AN OVERVIEW OF THE GROUNDWATER RESOURCES ISSUES IN LYON COUNTY, NEVADA

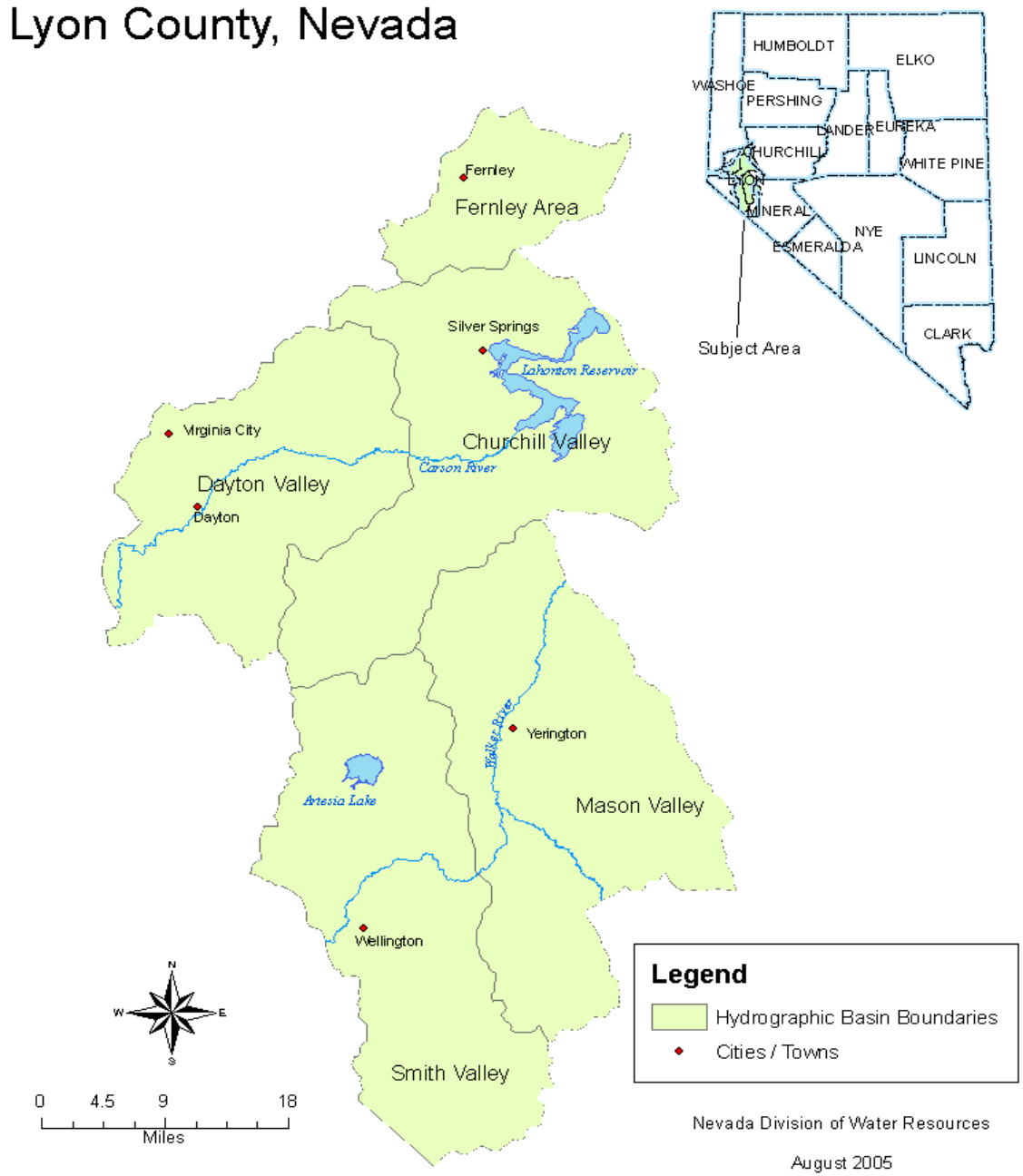
Presented by
Hugh Ricci, P.E.
Nevada State Engineer

August 30, 2005

Dayton, Nevada

Note: Preliminary Data, Subject to Change Upon further Review

Selected Hydographic Basins in Lyon County, Nevada



WATER BELONGS TO THE PUBLIC AND IS AVAILABLE FOR BENEFICIAL USE

The water of all sources within the boundaries of the state whether above or beneath the surface of the ground belongs to the public. (NRS 533.025 and NRS 534.020)

All water may be appropriated, subject to existing rights, for a beneficial use and not otherwise
(NRS 533.030 and NRS 534.020)

DESIGNATION OF GROUND WATER BASINS

The State Engineer may designate a ground water basin if, in his judgment, the basin is in need of additional administration (NRS 534.030)

The State Engineer, in an area that has been designated, in his administrative capacity is empowered to make rules, regulations and orders as are deemed essential for the welfare of the area involved and is authorized to designate preferred uses (NRS 533.120)

SUPPLEMENTAL RIGHTS

A supplemental water right is a water right that is granted for a place of use where a water right already exists and can be used to supplement the original source of water for that property in times of shortage. For example, a ground water right could be used to supplement the irrigation of a piece of property which is irrigated with Carson River water when the river was is not in sufficient supply to irrigate the property in a particular year.

TOTAL COMBINED DUTY

Total combined duty means the absolute limit that can be obtained from multiple sources. For example, a municipality has 10 different wells. Individually the quantity that may be pumped added together is more that the total combined acre-feet that may be pumped from all the wells combined.

DAYTON VALLEY GROUNDWATER PUMPAGE INVENTORY
WATER YEARS 2002 THROUGH 2004

Nevada Division of Water Resources
In cooperation with the
Carson Water Subconservancy District

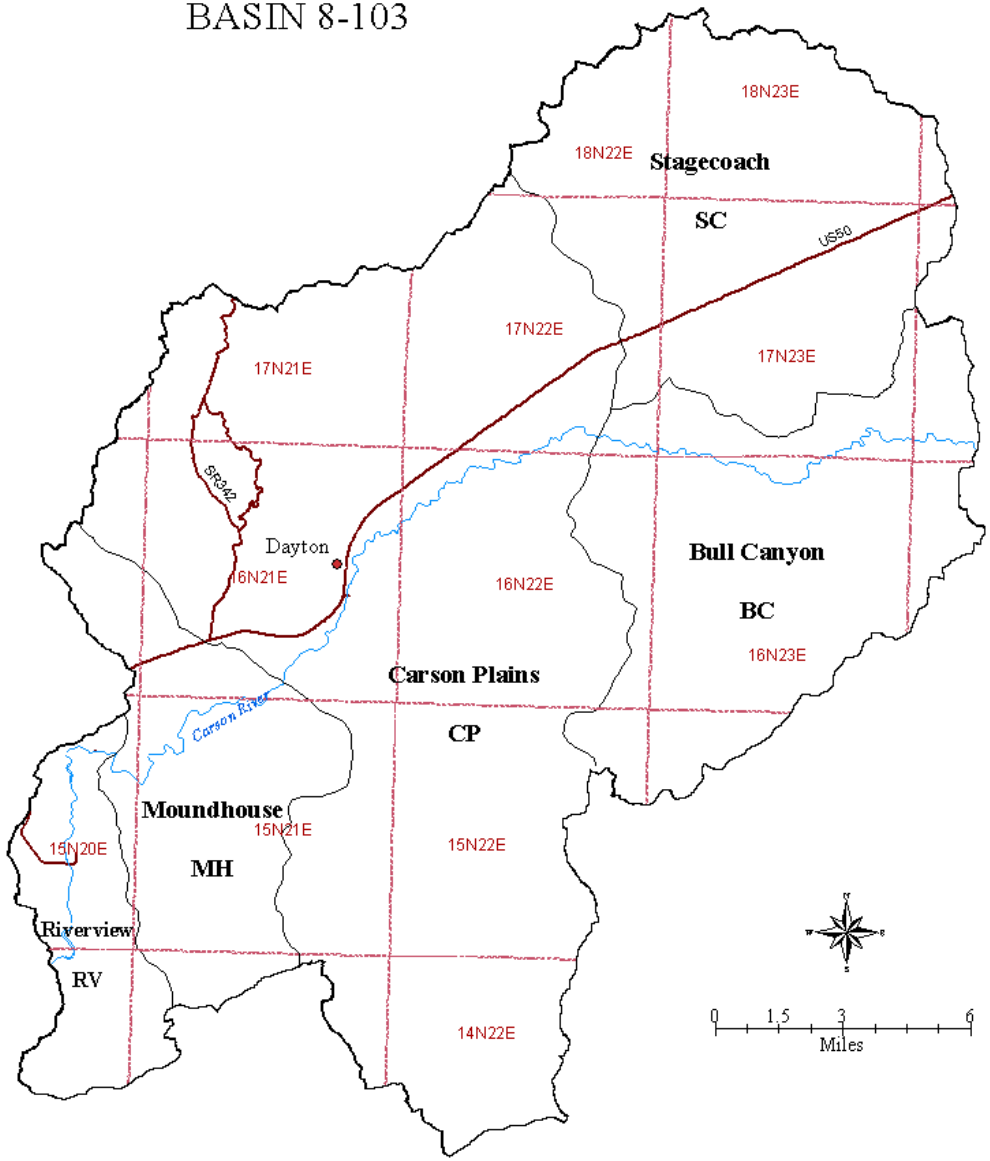
DAYTON VALLEY GROUNDWATER PUMPAGE INVENTORY

- The goal is to estimate the amount of groundwater pumped in the basin on an annual basis and inventory the allocated rights as issued by the State Engineer.
- Pumpage is estimated based upon the water-year, October 1 through September 30.
- The pumpage is estimated by conducting an inventory of the wells in the valley and the associated permits issued by the State Engineer.
- The valley was inventoried by sub-basin, using the boundaries developed by the USGS in WRIR 97-4123, Hydrology and Groundwater Budgets of the Dayton Valley Hydrographic Area.
- Methods used include field investigation of irrigated acres, meter readings, totals reported to the State Engineer, and the certificated appropriation amount of a given permit.
- Use by individual domestic wells was estimated by applying an annual duty of 1.12 acre-feet which is equivalent to 1,000 gallons per day.

DAYTON VALLEY
HYDROGRAPHIC AREA SUMMARY

• Hydrographic Area Number	8-103
• Designated	Yes
• State Engineer's Orders	
487 - Designation	January 22, 1973
688 – Extend Designation Area	August 23, 1977
Committed Groundwater Resources	25,228 Acre-Feet
• Annual Recharge	12,525 Acre-Feet
• Reference	USGS WRIR 97-4123
• USGS Reconnaissance Report No. 59, 1975	9,445 Acre-Feet
• Groundwater Pumpage 2002	13,724 Acre-Feet
• Groundwater Pumpage 2003	11,431 Acre-Feet
• Groundwater Pumpage 2004	10,358 Acre-Feet

DAYTON VALLEY, NEVADA
BASIN 8-103



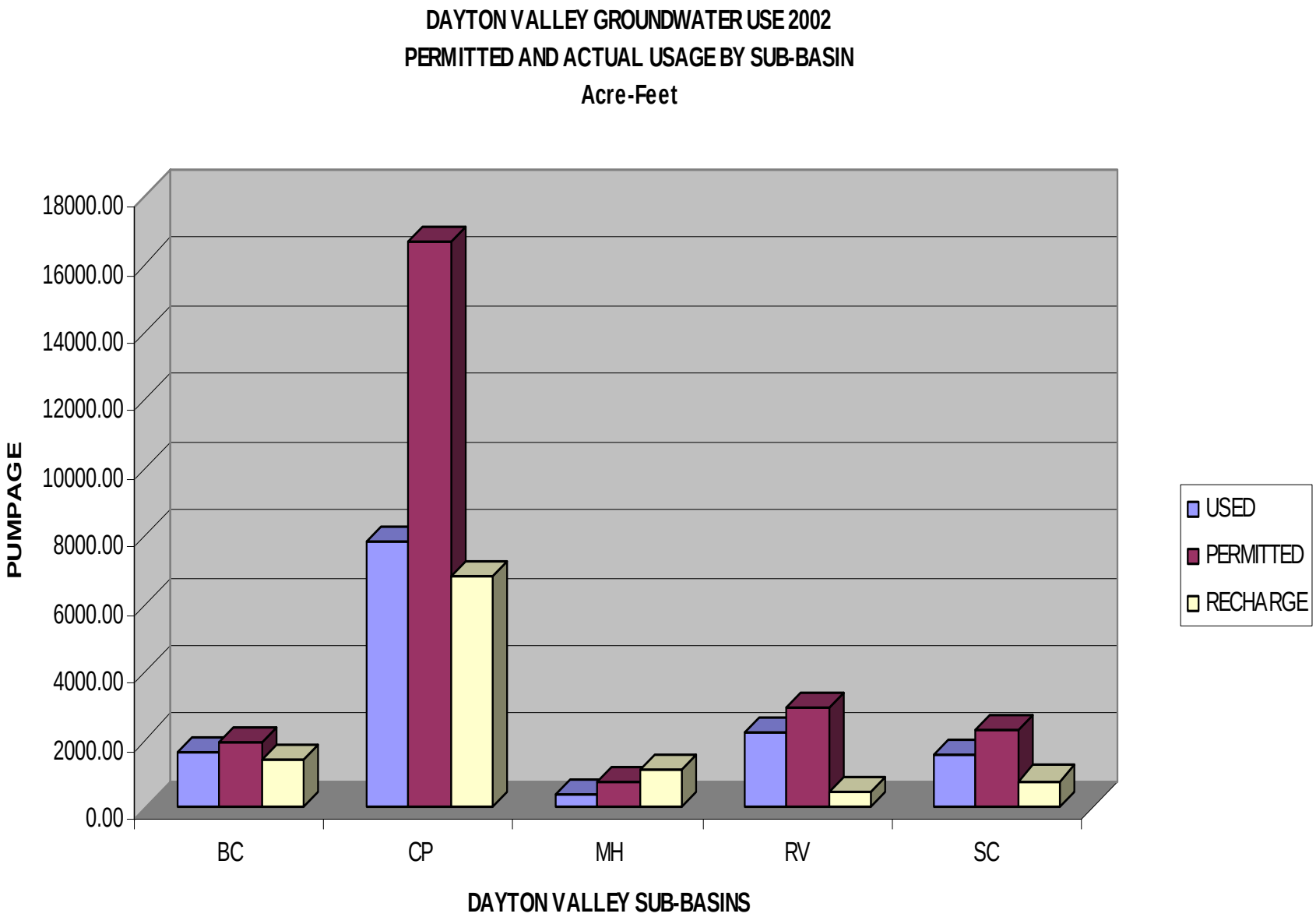
Nevada Division of Water Resources
August 2005

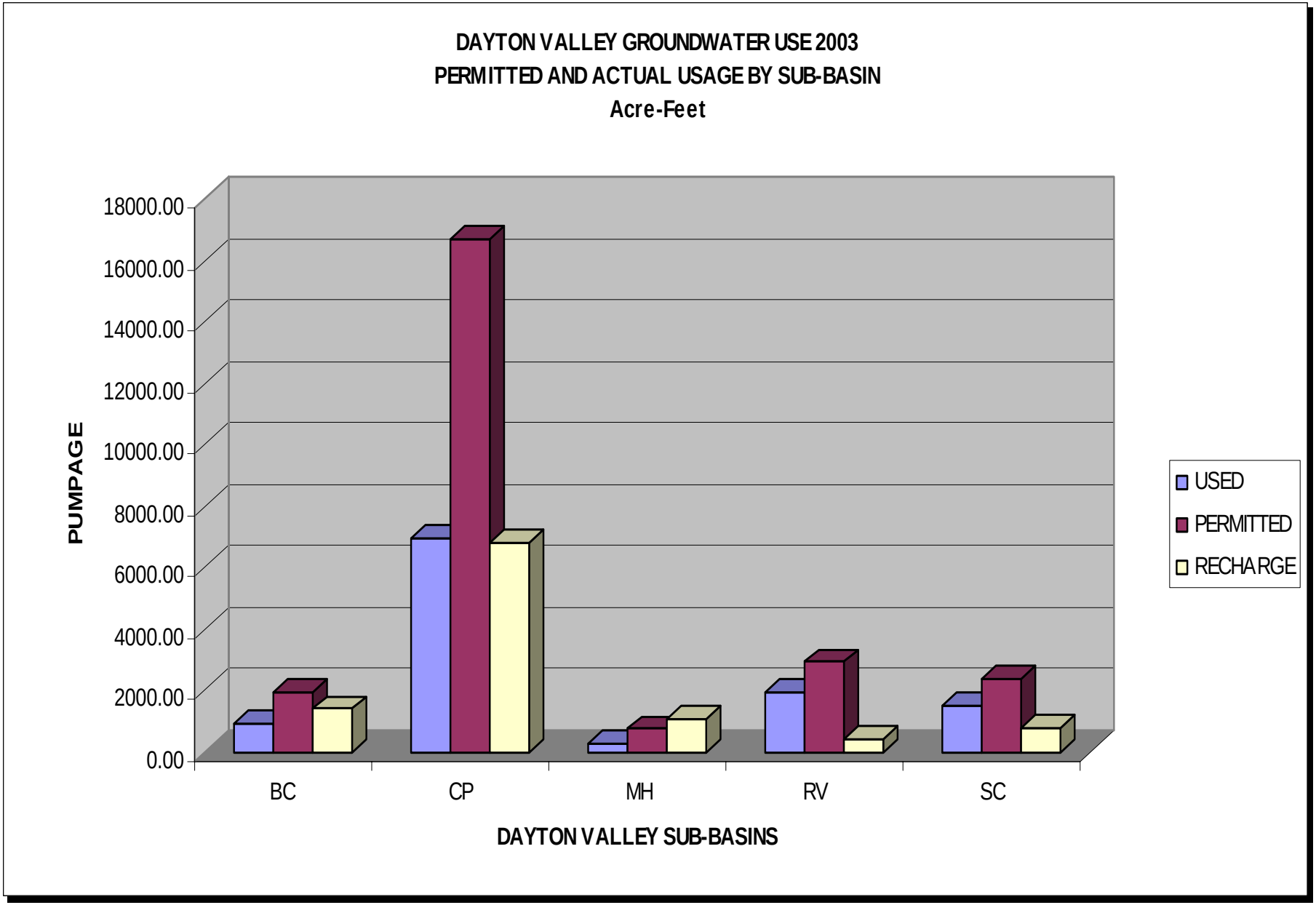
DAYTON VALLEY PUMPAGE BY SUB-BASIN
WATER YEARS 2002 THROUGH 2004
ACRE-FEET

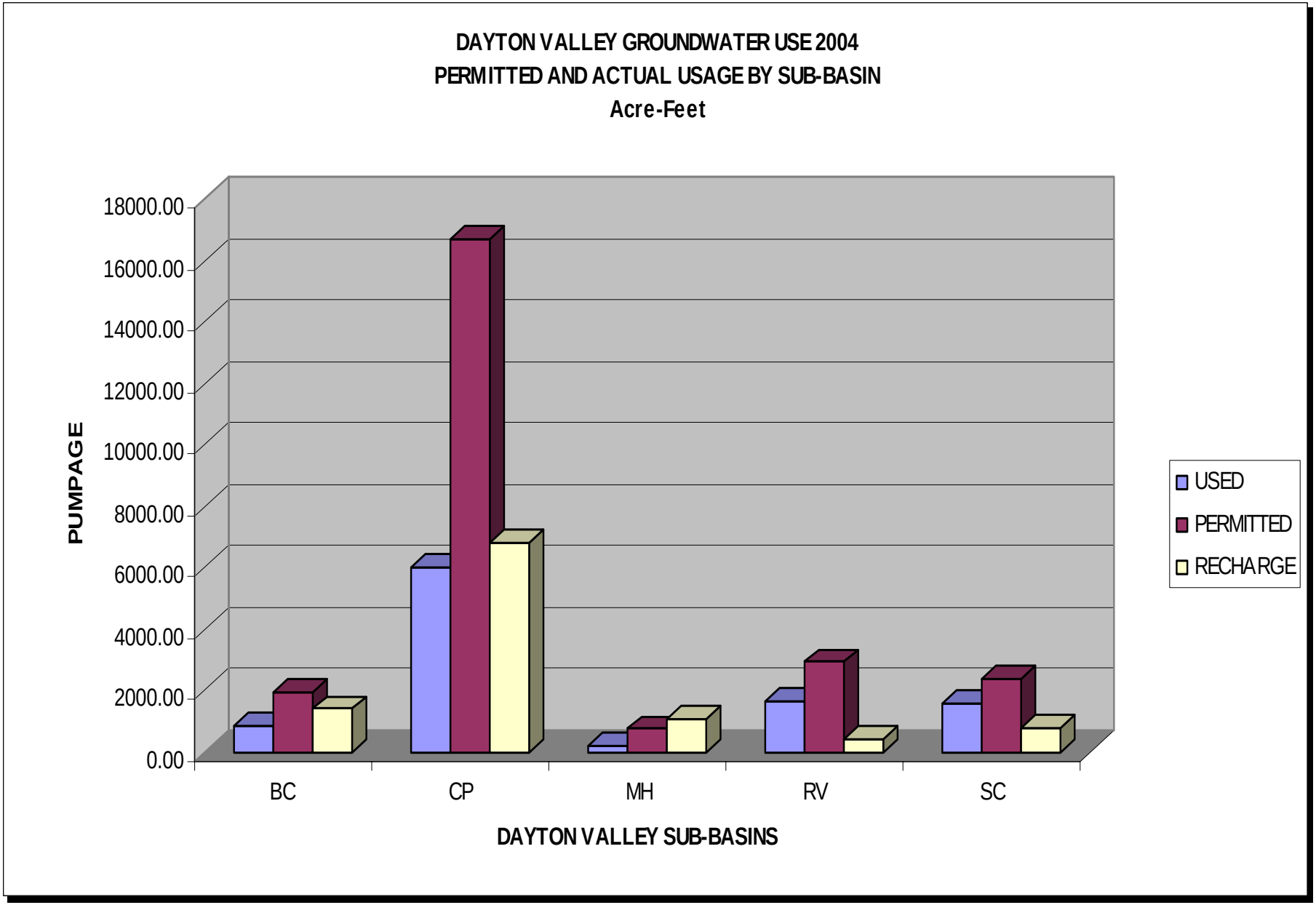
	2002	**2003**	**2004**
• RV	2,213	1,962	1,658
• MH	395	268	224
• CP	7,863	6,785	6,014
• BC	1,660	921	872
• SC	1,593	1,495	1,590
• **TOTAL**	**13,724**	**11,431**	**10,358**

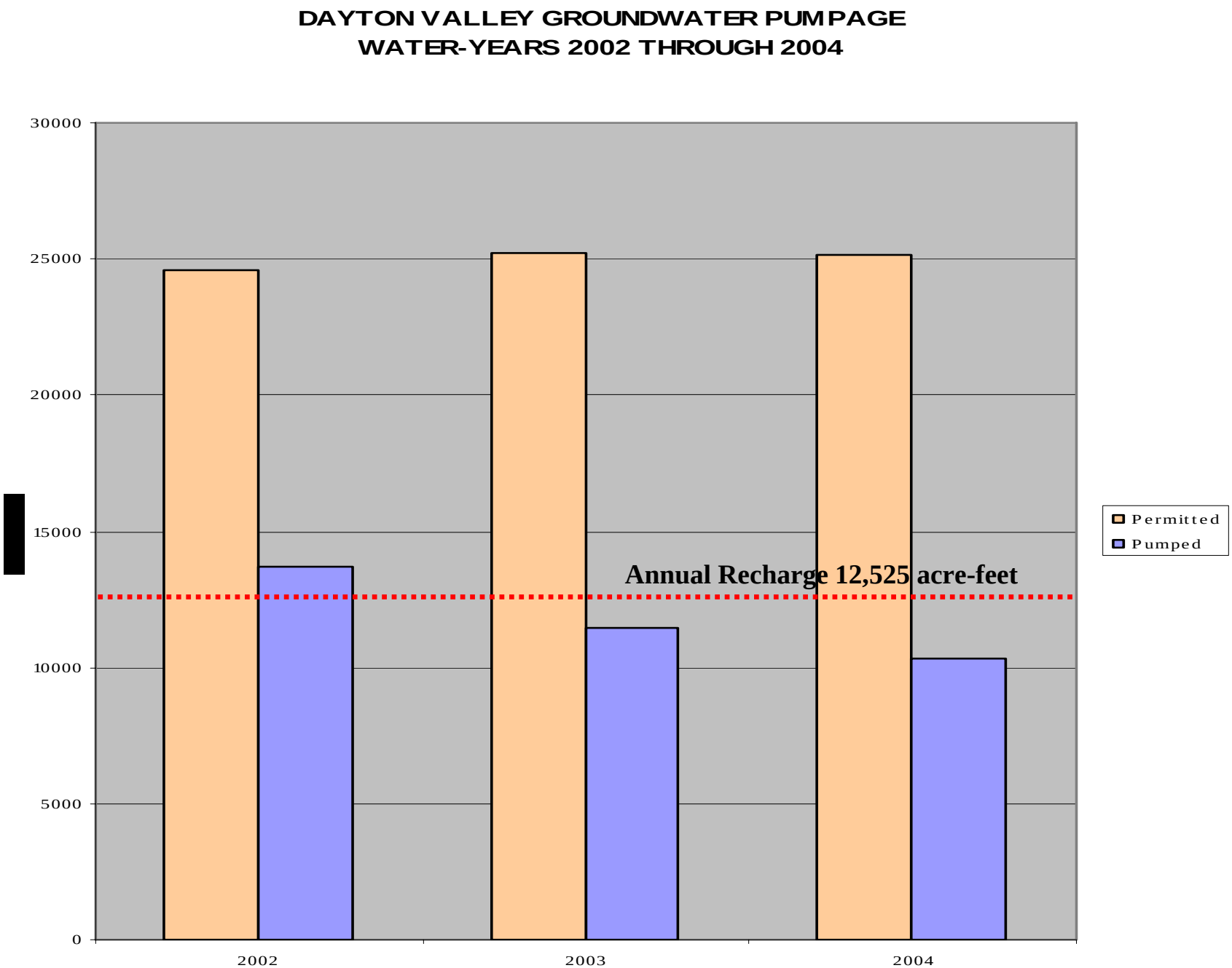
DAYTON VALLEY PUMPAGE BY MANNER OF USE
USE WATER YEARS 2002 THROUGH 2004
ACRE-FEET

