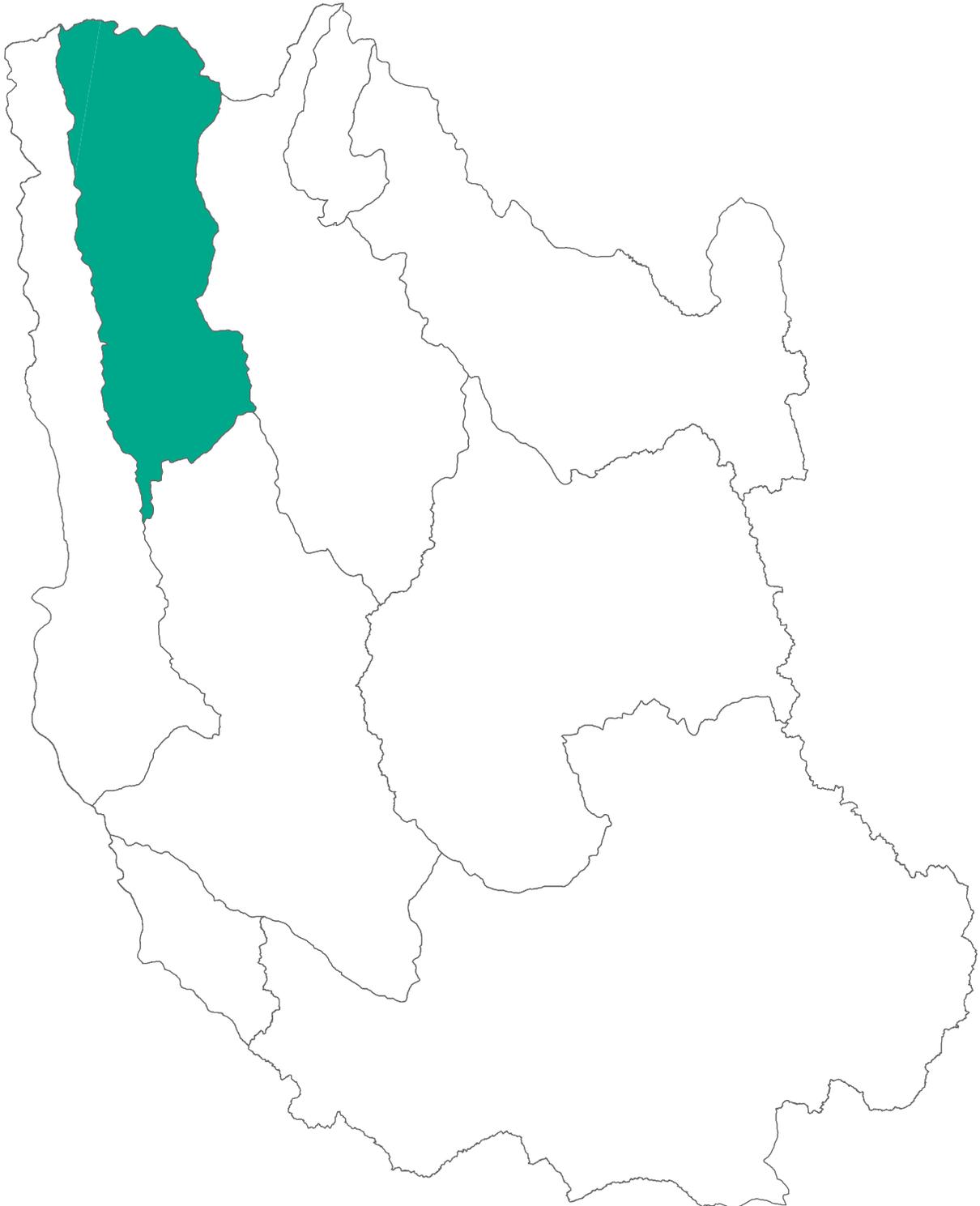


Section 4.3

Detrital Valley Basin



4.3.1 Geography of the Detrital Valley Basin

The Detrital Valley Basin is small basin in the northwestern part of the planning area at 892 square miles. Geographic features and principal communities are shown on Figure 4.3-1. The basin is characterized by a wide north-south trending valley and mountains on the east and west basin margins. Lake Mead forms the northern boundary of the basin. Vegetation is almost exclusively Mohave desertscrub with small areas of semi-desert grassland, interior chaparral, Great Basin conifer woodland and montane conifer forest. (see Figure 4.0-9)

- Principal geographic features shown on Figure 4.3-1 are:
 - Detrital Wash running south to north through the basin and the lowest point in the basin, about 1,100 feet where the Wash drains into Lake Mead
 - White Hills on the east central basin boundary
 - Cerbat Mountains north of Grasshopper Junction
 - Black Mountains along the western basin boundary with Mt. Wilson, the highest point in the basin at 5,445 in the northwest part of the basin



Base Map: USGS 1:500,000, 1981



0 3 6
Miles



Figure 4.3-1
Detrital Valley Basin
Geographic Features

Nevada State Boundary
City, Town or Place



4.3.2 Land Ownership in the Detrital Valley Basin

Land ownership, including the percentage of ownership by category, for the Detrital Valley Basin is shown in Figure 4.3-2. Principal features of land ownership in this basin are the large amount of U.S. Bureau of Land Management and National Park Service lands. A description of land ownership data sources and methods is found in Volume 1, Appendix A. More detailed information on protected areas is found in Section 4.0.4. Land ownership categories are discussed below in the order from largest to smallest percentage in the basin.

U.S. Bureau of Land Management (BLM)

- 49.1% of the land is federally owned and managed by the Kingman Field Office of the BLM.
- BLM lands in this basin are partially contiguous and partially found in a checkerboard pattern with private land and some state trust lands.
- The basin contains two wilderness areas, a portion of the 30,760-acre Mt. Tipton Wilderness and most of the 23,900-acre Mt. Wilson Wilderness (see Figure 4.0-12).
- Primary land uses are recreation and grazing.

National Park Service (NPS)

- 24.8% of the land is federally owned and managed by the National Park Service (NPS) as the Lake Mead National Recreation Area.
- Most NPS lands are located along the northern basin boundary.
- Primary land use is recreation.

Private

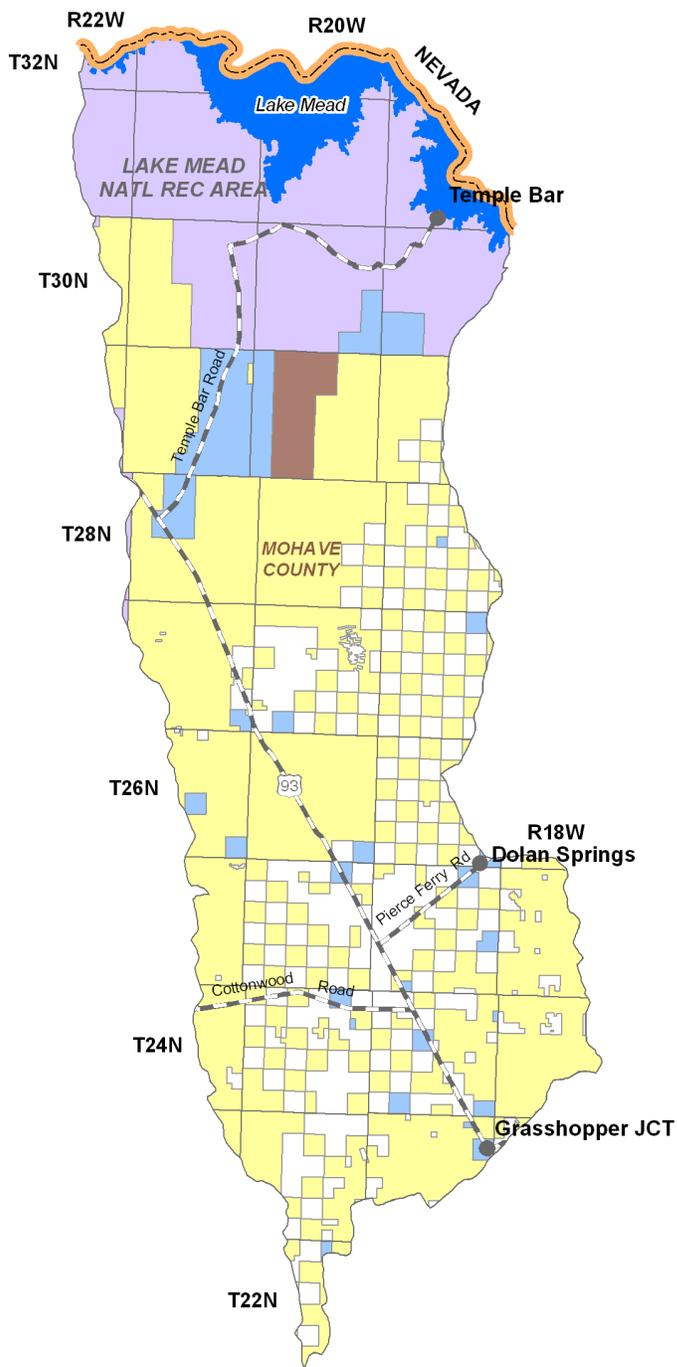
- 18.9% of the land is private.
- Most private land is interspersed in a checkerboard pattern throughout BLM and state trust lands.
- Primary land uses are domestic and grazing.

