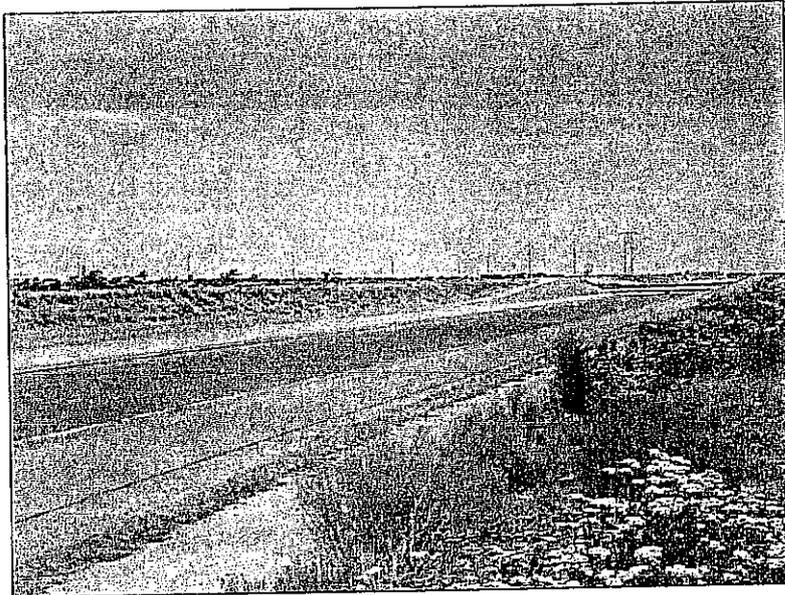


Baldy Mesa Water District

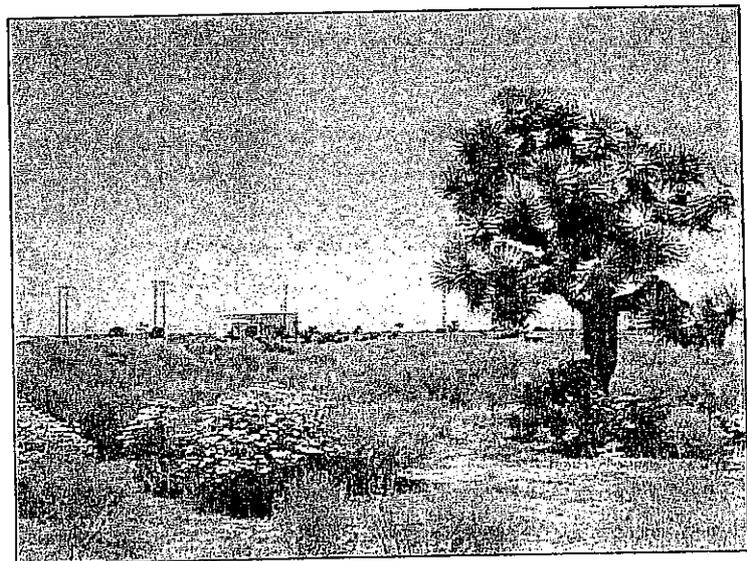
2005-06

Urban Water Management Plan



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LAFCO
San Bernardino County



PREPARED BY DISTRICT ENGINEER

**So & Associates
Engineers Inc.**

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June 27, 2006

To: Victorville Public Library
City of Adelanto
Town of Apple Valley (Public Works Department)
City of Hesperia
Mojave Water Agency
San Bernardino County – Special Districts Department (CSA 42, CSA 64,
CSA 70J, CSA 70L)
City of Victorville
Victor Valley Water District

From: Wilson F. So, PE 
BMWD District Engineer

Subject: Urban Water Management Plan for Baldy Mesa Water District

Enclosed is a copy of the Draft Final 2005-06 Urban Water Management Plan for your reference and information. If you should have any questions, please feel free to forward them to me directly.

BALDY MESA WATER DISTRICT

BOARD OF DIRECTORS

Jacob Jaroszewski – President

Robert Almond – Vice President

Marlene East – Director

William Mines – Director

Gerald Smith – Director

Guy Patterson – General Manager

Doug Mathews – Engineering Manager



ENGINEERING STAFF

Wilson F. So District Engineer
Kanchan Joshi Assistant Project Engineer

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**BALDY MESA WATER DISTRICT
2005-06 URBAN WATER MANAGEMENT PLAN**

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SECTION I

PLAN ADOPTION, PUBLIC PARTICIPATION, PLANNING COORDINATION

Plan Adoption

The Urban Water Management Planning Act (Assembly Bill 797) requires all California urban retailers serving more than 3,000 customers or supplying more than 3,000 acre feet of water per year to file an Urban Water Management Plan (hereinafter referred as "Plan") under the California Department of Water Resources (DWR)

California Water Code Section 10621 (a) Each urban water supplier shall, not later than January 31, 1992, prepare, adopt and submit to the department an amendment to its urban water management plan which meets the requirements of subdivision (e) of Section 10631.

Baldy Mesa Water District began preparation of its initial Urban Water Management (including shortage contingency plan) in conjunction with its Water Master Plan in 1997. The Plan was finalized and subsequently adopted by the District Board of Directors. The Plan includes the information necessary to meet the requirements of subdivision (e) of California Water Code Section 10631. This is an update of the adopted plan.

Public Participation

California Water Code Section 10642 Prior to adopting a plan, the urban water supplier shall make the plan available for public inspection and shall hold a public hearing thereon. Prior to the hearing, notice of the time and place of hearing shall be published within the jurisdiction of the publicly owned water supplier pursuant to California Water Code Section 6066 of the Government Code. A privately owned water supplier shall provide an equivalent notice within its service area. After the hearing, the plan shall be adopted as prepared or as modified after the hearing.

Public meetings and the availability of copies of the Draft Urban Water Management Plan were properly noticed in local newspaper. Copies of the draft final plan were available for public review at the Water District Operations offices and at local libraries. Baldy Mesa Water District held a public meeting on August 3, 2006 prior to adoption of the updated 2005-06 Urban Water Management Plan.

California Water Code Section 10656 An urban water supplier that does not submit an amendment to its urban water management plan pursuant to subdivision (a) of Section 10621 to the department by January 31, 1992, is ineligible to receive drought assistance from the state until the urban water management plan is submitted pursuant to Article 3 (commencing with Section 10640) of Chapter 3.

Baldy Mesa Water District submitted this updated Urban Water Management Plan to the Department of Water Resources on _____, 2006.

Planning Coordination

California Water Code Section 10620. (D) (2) Each urban water supplier shall coordinate the preparation of its urban water shortage contingency plan with other urban water supplier and public agencies in the area, to the extent practicable.

All current Baldy Mesa Water District (will be referred to as "District" throughout this document) water sources are from groundwater and are assumed shared in common with other urban and agricultural interests in the area. Additionally, Baldy Mesa Water District will coordinate with the Mojave Water Agency for purchasing imported water. Therefore, Baldy Mesa Water District (BMWD) will coordinate the development and adoption of this Urban Water Management Plan consistent with an area-wide Water Basin Management Plan adopted by the Mojave Water Agency (MWA).

This Urban Water Management Plan is being circulated to the following agencies for their review and input:

- City of Victorville;
- Victor Valley Water District;
- City of Hesperia (Hesperia Water District);
- Town of Apple Valley (Public Works Department);
- San Bernardino Special Districts Department, County Service Area 70-Improvement Zones J and L, and County Service Areas 42 and 64;
- Mojave Water Agency
- City of Adelanto
- Victorville Public Library (for general public's information)

Upon receipt of comments and input, this Urban Water Management Plan may be further revised.