	2002	**2003**	**2004**
• Irr.	5,718	4,415	3,367
• Mun.	6,062	5,062	4,744
• Com.	13	12	11
• Domestic	1,000	1,502	1,576
• Mining	915	419	642
• Stock	16	21	11
• **Total**	**13,724**	**11,431**	**10,358**

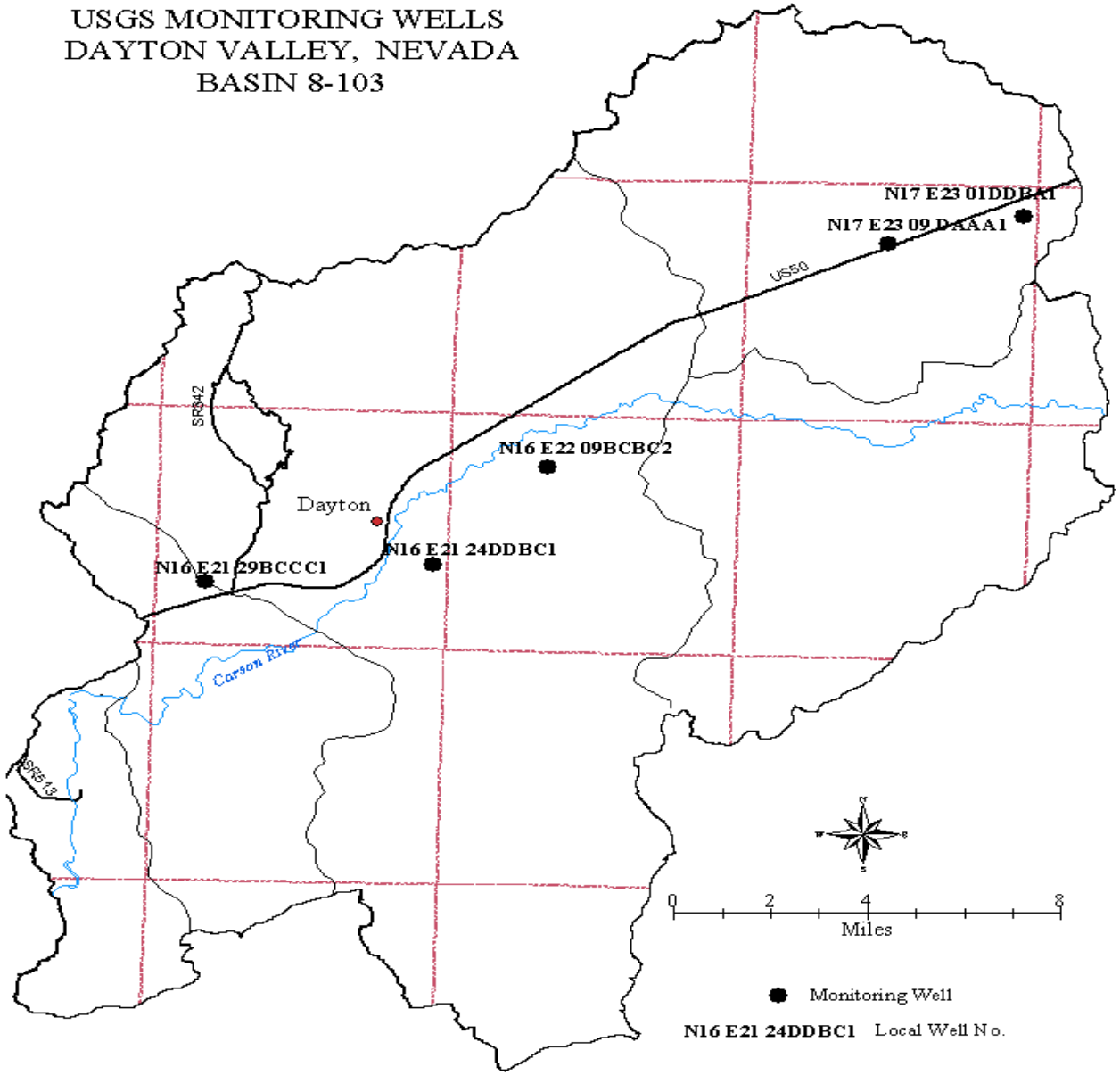

DAYTON VALLEY GROUNDWATER USE 2002
PERMITTED AND ACTUAL USAGE BY SUB-BASIN
Acre-Feet
PUMPAGE
18000.00
16000.00
14000.00
12000.00
10000.00
8000.00
6000.00
4000.00
2000.00
0.00
BC
CP
MH
RV
SC
DAYTON VALLEY SUB-BASINS
USED
PERMITTED
RECHARGE


DAYTON VALLEY GROUNDWATER USE 2003
PERMITTED AND ACTUAL USAGE BY SUB-BASIN
Acre-Feet
PUMPAGE
18000.00
16000.00
14000.00
12000.00
10000.00
8000.00
6000.00
4000.00
2000.00
0.00
BC
CP
MH
RV
SC
DAYTON VALLEY SUB-BASINS
USED
PERMITTED
RECHARGE


DAYTON VALLEY GROUNDWATER USE 2004
PERMITTED AND ACTUAL USAGE BY SUB-BASIN
Acre-Feet
PUMPAGE
18000.00
16000.00
14000.00
12000.00
10000.00
8000.00
6000.00
4000.00
2000.00
0.00
BC
CP
MH
RV
SC
DAYTON VALLEY SUB-BASINS
USED
PERMITTED
RECHARGE


DAYTON VALLEY GROUNDWATER PUMPAGE
WATER-YEARS 2002 THROUGH 2004
30000
25000
20000
15000
10000
5000
0
2002
2003
2004
Annual Recharge 12,525 acre-feet
Permitted
Pumped

LOCATION MAP OF SELECTED USGS MONITORING WELLS DAYTON VALLEY, NEVADA BASIN 8-103



USGS

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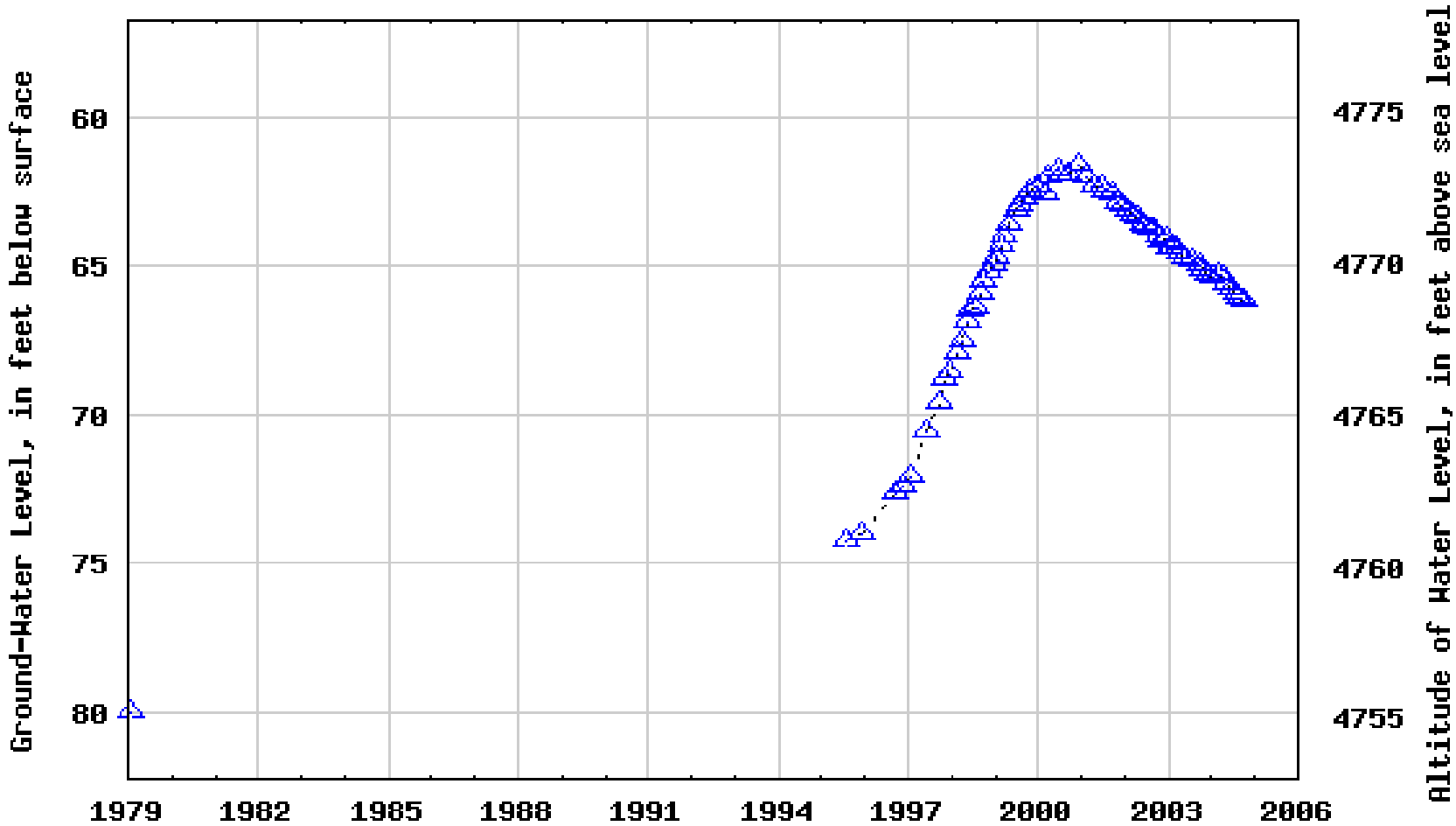
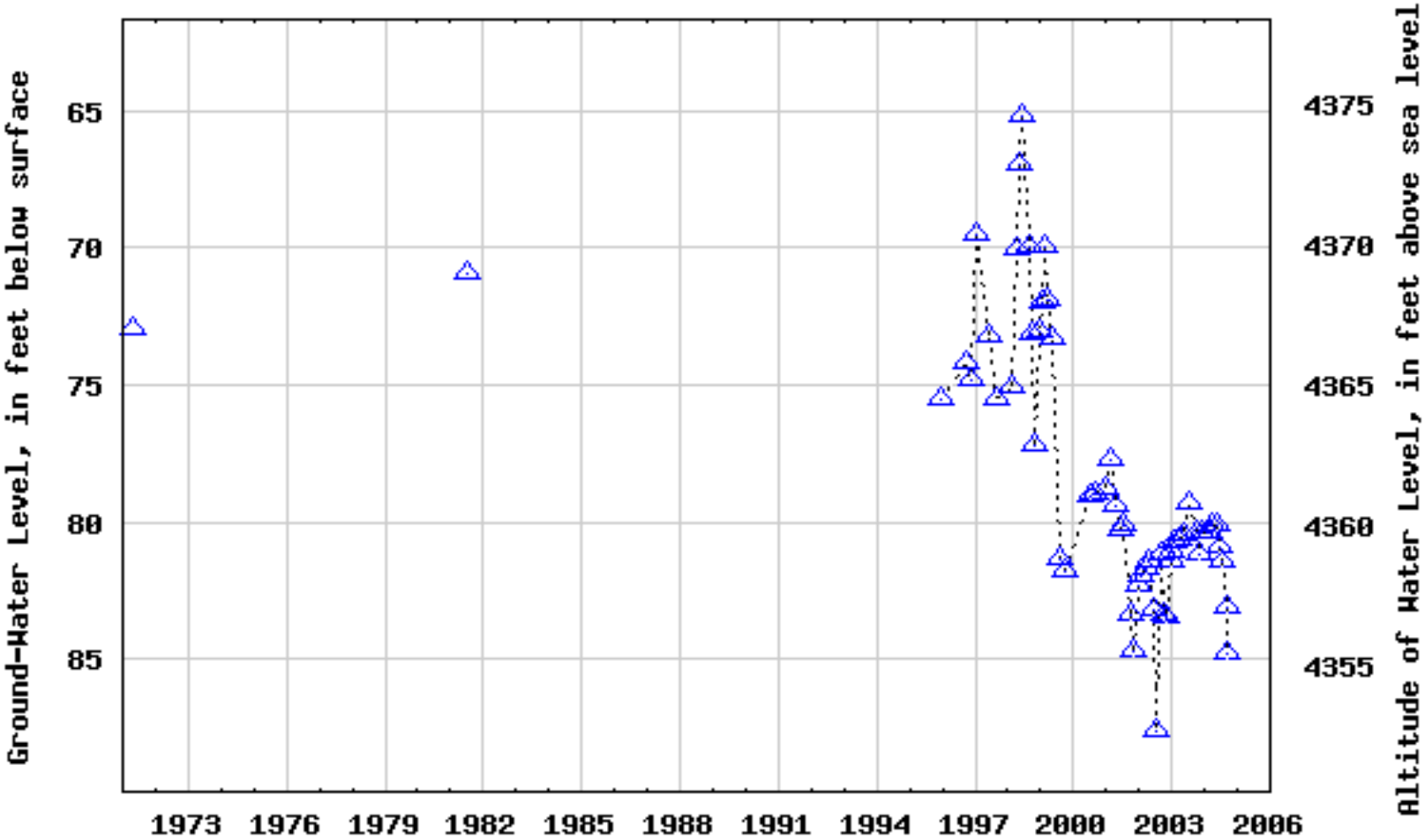


Provisional Data Subject to Revision

USGS

USGS 391354119343701 103 N16 E21 24DDBC1 Dayton Elementary School



Provisional Data Subject to Revision

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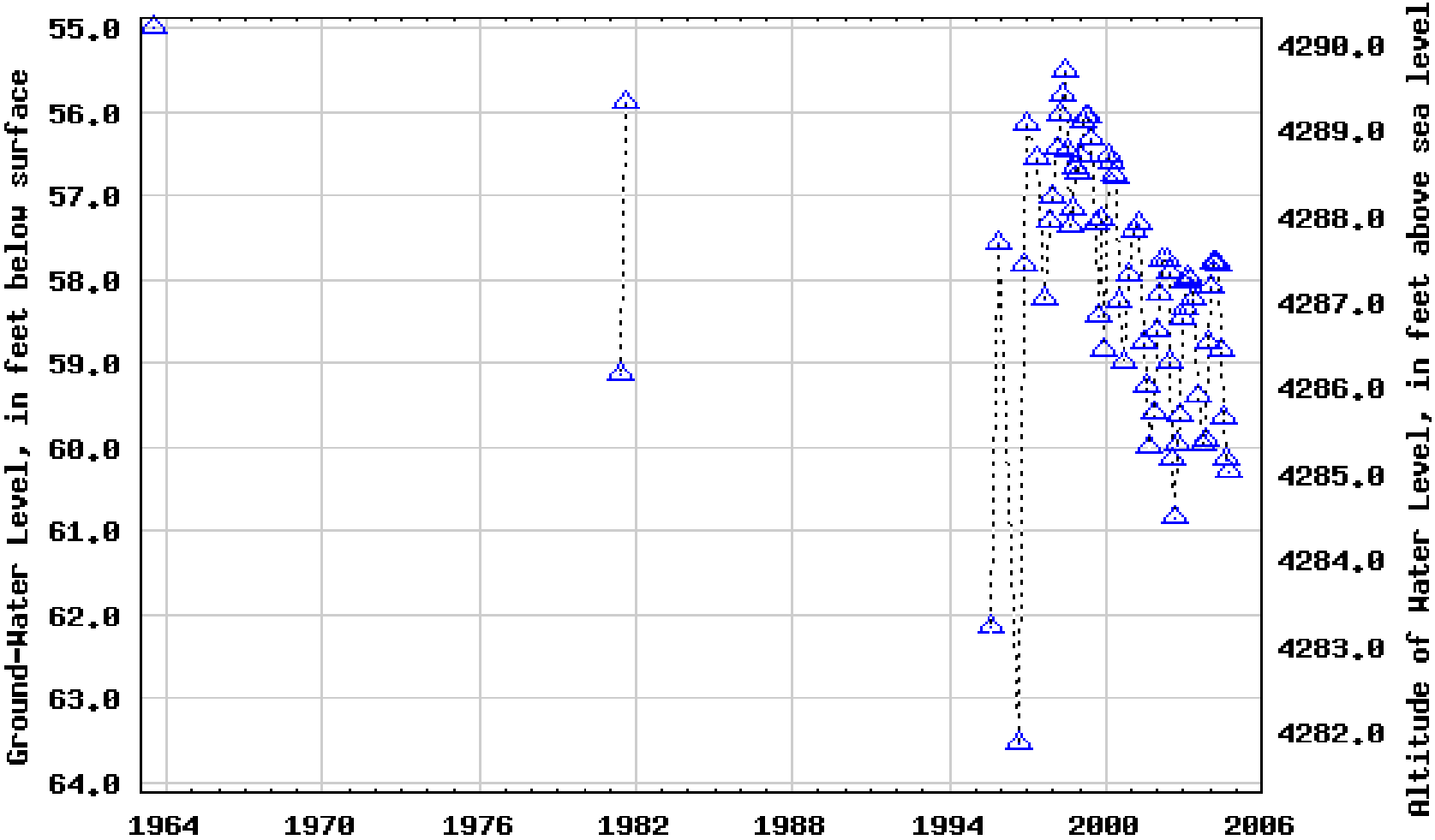

Provisional Data Subject to Revision

USGS

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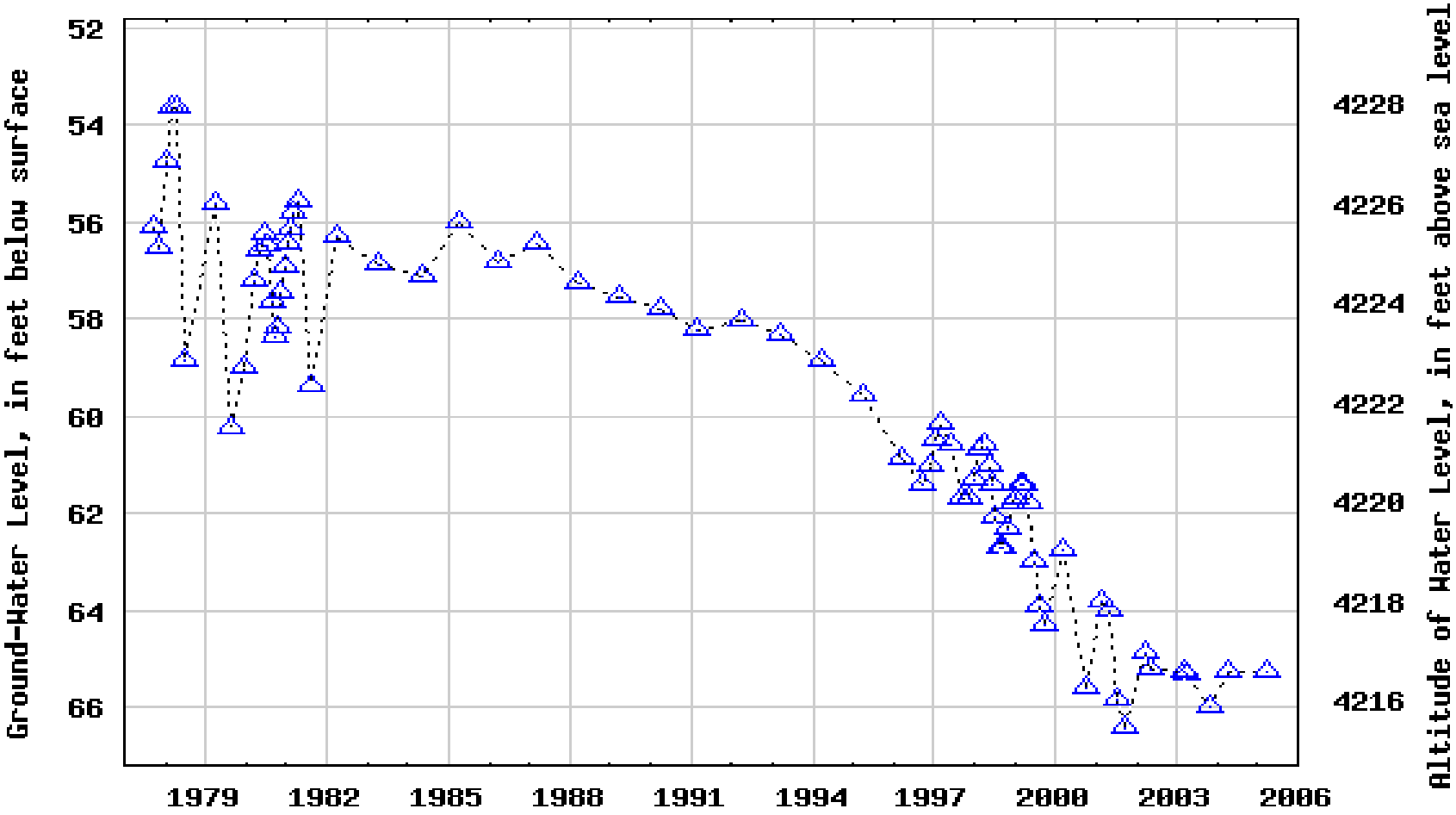
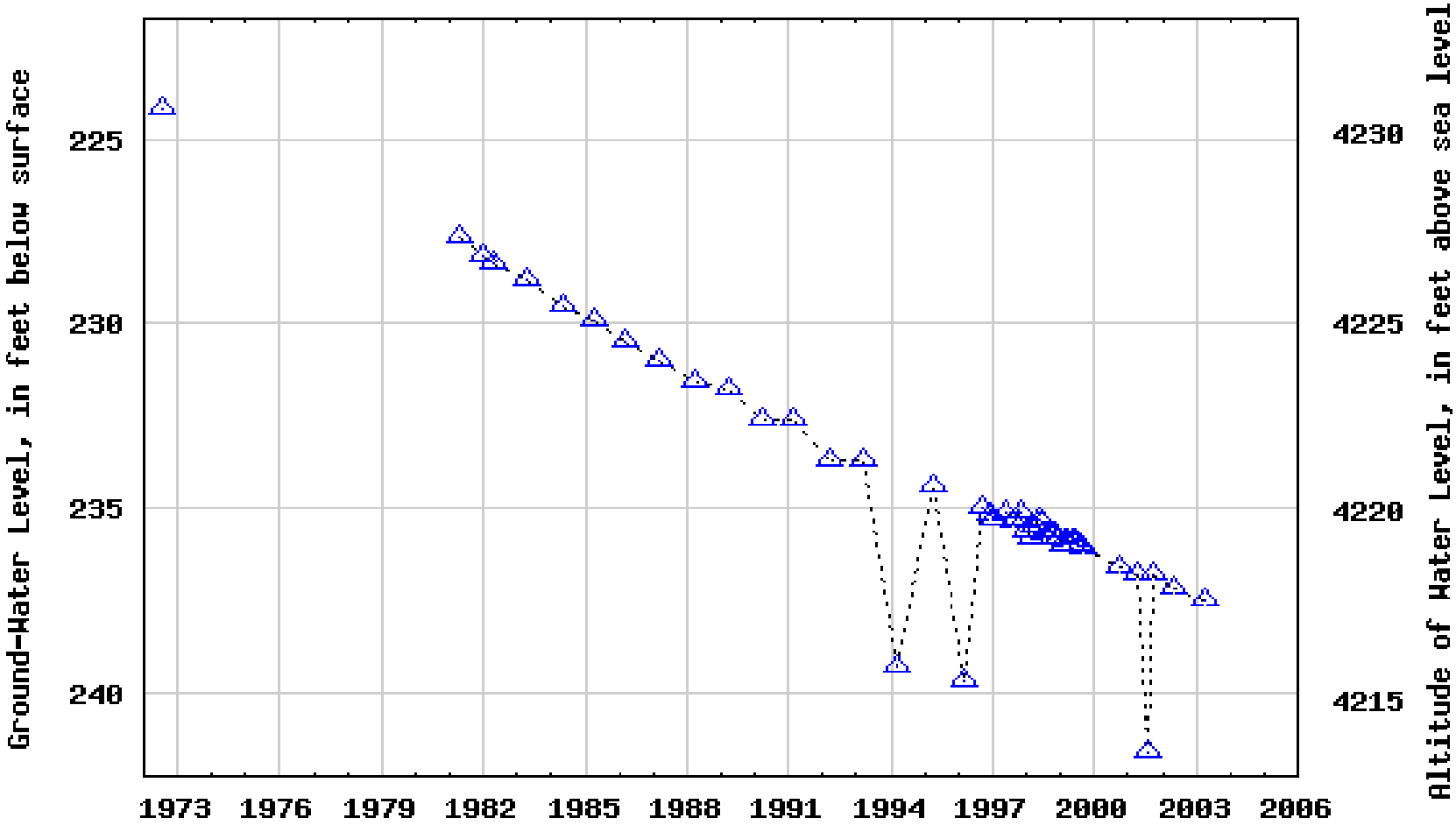