State Trust Land

- 5.6% of the land in this basin is held in trust for the public schools under the State Trust Land system.
- There are two larger contiguous parcels of state land adjacent to the Lake Mead National Recreation Area and a number of small areas of land interspersed with BLM and private lands throughout the basin.
- Primary land use is grazing.

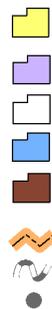
Other (Game and Fish, County and Bureau of Reclamation Lands)

- 1.6% of the land is federally owned and managed by the Bureau of Reclamation
- Primary land use is unknown.



**Land Ownership
(Percentage in Basin)**

- U.S. Bureau of Land Management (49.1%)
- National Park Service (24.8%)
- Private (18.9%)
- State Trust (5.6%)
- Other (1.6%)
- Nevada State Boundary
- Major Road
- City, Town or Place



0 3 6
Miles



**Figure 4.3-2
Detrital Valley Basin
Land Ownership**



Source: ALRIS, 2004



4.3.3 Climate of the Detrital Valley Basin

Climate data from a NOAA/NWS Co-op Network station are compiled in Table 4.3-1 and the location is shown on Figure 4.3-3. Figure 4.3-3 also shows precipitation data from the Spatial Climate Analysis Service (SCAS) at Oregon State University. The Detrital Valley Basin does not contain Evaporation Pan, AZMET and SNOTEL/Snowcourse stations. More detailed information on climate in the planning area is found in Section 4.0.3. A description of the climate data sources and methods is found in Volume 1, Appendix A.

NOAA/NWS Co-op Network

- Refer to Table 4.3-1A
- There is one NOAA/NWS Co-op network climate station in the basin at Temple Bar. The average monthly maximum temperature occurs in July and is 94.2°F and average minimum temperature occurs in January and is 47.2°F.
- Highest average seasonal rainfall occurs in the winter (January – March). For the period of record used the annual rainfall is 4.15 inches.

SCAS Precipitation Data

- See Figure 4.3-3
- Additional precipitation data shows rainfall as high as 12 inches in the southern portion of the basin in the Cerbat Mountains near Grasshopper Junction and as low as four inches in the northern portion of the basin.
- This basin is one of three basins in the planning area with a range of eight inches between areas of highest and lowest average annual precipitation, the lowest in the planning area.

Table 4.3-1 Climate Data for the Detrital Valley Basin

A. NOAA/NWS Co-op Network:

Station Name	Elevation (in feet)	Period of Record Used for Averages	Average Temperature Range (in F)		Average Total Precipitation (in inches)				
			Max/Month	Min/Month	Winter	Spring	Summer	Fall	Annual
Temple Bar	1,280	1971-2000	94.2/Jul	47.2/Jan	2.01	0.32	1.12	0.70	4.15

Source: WRCC, 2005

B. Evaporation Pan:

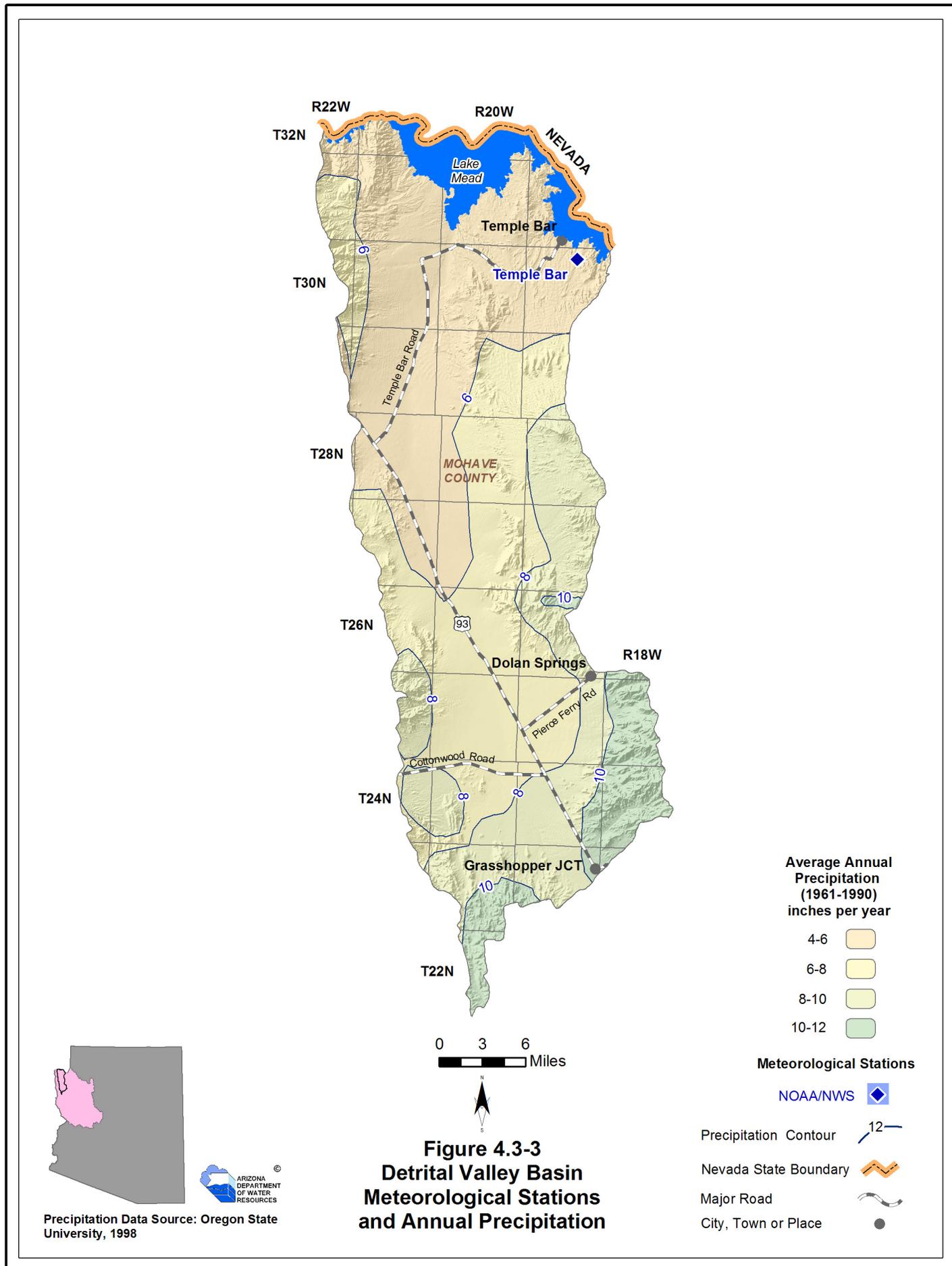
Station Name	Elevation (in feet)	Period of Record Used for Averages	Avg. Annual Evap (in inches)
None			

C. AZMET:

Station Name	Elevation (in feet)	Period of Record	Average Annual Reference Evapotranspiration, in inches (Number of years to calculate averages)
None			

D. SNOTEL/Snowcourse:

Station Name	Elevation (in feet)	Period of Record	Average Snowpack, at Beginning of the Month, as Inches Snow Water Content (Number of measurements to calculate average)					
			Jan	Feb	March	April	May	June
None								



4.3.4 Surface Water Conditions in the Detrital Valley Basin

There are no streamflow data for this basin. Flood ALERT equipment in the basin is shown in Table 4.3-2. Reservoir and stockpond data, including maximum storage or maximum surface area, are shown in Table 4.3-3. The location of flood ALERT equipment, USGS runoff contours and large reservoirs are shown on Figure 4.3-4. Descriptions of stream, reservoir and stockpond data sources and methods are found in Volume 1, Appendix A.

