

## Reference Material

1. Monthly Total Precipitation (inches), Eureka, Nevada; Web Address - <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?nv2708>; Desert Research Institute - Climate Summary
2. Taft/Thompson/Jacobson Springs Flow Measurements; Sources:
  - a. Water-Supply Card and Notes that are in the back of Eureka County field book No. 8 - Field book indicates that there are two springs that can be combined in reservoir. Small Spring flows 0.25 cfs and Large Spring flows 1.29 cfs; Division of Water Resources, State of Nevada;
  - b. USGS 1937 Thermal Springs Report No. 679-B; Referred to as Jacobson Ranch Springs; Jorgen P. Jacobsen was conveyed ownership on March 6, 1924.
  - c. James R. Harrill Memo to File; USGS; Dated March 15, 1982.
  - d. Current Meter Notes; Located in Claim File V01114; Division of Water Resources, State of Nevada.
  - e. USGS Water Resources Internet Database Printout; Dated 8/17/2013 for USGS Site 395415115524301 153 N23 E54 03DBD1 Spring.
3. Table 1 - Estimated irrigated acreage and estimated pumpage in Diamond Valley, Nevada, 1950-90, (Page 5); USGS 1990 Diamond Valley Report.
4. Historical Crop Inventory; Received by email on 9/3/2013 from the Diamond Valley Basin Engineer; Division of Water Resources, State of Nevada.

**USGS & DWR Diamond Valley  
Total Pumpage and Irrigation  
by Year**

Year	Total Pumpage	Total Irrigation	Active Wells	Wells Visited
1950	300			
1951	600			
1952	800			
1953	800			
1954	800			
1955	1,000			
1956	1,000			
1957	1,180			
1958	1,854			
1959	1,800			
1960	2,400			
1961	6,100	3,200	--	--
1962	11,000	5,600	--	--
1963	9,700	4,800	--	--
1964	12,000	5,740	--	--
1965	19,300	7,600	75	281
1966	22,400	13,000	75	
1967	19,360	9,500		
1968	18,160	9,000		
1969	22,900			
1970				
1971				
1972				
1973				
1974				
1975	53,388	17,796	125	228
1976	56,151	18,717	137	232
1977	52,956	19,988	143	233
1978	59,760	21,855	164	233
1979	61,839	22,583	172	234
1980	64,035	23,055	187	240
1981	71,745	25,279	183	238
1982	73,336	25,305	180	242
1983	71,857	24,812	188	243
1984	78,730	26,844	189	248
1985	77,848	26,844	189	248
1986	58,883	20,656	174	249
1987	66,028	22,966	166	249
1988	63,356	21,569	163	249
1989	66,734	23,485	168	239
1990	64,210	22,235	158	291
1991				
1992	58,585	20,640		
1993	60,478	21,421		
1994	60,883	21,556		
1995	60,883	19,750		
1996	57,779	20,413		
1997	55,140	19,750		
1998	60,985	18,916		
1999	68,883	23,588		
2000	70,601	22,525		
2001				
2002	60,900	21,850		
2003	60,900	21,850		
2004	65,687	23,126		
2005	65,687	23,126		
2006	96,610	24,152		
2007	95,738	24,011		
2008	96,603	24,220		
2009	97,539	24,435		
2010	97,536	24,608		
2011	96,791	24,357		
2012	65,687	25,234		

## Division of Water Resources Data

### HISTORICAL CROP INVENTORY

	1975	1976	1977	1978	1979	1980	1981
Acres Irrigated	17,796	18,717	19,988	21,855	22,583	23,055	25,279
Acre-Feet Pumped	53,388	56,151	52,956	59,760	61,839	64,035	71,745

	1982	1983	1984	1985	1986	1987	1988
Acres Irrigated	25,305	24,812	26,844	26,844	20,656	22,966	21,569
Acre-Feet Pumped	73,336	71,857	78,730	26,844	58,883	66,028	63,356

	1989	1990	1991	1992	1993	1994	1995
Acres Irrigated	23,485	22,235	No	20,640	21,421	21,556	19,750
Acre-Feet Pumped	66,734	64,210	Report	58,585	60,478	60,883	55,140

	1996	1997	1998	1999	2000	2001	2002
Acres Irrigated	20,413	19,750	18,916	23,588	22,525	No	21,850
Acre-Feet Pumped	57,779	55,140	60,985	68,883	70,601	Report	60,900