Provisional Data Subject to Revision

USGS

USGS 392129119205301 103 N17 E23 01DDBA1 Stagecoach Utilities 6



Provisional Data Subject to Revision

CHURCHILL VALLEY GROUNDWATER PUMPAGE INVENTORY
WATER YEAR 2004

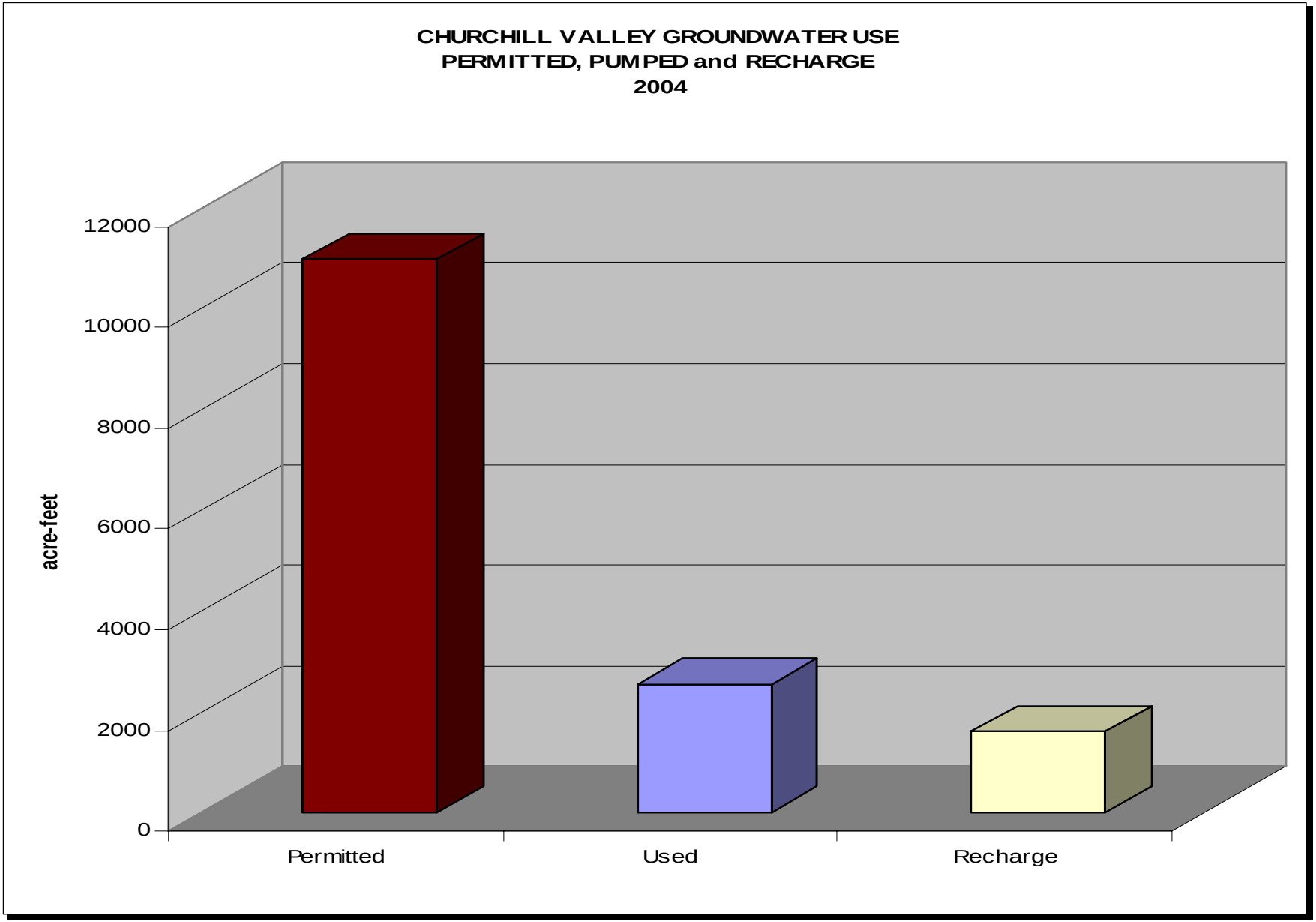
Nevada Division of Water Resources
in cooperation with the
Carson Water Subconservancy District

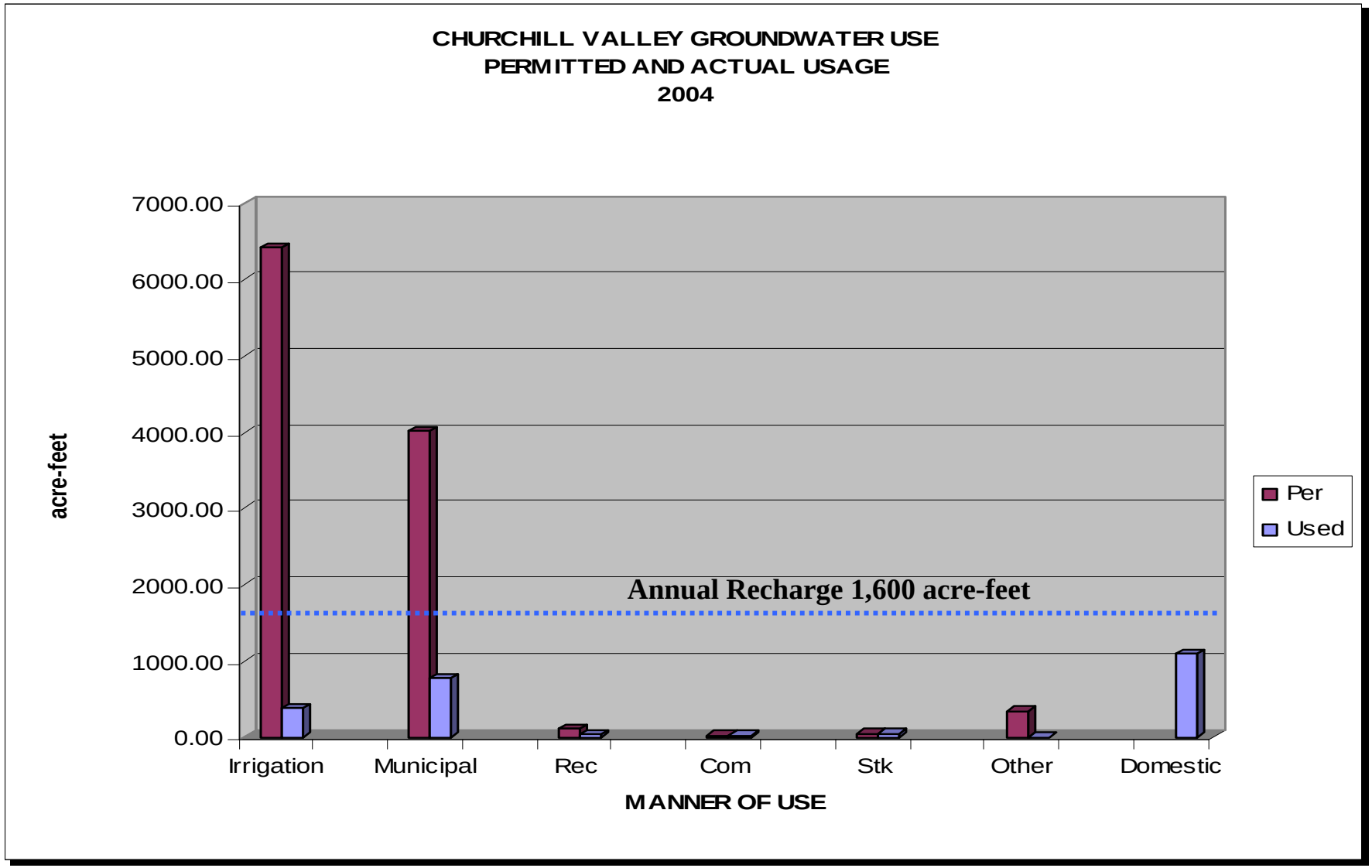
CHURCHILL VALLEY
HYDROGRAPHIC AREA SUMMARY

• Hydrographic Area Number	8-102
• Designated	Yes
• State Engineer's Order	
689 – Designation	August 23, 1977
• Committed Groundwater Resources	10,969 Acre-Feet
• Annual Recharge	1,600 Acre-Feet
• Reference	USGS Recon Report 59
• Groundwater Pumpage 2004	2,359 Acre-Feet

CHURCHILL VALLEY PUMPAGE BY MANNER USE
WATER YEAR 2004
ACRE-FEET

2004	
Irrigation	374
Municipal	769
Recreation	37
Domestic	1,098
Mining/Ind	0
Stock	53
Commercial	28
Total	**2,359**

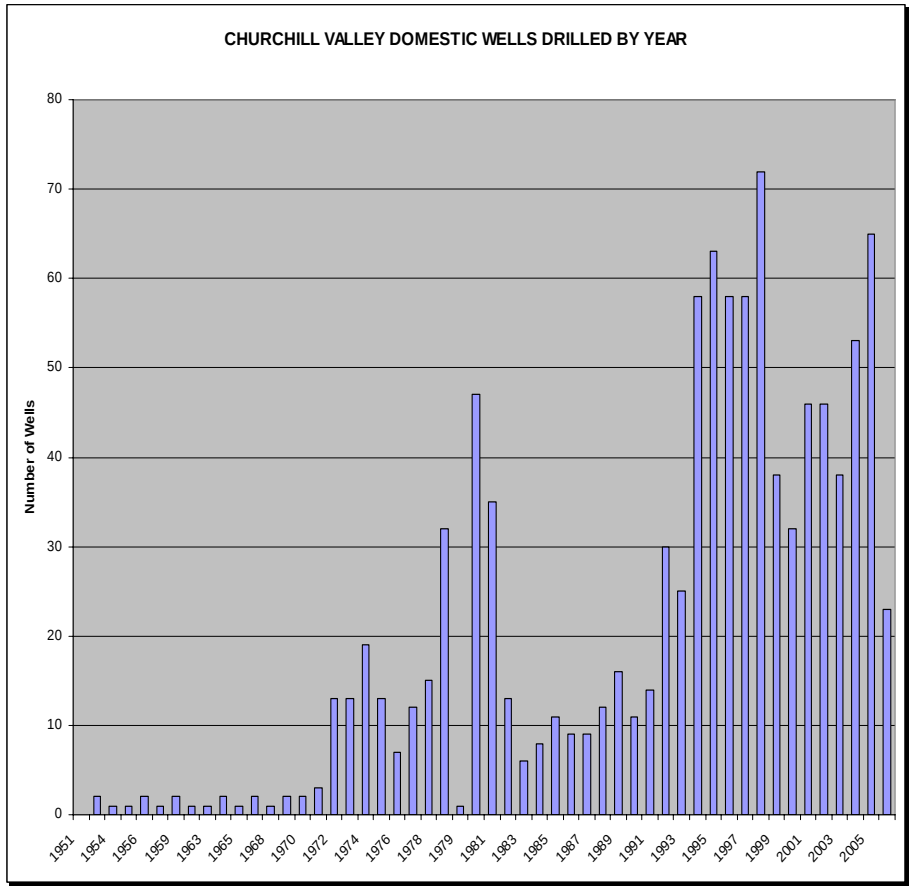

CHURCHILL VALLEY GROUNDWATER USE
PERMITTED, PUMPED and RECHARGE
2004
acre-feet
12000
10000
8000
6000
4000
2000
0
Permitted
Used
Recharge


CHURCHILL VALLEY GROUNDWATER USE
PERMITTED AND ACTUAL USAGE
2004
acre-feet
7000.00
6000.00
5000.00
4000.00
3000.00
2000.00
1000.00
0.00
Annual Recharge 1,600 acre-feet
Irrigation
Municipal
Rec
Com
Stk
Other
Domestic
MANNER OF USE
Per
Used

CHURCHILL VALLEY DOMESTIC WELLS

New Domestic Wells Drilled by Year
Silver Springs Valley, 08-102

Year	# Wells
1951	2
1952	1
1954	1
1955	2
1956	1
1957	2
1959	1
1961	1
1963	2
1964	1
1965	2
1966	1
1968	2
1969	2
1970	3
1971	13
1972	13
1973	19
1974	13
1975	7
1976	12
1977	15
1978	32
1979	1
1979	47
1980	35
1981	13
1982	6
1983	8
1984	11
1985	9
1986	9
1987	12
1988	16
1989	11
1990	14
1991	30
1992	25
1993	58
1994	63
1995	58
1996	58
1997	72
1998	38
1999	32
2000	46
2001	46
2002	38
2003	53
2004	65
2005	23
Total	1045

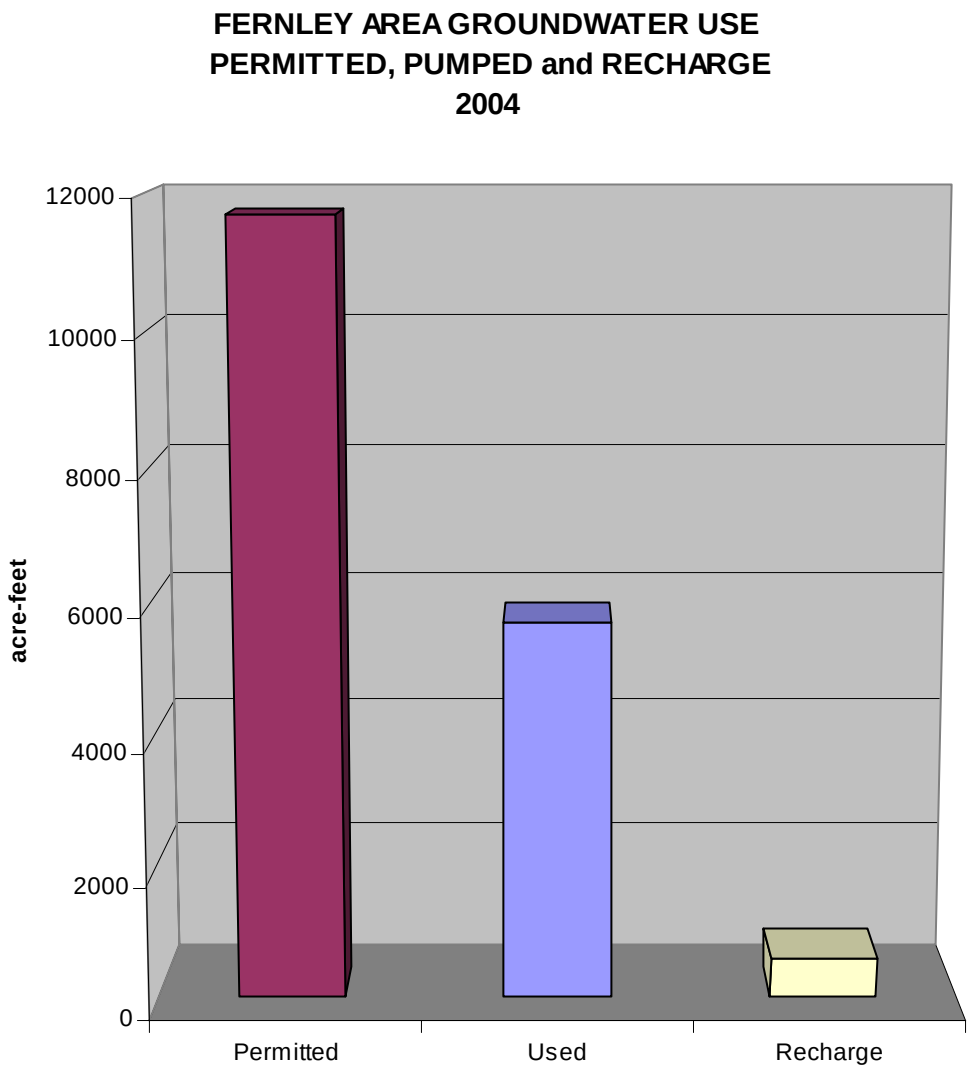


FERNLEY AREA
HYDROGRAPHIC AREA SUMMARY

• Hydrographic Area Number	05-076
• Designated	Yes
• State Engineer's Orders	
699 - Designation	December 30, 1977
1011 - Preferred Use	November 21, 1989
1081 - Amended Preferred Use	August 30, 1993
• Committed Groundwater Resources	11,697 Acre-Feet
• Estimated Groundwater Pumpage 2004	5,726 Acre-feet
• Annual Recharge	* 600 Acre-feet

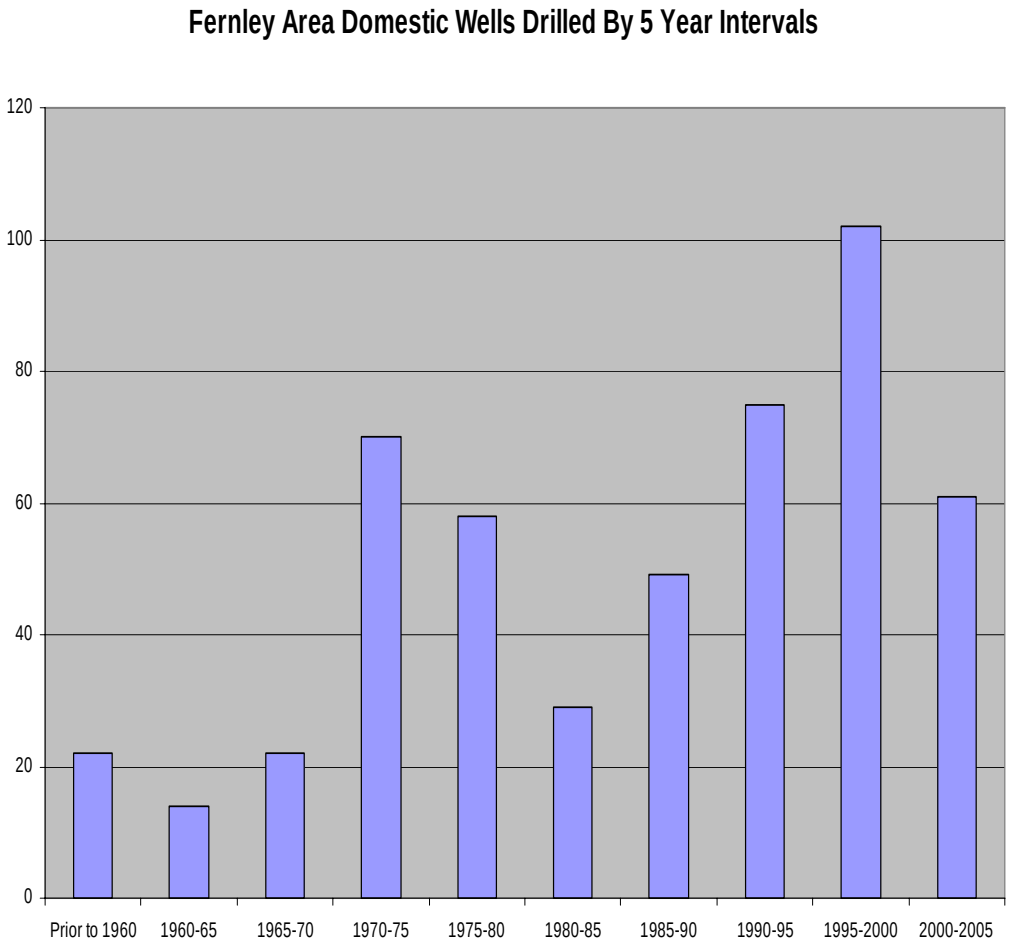
Source: USGS Reconnaissance Report 57

* Does not include infiltration from Truckee Canal


FERNLEY AREA GROUNDWATER USE
PERMITTED, PUMPED and RECHARGE
2004
acre-feet
12000
10000
8000
6000
4000
2000
0
Permitted
Used
Recharge

FERNLEY AREA DOMESTIC WELLS

• Prior to 1960	22
• 1960-1965	14
• 1965-1970	22
• 1970-1975	70
• 1975-1980	58
• 1980-1985	29
• 1985-1990	49
• 1990-1995	75
• 1995-2000	102
• 2000-2005	61
Total	**502**



SMITH and MASON VALLEYS
Manner of Groundwater Use

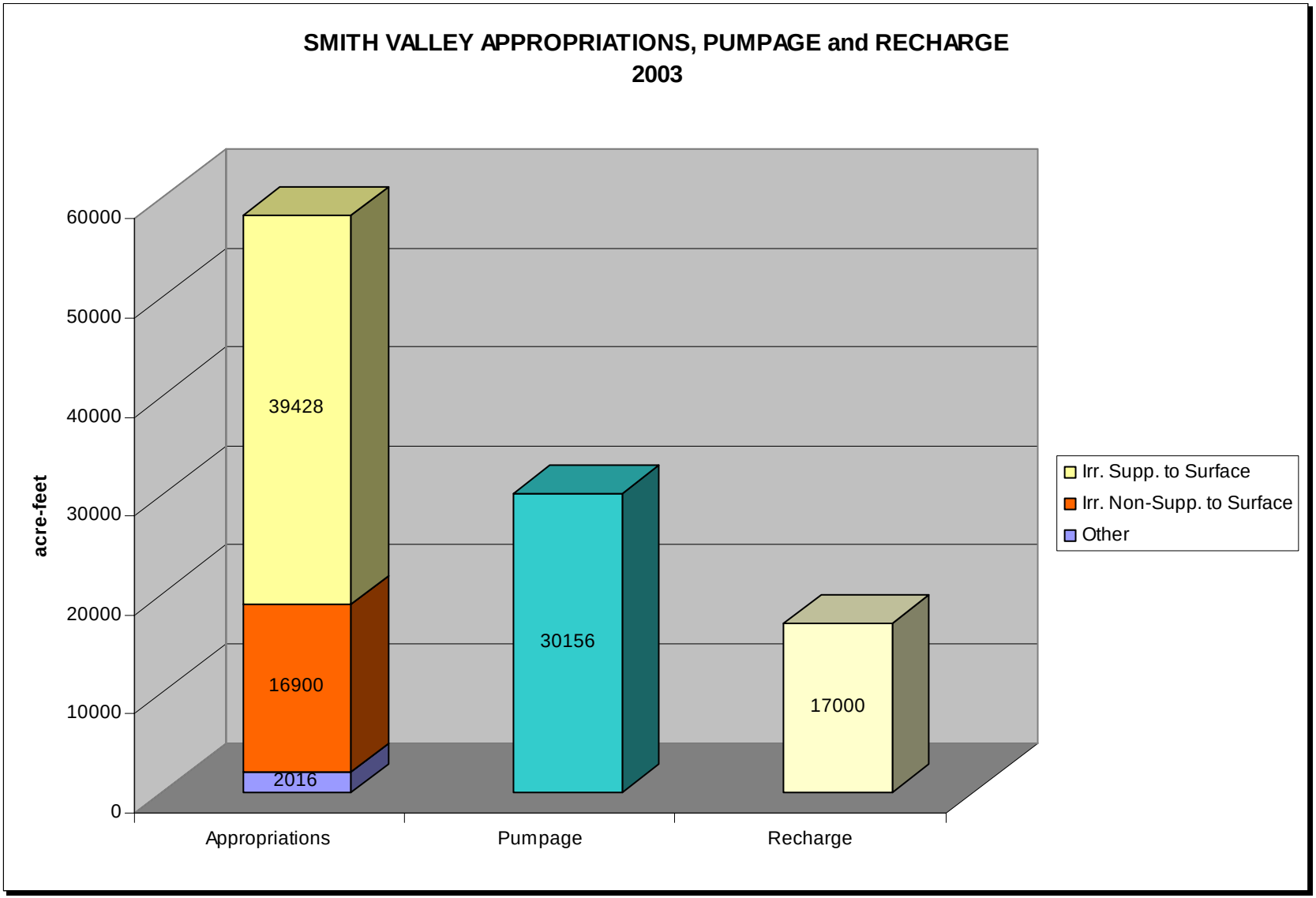
- Over 87 percent of all underground water use is for irrigation purposes.
- Approximately 90 percent of the permitted agricultural use is supplemental to decreed and storage rights from the Walker River.