Flood ALERT Equipment

- Refer to Table 4.3-2.
- As of October 2005 there were three stations in the basin.

Reservoirs and Stockponds

- Refer to Table 4.3-3.
- The basin borders one large reservoir, Lake Mead, with a maximum capacity of 29,755,000 acre-feet. The dam that creates Lake Mead, Hoover Dam, is in the Lake Mohave Basin.
- There are no small reservoirs in the basin.
- There are 43 registered stockponds in this basin.

Runoff Contour

- Refer to Figure 4.3-4.
- Average annual runoff is 0.5 inches per year, or 26.65 acre-feet per square mile, in the center of the basin and decreases to 0.1 inches, or 5.33 acre-feet per square mile, on the edges of the basin.

Table 4.3-2 Flood ALERT Equipment in the Detrital Valley Basin

Station ID	Station Name	Station Type	Install Date	Responsibility
1630	Detrital Wash	Precipitation/Stage	12/3/2001	Mohave County FCD
7430	Mt. Tipton	Repeater/Precipitation	NA	Mohave County FCD
7470	Dolan Springs	Weather Station	NA	Mohave County FCD

Source: ADWR 2005b

Notes:

FCD = Flood Control District
NA = Not available

Table 4.3-3 Reservoirs and Stockponds in the Detrital Valley Basin

A. Large Reservoirs (500 acre-feet capacity and greater)

MAP KEY	RESERVOIR/LAKE NAME (Name of dam, if different)	OWNER/OPERATOR	MAXIMUM STORAGE (AF)	USE ¹	JURISDICTION
None	Mead (Hoover Dam) ²	Bureau of Reclamation	29,755,000 ³	C,H,I,RR,S,R	Federal

B. Other Large Reservoirs (50 acre surface area or greater)

MAP KEY	RESERVOIR/LAKE NAME (Name of dam, if different)	OWNER/OPERATOR	MAXIMUM SURFACE AREA (acres)	USE	JURISDICTION
None identified by ADWR at this time					

Source: Compilation of databases from ADWR & others

C. Small Reservoirs (greater than 15 acre-feet and less than 500 acre-feet capacity)

Total number: 0
Total maximum storage: 0 acre-feet

D. Other Small Reservoirs (between 5 and 50 acres surface area)

Total number: 0
Total surface area: 0 acres

E. Stockponds (up to 15 acre-feet capacity)

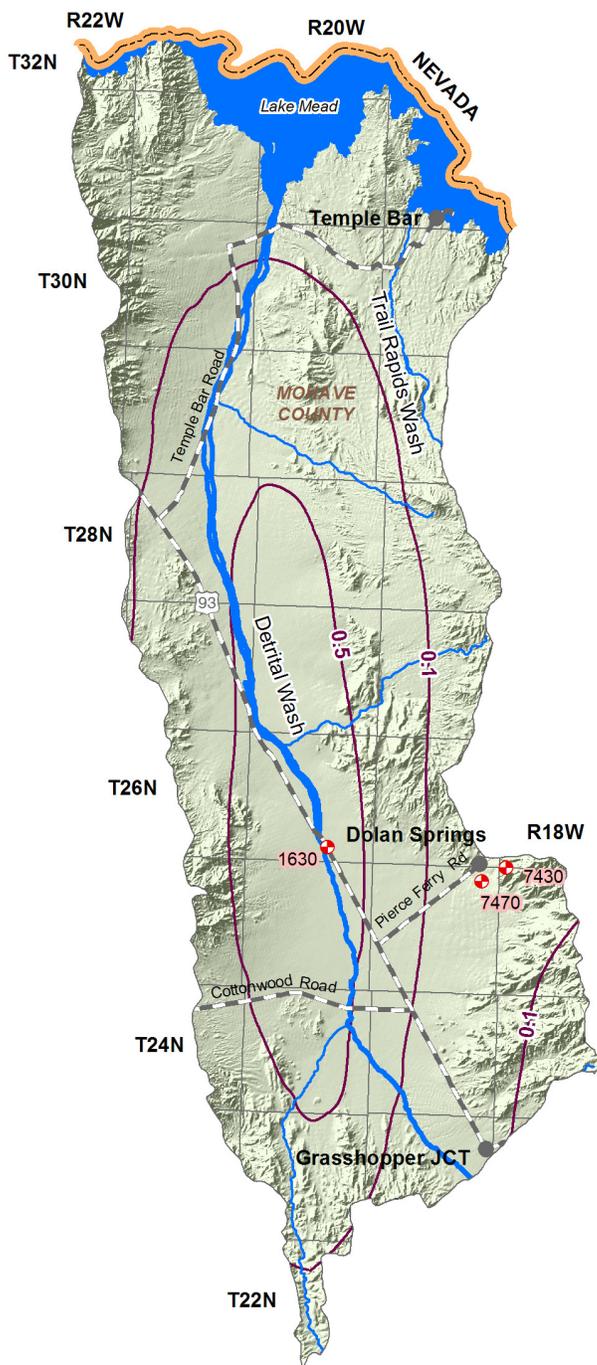
Total number: 43 (from water right filings)

Notes:

¹C=flood control; F=fish & wildlife pond; H=hydroelectric; I=irrigation; R=recreation; RR=river regulation; S=water supply

²Dam is located in Lake Mohave Basin and lake storage is located in Lake Mohave, Detrital Valley, Hualapai Valley and Meadview Basins.

³Includes 2,378,000 acre-feet of dead storage.



Stream Data Source: ALRIS, 2005b



Figure 4.3-4
Detrital Valley Basin
Surface Water Conditions

USGS Annual Runoff Contour
for 1951-1980 (in inches)

Stream Channel (width of line
reflects stream order)

Stream Gages

Flood ALERT Equip. and
Station ID

Nevada State Boundary
Major Road
City, Town or Place



4.3.5 Perennial/Intermittent Streams and Major Springs in the Detrital Valley Basin

Major and minor springs with discharge rates and date of measurement, and the total number of springs in the basin are shown in Table 4.3-4. The locations of major springs are shown on Figure 4.3-5. Descriptions of data sources and methods for intermittent and perennial reaches and springs are found in Volume 1, Appendix A.

- There is one perennial stream, the Colorado River, located along the northern basin boundary.
- There is one major spring, Monkey Cove, with a measured discharge of 1,200 gallons per minute (gpm). This spring is no longer listed on the current U.S. Geological Survey topographical maps because it is normally submerged by Lake Mead.
- Springs with measured discharge of 1 to 10 gpm are not mapped but coordinates are given in Table 4.3-4B. There are four minor springs identified in this basin.
- Listed discharge rates may not be indicative of current conditions. The most recent measurements were taken during or prior to 1965.
- The total number of springs identified by the USGS varies from 24 to 27, depending on the database reference.

Table 4.3-4 Springs in the Detrital Valley Basin

A. Major Springs (10 gpm or greater):

Map Key	Name	Location		Discharge (in gpm) ¹	Date Discharge Measured
		Latitude	Longitude		
1	Monkey Cove ²	360223	1141949	1,200	11/23/1964

B. Minor Springs (1 to 10 gpm):

Name	Location		Discharge (in gpm) ¹	Date Discharge Measured
	Latitude	Longitude		
Unnamed	353405	1141240	6	During or prior to 1965
Antelope	353601	1141144	6	During or prior to 1965
Unnamed	353310	1141405	3	During or prior to 1965
Unnamed	353200	1141430	3	During or prior to 1965