SECTION II

LAND USE, POPULATION, AND WATER REQUIREMENTS

INTRODUCTION

The area covered by this Plan is shown in Figures 2-1 and 2-2 and includes communities neighboring to the Baldy Mesa Water District. The District encompasses approximately 26.7 square miles, has a common boundary with the City of Adelanto on the north; County Service Area 70, Improvement Zones L and J to the west and south; the Hesperia Water District (City of Hesperia) to the southeast; and the Victor Valley Water District to the northeast.

The District at present provides water service to land within the City of Victorville and its sphere of influence. In general, the area lies north of the California Aqueduct and is bounded by Palmdale Road to the north, Caughlin Road to the west, Mesa Street to the south, and Interstate 15 to the east. Baldy Mesa Water District overlies the Upper Mojave River, El Mirage and Antelope Valley Groundwater Basins.

The socioeconomic characteristics of an area largely affect the demand and planning for facilities. To determine future capacity and size of water mains, wells, booster pumps, storage reservoirs and other water system facilities, it is necessary to develop and project future water requirements. Water service requirements are determined based on land use, historical trends in water use, and projected populations.

LAND USE

Baldy Mesa Water District (BMWD) service area includes about 26.7 square miles. Elevations within the study area vary from 3,180 feet in the northeasterly portion to 3,680 feet in the southwesterly, necessitating separation of BMWD into three pressure zones.

Approximately 60 percent of the Baldy Mesa Water District is located within the City of Victorville boundaries with the remaining 40 percent located within its sphere of influence. The City of Victorville General Land Use Plan is therefore used as the basis in determining future densities and water requirements. Historically, the primary type of development that has occurred in the District has been residential development. Commercial development is sparse in the past. However, this trend is changing with the recent planning applications to the City of Victorville. A recent study for the western portions of the District covering an approximate ten square mile area reflects a total number of dwelling units estimated to be 27,220. This area is currently being processed through the City of Victorville and Baldy Mesa Water District and certain areas are currently under construction. This is a drastic change since the adoption of our last Urban Water Management Plan. It should be noted that the City of Victorville is in the process of updating its current General Plan, and Baldy Mesa Water District is preparing a Request For Proposal for an in-depth Master Plan of the entire District. Table 2-1, Land Use data, summarizes the various land use categories and acres within the District.

TABLE 2-1
BALDY MESA WATER DISTRICT
LAND USE DATA

LAND USE CATEGORY	DESIGNATION	2000 ACRES	2000 Projected EDUs	2005-06 ACRES	2005-06 Projected EDUs
a. Suburban Residential District (2 du/acre)	S-R	6,223	12,446	3,944	7,888
b. Suburban Residential District (4 du/acre)				2,289	9,156
a. Single Family Residential District (5 du/acre)	R-1	6,620	33,100	See (b)	See (b)
b. Single Family Residential District (4 du/acre)				6,620	26,480
Medium Density Residential District (8 du/acre)	R-2	147	1,176	147	1,176
High Density Residential District (15 du/acre)	R-3	551	8,265	551	8,265
a. Specific Plan (2 du/acre)	S-P	1,173	2,346		
b. Specific Plan (>2 du/acre)				1,173	4,530
SUBTOTAL RESIDENTIAL			14,714	57,333	57,495
* Based on 1,000 gpd per acre water Duty for 2005-06					
Neighborhood Retail District *	C-1	15	38	15	22
General Commercial District *	C-2	1,797	4,493	1,797	2,567
Highway And Service Commercial District *	C-4	32	80	32	46
Administrative Professional Office District *	C-A	176	440	176	251
Commercial Manufacturing District *	C-M	56	140	56	80
SUBTOTAL COMMERCIAL			2,076	5,191	2,966
Industrial Park District *	I.P.D	30	150	30	43
Public And Civil District (School)	P-C	172	860	172	860
Planned Unit Development	P.U.D	71	355	71	355
SUBTOTAL MISCELLANEOUS			273	1,365	1,258
TOTALS			17,063	63,889	61,719

POPULATION

Population growth constitutes demand for residential, commercial, industrial, and other service activities. There were approximately 6,948 customers within the service area as of Year 2005-06. The estimated population within the District's area was 17,370 people. The District was averaging 275 new connections per year, and average daily usage each connection was approximately 650 gallons.

PAST AND CURRENT WATER REQUIREMENTS

Historical records on water production and meter connections per year were obtained from the 2001 Water Master Plan Update and District records. Table 2-2 summarizes water usage from 1993 to 2006.

**TABLE 2-2
BALDY MESA WATER DISTRICT
HISTORICAL WATER DEMAND**

YEAR	NUMBER OF CONNECTIONS	NUMBER OF NEW CONNECTIONS	ANNUAL DEMAND ACRE FEET (AF)	AVERAGE DEMAND PER CONNECTION	
				AF/YR	GPD
93-94	3,725	346	2,631	0.706	631
94-95	3,800	75	2,677	0.704	629
95-96	3,872	72	3,013	0.778	695
96-97	3,946	74	3,073	0.779	696
97-98	3,987	47	2,675	0.671	599
98-99	4,034	47	2,932	0.727	649
99-00	4,097	63	3,165	0.762	680
00-01	4,240	143	2,960	0.698	623
01-02	4,441	201	3,580	0.806	720
02-03	4,863	422	3,693	0.759	678
03-04	5,573	710	3,883	0.696	621
04-05	6,286	713	4,288	0.682	609
05-06	6,948	662	4,396	0.633	565
AVERAGE (94-06)		275	3,305	0.723	646

Recognizing that the District's average water usage per connections has increased during the past few years, the District plans to maintain the water awareness program in order to educate existing

and new customers about water conservation and encourage people to use water wisely. Based on the historical water usage of District customers, an average daily demand of 650 gallons per day per connection will be used as a basis to determining the future water requirements. The maximum day demand is estimated at 2.5 times the average day demand, or 1,625 gallons per day per connection. These water duty coefficients are consistent with neighboring water districts in the Victor Valley area.

PROJECTED WATER REQUIREMENTS

The projected number of new equivalent connections per year (includes commercial and industrial equivalent dwelling units) in each pressure zone is provided in Table 2-3. Based on this projection, future water requirements can be determined.

TABLE 2-3
PROJECTED CONNECTION PER ZONE

ZONE	YEAR 2005-06 CONN. (ACTUAL)	PROJECTED NUMBER OF CONNECTIONS			
		2010	2015	2020	2025
UPPER	383	438	508	578	648
MIDDLE	801	856	952	1,048	1,145
LOWER	5,764	8,032	10,630	13,229	15,827
TOTAL	6,948	9,326	12,090	14,855	17,620*

0 376/YR
2030

20,426

* Could be low if current higher growth trend continues

The projected average day demands and maximum day demands per pressure zone are shown in Tables 2-4 and 2-5 respectively.