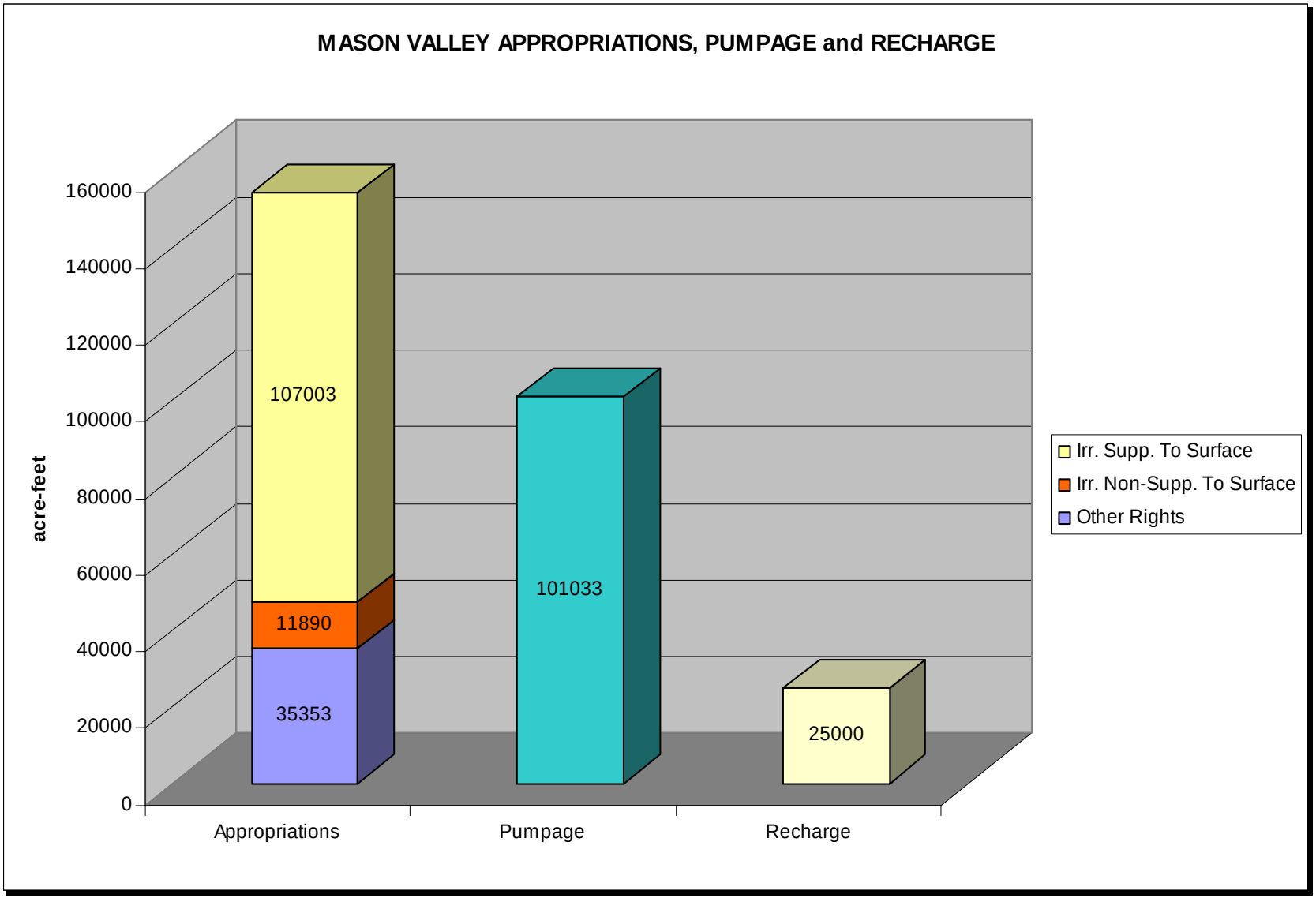
SMITH VALLEY
HYDROGRAPHIC AREA SUMMARY

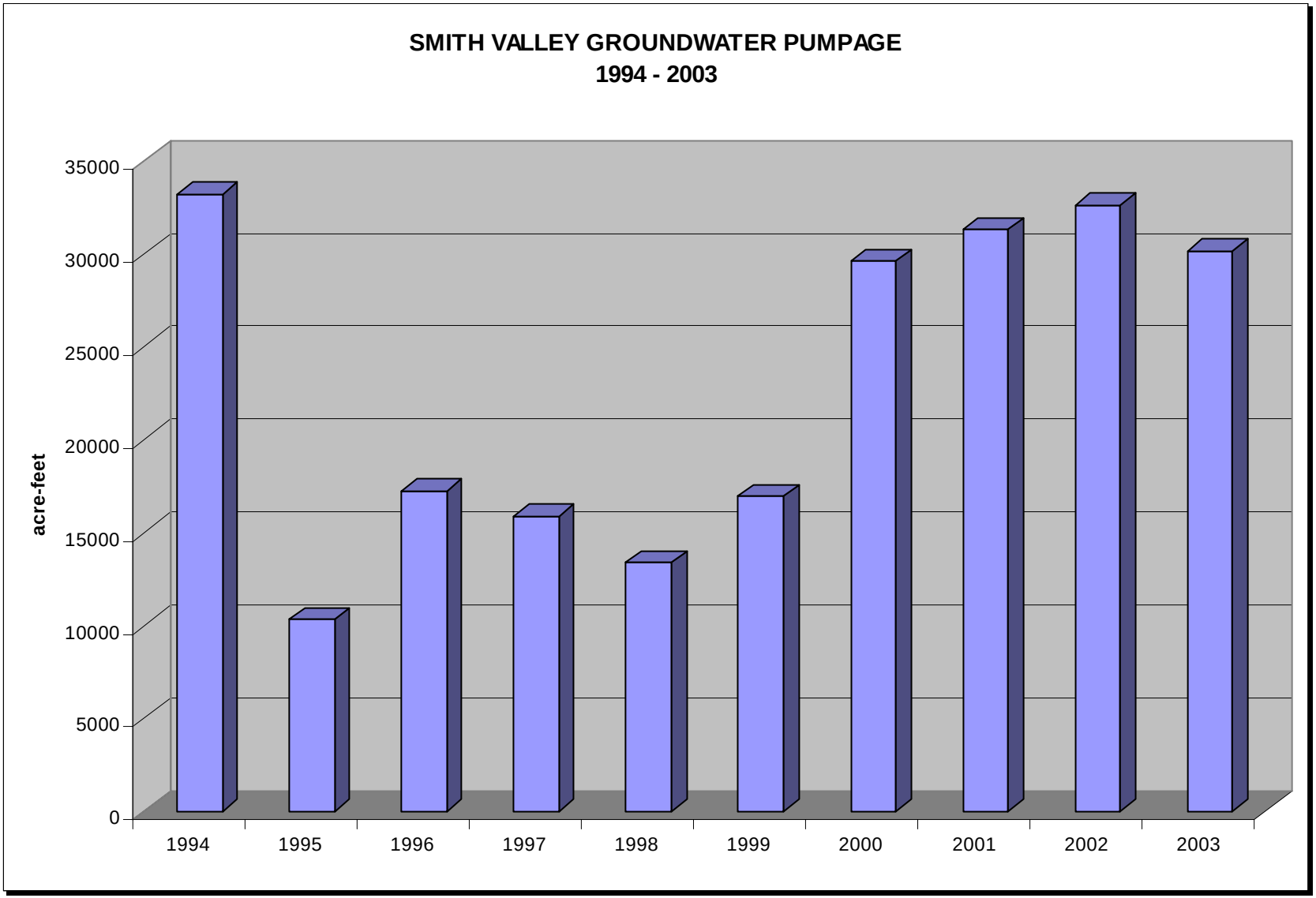
• Hydrographic Area Number	09-107
• Designated	Yes
• State Engineer's Orders	
245 - Designation of Basin	Feb. 25,1960
253 - Measuring Devices	Aug. 2, 1961
1126 - Curtailment	Feb. 4, 1997
1159 - Water Meters Required	Feb. 1, 2000
• Committed Groundwater Resources	58,344 Acre-Feet
• Annual Recharge	17,000 Acre-Feet
Source: USGS Bulletin No. 43	
• Groundwater Pumpage 2003	30,575 Acre-feet

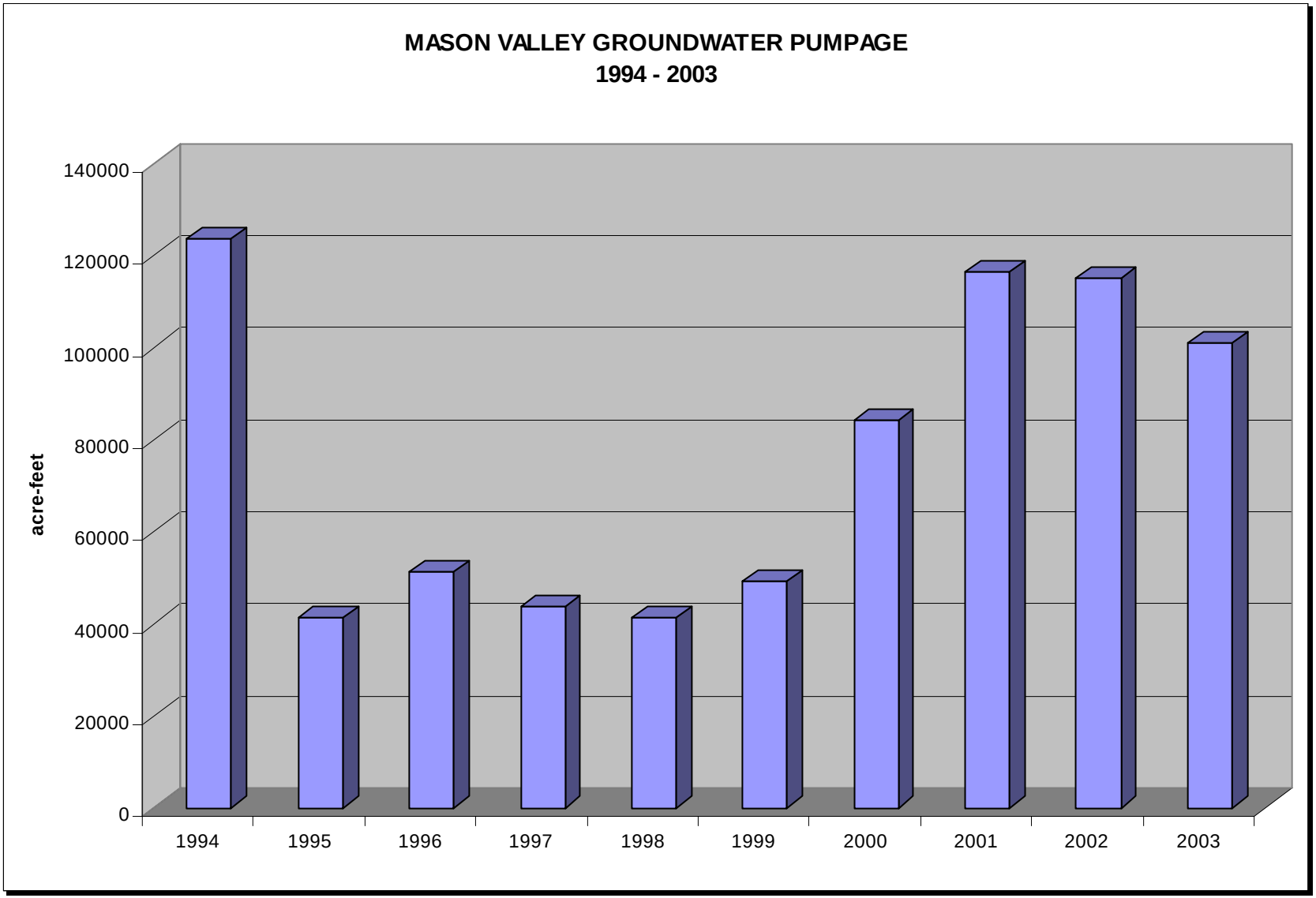
MASON VALLEY
HYDROGRAPHIC AREA SUMMARY

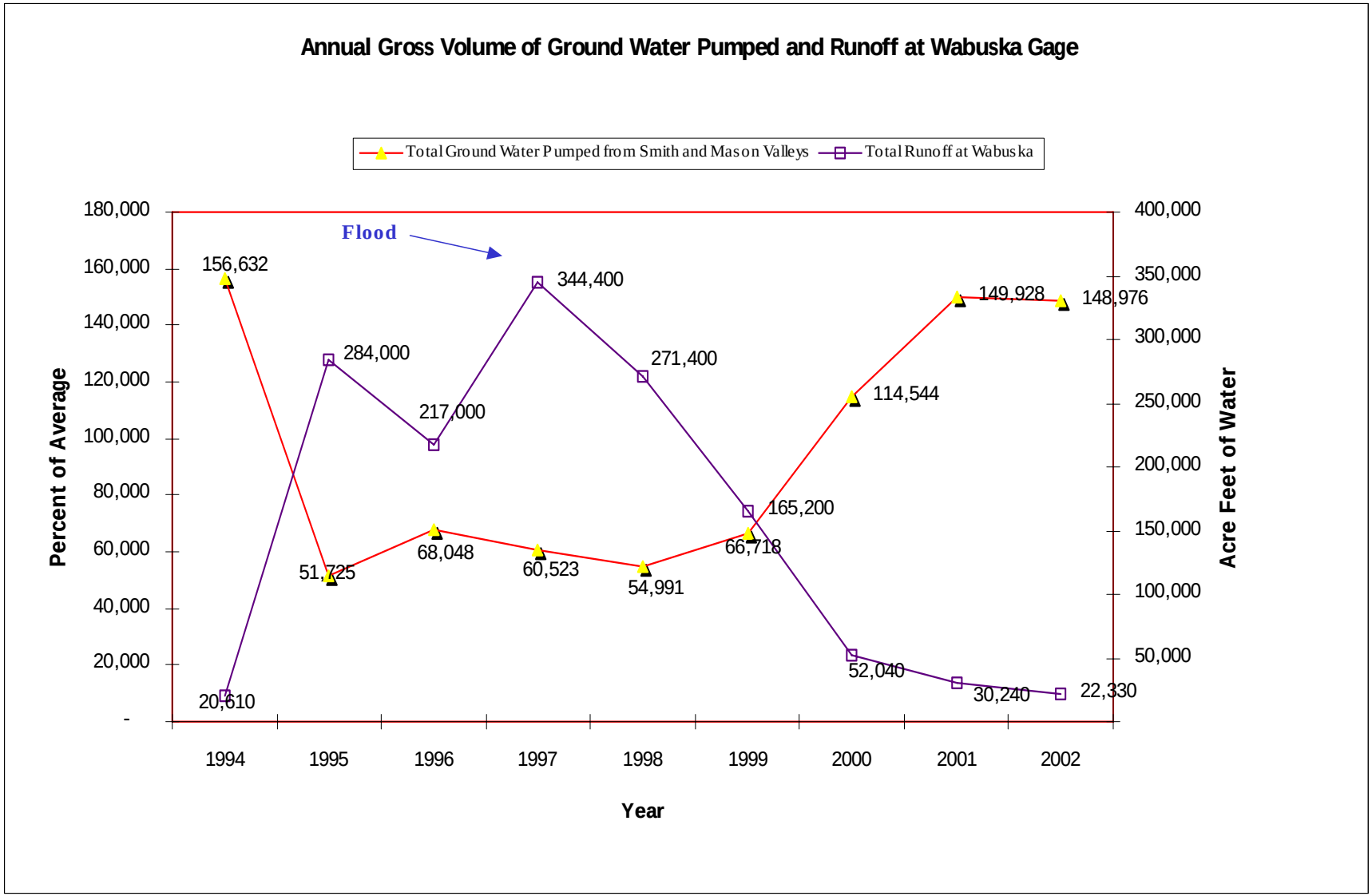
• Hydrographic Area Number	09-108
• Designated	Yes
• State Engineer's Orders	
627 - Designation of Basin	Jan. 1, 1977
691 - Amended Designation	Sept. 7, 1977
1125 - Curtailment	Feb. 4, 1997
1158 - Water Meters Required	Feb. 1, 2000
• Committed Groundwater Resources	154,246 Acre-Feet
• Annual Recharge Source: USGS Bulletin No. 38	25,000 Acre-Feet
• Groundwater Pumpage 2003	101,033 Acre-feet


SMITH VALLEY APPROPRIATIONS, PUMPAGE and RECHARGE
2003
acre-feet
60000
50000
40000
30000
20000
10000
0
39428
16900
2016
30156
17000
Appropriations
Pumpage
Recharge
Irr. Supp. to Surface
Irr. Non-Supp. to Surface
Other

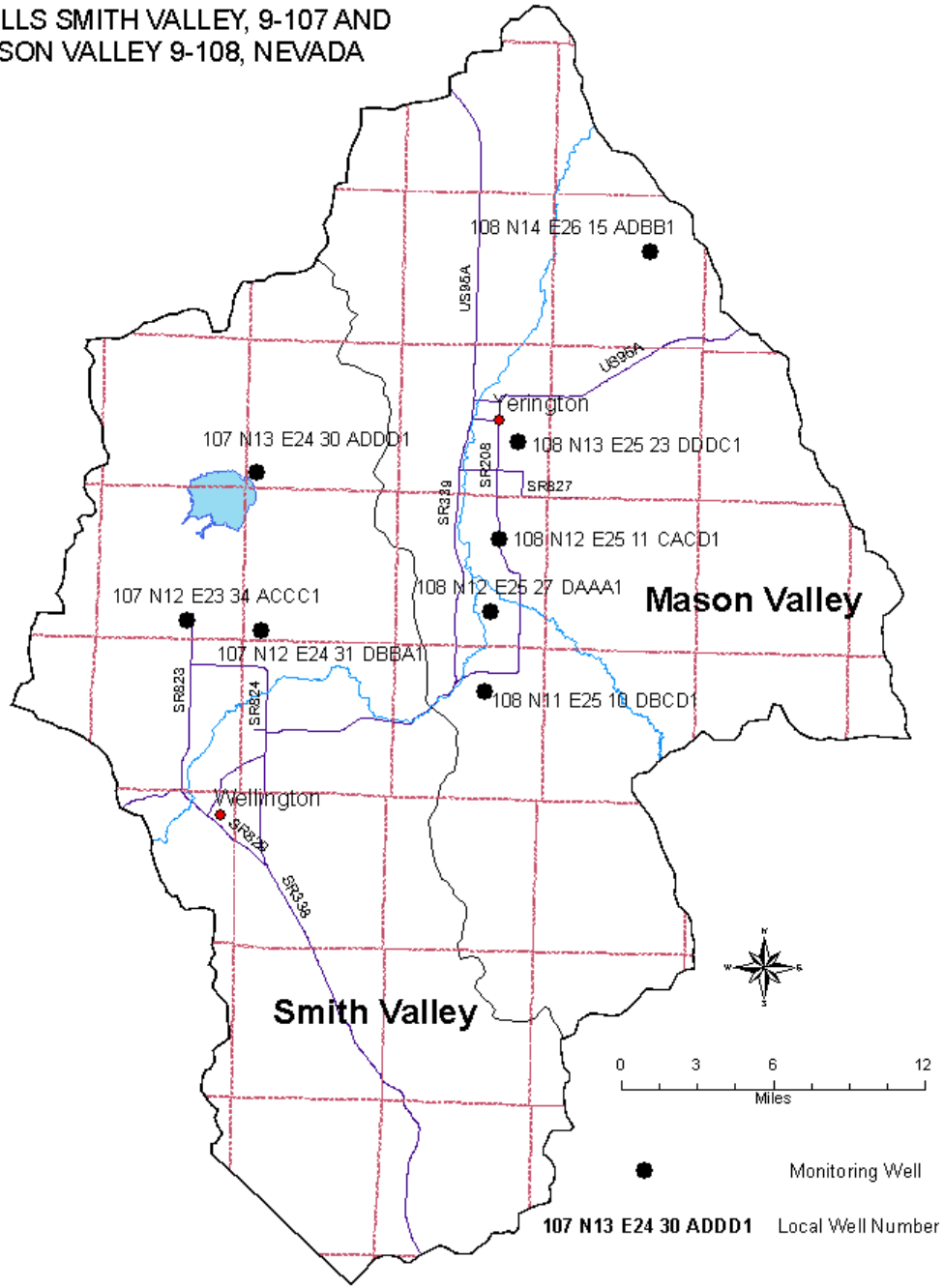

MASON VALLEY APPROPRIATIONS, PUMPAGE and RECHARGE
acre-feet
160000
140000
120000
100000
80000
60000
40000
20000
0
107003
11890
35353
101033
25000
Appropriations
Pumpage
Recharge
Irr. Supp. To Surface
Irr. Non-Supp. To Surface
Other Rights


SMITH VALLEY GROUNDWATER PUMPAGE
1994 - 2003
acre-feet
35000
30000
25000
20000
15000
10000
5000
0
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003


MASON VALLEY GROUNDWATER PUMPAGE
1994 - 2003
acre-feet
140000
120000
100000
80000
60000
40000
20000
0
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003

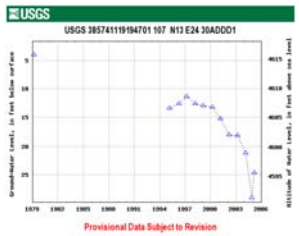

Annual Gross Volume of Ground Water Pumped and Runoff at Wabuska Gage
Total Ground Water Pumped from Smith and Mason Valleys
Total Runoff at Wabuska
Flood
Percent of Average
Acre Feet of Water
Year
180,000
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
-
400,000
350,000
300,000
250,000
200,000
150,000
100,000
50,000
1994
1995
1996
1997
1998
1999
2000
2001
2002
156,632
51,725
68,048
60,523
54,991
66,718
114,544
149,928
148,976
20,610
284,000
217,000
344,400
271,400
165,200
52,040
30,240
22,330