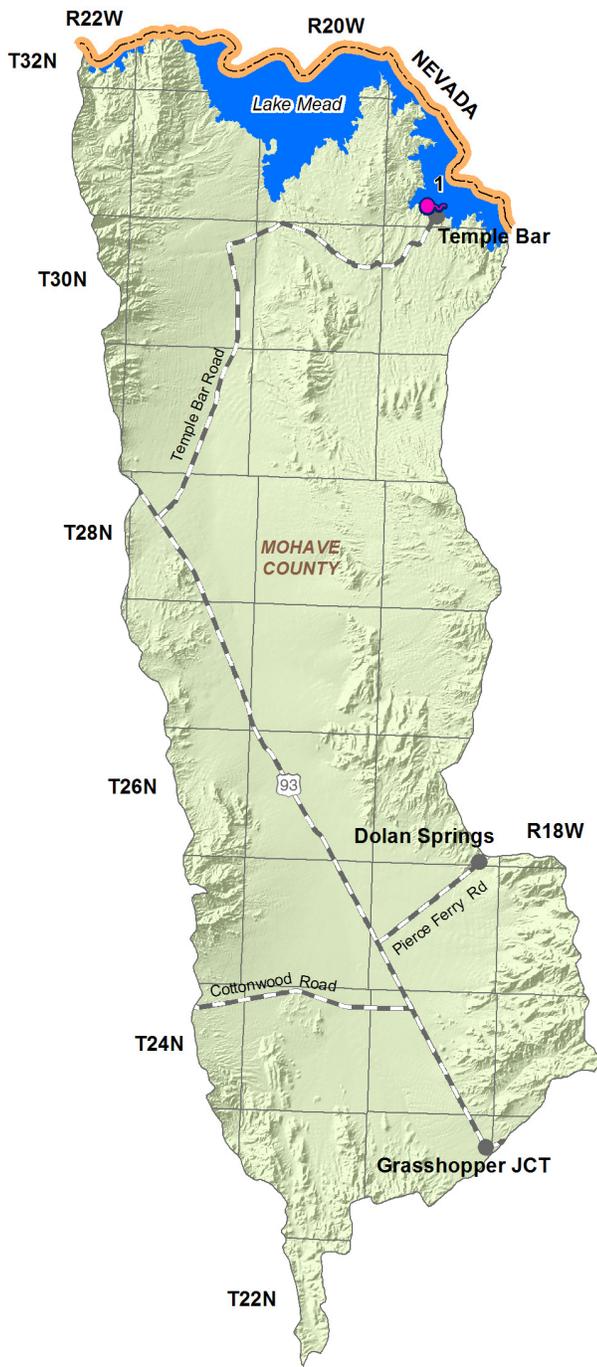
Source: Compilation of databases from ADWR & others

C. Total number of springs, regardless of discharge, identified by USGS (see ALRIS, 2005a and USGS, 2006a): 24 to 27

Notes:

¹Most recent measurement identified by ADWR

²Spring is not displayed on current USGS topo maps because it normally submerged by Lake Mead

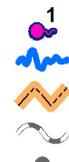


Stream Data Source: AGFD, 1993 & 1997



Figure 4.3-5
Detrital Valley Basin
Perennial/Intermittent Streams
and Major (>10 gpm) Springs

- Springs
- Perennial Streams
- Nevada State Boundary
- Major Road
- City, Town or Place



4.3.6 Groundwater Conditions of the Detrital Valley Basin

Major aquifers, well yields, estimated natural recharge, estimated water in storage, number of index wells and date of last water-level sweep are shown in Table 4.3-5. Figure 4.3-6 shows aquifer flow direction and water-level change between 1990-1991 and 2003-2004. Figure 4.3-7 contains hydrographs for selected wells shown on Figure 4.3-6. Figure 4.3-8 shows well yields in two yield categories. A description of aquifer data sources and methods as well as well data sources and methods, including water-level changes and well yields are found in Volume 1, Appendix A.

Major Aquifers

- Refer to Table 4.3-5 and Figure 4.3-6.
- Major aquifers in the basin include recent stream alluvium, basin fill and sedimentary rock. The principal water-bearing aquifer is the basin fill.
- Flow direction is generally from the south to the north.

Well Yields

- Refer to Table 4.3-5 and Figure 4.3-8.
- As shown on Figure 4.3-8 well yields in this basin range from less than 100 gpm to 500 gpm.
- One source of well yield information, based on six reported wells, indicates that the median well yield in this basin is 31.5 gpm.

Natural Recharge

- Refer to Table 4.3-5.
- The estimate of natural recharge for this basin is 1,000 acre-feet per year (AFA).

Water in Storage

- Refer to Table 4.3-5.
- Storage estimates for this basin range from 1.0 million acre-feet (maf) to seven maf to a depth of 1,200 feet

Water Level

- Refer to Figure 4.3-6. Water levels are shown for wells measured in 2003-2004.
- The Department annually measures 11 index wells in this basin. Hydrographs for two index wells (A and C) and one other well are shown in Figure 4.3-7.
- The Department measures water levels four times daily at one automated groundwater monitoring site in the west-central portion of the basin.
- The deepest recorded water level in the basin is 597 feet west of Dolan Springs and the shallowest is 68 feet west of Temple Bar.

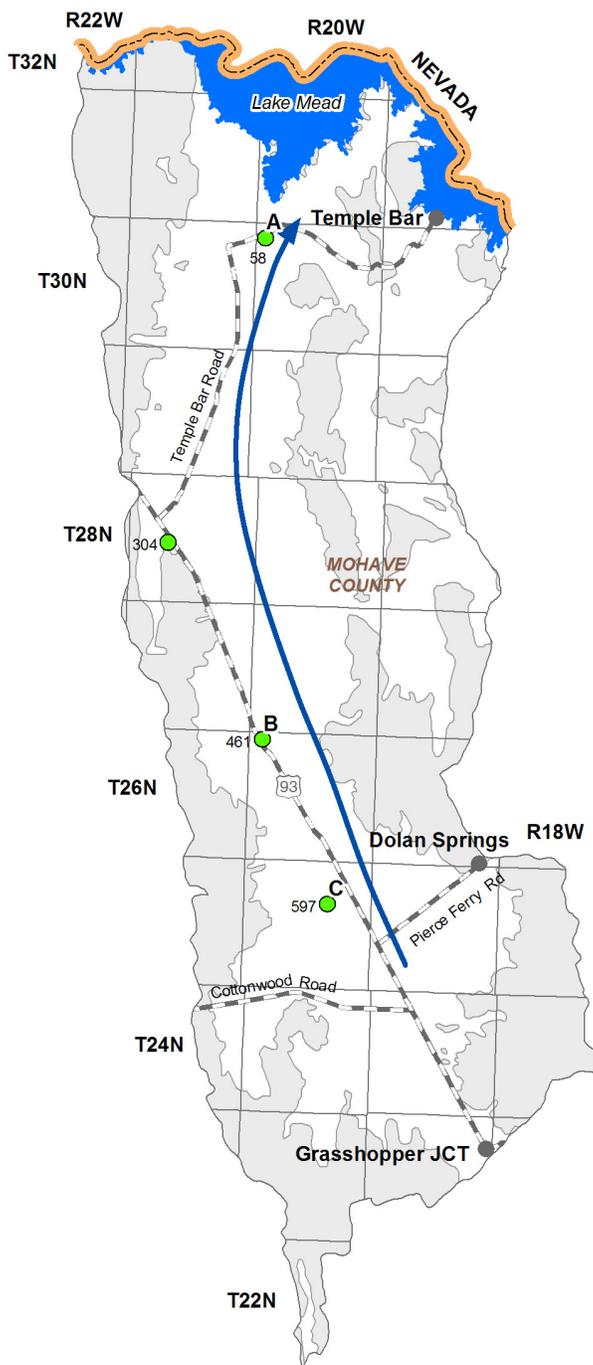
Table 4.3-5 Groundwater Data for the Detrital Valley Basin

Basin Area, in square miles:	892	
Major Aquifer(s):	Name and/or Geologic Units	
	Recent Stream Alluvium	
	Basin Fill	
	Sedimentary Rock (Muddy Creek and Chemehueve Formations)	
Well Yields, in gpm:	Range 10-44 Median 31.5 (6 wells measured)	Measured by ADWR (GWSI) and/or USGS
	Range 35-240 Median 35 (3 wells reported)	Reported on registration forms for large (>10-inch) diameter wells (Wells55)
	Range 30-100	ADWR (1990)
	Range 0-500	Anning and Duet (1994)
Estimated Natural Recharge, in acre-feet/year:	1,000	Freethy and Anderson (1986)
Estimated Water Currently in Storage, in acre-feet:	1,480,000 to 3,940,000 ¹ (to 1200 ft)	Mason and others (2007)
	1,000,000	ADWR (1994b)
	1,000,000 ² (to 1200 ft)	Freethy and Anderson (1986)
	7,000,000 (to 1200 ft)	Arizona Water Commission (1975)
Current Number of Index Wells:	11	
Date of Last Well Sweep:	2006 (82 wells measured)	

Notes:

¹ Range based on assumed values for specific yield.