TABLE 2-4
PROJECTED AVERAGE DAY WATER DEMAND PER ZONE

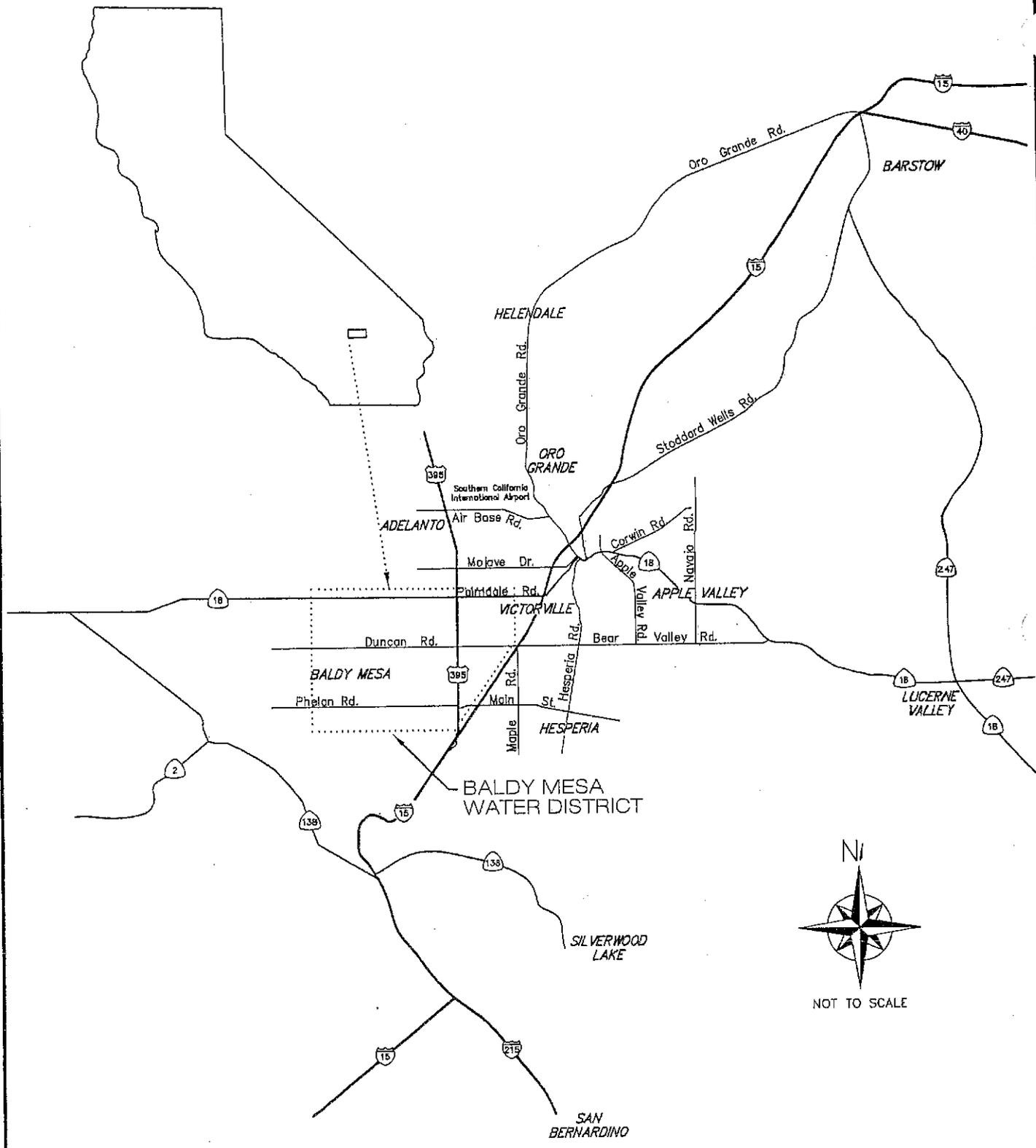
ZONE	YR. 2005-06 DEMAND ACTUAL (MGD)	PROJECTED AVERAGE DAY DEMAND			
		2010 (MGD)	2015 (MGD)	2020 (MGD)	2025 (MGD)
UPPER	0.22	0.31	0.36	0.40	0.45
MIDDLE	0.45	0.60	0.67	0.73	0.80
LOWER	3.26	5.62	7.44	9.26	11.08
TOTAL	3.93	6.53	8.46	10.40	12.33

TABLE 2-5

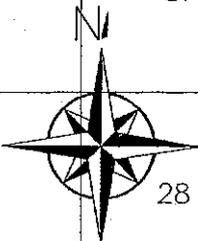
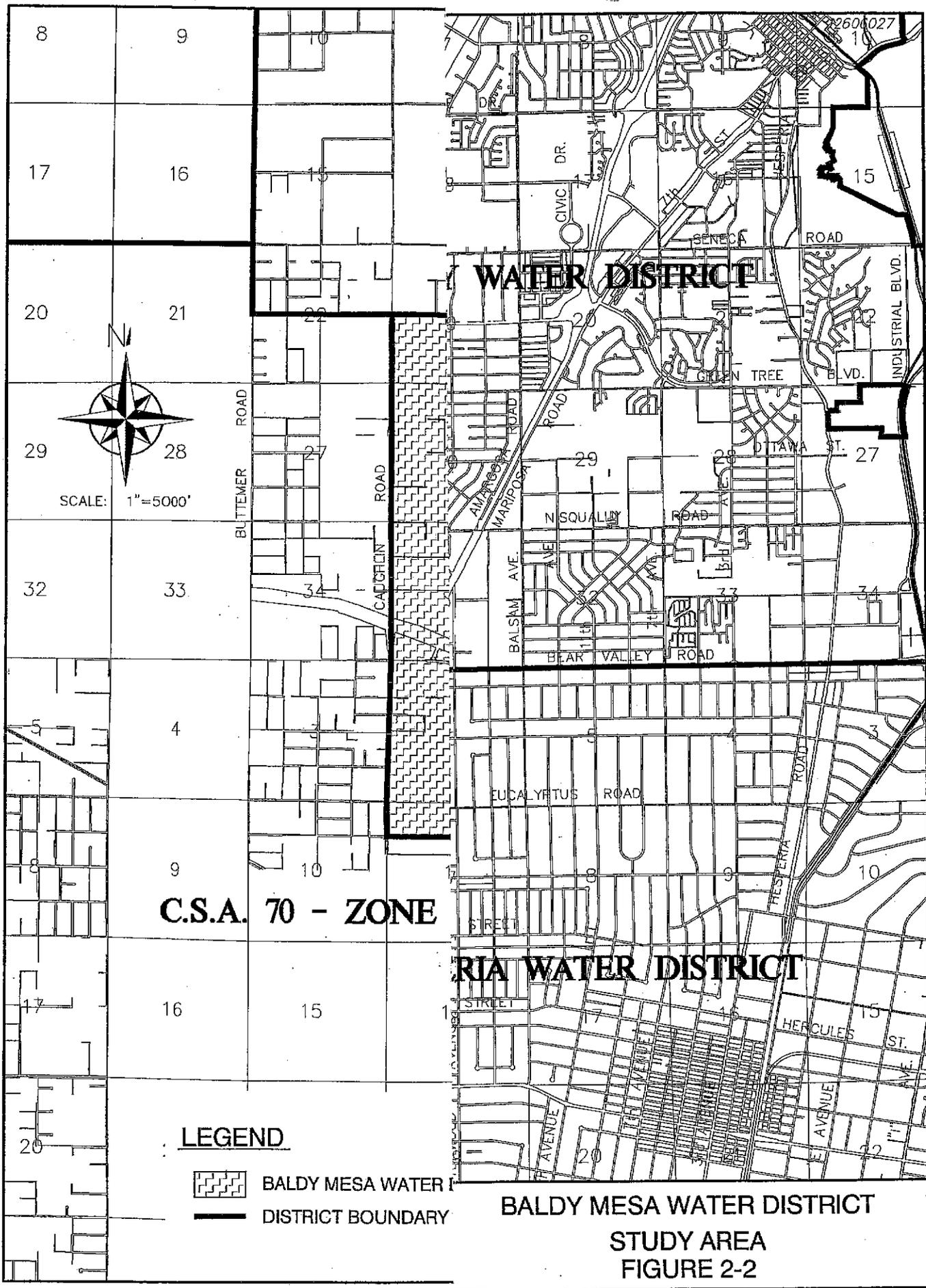
PROJECTED MAXIMUM DAY WATER DEMAND PER ZONE

ZONE	YR. 2005-06 DEMAND	PROJECTED AVERAGE DAY DEMAND			
	ACTUAL (MGD)	2010 (MGD)	2015 (MGD)	2020 (MGD)	2025 (MGD)
UPPER	0.54	0.77	0.89	1.01	1.13
MIDDLE	1.13	1.50	1.67	1.83	2.00
LOWER	8.14	14.06	18.60	23.15	27.70
TOTAL	9.81	16.32	21.16	26.00	30.83

Figure 2-3 shows the location of various housing tracts under planning and development.