	2003	2004	2005	2006	2007	2009	2010
Acres Irrigated	21,850	23,126	23,126	24,152	24,011	24,435	24,608
Acre-Feet Pumped	60,900	65,687	65,687	96,610	96,738	97,539	97,536

	2011	2012					
Acres Irrigated	24,357	25,234					
Acre-Feet Pumped	96,791	65,687					

## USGS Diamond Valley Total Pumpage and Irrigation by Year

Year	Total Pumpage	Total Irrigation	Active Wells	Wells Visited
1950	300	--	--	--
1951	600	--	--	--
1952	800	--	--	--
1953	800	--	--	--
1954	800	--	--	--
1955	1,000	--	--	--
1956	1,000	--	--	--
1957	1,200	--	--	--
1958	1,200	--	--	--
1959	1,800	--	--	--
1960	2,400	--	--	--
1961	6,100	3,200	--	--
1962	11,000	5,600	--	--
1963	9,700	4,800	--	--
1964	12,000	5,740	--	--
1965	16,000	7,600	75	281
1966	22,400	13,000	75	--
1967	19,400	9,500	--	--
1968	18,200	9,000	--	--
1969	22,900	--	--	--
1970	--	--	--	--
1971	--	--	--	--
1972	--	--	--	--
1973	--	--	--	--
1974	--	--	--	--
1975	53,400	17,800	125	228
1976	56,200	18,700	137	232
1977	5,300	19,800	143	233
1978	59,800	21,900	164	233
1979	61,800	22,600	172	234
1980	64,000	23,100	187	240
1981	71,700	25,300	183	238
1982	73,300	25,300	180	242
1983	71,900	24,800	188	243
1984	78,100	26,800	189	248
1985	78,100	26,800	189	248
1986	69,600	24,200	174	249
1987	66,000	23,000	166	249
1988	63,400	21,600	163	249
1989	66,700	23,500	168	239
1990	64,400	22,200	158	291

## Taft/Thompson/Jacobson Springs - Measured Flow Data

Date of Measurement	Measured		Reference & Comments
	GPM	CFS	
10/14/1912	691	1.54	Water-Supply Card and Notes that are in the back of Eureka County field book No. 8 - Field book indicates that there are two springs that can be combined in reservoir. Small Spring flows 0.25 cfs and Large Spring flows 1.29 cfs; Division of Water Resources, State of Nevada;
1937	900	2.01	USGS 1937 Thermal Springs Report No. 679-B; Referred to as Jacobson Ranch Springs; Jorgen P. Jacobsen was conveyed ownership on March 6, 1924.
9/21/1965	1050	2.34	James R. Harrill Memo to File; USGS; Dated March 15, 1982.
4/1/1966	950	2.12	James R. Harrill Memo to File; USGS; Dated March 15, 1982.
10/19/1966	920	2.05	James R. Harrill Memo to File; USGS; Dated March 15, 1982.
5/13/1981	256	0.57	Current Meter Notes; Located in Claim File V01114; Division of Water Resources, State of Nevada.
10/3/1981	30	0.07	James R. Harrill Memo to File; USGS; Dated March 15, 1982.
3/10/1982	130	0.29	James R. Harrill Memo to File; USGS; Dated March 15, 1982.
4/21/1982	192	0.43	Current Meter Notes; Located in Claim File V01114; Division of Water Resources, State of Nevada.
4/30/1982	345	0.77	Current Meter Notes; Located in Claim File V01114; Division of Water Resources, State of Nevada.
7/6/1983	1073	2.39	USGS Water Resources Internet Database Printout; Dated 8/17/2013 for USGS Site 395415115524301 153 N23 E54 03DBD1 Spring.
8/3/1983	1266	2.82	USGS Water Resources Internet Database Printout; Dated 8/17/2013 for USGS Site 395415115524301 153 N23 E54 03DBD1 Spring.
11/8/1983	1270	2.83	USGS Water Resources Internet Database Printout; Dated 8/17/2013 for USGS Site 395415115524301 153 N23 E54 03DBD1 Spring.
6/12/1984	1863	4.15	USGS Water Resources Internet Database Printout; Dated 8/17/2013 for USGS Site 395415115524301 153 N23 E54 03DBD1 Spring.
11/14/1984	1355	3.02	USGS Water Resources Internet Database Printout; Dated 8/17/2013 for USGS Site 395415115524301 153 N23 E54 03DBD1 Spring.
1/18/1985	1477	3.29	USGS Water Resources Internet Database Printout; Dated 8/17/2013 for USGS Site 395415115524301 153 N23 E54 03DBD1 Spring.
5/27/1985	1481	3.30	USGS Water Resources Internet Database Printout; Dated 8/17/2013 for USGS Site 395415115524301 153 N23 E54 03DBD1 Spring.
11/3/1985	1118	2.49	USGS Water Resources Internet Database Printout; Dated 8/17/2013 for USGS Site 395415115524301 153 N23 E54 03DBD1 Spring.
2/5/1986	1001	2.23	USGS Water Resources Internet Database Printout; Dated 8/17/2013 for USGS Site 395415115524301 153 N23 E54 03DBD1 Spring.