² Predevelopment estimate



Water-level change in feet between 1990-1991 and 2003-2004

H number is depth to water in feet during 2003-2004; letter is hydrograph

Between -1 and +1

Generalized Flow Direction

Consolidated Crystalline & Sedimentary Rocks

Unconsolidated Sediments

Nevada State Boundary

Major Road

City, Town or Place

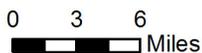
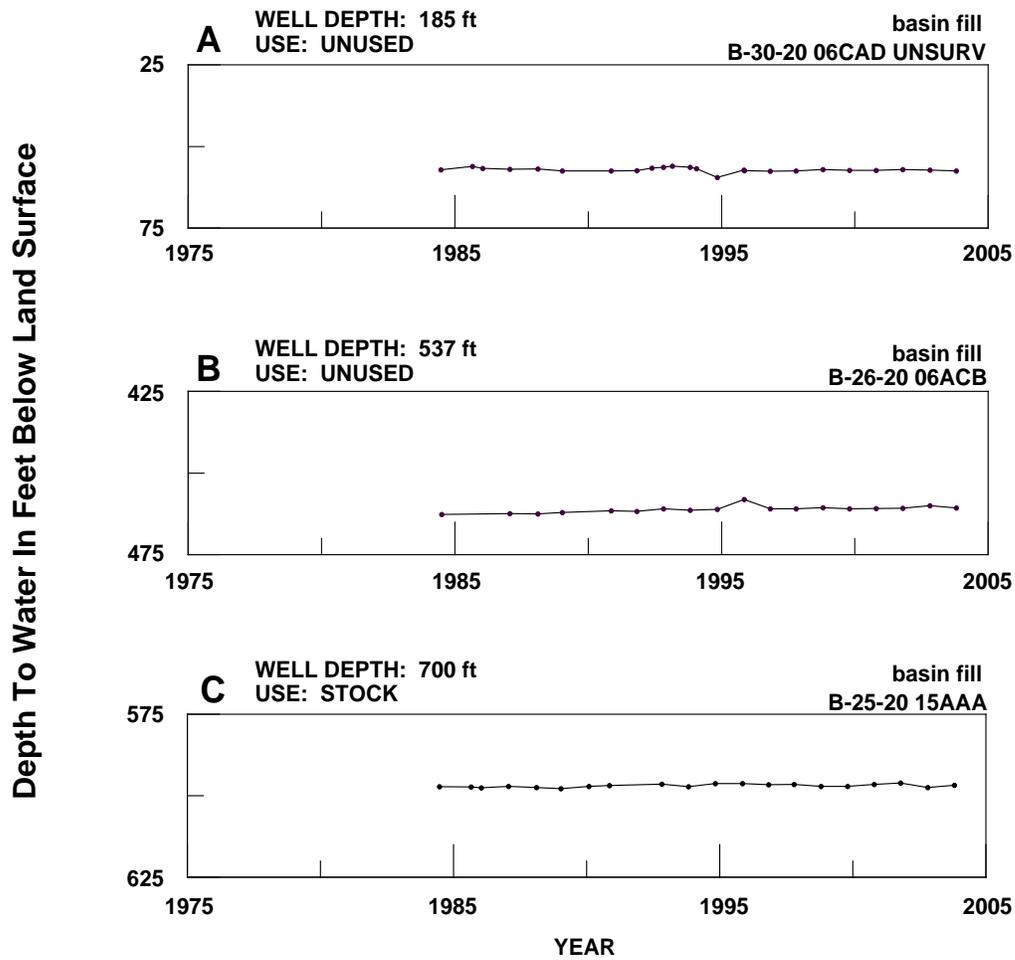
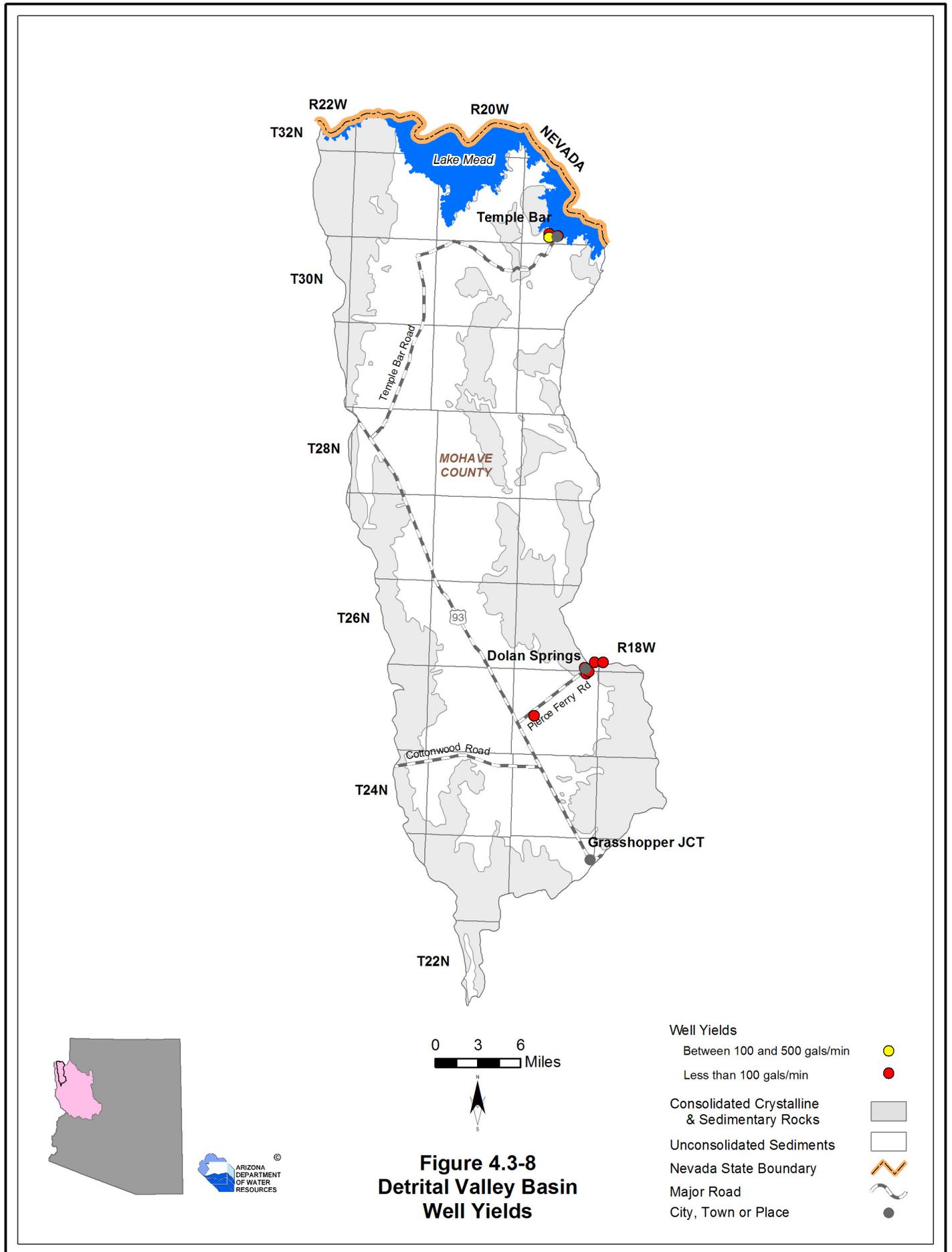


Figure 4.3-6
Detrital Valley Basin
Groundwater Conditions

Figure 4.3-7
Detrital Valley Basin
Hydrographs Showing Depth to Water in Selected Wells





4.3.7 Water Quality of the Detrital Valley Basin

Sites with parameter concentrations that have equaled or exceeded drinking water standard(s) (DWS), including location and parameter(s) are shown in Table 4.3-6A. There are no impaired lakes or streams in this basin. Figure 4.3-9 shows the location of exceedences keyed to Table 4.3-6. Not all parameters were measured at all sites; selective sampling for particular constituents is common. A description of water quality data sources and methods is found in Volume 1, Appendix A.