BALDY MESA WATER DISTRICT
LOCATION MAP
FIGURE 2-1



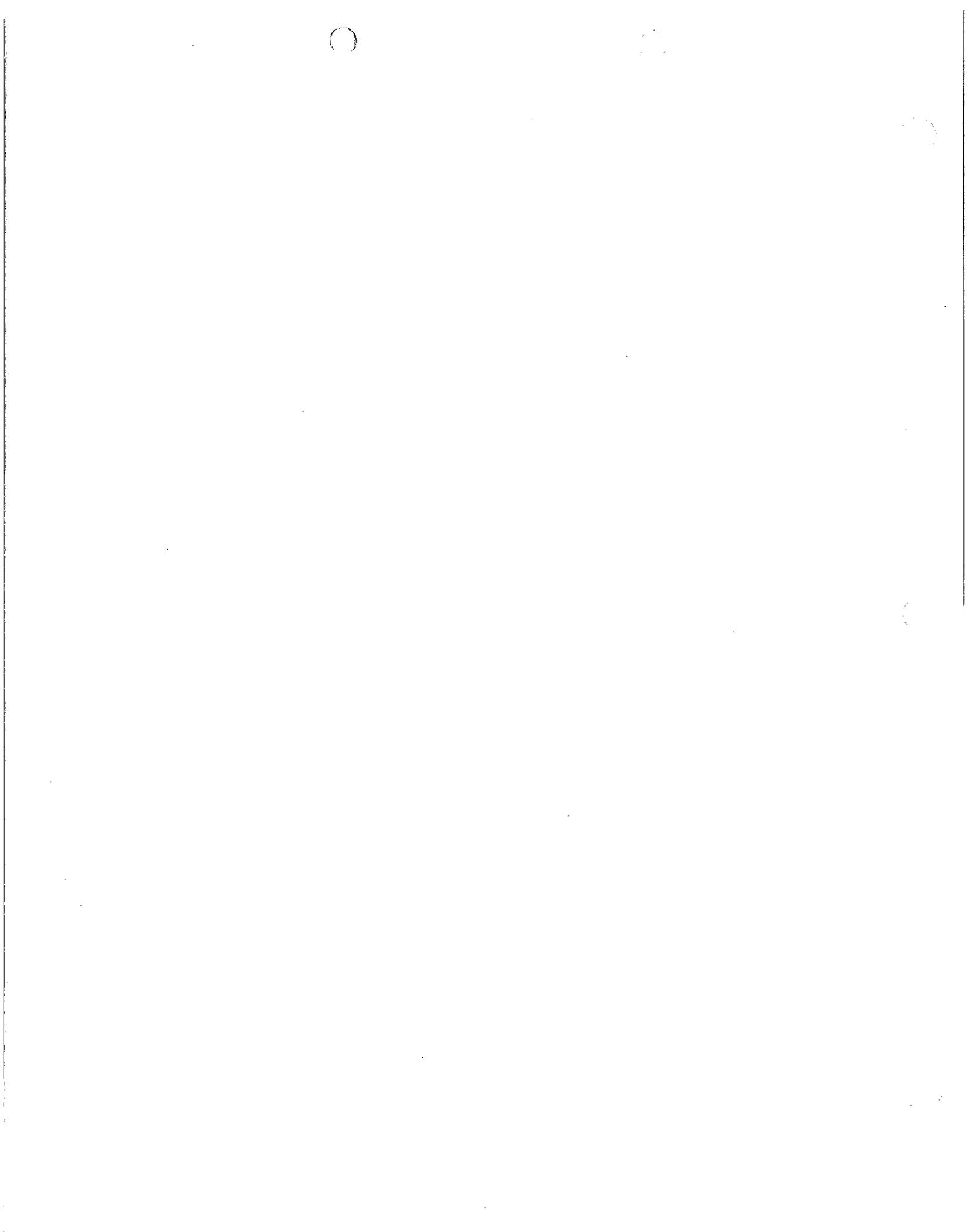
SCALE: 1" = 5000'

C.S.A. 70 - ZONE

LEGEND

-  BALDY MESA WATER DISTRICT
-  DISTRICT BOUNDARY

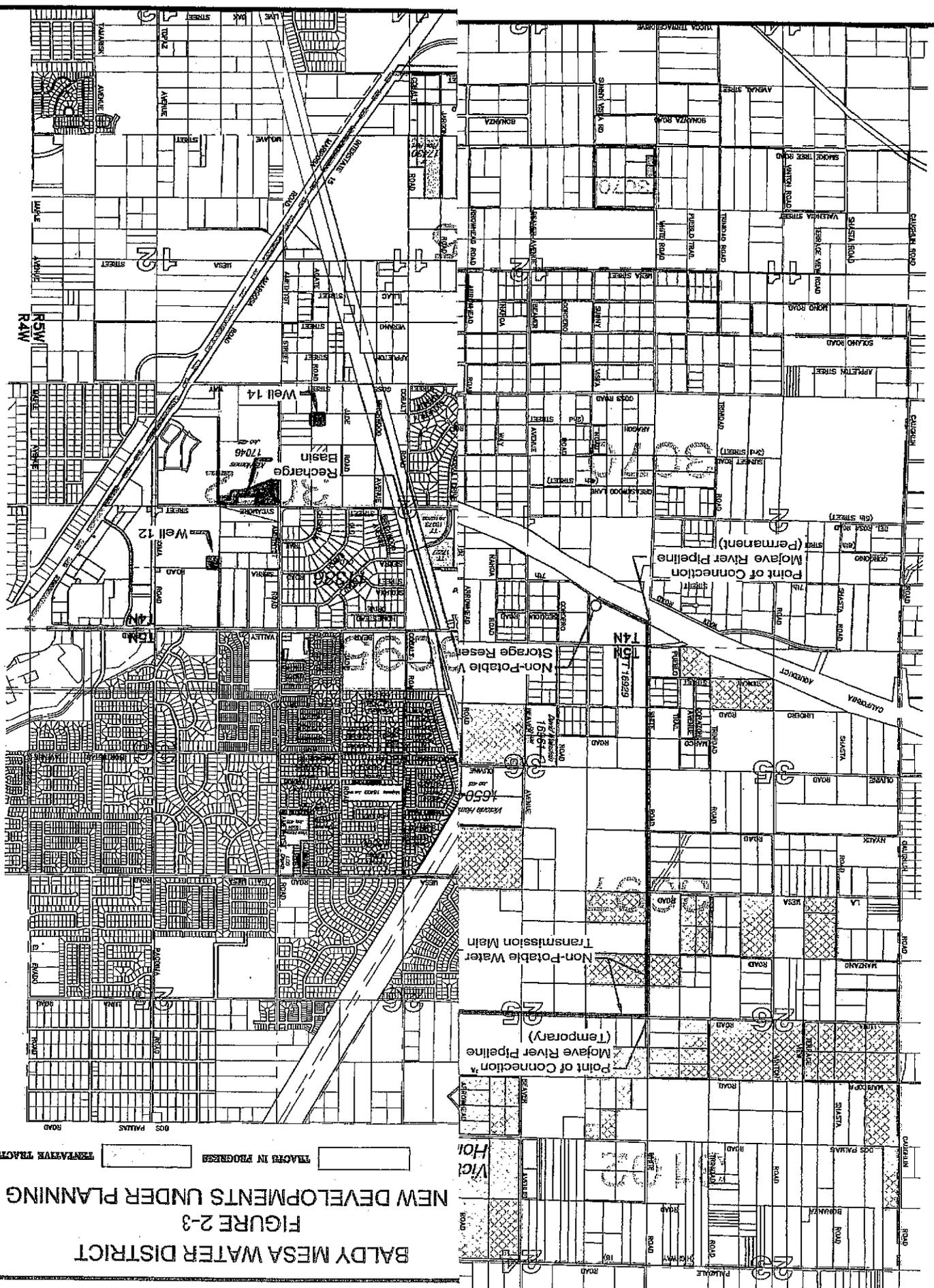
**BALDY MESA WATER DISTRICT
STUDY AREA
FIGURE 2-2**