LOCATION OF SELECTED MONITORING WELLS SMITH VALLEY, 9-107 AND MASON VALLEY 9-108, NEVADA



August 2005

LOCATION OF SELECTED MONITORING WELLS SMITH VALLEY, 9-107 AND MASON VALLEY 9-108, NEVADA



108 N14 E26 15 ADBB1

US95A

Yerington

107 N13 E24 30 ADDD1

108 N13 E25 23 DDDC1

SR208

SR827

SR339

108 N12 E25 11 CACD1

108 N12 E25 27 DAAA1

107 N12 E23 34 ACCC1

Mason Valley

107 N12 E24 31 DBBA1

SR823

SR824

108 N11 E25 10 DBCD1

Wellington

SR829

SR338

Smith Valley

0 3 6 12
Miles

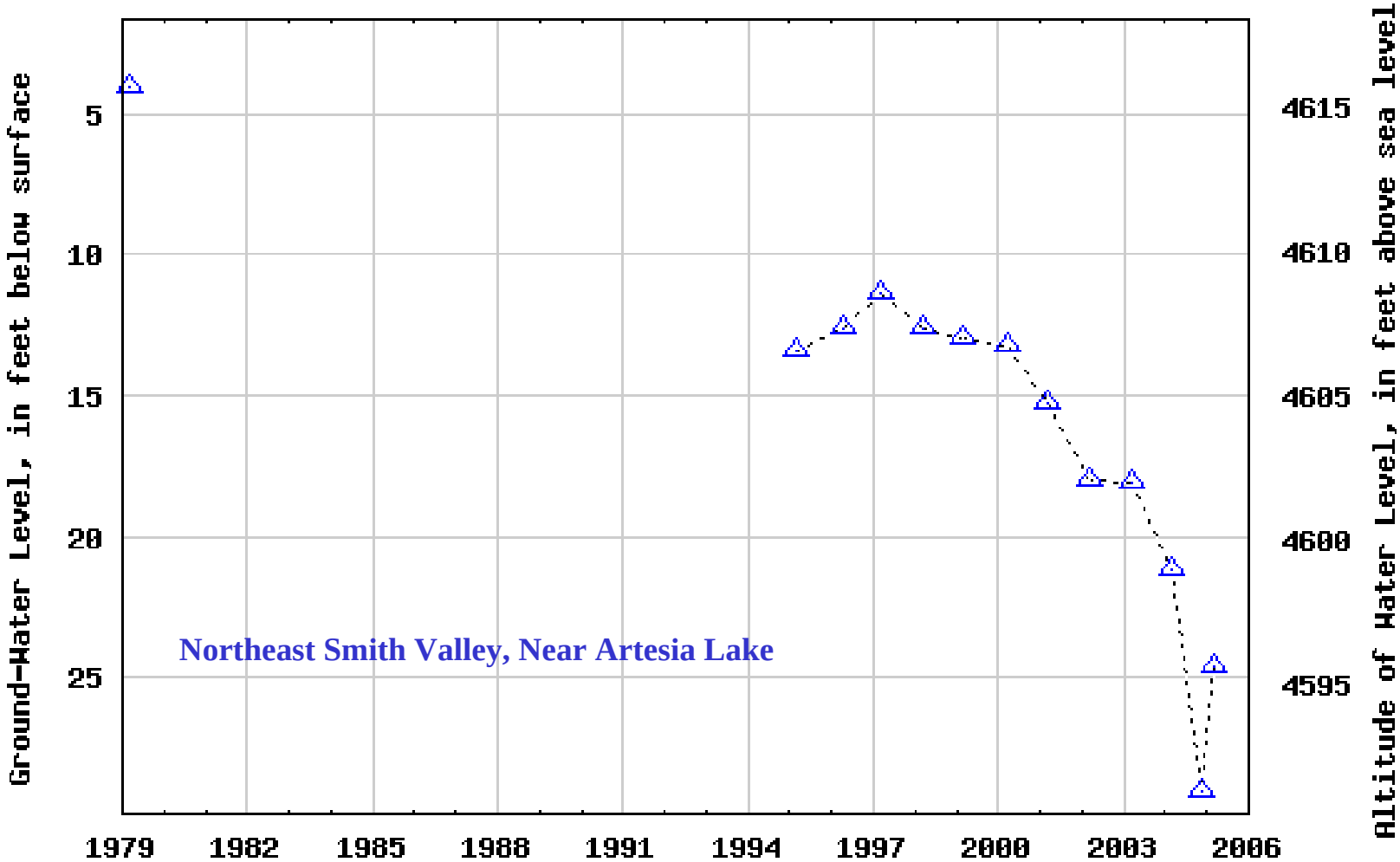
Monitoring Well

107 N13 E24 30 ADDD1 Local Well Number

August 2005

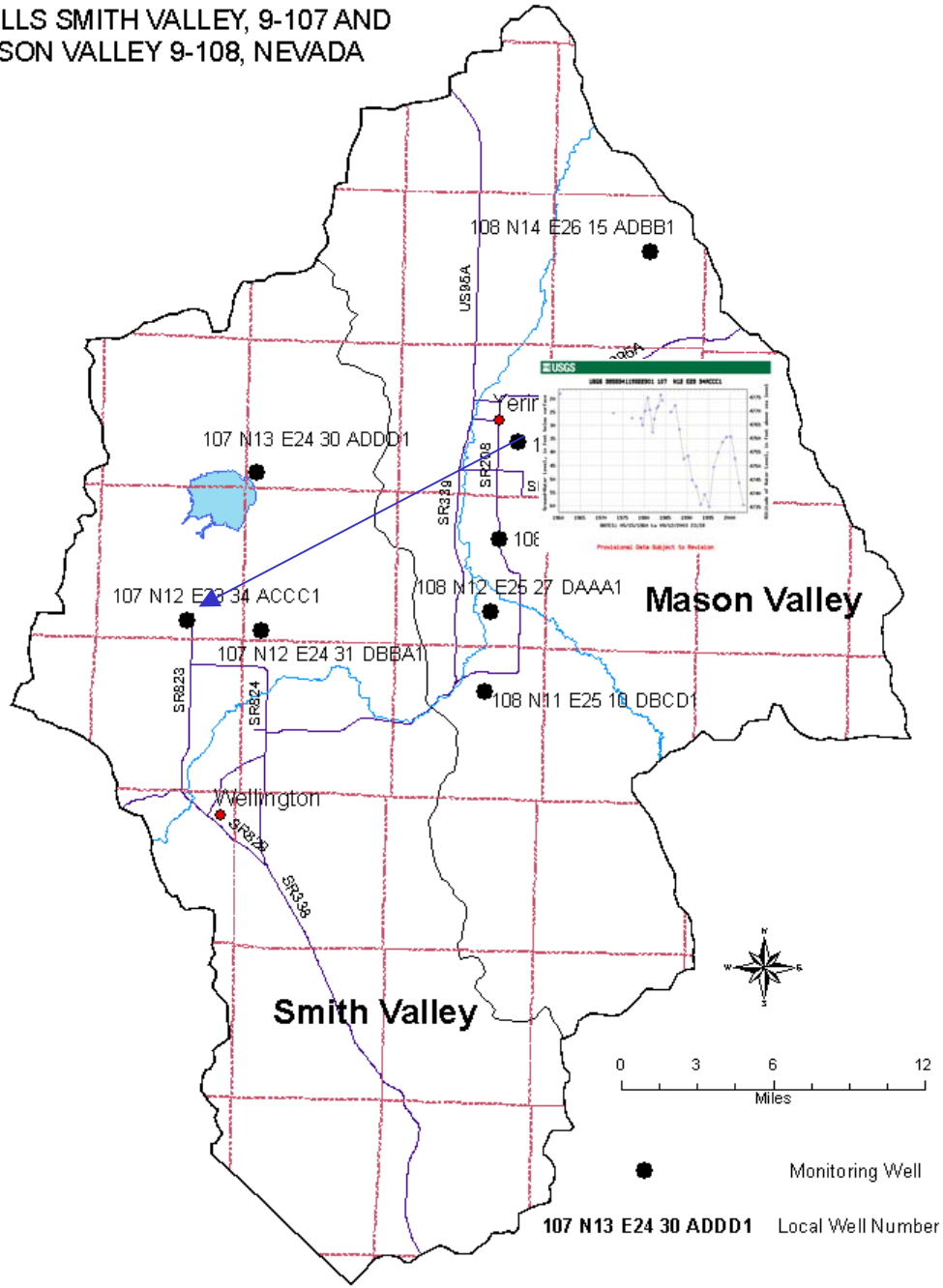
USGS

USGS 385741119194701 107 N13 E24 30ADDD1



Provisional Data Subject to Revision

LOCATION OF SELECTED MONITORING WELLS SMITH VALLEY, 9-107 AND MASON VALLEY 9-108, NEVADA



August 2005

USGS

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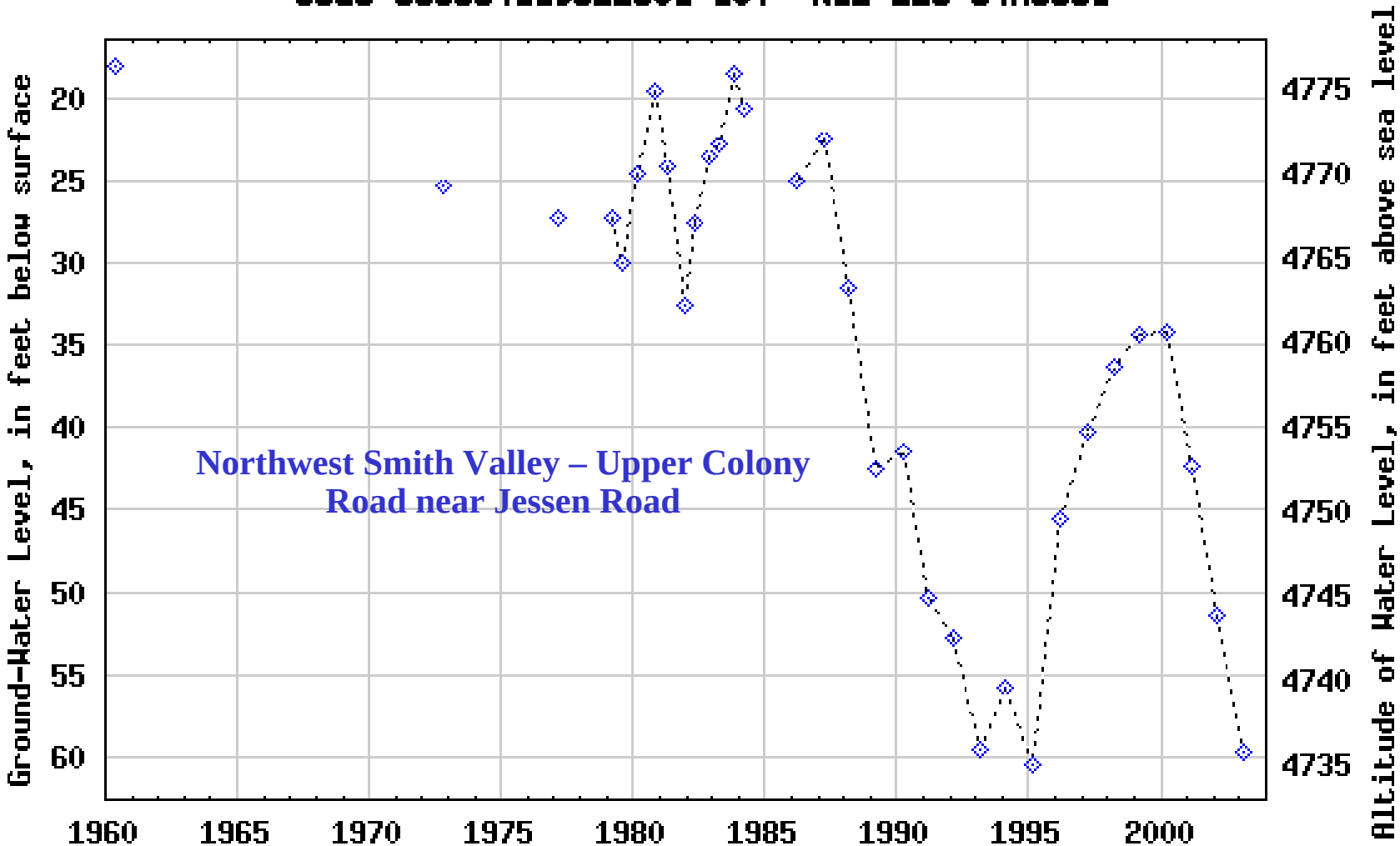
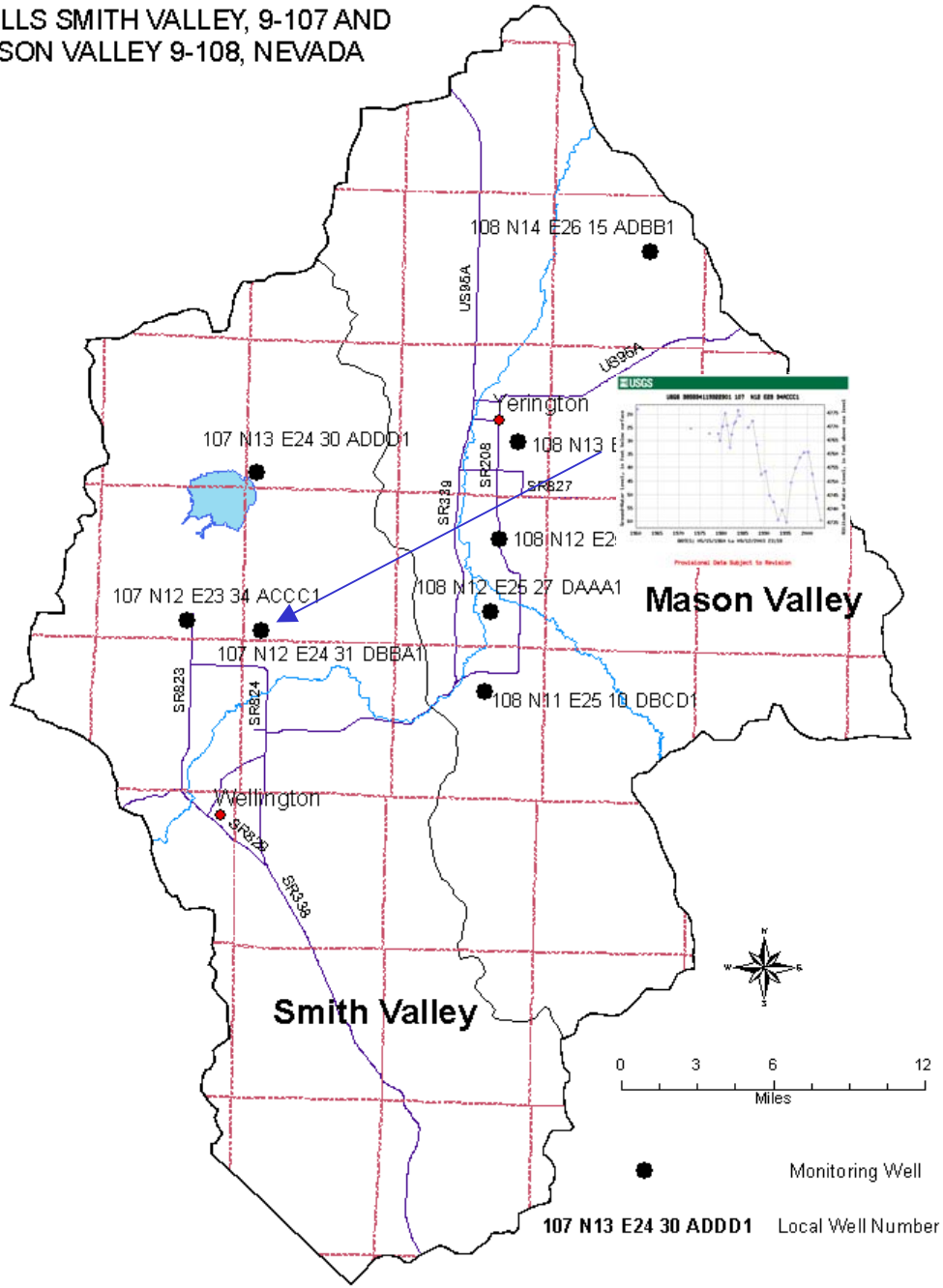


DATES: 05/15/1960 to 09/12/2003 23:59

Provisional Data Subject to Revision

LOCATION OF SELECTED MONITORING WELLS SMITH VALLEY, 9-107 AND MASON VALLEY 9-108, NEVADA



August 2005

USGS

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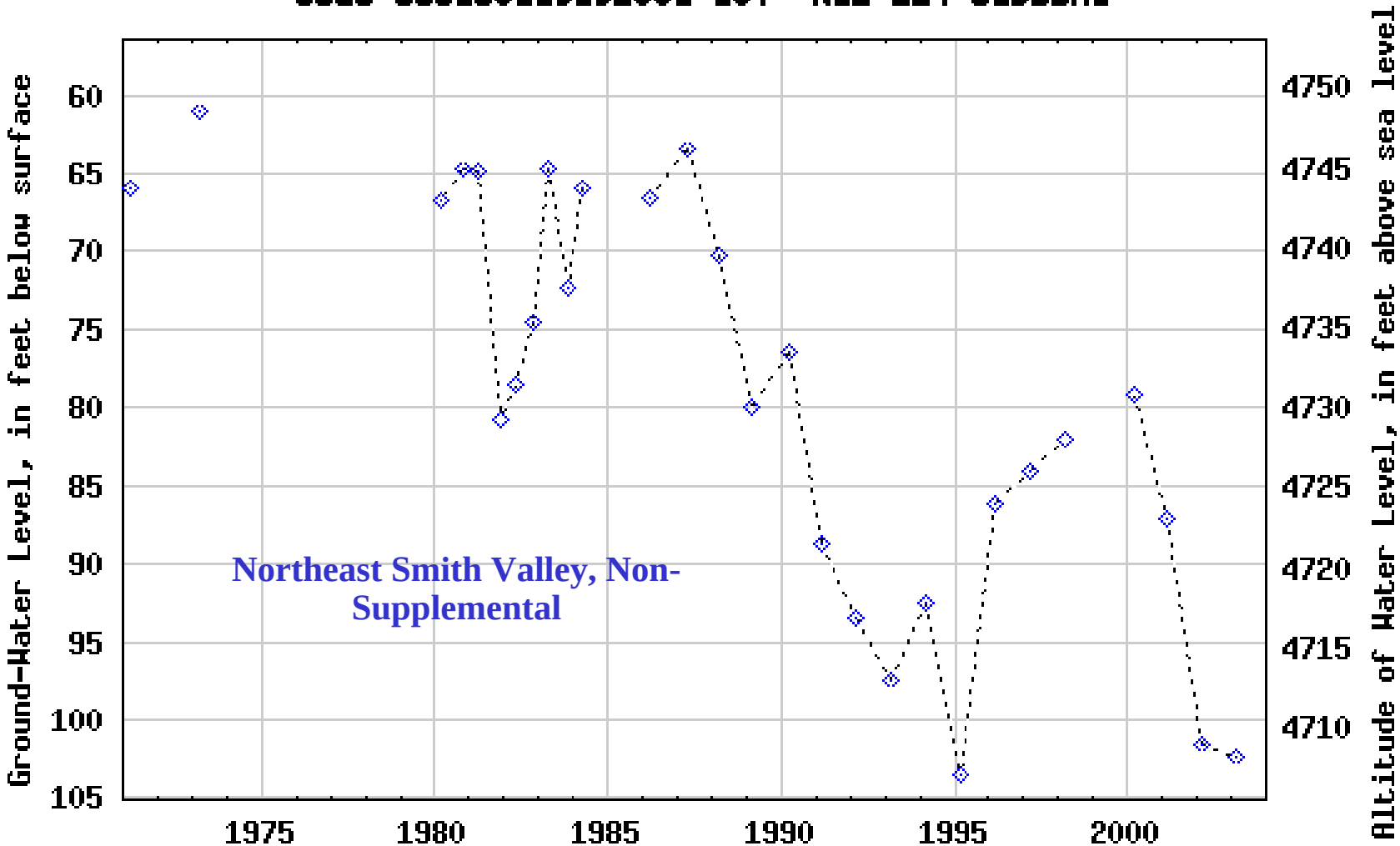
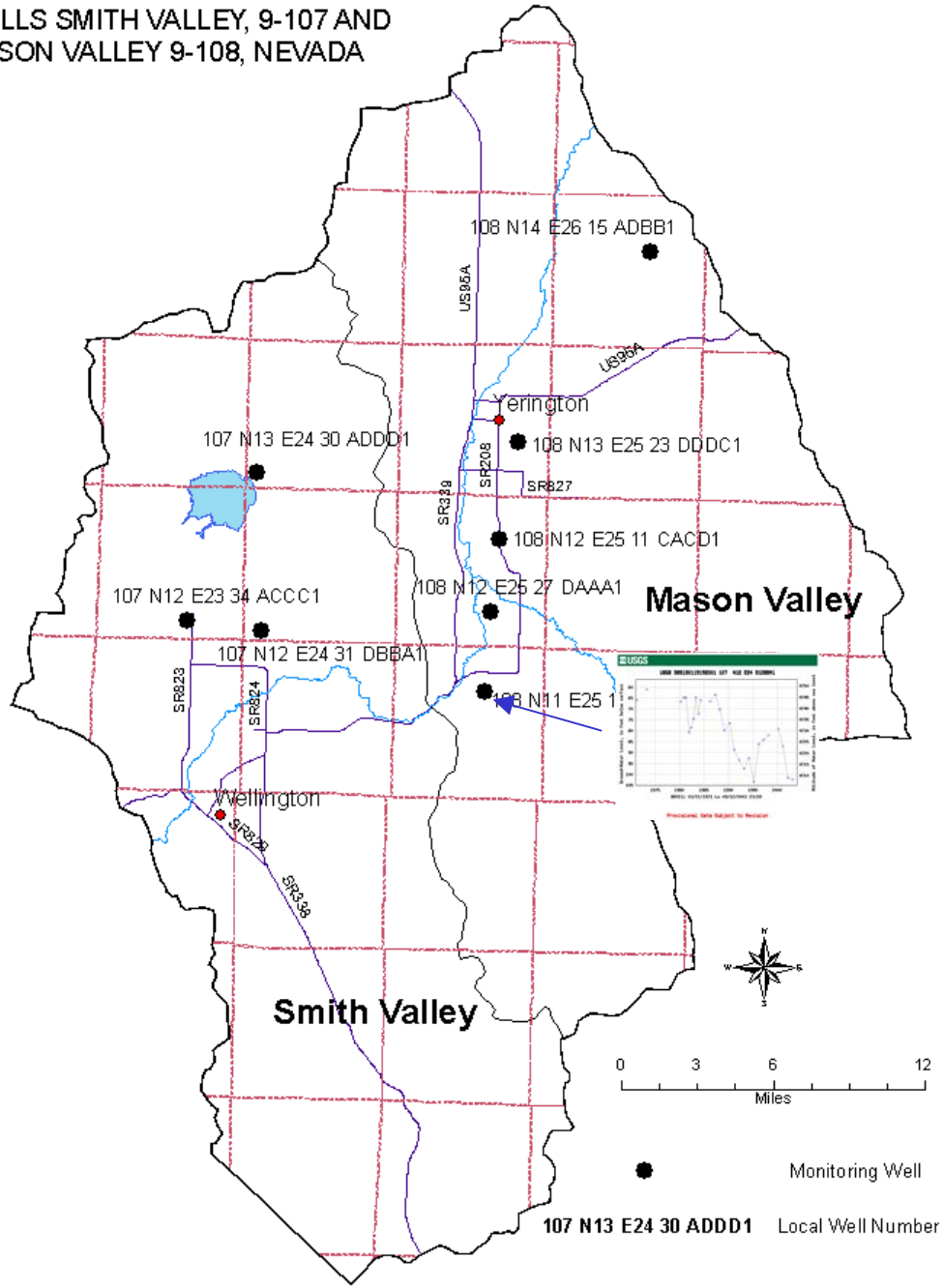