Well, Mine or Spring sites that have equaled or exceeded drinking water standards (DWS)

- Refer to Table 4.3-6A.
- Twenty-three sites have parameter concentrations that have equaled or exceeded DWS.
- The most frequently equaled or exceeded parameters was arsenic.
- Other parameters equaled or exceeded in the sites measured in this basin were radionuclides, nitrates, lead and total dissolved solids.

Table 4.3-6 Water Quality Exceedences in the Detrital Valley Basin¹

A. Wells, Springs and Mines

Map Key	Site Type	Site Location			Parameter(s) Concentration has Equaled or Exceeded Drinking Water Standard ²
		Township	Range	Section	
1	Well	31 North	19 West	32	As
2	Well	31 North	19 West	32	As, Rad
3	Well	30 North	20 West	6	As, NO3
4	Well	30 North	22 West	13	Rad
5	Spring	30 North	22 West	13	Rad
6	Well	28 North	21 West	20	As
7	Well	28 North	21 West	23	As, NO3
8	Well	28 North	21 West	26	NO3
9	Spring	27 North	19 West	12	As
10	Well	27 North	21 West	13	As
11	Well	27 North	21 West	24	As
12	Well	27 North	21 West	25	As
13	Spring	25 North	18 West	16	As, Rad
14	Spring	25 North	18 West	17	As
15	Well	25 North	21 West	35	NO3
16	Well	24 North	18 West	20	Rad
17	Well	24 North	18 West	30	Pb
18	Well	24 North	18 West	30	Pb
19	Well	24 North	18 West	30	Rad
20	Well	24 North	18 West	31	As
21	Well	24 North	18 West	32	Pb
22	Well	23 North	18 West	6	TDS
23	Well	23 North	20 West	11	As

Source: Compilation of databases from ADWR & others

B. Lakes and Streams

Map Key	Site Type	Site Name	Length of Impaired Stream Reach (in miles)	Area of Impaired Lake (in acres)	Designated Use Standard	Parameter(s) Exceeding Use Standard
None identified by ADWR at this time						

Notes:

¹ Water quality samples collected between 1975 and 2002.

² As = Arsenic

Pb = Lead

NO3 = Nitrate

Rad = One or more of the following radionuclides - Gross Alpha, Gross Beta, Radium, and Uranium

TDS = Total Dissolved Solids

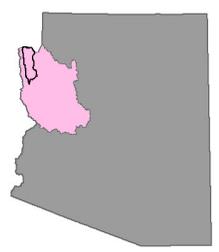
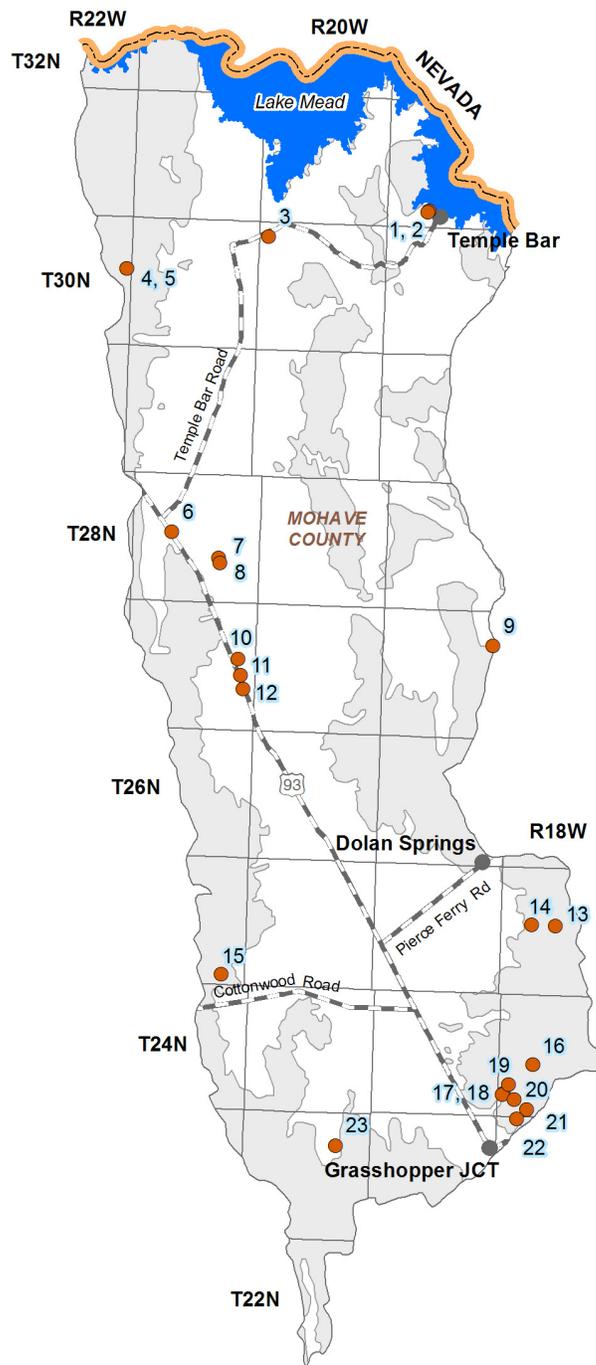


Figure 4.3-9
Detrital Valley Basin
Water Quality Conditions

- Well, Spring or Mine Site that has Equaled or Exceeded DWS 1
- Consolidated Crystalline & Sedimentary Rocks ■
- Unconsolidated Sediments □
- Nevada State Boundary —
- Major Road —
- City, Town or Place ●

4.3.8 Cultural Water Demand in the Detrital Valley Basin

Cultural water demand data including population, number of wells and the average well pumpage and surface water diversions by the municipal, industrial and agricultural sectors are shown in Table 4.3-7. Effluent generation including facility ownership, location, population served and not served, volume treated, disposal method and treatment level is shown in Table 4.3-8. Figure 4.3-10 shows the location of demand centers. A description of cultural water demand data sources and methods is found in Volume 1, Appendix A. More detailed information on cultural water demand is found in Section 4.0.7.

Cultural Water Demand

- Refer to Table 4.3-7 and Figure 4.3-10.
- Population in this basin is small but has almost doubled since 1980, increasing from 757 in 1980 to 1,373 in 2000. Projections suggest a similar rate of growth through 2030, although large developments are planned in the basin (see Table 4.3-9).
- Groundwater pumping is minimal in this basin. Current pumping is comparable to historic pumping with an annual average of less than 300 AFA for municipal use from 2001-2005. There are no recorded industrial or agricultural water demands in this basin. There is, however, a small mine or quarry north of Grasshopper Junction.
- All of the surface water diversions are for municipal use at Temple Bar within the Lake Mead National Recreation Area and are less than 300 AFA from 1991-2005.
- Most municipal and industrial demand is around Dolan Springs at this time. There are, however, a number of proposed residential developments in this basin east of Highway 93 and north of Pierce Ferry Road.
- As of 2005 there were 168 registered wells with a pumping capacity of less than or equal to 35 gpm and 50 wells with a pumping capacity of more than 35 gpm.

Effluent Generation

- Refer to Table 4.3-8.
- There is one wastewater treatment facility, the Temple Bar Wastewater Treatment Facility, located within the Lake Mead National Recreation Area.
- No other information on this facility was available.

Table 4.3-7 Cultural Water Demand in the Detrital Valley Basin¹

Year	Estimated and Projected Population	Number of Registered Water Supply Wells Drilled		Average Annual Demand (in acre-feet)						Data Source
				Well Pumpage			Surface-Water Diversions			
		Q ≤ 35 gpm	Q > 35 gpm	Municipal	Industrial	Agricultural	Municipal	Industrial	Agricultural	
1971										
1972										
1973					<500			NR		
1974										
1975										
1976		71 ²	10 ²							
1977										
1978					<500			NR		
1979										
1980	757									
1981	776									
1982	795									
1983	815	11	7		<500			NR		ADWR (1994a)
1984	834									
1985	853									
1986	872									
1987	891									
1988	911	10	1		<500			NR		
1989	930									
1990	949									
1991	991									
1992	1,034									
1993	1,076	9	11	<300	NR	NR	<300	NR	NR	
1994	1,119									
1995	1,161									
1996	1,204									
1997	1,246									
1998	1,289	27	2	<300	NR	NR	<300	NR	NR	USGS (2007)
1999	1,331									
2000	1,373									
2001	1,527									
2002	1,680									
2003	1,834	40	19	<300	NR	NR	<300	NR	NR	
2004	1,988									
2005	2,142									
2010	2,910									
2020	3,628									
2030	4,212									

WELL TOTALS: 168 50

Notes:

NR = Not reported

¹ Does not include effluent or evaporation losses from stockponds and reservoirs.