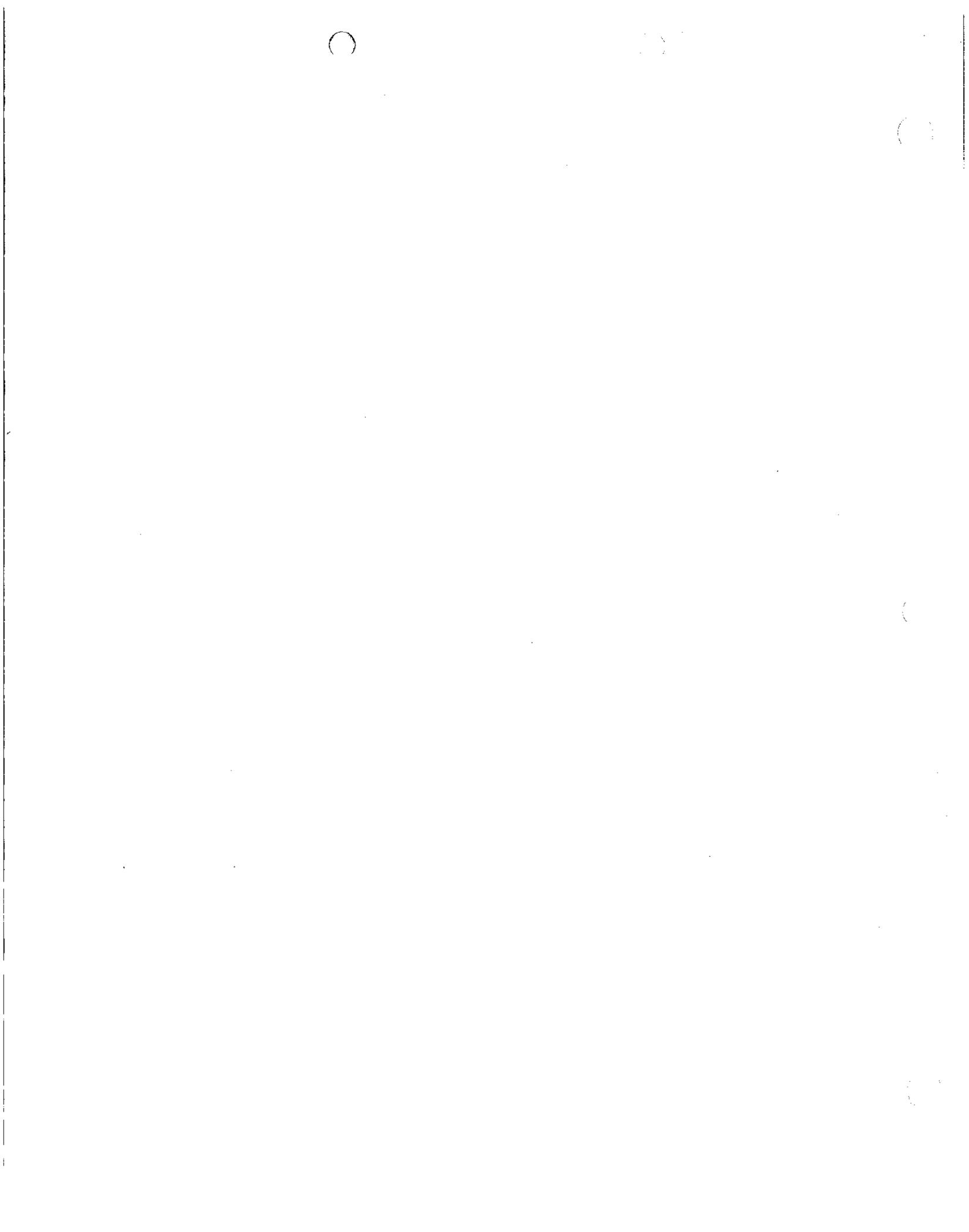


BALDY MESA WATER DISTRICT
FIGURE 2-3
NEW DEVELOPMENTS UNDER PLANNING

TRACTS IN PROGRESS

TEMPERATIVE TRACTS





SECTION III

EXISTING AND PROPOSED FACILITIES

The existing BMWD water system serves an area of approximately 17,063 acres (26.7 square miles) with about 6,948 active service connections (in 2005-06). Based on the 2000 Water Master Plan Update, the system is divided into three pressure zones. Figure 3-1 shows existing and proposed water facilities.

Pipelines

The existing water system is comprised of 6-inch, 8-inch, 10-inch and 12-inch diameter distribution lines with limited 16, 18, 20 and 24-inch diameter transmission lines. With the exception of the middle zone, most of the transmission capacity of the system is in a north-south direction. The water distribution system is supplied by eight vertical wells. Pressure throughout the system is governed by level in the reservoirs.

The transmission and distribution pipelines consists of over 752,460 lineal feet of asbestos cement, polyvinyl chloride, ductile iron and steel water pipe ranging in size as shown in Table 3-1.

**TABLE 3-1
EXISTING PIPELINES**

SIZE	MATERIAL	QUANTITY
4-INCH	PVC and AC	9,920
6-INCH	PVC and AC	163,290
8-INCH	PVC and AC	331,540
10-INCH	PVC and AC	8,360
12-INCH	PVC and AC	150,950
14-INCH	DIP & CML & C	190
16-INCH	DIP & CML & C	54,600
18-INCH	DIP & CML & C	11,210
20-INCH	DIP & CML & C	9,110
24-INCH	DIP & CML & C	13,290
TOTAL FEET OF PIPELINE		752,460

Storage Facilities

Baldy Mesa Water District at present has 8 water storage reservoirs in operation. All reservoirs are at ground level and supply water to their respective zones by gravity. These existing

reservoirs range in capacity from 0.5 million gallons (MG) to 5.0 MG, with a total combined capacity of 19.4 MG (includes a new 5 MG tank under design). All existing reservoirs consist of welded steel construction. The District will continue to plan and conduct additional storage reservoirs based on the growth needs.