DATES: 03/21/1971 to 09/12/2003 23:59

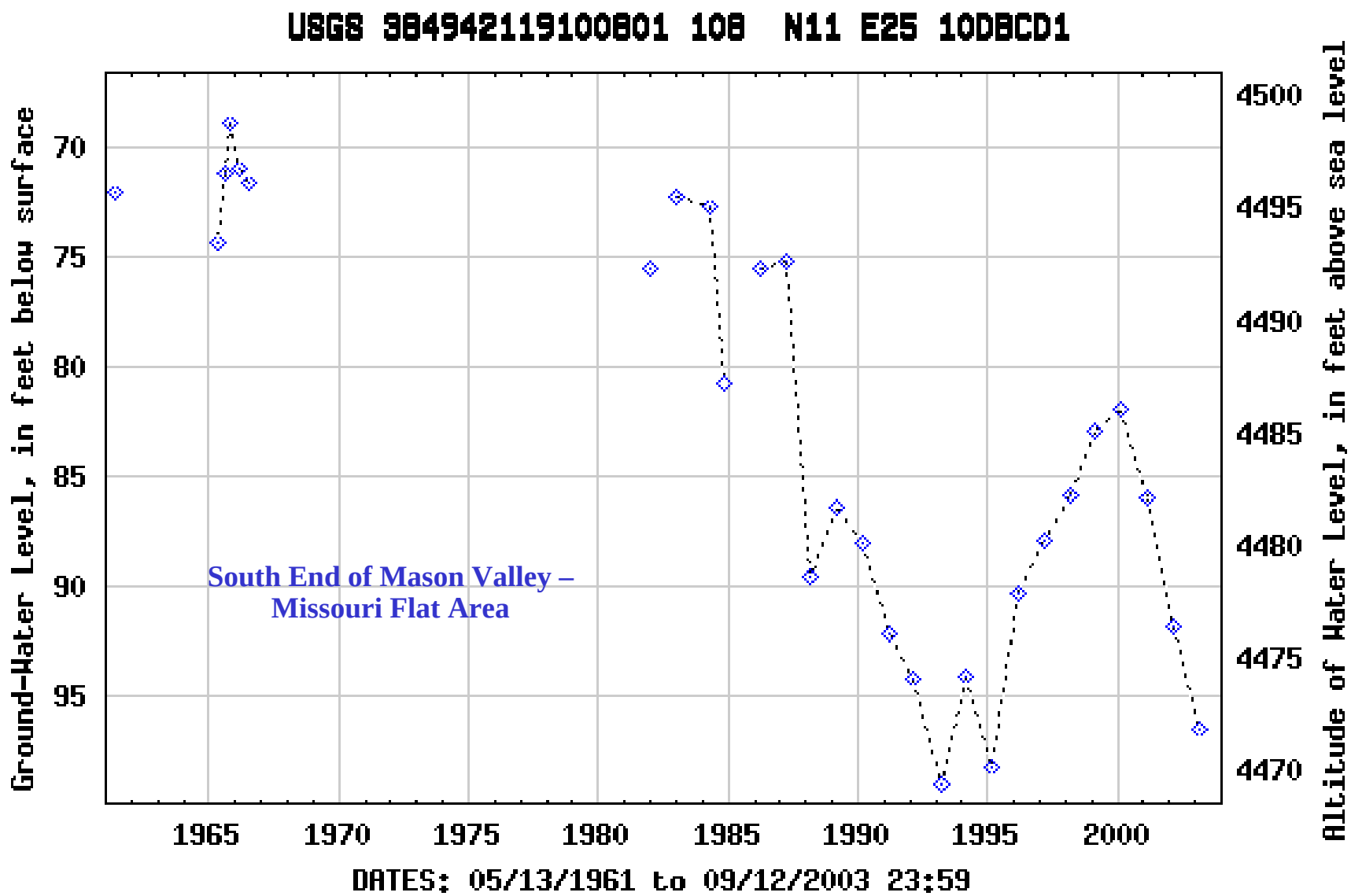
Provisional Data Subject to Revision

LOCATION OF SELECTED MONITORING WELLS SMITH VALLEY, 9-107 AND MASON VALLEY 9-108, NEVADA



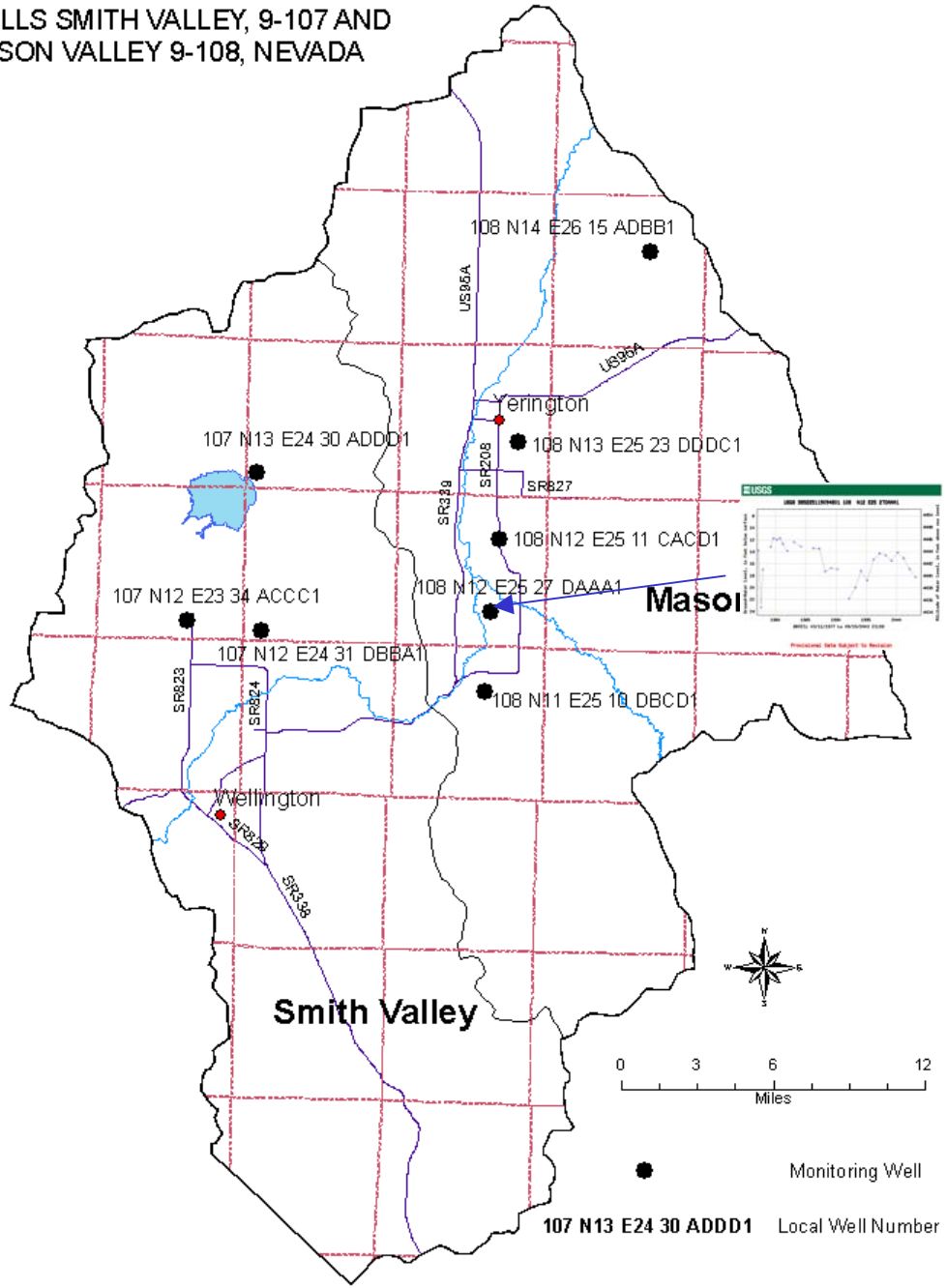
August 2005

USGS



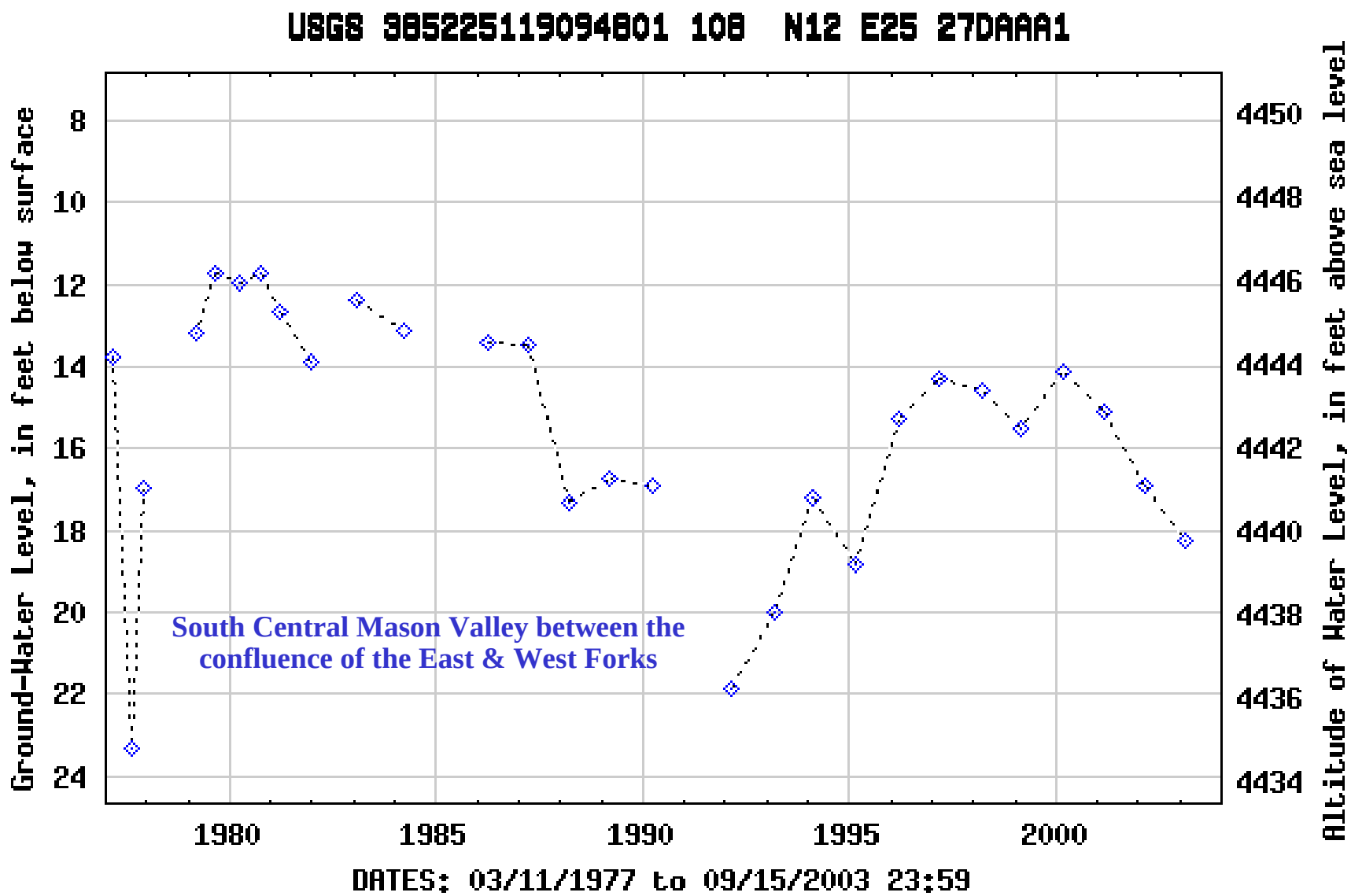
Provisional Data Subject to Revision

LOCATION OF SELECTED MONITORING WELLS SMITH VALLEY, 9-107 AND MASON VALLEY 9-108, NEVADA



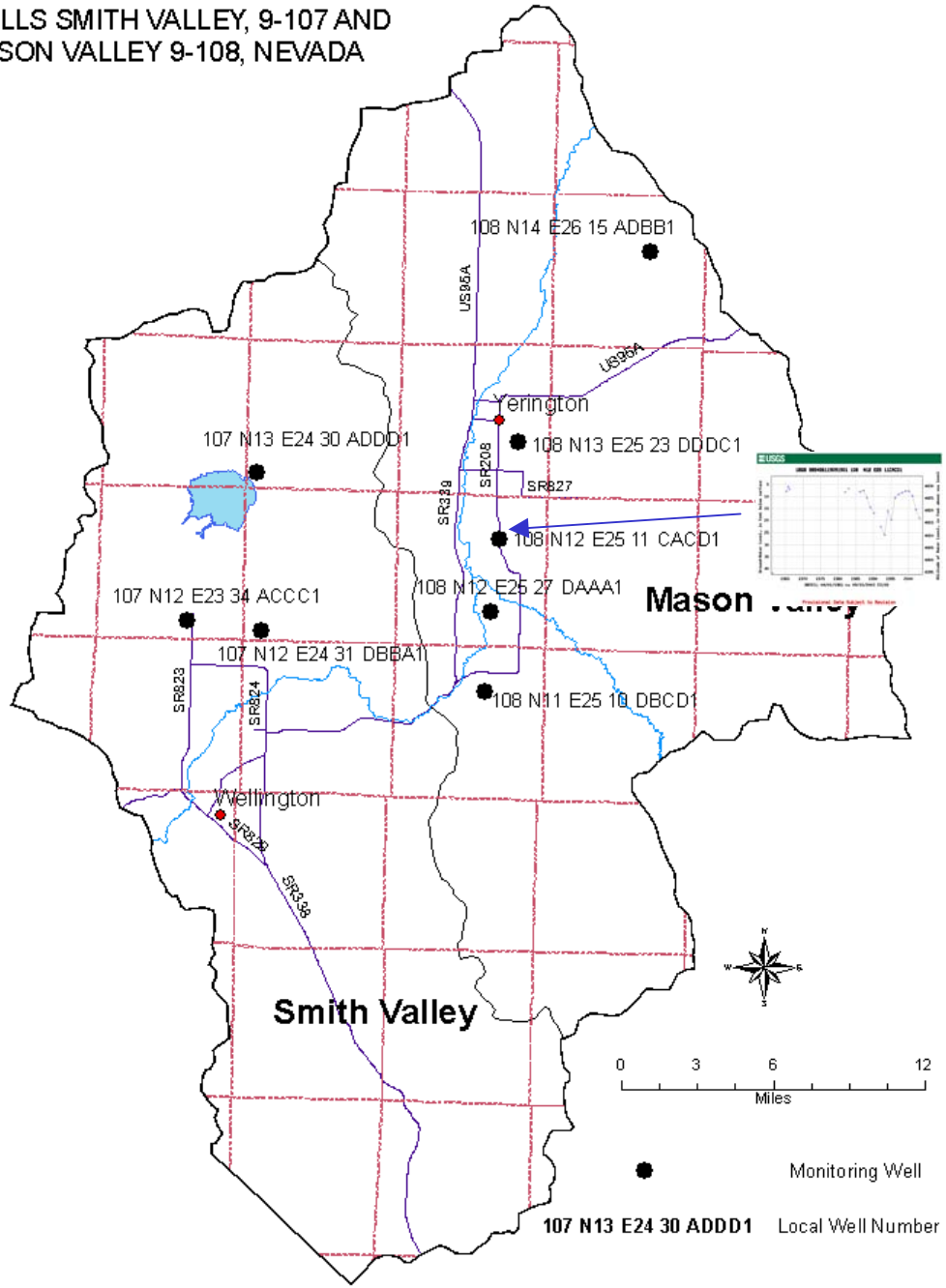
August 2005

USGS



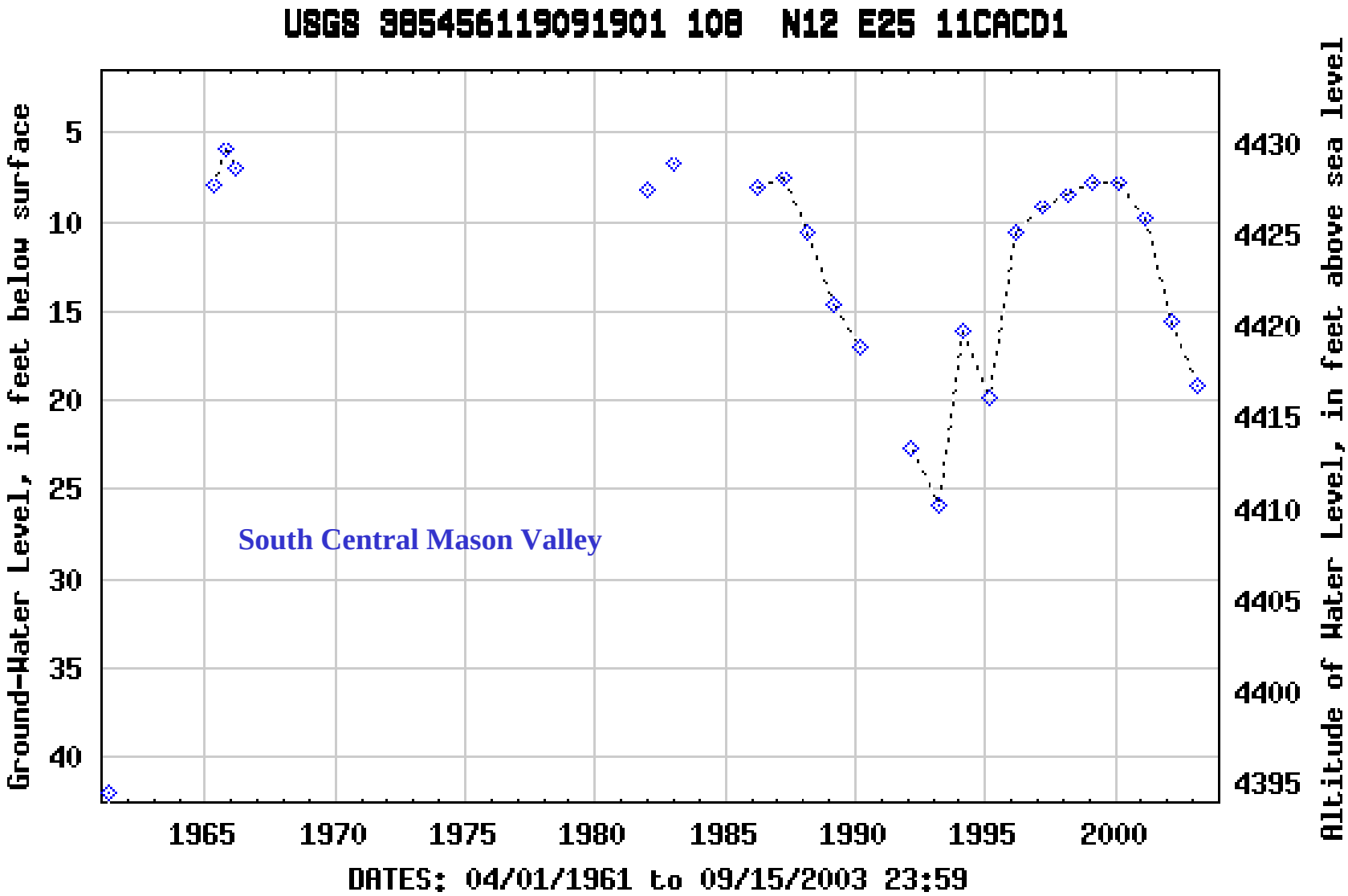
Provisional Data Subject to Revision

LOCATION OF SELECTED MONITORING WELLS SMITH VALLEY, 9-107 AND MASON VALLEY 9-108, NEVADA



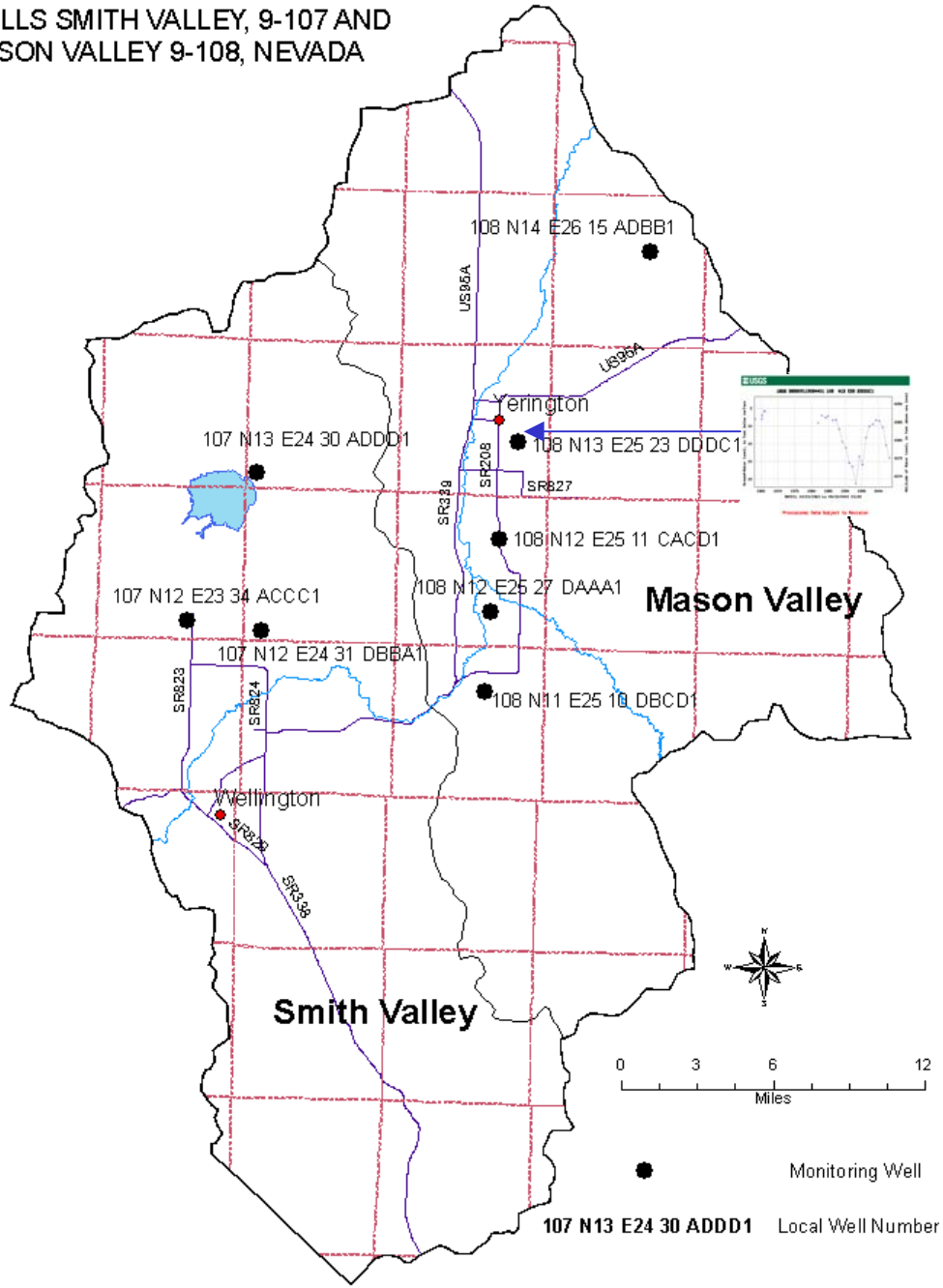
August 2005

USGS



Provisional Data Subject to Revision

LOCATION OF SELECTED MONITORING WELLS SMITH VALLEY, 9-107 AND MASON VALLEY 9-108, NEVADA



August 2005

USGS

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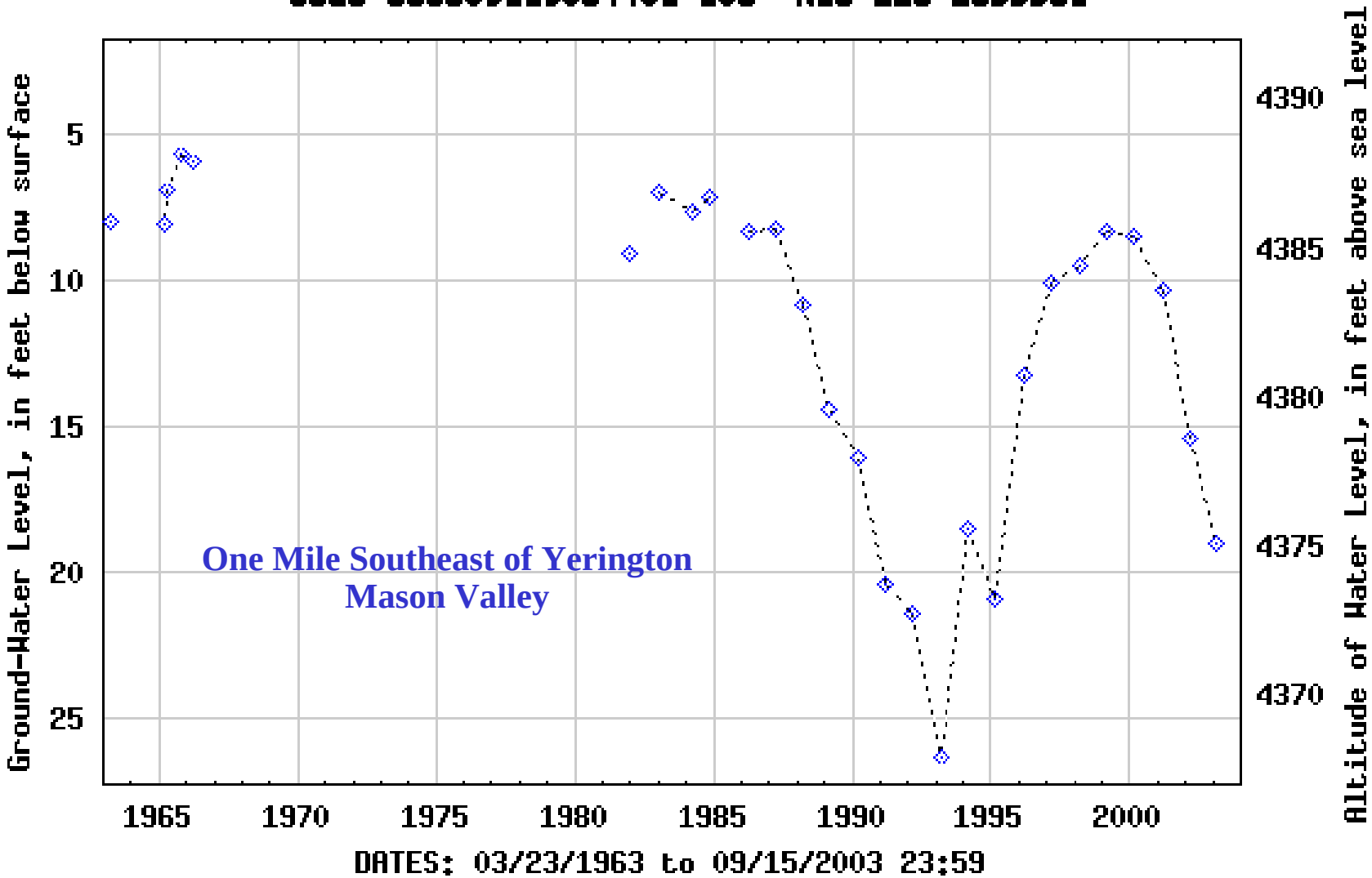
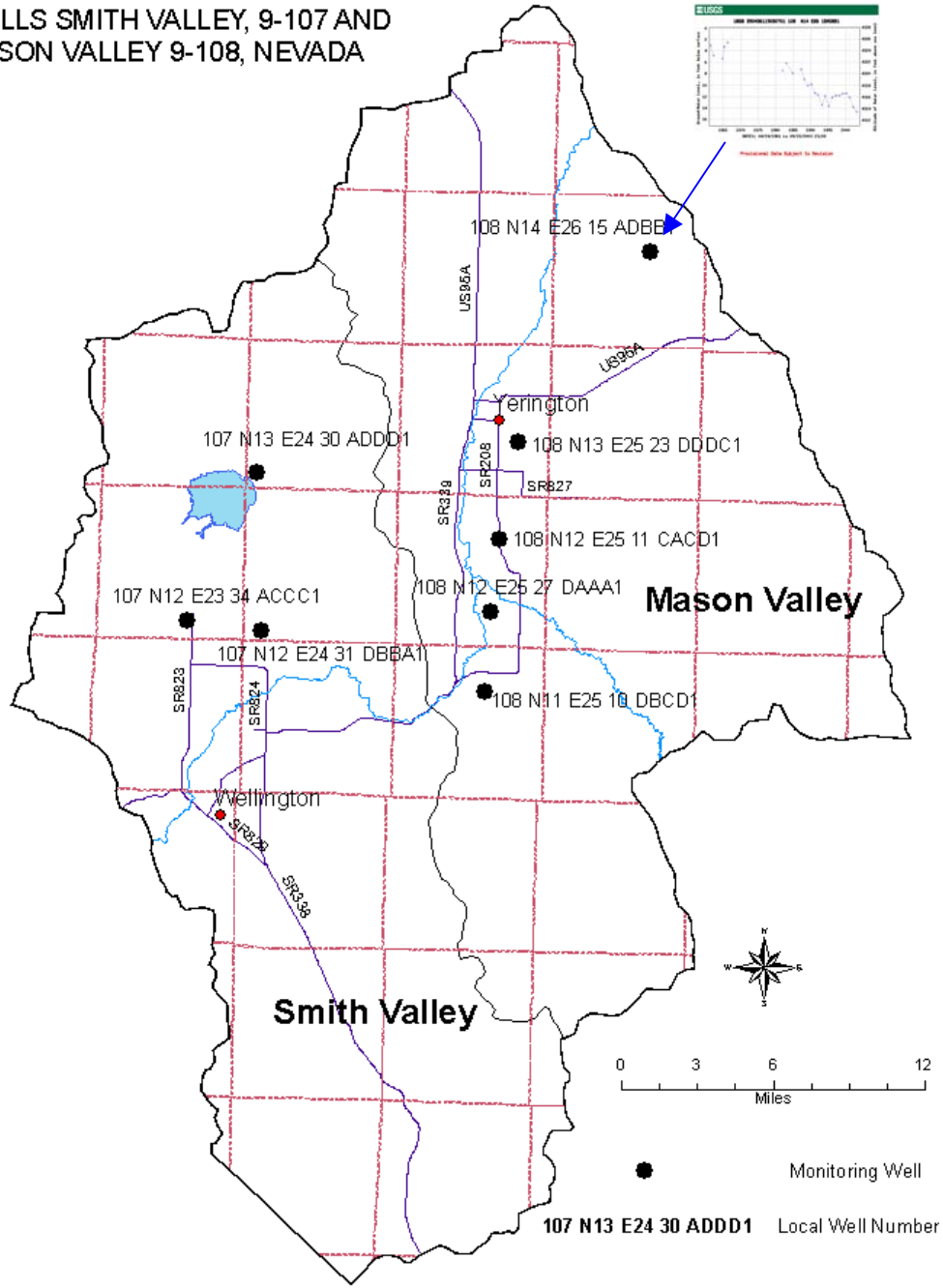


DATES: 03/23/1963 to 09/15/2003 23:59

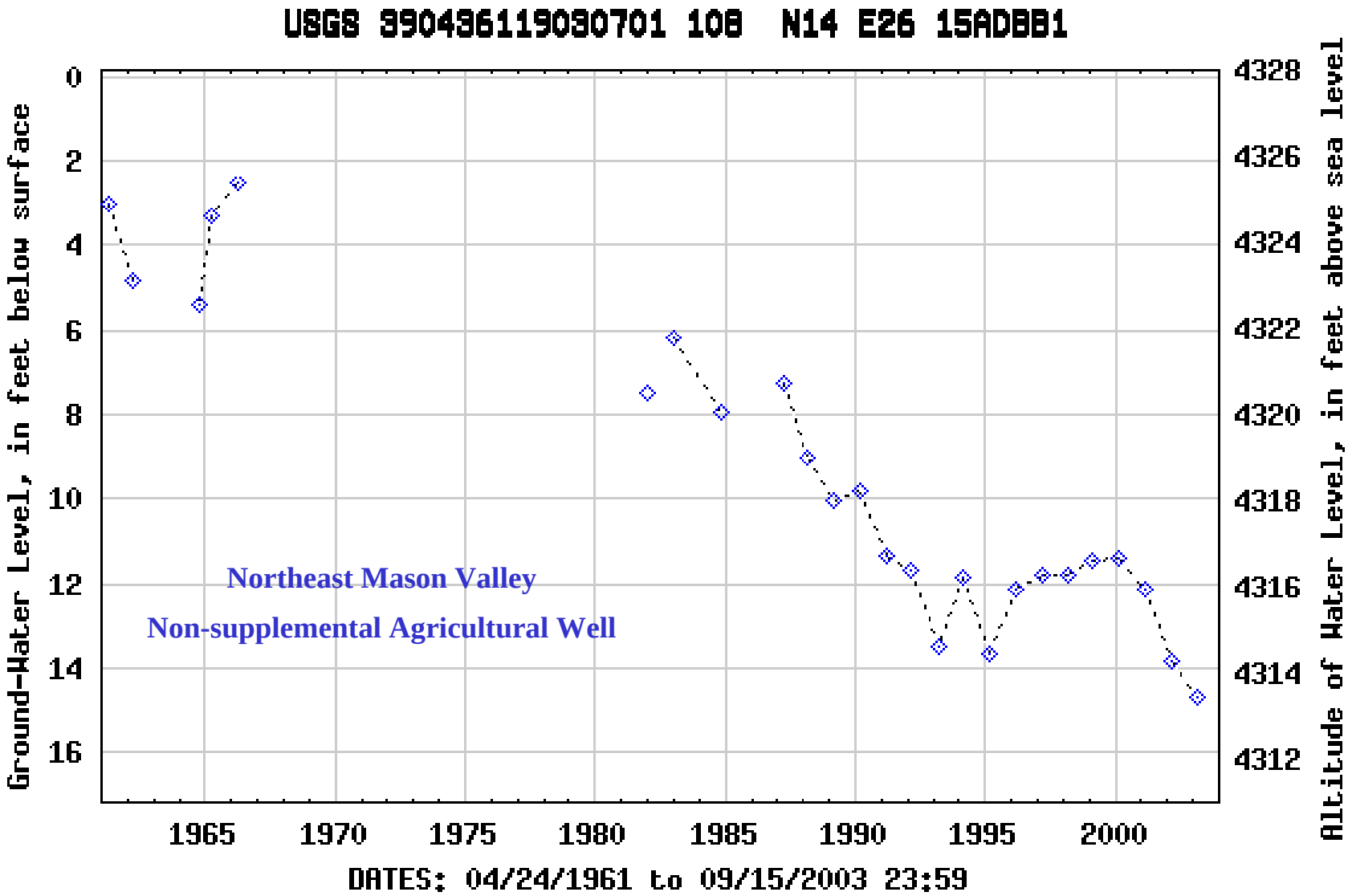
Provisional Data Subject to Revision

LOCATION OF SELECTED MONITORING WELLS SMITH VALLEY, 9-107 AND MASON VALLEY 9-108, NEVADA



August 2005

USGS



Provisional Data Subject to Revision

What are the options?

- Do nothing.
- Administer basins by priority date NRS 534.100 (6)

  "The State Engineer shall conduct investigations in any basin or portion thereof where it appears that the average annual replenishment to the ground water supply may not be adequate for the needs of all permittees and all vested-right claimants, and if his findings so indicate the State Engineer may order that withdrawals be restricted to conform with priority rights."
- Call for Proofs of Beneficial Use.

Tools

- Designate ground water basins
  - Preferred uses
  - Allows the State Engineer to impose additional conditions and restrictions on water use e.g. well depths, meters, sanitary seals
  - A water right permit is required to drill a well (other than domestic) in a designated basin.
- Forfeiture
- Grant changes of irrigation use for consumptive portion only.
- Permit Terms and S.E.'s Orders requiring meters on diversions.
- Substitutive uses in the case of mine dewatering.
- Exchange of treated effluent for potable water

Tools

- T-Finite Term
- Conjunctive Use through banking (TMWA)
- Recharge
- Request local water purveyors and governments to further restrict parceling and water dedication
- Monitor the Basins
  - Pumpage inventories
  - Groundwater level measurements
  - Public Input

What does administering the valley on a priority date basis mean?

In Dayton Valley, if groundwater pumping in the valley is limited to the annual yield of approximately 12,500 acre-feet, the annual duties of only 78 permits out of more than 240 could be satisfied.

Active Groundwater Appropriations by Priority Date
Dayton Valley, 08-103

			Non-Adjusted Cumulative Duty		Adjusted Cumulative Duty			
App	Status	MOU	Duty	Cumulative Duty	Units	Duty	Cumulative Duty	Priority Date
V03022	VST	IRR	1.32	1.32	AFA	1.32	1.32	1890-10-01
V02865	VST	IRR	20.00	21.32	AFA	20.00	21.32	1/1/1900
V03068	VST	MM	0.00	21.32		0.00	21.32	1/1/1900
8805	CER	IRR	448.82	470.14	AFS	448.82	470.14	1/2/1929
8909	CER	MM	48.52	518.66	AFA	48.52	518.66	5/22/1929
9979	CER	STK	6.75	525.41	AFS	6.75	525.41	4/8/1936
10537	CER	DOM	18.11	543.52	AFA	18.11	543.52	7/15/1940
10661	CER	MM	969.90	1513.41	AFA	969.90	1513.41	5/12/1941
11475	CER	STK	6.72	1520.13	AFA	6.72	1520.13	1/2/1946
12436	CER	IRR	80.00	1600.13	AFA	80.00	1600.13	5/7/1948
53285	PER	IRR	225.37	1825.50	AFA	225.37	1825.50	8/8/1949
55176	PER	IRR	243.14	2068.64	AFA	227.69	2053.19	8/8/1949
64784	PER	MUN	874.14	2942.78	AFA	874.14	2927.33	8/8/1949
63626	PER	MUN	564.28	3507.06	AFA	564.28	3491.61	6/5/1950
13577	CER	IRR	673.23	4180.29	AFS	673.23	4164.84	12/20/1950
13578	CER	IRR	469.45	4649.74	AFS	469.45	4634.29	12/20/1950
13579	CER	IRR	459.77	5109.51	AFS	459.77	5094.06	12/20/1950
68196	PER	MUN	350.87	5460.38	AFA	350.87	5444.93	12/20/1950
14427	CER	IRR	688.00	6148.38	AFS	688.00	6132.93	7/15/1952
21474	CER	IRR	41.04	6189.42	AFA	41.04	6173.97	8/12/1954
21475	CER	IRR	87.24	6276.66	AFA	87.24	6261.21	8/12/1954
32920	CER	IRR	17.08	6293.74	AFA	17.08	6278.29	8/12/1954
32921	CER	IRR	9.50	6303.24	AFA	9.50	6287.79	8/12/1954
50741	CER	IRR	9.50	6312.74	AFA	9.50	6297.29	8/12/1954
51080	CER	IND	8.56	6321.31	AFA	8.56	6305.86	8/12/1954
51096	CER	IND	18.47	6339.78	AFA	18.47	6324.33	8/12/1954
53239	PER	IRR	19.00	6358.78	AFA	19.00	6343.33	8/12/1954
62937	PER	MUN	403.24	6762.02	AFA	403.24	6746.57	8/12/1954
62938	CER	MUN	178.00	6940.02	AFA	178.00	6924.57	8/12/1954
66849	PER	QM	5.52	6945.54	AFA	5.52	6930.09	8/12/1954
68348	PER	IRR	1.00	6946.54	AFA	1.00	6931.09	8/12/1954
69039	PER	IND	16.76	6963.30	AFA	16.76	6947.85	8/12/1954
70040	PER	MUN	18.48	6981.78	AFA	18.48	6966.33	8/12/1954
70042	PER	MUN	50.00	7031.78	AFA	50.00	7016.33	8/12/1954
53287	PER	IRR	151.84	7183.62	AFA	0.00	7016.33	4/8/1955
53288	PER	IRR	119.28	7302.90	AFA	0.00	7016.33	4/8/1955
58801	CER	COM	15.99	7318.89	AFA	15.99	7032.32	4/8/1955
64782	PER	MUN	0.00	7318.89	AFA	0.00	7032.32	4/8/1955
64783	PER	MUN	396.96	7715.85	AFA	396.96	7429.28	4/8/1955
64785	PER	MUN	139.06	7854.91	NULL	139.06	7568.34	4/8/1955
23418	CER	IRR	649.68	8504.59	AFA	406.94	7975.28	7/14/1958
62776	PER	MUN	120.42	8625.01	AFA	120.42	8095.70	3/1/1960
19733	CER	QM	22.68	8647.69	AFA	22.68	8118.38	4/6/1961
63628	PER	MUN	902.40	9550.09	AFA	902.40	9020.78	6/5/1961
19961	CER	STK	5.62	9555.70	AFA	5.62	9026.39	6/28/1961
68198	PER	MUN	489.20	10044.90	AFA	489.20	9515.59	11/29/1962

Active Groundwater Appropriations by Priority Date
Dayton Valley, 08-103

			Non-Adjusted Cumulative Duty		Adjusted Cumulative Duty			
App	Status	MOU	Duty	Cumulative Duty	Units	Duty	Cumulative Duty	Priority Date
20928	CER	IRD	240.00	10284.90	AFA	240.00	9755.59	1/8/1963