² Includes all wells through 1980.

Table 4.3-8 Effluent Generation in the Detrital Valley Basin

Facility Name	Ownership	City/Location Served	Population Served	Volume Treated/Generated (acre-feet)	Disposal Method							Current Treatment Level	Population Not Served	Year of Record
					Water-course	Evaporation Pond	Irrigation	Golf Course/Turf/Landscape	Wildlife Area	Discharge to Another Facility	Infiltration Basins			
Temple Bar WWTF	National Park Service	Park												

Source: Compilation of databases from ADWR & others

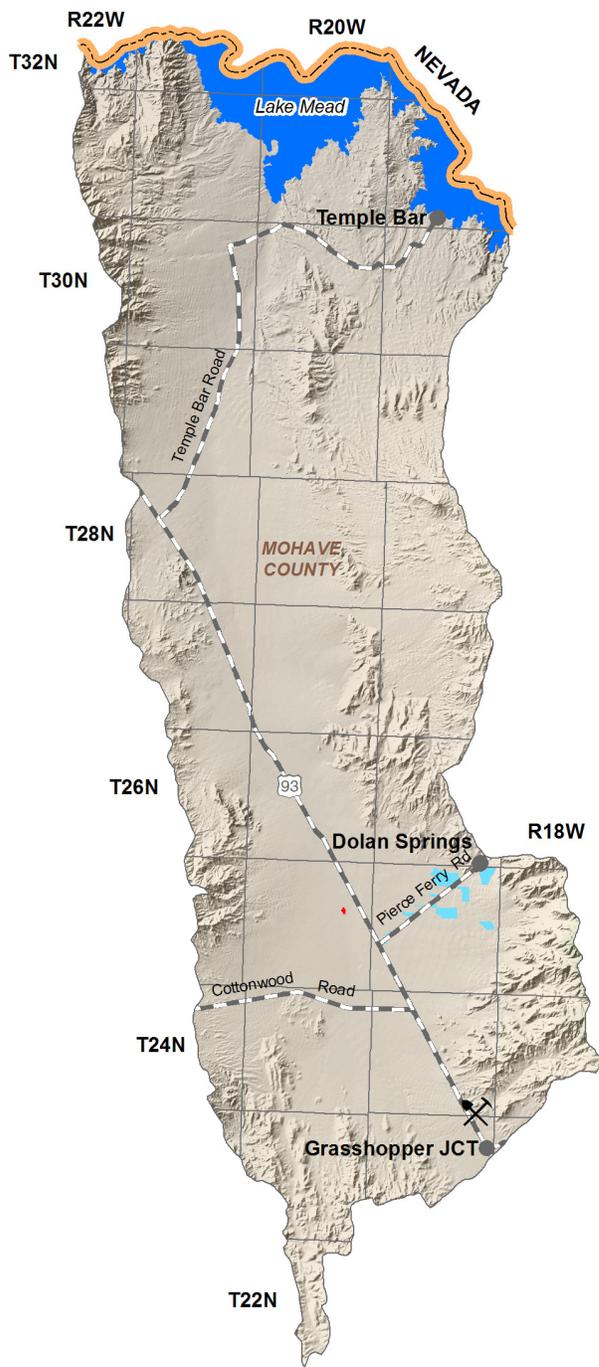
Notes:

Year of Record is for the volume of effluent treated/generated

NA: Data not currently available to ADWR

WWTF: Waste Water Treatment Facility





Primary Data Source: USGS National Gap Analysis Program, 2004



Figure 4.3-10
Detrital Valley Basin
Cultural Water Demand

Demand Centers

- M&I - High Intensity
- M&I - Low Intensity
- Small Mine/Quarry ✂
- Nevada State Boundary
- Major Road
- City, Town or Place

4.3.9 Water Adequacy Determinations in the Detrital Valley Basin

Water adequacy determination information including the subdivision name, location, number of lots, adequacy determination, reason for the inadequacy determination, date of determination and subdivision water provider are shown in Table 4.3-9A and B for water reports and analysis of adequate water supply. Figure 4.3-11 shows the locations of subdivisions keyed to the Table. A description of the Water Adequacy Program is found in Volume 1, Appendix C. Adequacy determination data sources and methods are found in Volume 1, Appendix A.

- All subdivisions receiving an adequacy determination are in Mohave County. Twenty-nine water adequacy determinations for more than 6,090 lots have been made in this basin through December 2008. No lots received an adequate water supply designation.
- The most common reason for an inadequacy determination was because the existing water supply is unreliable or physically unavailable.
- Two Analysis of Adequate Water Supply applications have been approved for this basin for a total of 50,953 lots.

Table 4.3-9 Adequacy Determinations in the Detrital Valley Basin¹

A. Water Adequacy Reports

Map Key	Subdivision Name	County	Location			No. of Lots	ADWR File No. ²	ADWR Adequacy Determination	Reason(s) for Inadequacy Determination ³	Date of Determination	Water Provider at the Time of Application
			Township	Range	Section						
1	Equestrian Estates at White Hills, Tract 3816	Mohave	27 North	19 West	5	116	53-700573	Inadequate	A1	10/16/2008	Equestrian Estates White Hills Water Cooperative
2	Flannery & Allen	Mohave	27 North	20 West	31	55	53-400912	Inadequate	A1,A2	4/10/2003	Individual Wells
3	Gateway Acres, Tract One	Mohave	25 North	20 West	5	237	53-700289	Inadequate	A1	4/19/2007	Dry Lot Subdivision
4	Gateway Acres, Tracts, 1,2,7 & 8	Mohave	25 North	20 West	3, 5, 7, 11, 13, 14, 15, 17, 21, 23	352	53-401105	Inadequate	A1,A2	5/7/2004	None
5	Gateway Acres 3&4	Mohave	25 North	19 West	5,9, 7,17,29	205	53-500694	Inadequate	A2,A3	8/29/1985	Dry Lot Subdivision
6	Gateway Acres Tract 05	Mohave	24 North	20 West	23, 25	340	53-500695	Inadequate	A2,A3	8/27/1984	Dry Lot Subdivision
7	Gateway Acres Tract 06	Mohave	24 North	20 West	11	49	53-500696	Inadequate	A1,A2,A3	8/13/1982	Dry Lot Subdivision
8	Gateway Acres Tract 06A	Mohave	24 North	20 West	11		53-500697	Inadequate	A2,A3	3/14/1984	Dry Lot Subdivision
9	Gateway Acres 8	Mohave	25 North	19 West	1, 13	642	53-500692	Inadequate	A2,A3	11/23/1977	Dry Lot Subdivision
10	Gateway Acres 9	Mohave	25 North	19 West	5,7,9,17,19,21,29	NA	NA	Inadequate	A2,A3	11/24/1977	Dry Lot Subdivision
11	Gateway Acres Tract 11	Mohave	24 North	19 West	7	186	53-500698	Inadequate	A2,A3	3/14/1984	Dry Lot Subdivision
12	Gateway Acres Tract 11A	Mohave	24 North	19 West	9	NA	53-500699	Inadequate	A1,A2,A3	6/30/1992	Dry Lot Subdivision
13	Gateway Acres Tract 12	Mohave	24 North	19 West	19, 31	340	53-500700	Inadequate	A2,A3	8/27/1984	Dry Lot Subdivision
14	Gateway Acres 13	Mohave	25 North	20 West	31	NA	53-500693	Inadequate	D	7/29/1993	Dry Lot Subdivision
15	Golden Horseshoe Ranchos #1	Mohave	27 North	20 West	9	98	53-500718	Inadequate	A1	12/31/1992	Dry Lot Subdivision
16	Golden Horseshoe Ranchos #2	Mohave	27 North	19 West	7	540	53-300222	Inadequate	A1,A2	11/7/1996	Dry Lot Subdivision
17	Golden Horseshoe Ranchos Units 3 & 4	Mohave	27 North	19 West	9, 17	192	53-300196	Inadequate	A2	9/26/1996	Dry Lot Subdivision
18	Golden Horseshoe Ranchos Unit #5	Mohave	27 North	19 West	19	375	53-400274	Inadequate	A1,B,C	4/7/2000	White Hills Water Company
19	Golden Horseshoe Ranchos Unit 4 lots 17,27,240,242, 275,276	Mohave	27 North	19 West	17	6	53-700533	Inadequate	A1	6/20/2008	Dry Lot Subdivision
20	Golden Horseshoe Ranchos Unit 5	Mohave	27 North	19 West	19	283	53-401884	Inadequate	A1	10/6/2005	Dry Lot Subdivision