2/9/1987	817	1.82	USGS Water Resources Internet Database Printout; Dated 8/17/2013 for USGS Site 395415115524301 153 N23 E54 03DBD1 Spring.
8/10/1987	320	0.713	USGS Water Resources Internet Database Printout; Dated 8/17/2013 for USGS Site 395415115524301 153 N23 E54 03DBD1 Spring.
2/22/1988	278	0.620	USGS Water Resources Internet Database Printout; Dated 8/17/2013 for USGS Site 395415115524301 153 N23 E54 03DBD1 Spring.
3/13/1989	215	0.480	USGS Water Resources Internet Database Printout; Dated 8/17/2013 for USGS Site 395415115524301 153 N23 E54 03DBD1 Spring.
4/2/1990	256	0.570	USGS Water Resources Internet Database Printout; Dated 8/17/2013 for USGS Site 395415115524301 153 N23 E54 03DBD1 Spring.
11/15/1990	54	0.120	USGS Water Resources Internet Database Printout; Dated 8/17/2013 for USGS Site 395415115524301 153 N23 E54 03DBD1 Spring.
3/8/1991	395	0.880	USGS Water Resources Internet Database Printout; Dated 8/17/2013 for USGS Site 395415115524301 153 N23 E54 03DBD1 Spring.
6/4/1991	135	0.300	USGS Water Resources Internet Database Printout; Dated 8/17/2013 for USGS Site 395415115524301 153 N23 E54 03DBD1 Spring.
10/25/1991	9	0.020	USGS Water Resources Internet Database Printout; Dated 8/17/2013 for USGS Site 395415115524301 153 N23 E54 03DBD1 Spring.
12/8/1991	13	0.030	USGS Water Resources Internet Database Printout; Dated 8/17/2013 for USGS Site 395415115524301 153 N23 E54 03DBD1 Spring.
3/20/1992	85	0.190	USGS Water Resources Internet Database Printout; Dated 8/17/2013 for USGS Site 395415115524301 153 N23 E54 03DBD1 Spring.