22044	CER	STK	2.24	10287.14	AFA	2.24	9757.83	6/15/1964
22516	CER	COM	1.68	10288.83	AFA	1.68	9759.52	3/29/1965
23685	CER	IRR	957.52	11246.35	AFS	957.52	10717.04	2/9/1967
24646	CER	IRR	5.24	11251.59	AFA	5.24	10722.28	8/21/1968
67883	PER	IND	10.00	11261.59	AFA	10.00	10732.28	8/21/1968
68191	PER	QM	55.76	11317.35	AFA	55.76	10788.04	8/21/1968
68708	PER	QM	129.00	11446.35	AFA	129.00	10917.04	8/21/1968
24780	CER	QM	7.76	11454.10	AFA	0.00	10917.04	11/27/1968
28586	CER	IRR	12.00	11466.10	AFA	12.00	10929.04	11/27/1968
25494	CER	IRR	56.06	11522.16	AFA	22.33	10951.37	3/11/1970
50544	CER	IRR	0.96	11523.12	AFA	0.96	10952.33	3/11/1970
51079	CER	IND	6.20	11529.32	AFA	6.20	10958.53	3/11/1970
51097	CER	IND	19.43	11548.75	AFA	19.43	10977.95	3/11/1970
69040	PER	IND	17.62	11566.37	AFA	17.62	10995.57	3/11/1970
70041	PER	MUN	19.44	11585.81	AFA	19.44	11015.01	3/11/1970
25503	CER	IRR	12.16	11597.97	AFA	12.16	11027.17	3/20/1970
27133	CER	IRR	9.20	11607.17	AFA	9.20	11036.37	5/28/1970
62517	PER	QM	425.99	12033.16	AFA	425.99	11462.37	5/28/1970
62518	PER	QM	412.28	12445.44	AFA	225.29	11687.66	5/28/1970
68190	PER	QM	57.08	12502.52	AFA	0.00	11687.66	5/28/1970
50295	CER	COM	1.72	12504.24	AFA	1.72	11689.38	7/17/1970
56693	PER	QM	1.90	12506.14	AFA	1.90	11691.28	7/17/1970
25791	CER	MUN	7.24	12513.39	AFA	7.24	11698.52	9/15/1970
29622	CER	IRR	9.92	12523.31	AFA	9.92	11708.44	10/5/1970
61078	PER	QM	140.00	12663.31	AFA	0.00	11708.44	10/5/1970
62869	PER	QM	29.92	12693.23	AFA	0.00	11708.44	10/5/1970
39076	PER	QM	39.22	12732.45	AFA	39.22	11747.66	10/16/1970
40500	PER	QM	39.19	12771.64	AFA	39.19	11786.85	10/16/1970
62323	PER	QM	80.00	12851.64	AFA	80.00	11866.85	10/16/1970
25965	CER	COM	0.80	12852.44	AFA	0.80	11867.65	2/12/1971
29964	CER	IRR	571.20	13423.64	AFS	571.20	12438.85	2/12/1971
30833	CER	IRR	452.32	13875.96	AFS	452.32	12891.17	2/12/1971
61465	PER	QM	1.68	13877.64	AFA	1.68	12892.85	2/12/1971
58933	CER	MUN	56.36	13934.00	AFA	56.36	12949.21	3/29/1971
30224	CER	IRR	271.16	14205.16	AFA	271.16	13220.37	4/21/1971
26110	CER	IRR	82.45	14287.61	AFA	82.45	13302.82	5/6/1971
65202	PER	QM	6.72	14294.33	AFA	6.72	13309.54	5/6/1971
69060	PER	QM	4.48	14298.81	AFA	4.48	13314.02	5/6/1971
71379	PER	MUN	6.25	14305.06	AFA	6.25	13320.27	5/6/1971
71688	PER	MUN	5.38	14310.43	AFA	5.38	13325.64	5/6/1971
64128	PER	MUN	191.68	14502.12	AFA	191.68	13517.33	7/27/1971
69243	PER	MUN	122.54	14624.66	AFA	122.54	13639.87	7/27/1971
69244	PER	MUN	122.54	14747.20	AFA	122.54	13762.41	7/27/1971
69245	PER	MUN	499.61	15246.81	AFA	499.61	14262.02	7/27/1971
26498	CER	IRR	65.66	15312.47	AFA	65.66	14327.68	1/20/1972
48489	PER	IRR	36.00	15348.47	AFA	36.00	14363.68	1/20/1972
68737	PER	QM	186.00	15534.47	AFA	186.00	14549.68	1/20/1972

Active Groundwater Appropriations by Priority Date
Dayton Valley, 08-103

			Non-Adjusted Cumulative Duty		Adjusted Cumulative Duty			
App	Status	MOU	Duty	Cumulative Duty	Units	Duty	Cumulative Duty	Priority Date
56450	CER	QM	93.88	15628.34	AFA	0.00	14549.68	2/16/1972
58067	PER	QM	312.91	15941.25	AFA	0.00	14549.68	2/16/1972
63643	PER	QM	448.58	16389.83	AFA	0.00	14549.68	2/16/1972
68189	PER	QM	24.57	16414.40	AFA	0.00	14549.68	2/16/1972
68192	PER	QM	20.79	16435.19	AFA	0.00	14549.68	2/16/1972
31042	CER	IRR	361.99	16797.18	AFA	361.99	14911.67	4/10/1972
44397	CER	IRR	15.86	16813.04	AFA	15.86	14927.53	4/10/1972
58802	CER	COM	46.03	16859.07	AFA	46.03	14973.56	4/10/1972
59779	PER	QM	6.06	16865.13	AFA	6.06	14979.62	4/10/1972
64957	PER	MUN	1.00	16866.13	AFA	1.00	14980.62	4/10/1972
65479	PER	QM	8.00	16874.13	AFA	8.00	14988.62	4/10/1972
69718	PER	QM	31.92	16906.05	AFA	31.92	15020.54	4/10/1972
70846	PER	MUN	45.03	16951.08	AFA	45.03	15065.57	4/10/1972
71857	PER	QM	1.25	16952.33	AFA	1.25	15066.82	4/10/1972
27817	CER	IRR	613.76	17566.09	AFA	357.85	15424.67	4/20/1972
31040	CER	IRR	89.52	17655.61	AFA	89.52	15514.19	4/20/1972
31041	CER	IRR	80.00	17735.61	AFA	80.00	15594.19	4/20/1972
42898	CER	IRR	12.00	17747.61	AFA	12.00	15606.19	4/20/1972
50249	CER	IRR	12.00	17759.61	AFA	12.00	15618.19	4/20/1972
50250	CER	IRR	12.00	17771.61	AFA	12.00	15630.19	4/20/1972
50697	CER	IRR	6.34	17777.95	AFA	6.34	15636.53	4/20/1972
57792	CER	IRR	3.56	17781.51	AFA	3.56	15640.09	4/20/1972
57841	PER	QM	12.00	17793.51	AFA	0.00	15640.09	4/20/1972
58132	PER	COM	12.00	17805.51	AFA	12.00	15652.09	4/20/1972
59297	CER	IRR	9.98	17815.49	AFA	9.98	15662.07	4/20/1972
61572	PER	IRR	639.84	18455.33	AFA	0.00	15662.07	4/20/1972
68156	PER	QM	20.00	18475.33	AFA	20.00	15682.07	4/20/1972
70116	PER	IRR	2.02	18477.35	AFA	2.02	15684.09	4/20/1972
70312	PER	QM	5.99	18483.34	AFA	5.99	15690.08	4/20/1972
26699	CER	IRR	1.46	18484.80	AFA	1.46	15691.54	5/2/1972
26729	CER	IRR	613.52	19098.32	AFA	0.00	15691.54	5/17/1972
53595	CER	IRR	47.20	19145.52	AFA	46.24	15737.78	5/17/1972
62133	CER	IRR	18.40	19163.92	AFA	18.40	15756.18	5/17/1972
69041	PER	IND	30.88	19194.80	AFA	30.88	15787.06	5/17/1972
67879	PER	IRR	16.00	19210.80	AFA	16.00	15803.06	5/26/1972
46385	PER	QM	72.40	19283.20	AFA	72.40	15875.46	6/1/1972
52704	PER	QM	470.55	19753.75	AFA	470.55	16346.01	6/1/1972
26788	CER	IRR	157.60	19911.35	AFA	157.60	16503.61	6/22/1972
26832	CER	IRR	36.00	19947.35	AFA	36.00	16539.61	7/11/1972
35971	CER	IRR	1600.00	21547.35	AFA	1152.77	17692.38	7/11/1972
27922	CER	IRR	28.00	21575.35	AFA	28.00	17720.38	7/14/1972
28974	CER	IRR	3.00	21578.35	AFA	3.00	17723.38	7/14/1972
30793	CER	IRR	7.72	21586.07	AFA	7.72	17731.10	7/14/1972
30794	CER	IRR	2.24	21588.31	AFA	2.24	17733.34	7/14/1972
30795	CER	IRR	3.48	21591.79	AFA	1.24	17734.58	7/14/1972
61066	CER	QM	36.20	21627.99	AFA	36.20	17770.78	7/14/1972
61067	CER	QM	39.20	21667.19	AFA	39.20	17809.98	7/14/1972
68155	PER	QM	10.00	21677.19	AFA	10.00	17819.98	7/14/1972
33871	PER	MUN	810.86	22488.05	AFA	810.86	18630.84	7/18/1972
26909	CER	IRR	16.00	22504.05	AFA	16.00	18646.84	8/24/1972
65128	PER	QM	164.66	22668.71	AFA	164.66	18811.50	8/24/1972
65129	PER	QM	164.66	22833.37	AFA	164.66	18976.16	8/24/1972