Table 4.3-9 Adequacy Determinations in the Detrital Valley Basin (Cont)¹

A. Water Adequacy Reports

Map Key	Subdivision Name	County	Location			No. of Lots	ADWR File No. ²	ADWR Adequacy Determination	Reason(s) for Inadequacy Determination ³	Date of Determination	Water Provider at the Time of Application
			Township	Range	Section						
21	Golden Horseshoe Ranchos, Unit 1, Unit 3, Unit 4 and Unit 6	Mohave	27 North	19 West	9, 17, 21	376	53-700285	Inadequate	A1	6/19/2007	Dry Lot Subdivision
21	Golden Horseshoe Ranchos, Unit 1, Unit 3, Unit 4 and Unit 6	Mohave	27 North	20 West	9	376	53-700285	Inadequate	A1	6/19/2007	Dry Lot Subdivision
22	Lake Mohave Ranchos	Mohave	25 North	19 West	1, 11, 23, 27	NA	53-500885	Inadequate	A2,A3	11/23/1977	Dry Lot Subdivision
23	Lake Mohave Ranchos A	Mohave	25 North	18 West	7	NA	53-500884	Inadequate	A2,A3	11/23/1977	Dry Lot Subdivision
24	Lake Mohave Ranchos B&C	Mohave	26 North	20 West	35	642	53-500888	Inadequate	A2,A3	11/23/1977	Dry Lot Subdivision
25	Lake Mohave Ranchos Unit 16	Mohave	25 North	18 West	7	9	53-401802	Inadequate	A1	7/14/2005	Dry Lot Subdivision
26	Sunny Lakes Ranchos Unit 1	Mohave	28 North	20 West	13	546	53-402260	Inadequate	A2	8/25/2006	Dry Lot Subdivision
27	Sunset Vista	Mohave	25 North	19 West	4	10	53-401293	Inadequate	A1,A2	5/7/2004	NA
30	Triangle Air Park	Mohave	27 North	21 West	24	35	53-501581	Inadequate	A1,A2,A3	1/24/1984	Dry Lot Subdivision
31	Western Horizon Estates #2	Mohave	24 North	19 West	27	80	53-501670	Inadequate	A1,A2,A3	7/13/1992	Dry Lot Subdivision

B. Analysis of Adequate Water Supply

Map Key	Subdivision Name	County	Location			No. of Lots	ADWR File No. ²	Date of Determination	Water Provider at the Time of Application
			Township	Range	Section				
28	The Ranch At White Hills	Mohave	24 North	20 West	13, 33, 35	25,000 for the entire subdivision	43-401774	4/11/2006	Double Diamond Utilities
			25 North	19 West	6, 8, 18, 30				
			25 North	20 West	3, 5, 7, 9, 11-15, 17, 19, 21, 23				
			25 North	21 West	35				
			27 North	19 West	1, 3, 9, 11, 13, 15, 19, 21, 23, 25, 27, 29, 31, 33, 35				
			27 North	20 West	1, 9, 13, 25, 31, 35				
			27 North	21 West	13, 25				
			28 North	19 West	9, 15, 17, 19, 21, 27, 29, 31, 33, 35				
			28 North	20 West	23, 25, 35				
29 North	19 West	21, 29, 33							



Table 4.3-9 Adequacy Determinations in the Detrital Valley Basin (Cont)¹

B. Analysis of Adequate Water Supply

Map Key	Subdivision Name	County	Location			No. of Lots	ADWR File No. ²	Date of Determination	Water Provider at the Time of Application
			Township	Range	Section				
29	The Villages at White Hills	Mohave	27 North	20 West	16, 20, 21, 23, 30	25,953	43-401674	7/18/2007	Undetermined
			27 North	21 West	25				

Source: ADWR 2008

Notes:

¹ Each determination of the adequacy of water supplies available to a subdivision is based on the information available to ADWR and the standards of review and policies in effect at the time the determination was made. In some cases, ADWR might make a different determination if a similar application were submitted today, based on the hydrologic data and other information currently available, as well as current rules and policies.

² Prior to February 1995, ADWR did not assign file numbers to applications for adequacy. Between 1995-2006 all applications for adequacy were given a file number with a 22 prefix. In 2006 a 53 prefix was assigned to all water adequacy reports and applications regardless of their issue date.

³ A. Physical/Continuous

1) Insufficient Data (applicant chose not to submit necessary information, and/or available hydrologic data insufficient to make determination)

2) Insufficient Supply (existing water supply unreliable or physically unavailable; for groundwater, depth-to-water exceeds criteria)

3) Insufficient Infrastructure (distribution system is insufficient to meet demands or applicant proposed water hauling)

B. Legal (applicant failed to demonstrate a legal right to use the water or failed to demonstrate the provider's legal authority to serve the subdivision)

C. Water Quality

D. Unable to locate records

NA = Data not currently available to ADWR

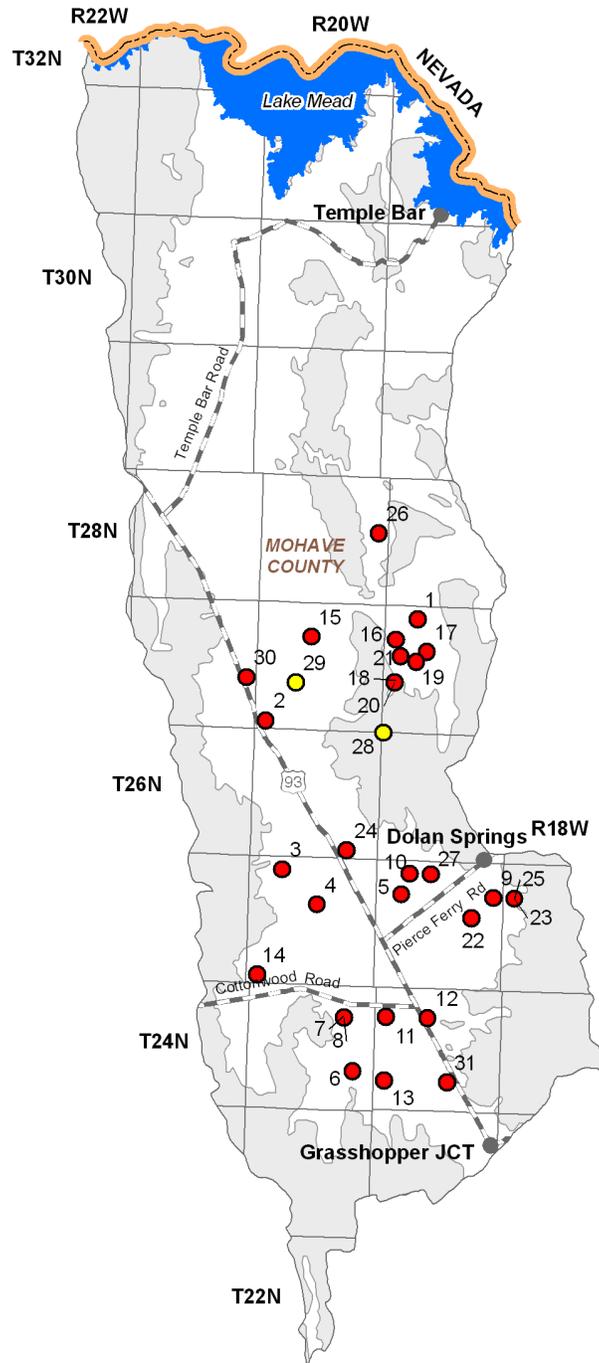


Figure 4.3-11
Detrital Valley Basin
Adequacy Determinations

Adequacy Determinations

- Inadequate ●
- Analysis of Adequate Water Supply ●
- Consolidated Crystalline & Sedimentary Rocks
- Unconsolidated Sediments
- Nevada State Boundary
- Major Road
- City, Town or Place

Detrital Valley Basin

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