1970	0.27	0.25	0.91	1.05	0.36	1.19	2.27	1.58	1.23	0.44	2.49	1	13.04					
1971	0.65	1.29	0.91	3.1	3.7	0.53	0.21	0.25	0.38	0.52	2.31	2.2	16.05					
1972	0.18	0.41	0.09	0.92	0.44	0.24	0.28	0.52	2.1	1.17	0.83	1.82	9					
1973	1.78	0.44	3.3	0.87	1.43	1.31	0.26	0.34	0.15	0.86	2.14	1.08	13.96					
1974	0.61	0.6	0.9	0.61	0.4	0	0.58	0.17	0.01	1.72	1	1.18	7.78					
1975	1.47	0.86	1.89	3	3.12	1.06	0.35	0.53	0.63	3.25	1.21	0.93	18.3					
1976	0.5	1.55	1.01	1.37	0.93	0.74	2.33	1.11	1.72	0.99	0.33	0.15	12.73					
1977	0.5	0.48	1.56	0.84	3	1.5	0.44	3.34	0.95	0.05	0.5	0.67	13.83					
1978	1.29	2.03	2.08	3.68	0.53	0.02	0.13	0.09	2.74	1.05	0.76	1.48	15.88					
1979	1	0.51	1.38	1.33	0.81	0.26	0.84	2.16	0.07	0.62	0.51	0.25	9.74					
1980	2.01	0.82	0.75	0.58	4.63	0.45	1.53	0.17	2.06	0.7	1.62	0.16	15.48					
1981	0.72	0.19	2.47	0.63	2.3	0.34	0	0	0.16	1.74	0.12	0.83	9.5					
1982	1.4	0.36	3.08	0.89	1.12	0.78	1.86	1.26	4.19	1.11	0.7	0.91	17.66					
1983	2.49	0.59	2.64	2.32	0.66	1.49	0.32	4.42	1.41	1.56	1.37	3.65	22.92					
1984	0.55	0.92	1.69	1.38	b	0.35	1.41	b	2.2	a	3.15	1.5	0.55	0.75	a	16.86		
1985	0.42	a	0.25	1.02	0.12	0.62	a	0.48	b	0	z	0	y	1.31	c	1.91	0.69	6.82
1986	0.23	1.59	1.19	2.15	0.91	0.09	0.18	0.37	0.1	1.33	0.15	0	8.29					
1987	1.05	1.06	3.88	0.33	b	4.59	0.32	0.14	0	0	0.67	3.56	0.76	16.36				
1988	1.37	0.08	0.05	1.1	2.3	0.22	0	0.75	0.5	0.52	1.83	0	z	8.72				
1989	2.59	e	0.46	0	g	0	z	0	z	1.04	1.49	0	1.26	b	0.18	0.19	7.21	
1990	0.86	0	z	1.34	1.55	1.28	a	0.94	0.42	0.55	0.69	0.13	0.4	b	0.55	8.71		
1991	0.16	0.33	0.91	d	0.54	2.55	0.29	0	0.12	1.8	0.7	1.04	1.2	k	8.44			
1992	0.04	0.5	1.9	0	0	1.09	1.34	0.17	0.26	0.61	0.57	2	a	8.48				
1993	1.49	0.82	0.74	a	0.15	0.61	1.26	0.16	0.25	0.38	2.35	0.01	0.19	8.41				
1994	0	2.91	1.01	1.63	1.15	0.03	0.01	1.53	0.74	a	0.57	0.89	0.95	11.42				
1995	1.45	0.92	3.53	0.37	2.61	1.32	0.04	0.38	a	0.11	0	0.21	1.27	12.21				
1996	1.71	a	1.2	1.13	0.4	2.15	0	0.11	0	0.87	0.64	1.23	0.86	a	10.3			
1997	2	1.59	0.11	0.09	a	0.16	1.83	0.48	0.68	1.94	1.1	1.17	0.29	11.44				
1998	0	1.15	2.22	1.66	1.95	1.65	0	0.1	0.74	1.81	0.77	0.06	12.11					
1999	1.34	0.03	0	3.01	0	1.7	0	0.48	0.71	a	0.04	0.29	0	7.6				
2000	0.1	a	2.31	0.76	0.15	1.19	a	0.38	0.03	1.32	a	0.6	1.63	a	0.44	0.05	8.96	
2001	1.08	1.55	2.36	a	1.95	0	0	0.82	0.57	0.71	0.39	0.86	0.57	10.86				
2002	0.84	1.88	0.23	2.18	b	0.32	0	0.84	a	0.1	0.21	0.3	0.77	0.6	8.27			
2003	0.34	a	0.97	0.82	2.68	1.31	0	0	a	2.96	0.5	0	0.59	1.95	12.12			
2004	0.13	a	1.82	a	0.26	1.82	0.29	0.02	1.33	0.91	1.02	4.04	a	1.1	0.3	13.04		
2005	2.92	a	1.21	1.41	a	2.48	3.55	0.1	0.54	0.08	0	z	0.28	0	d	0.45	13.02	
2006	1.89	a	1.46	0	z	1.51	0.49	0	0.32	0	0	0.89	0.62	0.45	7.63			
2007	0.51	0.58	2.35	1.52	0.61	0.53	0.97	1.9	b	0.95	0.51	0.3	1.73	12.46				
2008	1.27	1	0.18	0.18	0.12	0.17	0.23	0.07	a	0.53	0.35	0.58	0.96	5.64				
2009	1.15	1.22	0.71	3.45	0.25	1.51	0.26	0.44	0.26	0.8	0.1	1.63	11.78					
2010	0.45	0.93	2.3	1.59	1.08	0.04	0.99	0.02	a	0.65	1.94	2.12	0.95	13.06				
2011	0.02	1.74	1.03	1.86	2.39	0.6	0.46	0.97	0.58	1.15	0.34	0.06	11.2					
2012	0.62	1.34	1.99	0.95	0	0.17	0.4	1.26	1.55	0.39	0.8	1.8	11.27					
2013	1.29	1.36	0.08	0.08	z	0	z	0	z	0	z	0	z	0	z	0	z	2.73