Active Groundwater Appropriations by Priority Date
Dayton Valley, 08-103

			Non-Adjusted Cumulative Duty		Adjusted Cumulative Duty			
App	Status	MOU	Duty	Cumulative Duty	Units	Duty	Cumulative Duty	Priority Date
65130	PER	QM	329.32	23162.69	AFA	228.51	19204.67	8/24/1972
65131	PER	QM	62.85	23225.54	AFA	0.00	19204.67	8/24/1972
65132	PER	QM	228.51	23454.05	AFA	0.00	19204.67	8/24/1972
65133	PER	QM	39.74	23493.79	AFA	0.00	19204.67	8/24/1972
26996	CER	COM	0.71	23494.50	AFA	0.71	19205.38	9/19/1972
39806	CER	IND	18.20	23512.70	AFA	18.20	19223.58	9/21/1972
27069	CER	IRR	18.17	23530.87	AFA	18.17	19241.75	10/13/1972
71475T	PER	CON	25.00	23555.87	AFA	25.00	19266.75	11/6/1972
71476	PER	QM	32.87	23588.74	AFA	32.87	19299.62	11/6/1972
71477	PER	QM	390.19	23978.93	AFA	390.19	19689.81	11/6/1972
31231	CER	IRR	19.80	23998.73	AFA	19.80	19709.61	11/27/1972
56593	CER	QM	132.58	24131.30	AFA	132.58	19842.19	12/5/1972
27199	PER	QM	79.64	24210.94	AFA	79.64	19921.82	12/26/1972
46384	PER	QM	72.43	24283.37	AFA	72.43	19994.25	12/26/1972
48630	PER	QM	14.42	24297.79	AFA	14.42	20008.67	12/26/1972
48631	PER	QM	159.28	24457.07	AFA	159.28	20167.95	12/26/1972
49493	PER	QM	79.61	24536.68	AFA	79.61	20247.56	12/26/1972
50653	PER	QM	752.95	25289.63	AFA	291.63	20539.19	12/26/1972
51073	PER	QM	144.79	25434.42	AFA	0.00	20539.19	12/26/1972
52703	PER	QM	70.22	25504.64	AFA	0.00	20539.19	12/26/1972
54180	PER	QM	9.42	25514.06	AFA	0.00	20539.19	12/26/1972
56775	PER	QM	65.18	25579.24	AFA	0.00	20539.19	12/26/1972
58932	PER	MUN	224.03	25803.27	AFA	224.03	20763.22	12/26/1972
27329	CER	QM	6.11	25809.38	AFA	6.11	20769.32	3/16/1973
27330	CER	QM	7.89	25817.27	AFA	7.89	20777.21	3/16/1973
27386	CER	COM	0.46	25817.73	AFA	0.46	20777.67	4/2/1973
27515	CER	QM	1.68	25819.41	AFA	0.00	20777.67	5/31/1973
27928	CER	IND	1.07	25820.48	AFA	1.07	20778.74	11/30/1973
49486	CER	MUN	72.40	25892.88	AFA	72.40	20851.14	4/5/1974
51072	PER	QM	16.79	25909.66	AFA	0.00	20851.14	7/5/1974
30276	CER	QM	1.07	25910.74	AFA	1.07	20852.21	5/24/1976
62939	PER	MUN	361.98	26272.72	AFA	361.98	21214.19	1/25/1977
53738	PER	QM	34.77	26307.49	AFA	0.00	21214.19	4/13/1977
34682	CER	COM	0.61	26308.10	AFA	0.61	21214.81	12/2/1977
35503	CER	MM	48.34	26356.44	AFA	48.34	21263.14	6/5/1978
46828	CER	MM	36.92	26393.36	AFA	36.92	21300.06	9/28/1978
46383	PER	QM	8.99	26402.35	AFA	0.00	21300.06	1/22/1979
36699	CER	COM	2.64	26404.99	AFA	2.64	21302.70	2/12/1979
38361	CER	QM	0.40	26405.39	AFA	0.40	21303.10	6/18/1979
39844	CER	MM	15.34	26420.73	AFA	15.34	21318.44	11/29/1979
49483	PER	MUN	651.59	27072.32	AFA	123.25	21441.69	12/5/1979
50361	PER	QM	1520.33	28592.65	AFA	0.00	21441.69	12/5/1979
48618	PER	MUN	318.00	28910.65	AFA	318.00	21759.69	1/4/1980
49571	PER	MUN	318.30	29228.95	AFA	318.30	22077.99	1/4/1980
63450	PER	MUN	361.70	29590.65	AFA	361.70	22439.69	1/4/1980
40923	CER	QM	1.78	29592.43	AFA	1.78	22441.47	3/18/1980
40947	CER	QM	1.01	29593.45	AFA	1.01	22442.49	3/24/1980
41339	CER	COM	2.36	29595.81	AFA	2.36	22444.85	5/14/1980
42983	CER	COM	0.03	29595.84	AFA	0.03	22444.88	12/19/1980
43065	PER	MM	159.58	29755.42	AFA	144.24	22589.12	1/8/1981
43401	PER	MUN	750.00	30505.42	AFA	750.00	23339.12	3/26/1981
64799	PER	MUN	250.00	30755.42	AFA	250.00	23589.12	3/26/1981

Active Groundwater Appropriations by Priority Date
Dayton Valley, 08-103

			Non-Adjusted Cumulative Duty		Adjusted Cumulative Duty			
App	Status	MOU	Duty	Cumulative Duty	Units	Duty	Cumulative Duty	Priority Date
44079	CER	COM	0.77	30756.19	AFA	0.77	23589.89	6/29/1981
52898	CER	IND	76.17	30832.36	AFA	76.17	23666.06	7/9/1982
52899	CER	IND	82.52	30914.88	AFA	82.52	23748.58	7/9/1982
46625	PER	QM	651.56	31566.44	AFA	0.00	23748.58	3/17/1983
49911	PER	QM	72.43	31638.87	AFA	0.00	23748.58	3/17/1983
49912	PER	QM	86.88	31725.75	AFA	0.00	23748.58	3/17/1983
61401	PER	QM	564.83	32290.58	AFA	0.00	23748.58	3/17/1983
62077	PER	MUN	434.25	32724.83	AFA	0.00	23748.58	3/17/1983
62940	PER	MUN	93.51	32818.34	AFA	0.00	23748.58	3/17/1983
70693	PER	MUN	630.44	33448.78	AFA	0.00	23748.58	3/17/1983
47525	CER	MM	33.04	33481.81	AFA	33.04	23781.62	12/20/1983
47526	CER	MM	51.37	33533.19	AFA	51.37	23832.99	12/20/1983
49302	CER	QM	0.55	33533.74	AFA	0.55	23833.54	8/27/1985
58934	PER	MUN	224.03	33757.77	AFA	0.00	23833.54	10/29/1985
63630	PER	MUN	904.04	34661.81	AFA	0.00	23833.54	8/12/1988
63632	PER	MUN	513.60	35175.41	AFA	0.00	23833.54	8/12/1988
66050	PER	IND	100.02	35275.42	AFA	58.55	23892.09	8/12/1988
66427	PER	MUN	300.00	35575.42	AFA	0.00	23892.09	8/12/1988
67998	PER	COM	4.00	35579.42	AFA	4.00	23896.09	8/12/1988
68197	PER	MUN	162.38	35741.80	AFA	0.00	23896.09	8/12/1988
65376	PER	MUN	5.04	35746.85	AFA	0.00	23896.09	9/16/1988
58931	CER	QM	12.00	35758.85	AFA	0.00	23896.09	6/26/1989
44396	PER	IRR	1.94	35760.79	AFA	1.94	23898.03	7/3/1989
53725	CER	COM	1.14	35761.92	AFA	1.14	23899.17	7/31/1989
54095	CER	COM	0.52	35762.44	AFA	0.52	23899.69	10/18/1989
61209	CER	COM	0.40	35762.84	AFA	0.40	23900.09	10/18/1989
68172	PER	MM	20.00	35782.84	AFA	20.00	23920.09	11/19/1990
56377	CER	REC	0.55	35783.40	AFA	0.55	23920.64	5/28/1991
56917	CER	STK	3.38	35786.77	AFA	3.38	23924.02	11/13/1991
61155	PER	STK	5.62	35792.39	AFA	5.62	23929.63	11/13/1991
50124	CER	MM	38.45	35830.84	AFA	38.45	23968.09	12/13/1993
63633	PER	MUN	513.60	36344.44	AFA	0.00	23968.09	4/18/1995
50294	CER	COM	0.31	36344.75	AFA	0.31	23968.39	5/10/1995
47102	PER	MM	120.95	36465.69	AFA	120.95	24089.34	2/21/1996
42189	CER	COM	0.64	36466.34	AFA	0.64	24089.98	3/29/1996
62112	PER	IND	450.79	36917.13	AFA	450.79	24540.77	9/17/1999
66064	PER	COM	2.02	36919.15	AFA	2.02	24542.79	2/11/2000
67878	PER	COM	2.02	36921.16	AFA	2.02	24544.81	8/2/2001
68347	PER	COM	1.90	36923.07	AFA	1.90	24546.71	1/8/2002
68682	PER	STK	0.56	36923.63	AFA	0.56	24547.27	4/4/2002
70022	PER	COM	2.02	36925.65	AFA	2.02	24549.29	5/14/2003
71355	PER	COM	2.02	36927.67	AFA	2.02	24551.31	6/18/2004
71846	PER	COM	2.00	36929.67	AFA	2.00	24553.31	11/5/2004

(241 row(s) affected)

Active Groundwater Appropriations by Priority Date
Dayton Valley, 08-103

			Non-Adjusted Cumulative Duty		Adjusted Cumulative Duty			
App	Status	MOU	Duty	Cumulative Duty	Units	Duty	Cumulative Duty	Priority Date
29622	CER	IRR	9.92	12523.31	AFA	9.92	11708.44	10/5/1970
61078	PER	QM	140.00	12663.31	AFA	0.00	11708.44	10/5/1970
62869	PER	QM	29.92	12693.23	AFA	0.00	11708.44	10/5/1970
39076	PER	QM	39.22	12732.45	AFA	39.22	11747.66	10/16/1970
40500	PER	QM	39.19	12771.64	AFA	39.19	11786.85	10/16/1970
62323	PER	QM	80.00	12851.64	AFA	80.00	11866.85	10/16/1970
25965	CER	COM	0.80	12852.44	AFA	0.80	11867.65	2/12/1971
29964	CER	IRR	571.20	13423.64	AFS	571.20	12438.85	2/12/1971
30833	CER	IRR	452.32	13875.96	AFS	452.32	12891.17	2/12/1971
61465	PER	QM	1.68	13877.64	AFA	1.68	12892.85	2/12/1971
58933	CER	MUN	56.36	13934.00	AFA	56.36	12949.21	3/29/1971
30224	CER	IRR	271.16	14205.16	AFA	271.16	13220.37	4/21/1971
26110	CER	IRR	82.45	14287.61	AFA	82.45	13302.82	5/6/1971
65202	PER	QM	6.72	14294.33	AFA	6.72	13309.54	5/6/1971
69060	PER	QM	4.48	14298.81	AFA	4.48	13314.02	5/6/1971
71379	PER	MUN	6.25	14305.06	AFA	6.25	13320.27	5/6/1971
71688	PER	MUN	5.38	14310.43	AFA	5.38	13325.64	5/6/1971
64128	PER	MUN	191.68	14502.12	AFA	191.68	13517.33	7/27/1971

Lyon County Groundwater Municipal Appropriations
Dayton Valley, 08-103

Lyon County Utilities Municipal appropriations in acre-feet	9,028
Lyon County Utilities appropriations available if administered by priority date in acre-feet	4,515
Lyon County Utilities groundwater pumpage for calendar year 2004 as reported to the State Engineer in acre-feet	2,767

If groundwater pumping were to be restricted on a sub-basin basis the results are even more dramatic

The Stagecoach sub-basin of Dayton Valley

- Approximate annual recharge 800 acre-feet
- Committed ground water resources 2,467 acre-feet
- Domestic Well pumping in the sub-basin 384 acre-feet
- Number of permits in the sub-basin 51
- Number of permits that could be satisfied by priority date 7

Active Groundwater Appropriations by Priority Date
Dayton Valley, Stagecoach Sub-Basin, 08-103

			Non-Adjusted Cumulative Duty			Adjusted Cumulative Duty		
App	Status	MOU	Duty	Cumulative Duty	Units	Duty	Cumulative Duty	Priority Date
11475	CER	STK	6.72	6.72	AFA	6.72	6.72	1/2/1946
20928	CER	IRD	240.00	246.72	AFA	240.00	246.72	1/8/1963
24646	CER	IRR	5.24	251.96	AFA	5.24	251.96	8/21/1968
68191	PER	QM	55.76	307.72	AFA	55.76	307.72	8/21/1968
27133	CER	IRR	9.20	316.92	AFA	9.20	316.92	5/28/1970
62517	PER	QM	425.99	742.92	AFA	425.99	742.92	5/28/1970
~~62518~~	~~PER~~	~~QM~~	~~412.28~~	~~1155.19~~	~~AFA~~	~~225.29~~	~~968.21~~	~~5/28/1970~~
68190	PER	QM	57.08	1212.27	AFA	0.00	968.21	5/28/1970
50295	CER	COM	1.72	1213.99	AFA	1.72	969.93	7/17/1970
61078	PER	QM	140.00	1354.00	AFA	0.00	969.93	10/5/1970
62869	PER	QM	29.92	1383.92	AFA	0.00	969.93	10/5/1970
29622	CER	IRR	9.92	1393.84	AFA	9.92	979.85	10/5/1970
39076	PER	QM	39.22	1433.06	AFA	39.22	1019.07	10/16/1970
40500	PER	QM	39.19	1472.25	AFA	39.19	1058.26	10/16/1970
62323	PER	QM	80.00	1552.25	AFA	80.00	1138.26	10/16/1970
26110	CER	IRR	82.45	1634.70	AFA	82.45	1220.71	5/6/1971
65202	PER	QM	6.72	1641.42	AFA	6.72	1227.43	5/6/1971
69060	PER	QM	4.48	1645.90	AFA	4.48	1231.91	5/6/1971
26498	CER	IRR	65.66	1711.56	AFA	65.66	1297.57	1/20/1972
56450	CER	QM	93.88	1805.43	AFA	0.00	1297.57	2/16/1972
58067	PER	QM	312.91	2118.34	AFA	0.00	1297.57	2/16/1972
63643	PER	QM	448.58	2566.92	AFA	0.00	1297.57	2/16/1972
68189	PER	QM	24.57	2591.49	AFA	0.00	1297.57	2/16/1972
68192	PER	QM	20.79	2612.28	AFA	0.00	1297.57	2/16/1972
31042	CER	IRR	361.99	2974.27	AFA	361.99	1659.56	4/10/1972
44397	CER	IRR	15.86	2990.13	AFA	15.86	1675.42	4/10/1972
59779	PER	QM	6.06	2996.19	AFA	6.06	1681.48	4/10/1972
65479	PER	QM	8.00	3004.19	AFA	8.00	1689.48	4/10/1972
69718	PER	QM	31.92	3036.11	AFA	31.92	1721.40	4/10/1972
27817	CER	IRR	613.76	3649.87	AFA	357.85	2079.25	4/20/1972
31040	CER	IRR	89.52	3739.39	AFA	89.52	2168.77	4/20/1972
31041	CER	IRR	80.00	3819.39	AFA	80.00	2248.77	4/20/1972
42898	CER	IRR	12.00	3831.39	AFA	12.00	2260.77	4/20/1972
50249	CER	IRR	12.00	3843.39	AFA	12.00	2272.77	4/20/1972
50250	CER	IRR	12.00	3855.39	AFA	12.00	2284.77	4/20/1972
50697	CER	IRR	6.34	3861.73	AFA	6.34	2291.11	4/20/1972
57792	CER	IRR	3.56	3865.29	AFA	3.56	2294.67	4/20/1972
57841	PER	QM	12.00	3877.29	AFA	0.00	2294.67	4/20/1972
58132	PER	COM	12.00	3889.29	AFA	12.00	2306.67	4/20/1972
59297	CER	IRR	9.98	3899.27	AFA	9.98	2316.65	4/20/1972
61572	PER	IRR	639.84	4539.11	AFA	0.00	2316.65	4/20/1972
70116	PER	IRR	2.02	4541.13	AFA	2.02	2318.67	4/20/1972
70312	PER	QM	5.99	4547.12	AFA	5.99	2324.66	4/20/1972
56593	CER	QM	132.58	4679.70	AFA	132.58	2457.24	12/5/1972
36699	CER	COM	2.64	4682.34	AFA	2.64	2459.88	2/12/1979
40923	CER	QM	1.78	4684.12	AFA	1.78	2461.66	3/18/1980
40947	CER	QM	1.01	4685.13	AFA	1.01	2462.67	3/24/1980
41339	CER	COM	2.36	4687.49	AFA	2.36	2465.03	5/14/1980
42983	CER	COM	0.03	4687.52	AFA	0.03	2465.06	12/19/1980
44396	PER	IRR	1.94	4689.46	AFA	1.94	2467.00	7/3/1989
50294	CER	COM	0.31	4689.77	AFA	0.31	2467.31	5/10/1995

Similar conditions exist in Churchill Valley 8-102

(Silver Springs)

Churchill Valley, Basin 8-102

Estimated annual recharge	1,600 acre-feet
Committed ground water resources	10,969 acre-feet
Domestic well pumping in the basin	1,098 acre-feet
Number of permits in the basin	66
Number of permits that could be satisfied by priority date	10

Active Groundwater Appropriations by Priority Date
Silver Springs Valley, 08-102

APP NO	STATUS	MOU	DUTY	UNIT	PRIORITY DATE	NON-ADJUSTED DUTY (AFA)	NON-ADJUSTED CUMULATIVE DUTY TOTAL	ADJUSTED TCD BY PRIORITY	ADJUSTED CUMULATIVE DUTY TOTAL
9906	CER	STK	2.56	MGA	10/24/1935	7.86	7.86	7.86	7.86
17107	CER	QM	15.80	MGA	11/29/1956	48.49	56.35	48.49	56.35
17306	CER	QM	1.12	MGA	6/17/1957	3.44	59.78	3.44	59.78
38152	CER	IRR	2.00	AFA	6/17/1957	2.00	61.78	2.00	61.78
66171	PER	QM	1.62	AFA	6/17/1957	1.62	63.40	1.62	63.40
19868	CER	IRR	366.00	AFA	5/24/1961	366.00	429.40	366.00	429.40
21800	CER	QM	289.58	AFA	2/7/1964	289.58	718.98	289.58	718.98
22724	CER	REC	23.59	MGA	8/13/1965	72.40	791.38	72.40	791.38
35025	CER	REC	2.80	MGA	8/13/1965	8.59	799.97	8.59	799.97
25345	CER	IRR	1925.29	AFA	11/4/1969	1925.29	2725.26	1925.29	2725.26
26778	CER	IRR	222.00	AFA	6/16/1972	222.00	2947.26	222.00	2947.26
53462	CER	IRR	2.00	AFA	6/16/1972	2.00	2949.26	2.00	2949.26
38225	CER	IRR	1093.20	AFA	8/25/1972	1093.20	4042.46	1093.20	4042.46
62912	PER	QM	74.60	AFA	6/21/1973	74.60	4117.06	74.60	4117.06
62913	PER	QM	74.60	AFA	6/21/1973	74.60	4191.66	74.60	4191.66
27664	CER	IRR	2250.99	AFA	7/30/1973	2250.99	6442.65	2250.99	6442.65
72385T	PER	IRR	180.95	AFA	2/8/1974	180.95	6623.60	180.95	6623.60
28380	CER	IRR	38.80	AFA	6/6/1974	38.80	6662.40	38.80	6662.40
28555	CER	IRR	220.00	AFA	7/29/1974	220.00	6882.40	220.00	6882.40
38968	CER	IRR	119.20	AFA	9/18/1974	119.20	7001.60	119.20	7001.60
65267	PER	QM	28.38	AFA	9/18/1974	28.38	7029.98	28.38	7029.98
38968R01	RLP	IRR	2.02	AFA	9/18/1974	2.02	7032.00	2.02	7032.00
30303	CER	REC	8.80	MGA	6/3/1976	27.01	7059.01	27.01	7059.01
30305	CER	REC	6.57	MGA	6/3/1976	20.16	7079.17	0.00	7059.01
35987	CER	REC	0.40	MGA	10/10/1978	1.23	7080.40	1.23	7060.24
66172	PER	QM	5.21	MGA	11/9/1979	15.99	7096.39	15.99	7076.23
52098	CER	COM	4.10	MGA	12/27/1979	12.58	7108.97	12.58	7088.81
45477	CER	QM	1.42	MGA	3/26/1982	4.36	7113.33	4.36	7093.17
46706	CER	STK	2.82	AFS	3/8/1983	2.82	7116.15	2.82	7095.99
46707	CER	STK	0.90	MGS	3/8/1983	0.90	7117.05	0.90	7096.89
46710	CER	QM	0.43	MGA	3/8/1983	1.32	7118.37	1.32	7098.21
46885	CER	STK	2.83	MGA	5/5/1983	8.68	7127.05	8.68	7106.89
46886	CER	STK	2.92	MGA	5/5/1983	8.96	7136.01	8.96	7115.85
46887	CER	STK	2.92	MGA	5/5/1983	8.96	7144.97	8.96	7124.81
46900	CER	STK	1.06	MGS	5/11/1983	1.06	7146.03	1.06	7125.87
49465	CER	STK	1.46	MGA	10/21/1985	4.48	7150.51	4.48	7130.35
51609	CER	COM	2.02	AFA	12/7/1987	2.02	7152.53	2.02	7132.37
52005	PER	MM	100.00	MGA	4/13/1988	306.89	7459.42	306.89	7439.26
54279	CER	QM	18.50	AFA	1/2/1990	18.50	7477.92	18.50	7457.76
36636	PER	QM	931.21	MGA	12/13/1990	2857.79	10335.71	2857.79	10315.55
36637	PER	QM	695.29	MGA	12/13/1990	2133.78	12469.49	469.13	10784.68
36638	PER	QM	695.29	MGA	12/13/1990	2133.78	14603.27	0.00	10784.68
36639	PER	QM	695.29	MGA	12/13/1990	2133.78	16737.04	0.00	10784.68
36640	PER	QM	221.19	MGA	12/13/1990	678.82	17415.86	0.00	10784.68
60749	PER	QM	38.08	AFA	12/13/1990	38.08	17453.94	0.00	10784.68
60751	PER	QM	38.08	AFA	12/13/1990	38.08	17492.02	0.00	10784.68
60752	PER	QM	38.08	AFA	12/13/1990	38.08	17530.10	0.00	10784.68
60753	PER	QM	38.08	AFA	12/13/1990	38.08	17568.18	0.00	10784.68
62586	PER	QM	38.08	AFA	12/13/1990	38.08	17606.26	38.08	10822.76
57077	PER	COM	6.00	AFA	1/13/1992	6.00	17612.26	6.00	10828.76
57078	PER	COM	6.00	AFA	1/13/1992	6.00	17618.26	0.00	10828.76
35318	CER	QM	4.57	MGA	3/4/1994	14.02	17632.28	14.02	10842.78
61304	PER	IND	35.00	AFA	6/9/1995	35.00	17667.28	35.00	10877.78
62849	PER	QM	3.94	MGA	2/10/1997	12.09	17679.37	12.09	10889.87
62850	PER	QM	3.94	MGA	2/10/1997	12.09	17691.46	0.00	10889.87
63258	PER	QM	46.93	AFA	7/18/1997	46.93	17738.39	46.93	10936.80
66173	PER	QM	8.07	AFA	7/18/1997	8.07	17746.46	8.07	10944.87
66634	PER	COM	2.02	AFA	8/3/2000	2.02	17748.48	2.02	10946.89
66656	PER	QM	2.02	AFA	8/9/2000	2.02	17750.50	2.02	10948.91
66724	PER	IND	2.02	AFA	8/21/2000	2.02	17752.52	2.02	10950.93
67637	PER	COM	2.02	NULL	6/4/2001	2.02	17754.54	2.02	10952.95
68243	PER	REC	2.02	AFA	11/29/2001	2.02	17756.56	2.02	10954.97
68766	PER	STK	4.84	AFA	5/2/2002	4.84	17761.40	4.84	10959.81
V09390	VST	STK	0.00	AFA	3/13/2003	0.00	17761.40	0.00	10959.81
70098	PER	COM	2.02	AFA	6/9/2003	2.02	17763.42	2.02	10961.83
71332	PER	COM	1.12	AFA	6/16/2004	1.12	17764.54	1.12	10962.95
66740	PER	IND	2.02	AFA	8/11/2004	2.02	17766.56	2.02	10964.97
						17766.56		10964.97	

Thank You, Questions?

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