTARI, TIMOTHY & PATRICK	Y	alfalfa/grass hay	fix-set	37	94.0
																			37	**94**
34821	13758	1/3/1978	CER	UG	NW	SE	16	33N	56E	N		79.52	238.6	EL	LEGARZA, JOE M.	Y	meadow hay	surface	0	0.0
																			0	**0.0**
41509		6/13/1980	PER	UG	NW	NW	30	33N	57E	Y		65.062	192.2	EL	REED, JACOB AND LISA	N	no crop	wheel line	0	0.0
56696		8/23/1991	PER	UG	NE	NW	30	33N	57E	Y		0	137.8	EL	REED, JACOB AND LISA	N	no crop		0	0.0
												65.06	**195.2**						**0**	**0.0**
																		Total:	**100.8**	**301.1**