**TABLE 3-2
EXISTING STORAGE RESERVOIRS**

LOCATION	NO.	ZONE SERVED	ELEVATION (FT)		DIAM (FT)	HEIGHT (FT)	VOLUME (MG)
			BASE	HWL			
CAUGHLIN RD	5	UPPER	3809	3832	60	24	0.5
CAUGHLIN RD	10	UPPER	3809	3832	122	24	2.0
SUBTOTAL UPPER ZONE							2.5
WHITE ROAD	8	MIDDLE	3657	3694	120	37.5	3.2
WHITE ROAD	9	MIDDLE	3657	3694	96	37.5	2.0
SUBTOTAL MIDDLE ZONE							5.2
I-15	1	LOWER	3476	3508	105	32	2.0
HWY 395	2	LOWER	3476	3508	105	32	2.0
HWY 395	--	LOWER	3476	3508	163	32	5.0*
HWY 395	7	LOWER	3476	3508	120	32	2.7
SUBTOTAL LOWER ZONE							11.7
TOTAL CAPACITY							19.4

* Under Design

Supply Facilities

At present, BMWD's source of supply is water from nine existing vertical turbine well pumps . As shown in Table 3-3, the District operated 9 wells yielding a total of 7,780 gallons per minute or 11.20 million gallons per day (MGD) in 2001. Well No. 2 is not currently operational. Baldy Mesa Water District is in the process of drilling/equipping three(3) additional new wells (with two new wells ready to commence on bidding for pump equipping soon). Comparison of the available supply to maximum day water demand of 16.32 MGD for Year 2010 as shown in Table 2-5 indicates that BMWD doesn't have adequate supply capacity for the immediate future. Development of additional sources of supply will be required and will continue to be reviewed by the BMWD staff and Board of Directors.

**TABLE 3-3
EXISTING SOURCE OF SUPPLY**

WELL NO.	DATE DRILLED	DEPTH (FT)	PUMP SETTING (FT)	CASING DIAM (INCHES)	PERFORATION (DEPTH IN FT)	MOTOR HORSE-POWER	CURRENT CAPACITY (GPM)
1	1986	1,000	550	16	430-1,000	250	1,000
2	1987	875	652	14	460-835	150	460
3	1987	970	600	14	530-950	300	1,050
4	1993	840	620	16	560-580 650-840	300	1,210
5	1989	1,000	600	16	600-980	300	960
6	1988	920	600	16	625-910	300	960
7	1989	860	600	14	680-840	150	450
8	1997	1,018	600	16	538-938	300	1,000
9	2002		560	12	978-1,008	250	690
TOTAL SUPPLY							7,780.

Existing Booster Facilities

The BMWD existing water system has 2 booster pumping stations. All boosters are vertical turbine pumps with the number of pumps, pumping capacity, and total dynamic head summarized in the Table 3-4.

**TABLE 3-4
EXISTING BOOSTER STATIONS**

ZONE	LOCATION	NO. OF PUMPS	CAPACITY (GPM)	HORSE POWER (HP)	TOTAL DYNAMIC HEAD (FT)
LOWER TO MIDDLE	U.S. 395	2 1(FUTURE)	1,560 (E.A) 1,800(E.A)	200 (Each)	342
MIDDLE TO UPPER	WHITE ROAD	3	585 (E.A)	30 (Each)	192

SYSTEM IMPROVEMENTS

Construction of storage, supply and transmission piping facilities will occur as warranted by new development. The Water Master Plan identified construction of new facilities required to meet the anticipated growth.

(1) Piping

Pipeline proposed in the 2001 Water Master Plan Update and 2005 Focus Water Study (areas west of the Highway 395) are based on ultimate land use development. Table 3-5 lists the sizes and lengths of the pipelines required to maintain an adequate backbone transmission system in each pressure zone. The proposed distribution system consists of approximately 398,502 lineal feet of new 8-inch to 30-inch pipeline. The additional new pipelines will be constructed as new development occurs in a particular area.

**TABLE 3-5
PROJECTED PIPELINES PER ZONE**

ZONE	PIPELINE LENGTH (FT)						TOTAL
	8-INCH	12-INCH	16-INCH	18-INCH	24-INCH	30-INCH	
UPPER	3,850	7,900					11,750
MIDDLE		152,720	15,956	13,000	5,280	13,320	200,276
LOWER		116,808	--	15,581	31,030	23,057	186,476
TOTAL	3,850	277,428	15,956	28,581	36,310	36,377	398,502

* Based on recommendations of Year-2001 Water Master Plan Update, facilities built since then, and facilities identified in 2005 Focus Study for Specific Area.

(2) Storage

Storage requirements consist of three elements: operational storage, emergency storage, and fire storage. District Water Master Plan uses the following criteria:

Operational Storage = 0.3 Maximum Day Demand
 Emergency Storage = 1.0 Maximum Day Demand
 Fire Storage = 3,500 GPM x 3 Hours

Table 3-6 summarizes the projected water storage requirements for each of the three pressure zones. The table utilizes the existing connections in each pressure zone provided by the District's staff. It indicates that the District currently has adequate storage to support additional growth.

**TABLE 3-6
PROPOSED STORAGE REQUIREMENTS**

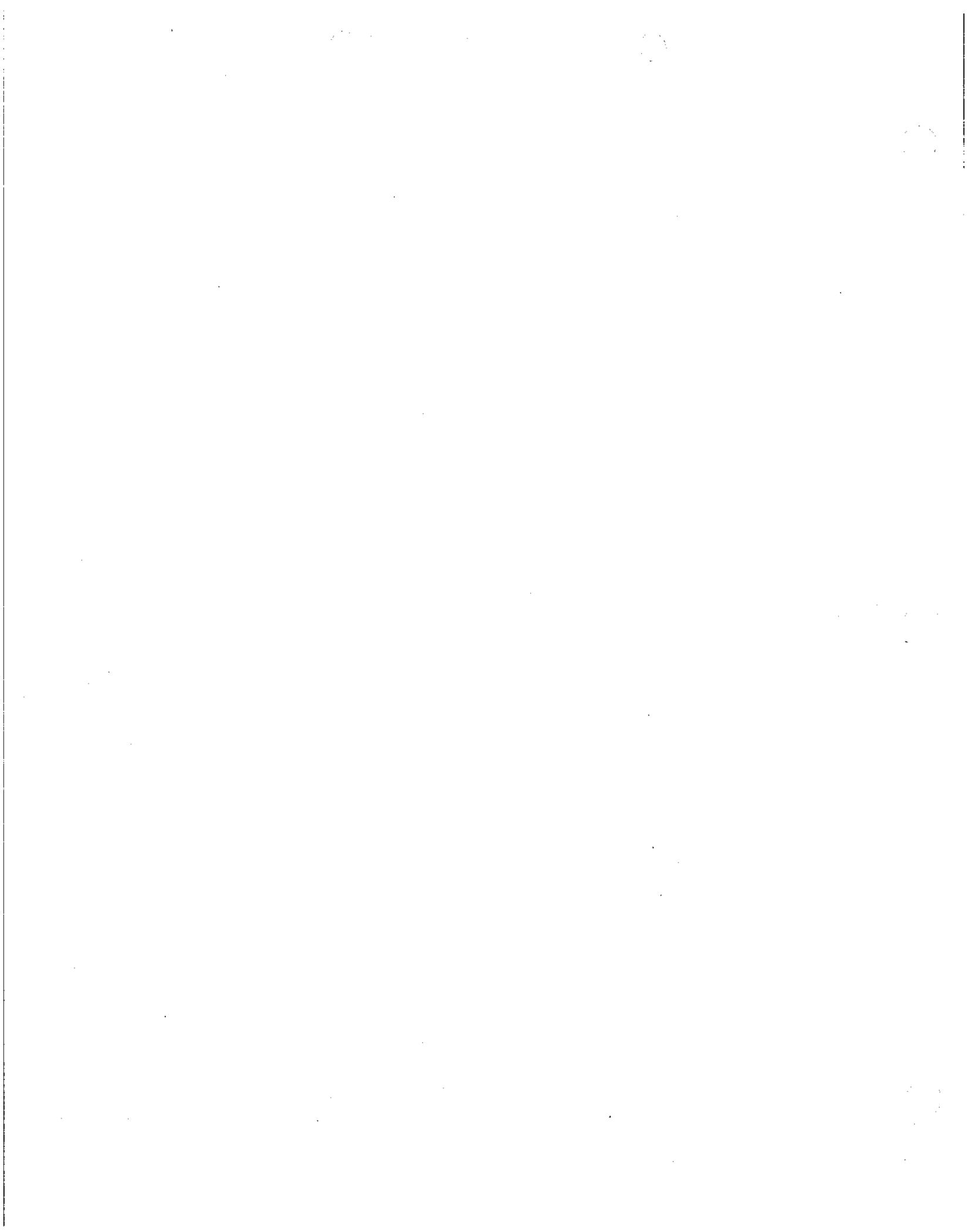
ZONE	YEAR 2005-06 STORAGE		STORAGE REQUIRED (MG) PER YEAR			
	EXISTING	REQUIRED	2010	2015	2020	2025
	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)
UPPER	2.50	1.01	1.30	1.46	1.62	1.78
MIDDLE	5.20	1.77	2.25	2.47	2.69	2.90
LOWER	6.7 (11.7)	10.88	18.57	24.48	30.40	36.31
TOTAL	14.40 (19.40)	13.66	22.12	28.41	34.70	40.99