Period of Record Statistics

MEAN	1.07	1.05	1.33	1.34	1.41	0.83	0.68	0.78	0.78	0.89	0.78	0.9	11.89
S.D.	0.83	0.68	0.98	0.97	1.24	0.95	0.69	0.9	0.76	0.83	0.72	0.75	4.02
SKEW	1.44	1.08	1.37	0.73	1.23	1.66	1.48	1.79	1.84	1.59	1.69	1.04	0.69
MAX	4.7	3.46	5.4	3.68	5.73	4.37	3.38	4.42	4.19	4.04	3.56	3.65	23.86
MIN	0	0.03	0	0	0	0	0	0	0	0	0	0	5.05
NO YRS	88	89	88	91	88	86	85	84	83	87	89	85	68







USA & AOWE  
 Precipitation and  
 Evaporation Data

Year	Month	Total Precipitation (mm)	Total Evaporation (mm)
2010	01	100	100
2010	02	100	100
2010	03	100	100
2010	04	100	100
2010	05	100	100
2010	06	100	100
2010	07	100	100
2010	08	100	100
2010	09	100	100
2010	10	100	100
2010	11	100	100
2010	12	100	100

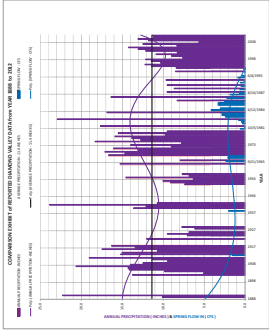
Tall Thompson and Springs - Measured Precip Data

Date of Observation	Station	Reference	Comments
01/01/2010	001	01/01	01/01
02/01/2010	001	02/01	02/01
03/01/2010	001	03/01	03/01
04/01/2010	001	04/01	04/01
05/01/2010	001	05/01	05/01
06/01/2010	001	06/01	06/01
07/01/2010	001	07/01	07/01
08/01/2010	001	08/01	08/01
09/01/2010	001	09/01	09/01
10/01/2010	001	10/01	10/01
11/01/2010	001	11/01	11/01
12/01/2010	001	12/01	12/01

EUREKA, NEVADA

Monthly Total Precipitation (mm)

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Total
2010	100	100	100	100	100	100	100	100	100	100	100	100	1200
2011	100	100	100	100	100	100	100	100	100	100	100	100	1200
2012	100	100	100	100	100	100	100	100	100	100	100	100	1200
2013	100	100	100	100	100	100	100	100	100	100	100	100	1200
2014	100	100	100	100	100	100	100	100	100	100	100	100	1200
2015	100	100	100	100	100	100	100	100	100	100	100	100	1200
2016	100	100	100	100	100	100	100	100	100	100	100	100	1200
2017	100	100	100	100	100	100	100	100	100	100	100	100	1200
2018	100	100	100	100	100	100	100	100	100	100	100	100	1200
2019	100	100	100	100	100	100	100	100	100	100	100	100	1200
2020	100	100	100	100	100	100	100	100	100	100	100	100	1200
2021	100	100	100	100	100	100	100	100	100	100	100	100	1200
2022	100	100	100	100	100	100	100	100	100	100	100	100	1200



ANNUAL PRECIPITATION - AVERAGE PRECIPITATION - SPRING FLOW

Year	Annual Total	Spring Total	Average Spring Flow
2010	1200	400	133
2011	1200	400	133
2012	1200	400	133
2013	1200	400	133
2014	1200	400	133
2015	1200	400	133
2016	1200	400	133
2017	1200	400	133
2018	1200	400	133
2019	1200	400	133
2020	1200	400	133
2021	1200	400	133
2022	1200	400	133