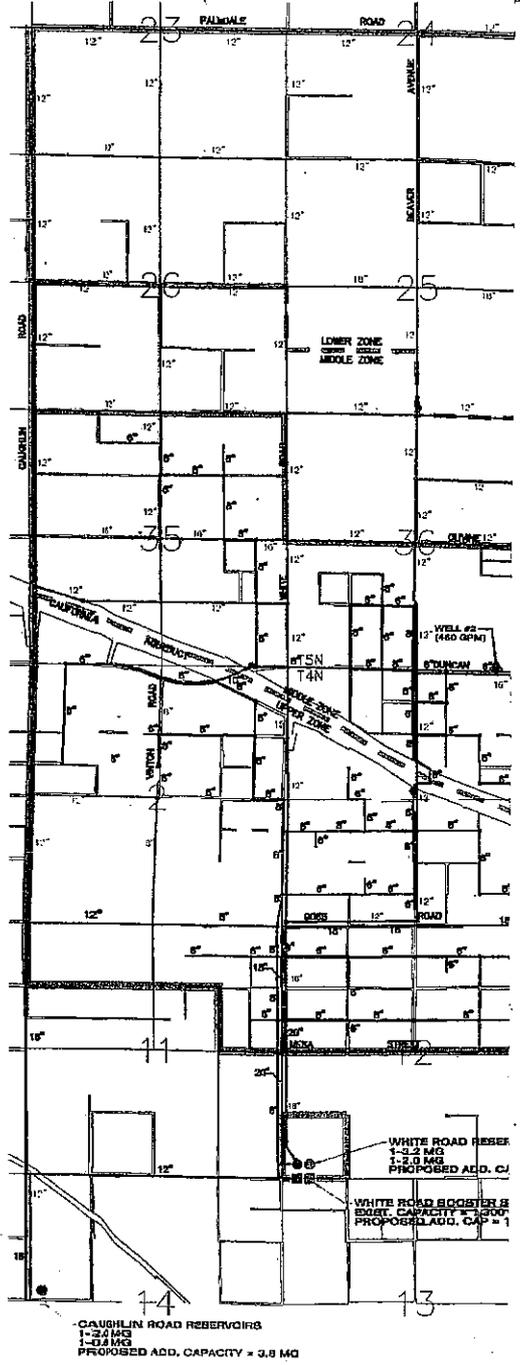
(3) Supply

Based on the land use and existing connections, the required water supply capacity to meet current need and through year 2025 was identified. It is assumed that the supply source will continue to be groundwater for immediate short term growth. Other sources of water (imported water and reclaimed water) and conservation play a significant role in meeting long term water needs. Table 3-7 summarizes water supply requirements through year 2025. Figure 3-1 shows the existing and proposed water facilities at near saturation development. Figure 3-2 shows the proposed backbone storage and delivery system for reclaimed water.

**TABLE 3-7
PROPOSED SUPPLY REQUIREMENTS**

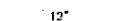
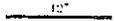
ZONE	YEAR 2005-06 DEMAND	SUPPLY REQUIRED (GPM)			
	ACTUAL (GPM)	2010 (GPM)	2015 (GPM)	2020 (GPM)	2025 (GPM)
UPPER	301	426	494	562	630
MIDDLE	629	832	926	1,019	1,113
LOWER	4,523	7,809	10,335	12,861	15,388
TOTAL	5,452	9,067	11,755	14,442	17,130





SCALE: 1" = 4000'

LEGEND

-  BADLY MESA WATER DISTRICT BOUNDARY
-  PRESSURE ZONE BOUNDARY
-  ASSESSMENT DISTRICT 2R BOUNDARY
-  EXISTING PIPELINE & SIZE
-  PROPOSED LOWER ZONE PIPELINE & SIZE
-  PROPOSED MIDDLE ZONE PIPELINE & SIZE
-  PROPOSED UPPER ZONE PIPELINE & SIZE
-  EXISTING RESERVOIR
-  EXISTING BOOSTER STATION
-  EXISTING WELL
-  PROPOSED RESERVOIR
-  PROPOSED BOOSTER STATION

CAUGHLIN ROAD RESERVOIRS
1-2.1 MG
1-0.8 MG
PROPOSED ADD. CAPACITY = 3.9 MG

WHITE ROAD RESER
1-2.2 MG
1-2.0 MG
PROPOSED ADD. CAP

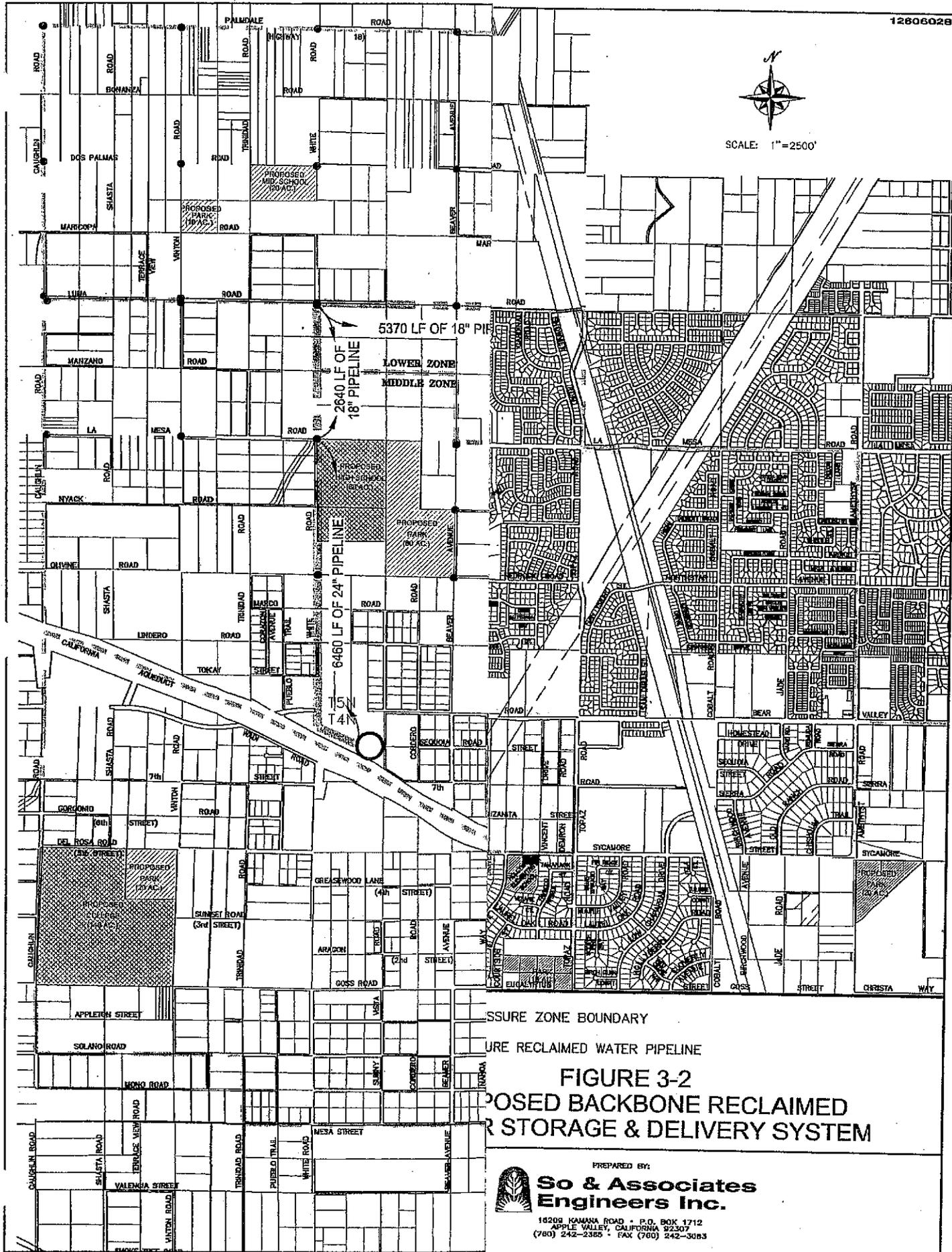
WHITE ROAD BOOSTER S
EXIST. CAPACITY = 2,000
PROPOSED ADD. CAP = 1

**BALDY MESA WATER DISTRICT
FIGURE 3-1 EXISTING AND PROPOSED
WATER FACILITIES (NEAR SATURATION)**





SCALE: 1"=2500'



SSURE ZONE BOUNDARY
 URE RECLAIMED WATER PIPELINE
FIGURE 3-2
PROPOSED BACKBONE RECLAIMED
WATER STORAGE & DELIVERY SYSTEM

PREPARED BY:

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Engineers Inc.
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 APPLE VALLEY, CALIFORNIA 92307
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SECTION IV

WATER SHORTAGE CONTINGENCY ANALYSIS

STAGES OF ACTION

Ordinance No. 1969-9 (see Appendix "A") established water conservation measures during periods of water supply shortages and emergencies. The ordinance provides for prohibitions on wasteful water uses and permits daily irrigation of landscaped or vegetated areas only during specified hours. The Ordinance provides for a three stage of water reduction utilizing a combination of voluntary and mandatory conservation measures.

- Stage 1 stipulates water conservation measures under normal water supply conditions;
- Stage 2 stipulates water conservation measures under threatened water supply shortages;
- Stage 3 stipulates mandatory conservation measures under emergency water shortage conditions such as a natural disaster.

Table 4-1 presents a four (4) tiered set of reduction goals and requested per capita demand reduction to address various stages of water supply shortages.

**TABLE 4-1
Reduction Goals**

Shortage	Demand Reduction Goal	Requested Per Capita Demand (gpcd)	Type Program
Up to 10%	10% Reduction	200	Voluntary/Mandatory Conservation
11 - 20%	20% Reduction	178	Voluntary/Mandatory Conservation
21 - 35%	35% Reduction	144	Voluntary/Mandatory Conservation
36 - 50%	50% + Reduction	111	Voluntary/Mandatory Conservation

Priorities for use of available water for this shortage contingency plan are:

- Health and Safety - Interior residential and fire fighting;
- Commercial, Industrial and Municipal (in-office use) - Maintain jobs and economic base;
- Existing Landscaping - Especially trees and shrubs;
- New Demand - Projects under construction when shortage is declared.

Health and Safety water quantity calculations to determine the indoor per capita day (gpcd) requirements are provided below. The Health and Safety allotment is 68 gpcd (using non-conserving fixtures in Table 4-2 below). The total amount of water required to meet these health and safety needs was calculated by multiplying the allotment times 10,228 residents which is about 2.13 ac-ft per day (or 777 ac-ft per year). The projected year 2005/06 would be 11,083 residents and 844 af-yr.

TABLE 4-2
Per Capita Health & Safety Water Quantity Calculation
Per CA DWR September 1991 Information

NON-CONSERVING FIXTURES		
Toilets	5 Flushes x 5.5 gpf =	27.5
Showers	5 Minutes x 4.0 gpm =	20.0
Washer	One Third Load =	12.5
Kitchen	4 gpcd =	4.0
Other	4 gpcd =	4.0
TOTAL		68.0 Gallons
HCF Per Capita Per Year = 33 HCF (Hundred Cubic Feet)		
CONSERVING FIXTURES		
Toilets	5 Flushes x 1.5 gpf =	7.5
Showers	5 Minutes x 2.0 gpm =	10.0
Washers	One Third Load =	11.5
Kitchen	4 gpcd	4.0
Other	4 gpcd	4.0
TOTAL		37.0 Gallons

The Health and Safety minimum allotment of 68 gpcd provides sufficient water for essential interior use with little or no change of habit or plumbing fixtures. If individuals wish to change water use habits or plumbing fixtures, 68 gpcd is sufficient to allow for limited non-essential uses.

Based on the customer demand information and Ordinance No. 1996-9, Table 4-3 presents the hypothetical water available to each customer group based on the different reduction goals presented in Table 4-1.

**TABLE 4-3
Water Supply Allocated by Priority**

10% Reduction Requested	Residential Demand (AF)	Total Demand (AF)
Average Use (2005-06)	4,396	4,396
Requested Use	3,956	3,956
% Reduction	10%	10%
Average Use (2005-06)	4,396	4,396
Health/Safety	0	0
Commercial	0	0
Landscape	0	0
Requested Use	3,517	3,517
% Reduction	20%	20%
Average Use (2005-06)	4,396	4,396
Health/Safety	0	0
Commercial	0	0
Landscape	0	0
Requested Use	2,857	2,857
% Reduction	35%	35%
Average Use (2005-06)	4,396	4,396
Health/Safety	0	0
Commercial	0	0
Landscape	0	0
Requested Use	2,198	2,198
% Reduction	50%	50%

WATER SUPPLY SHORTAGE TRIGGERING LEVELS

BMWD has a legal responsibility to provide for the water needs of the community to meet health and safety standards. In order to minimize the social and economic impact of water shortages, BMWD

will manage its water supply prudently. This plan is designed to maintain a minimum of 50 percent of normal supply during a severe or extended water shortage. The following triggering levels for demand reduction program are established for consideration by the District Board of Directors to ensure that BMWD will continue to meet its obligations.

BMWD's water source is groundwater. The various stages of demand reduction could be triggered by unforeseen shortages (multiple breakdowns of wells which in reality is very unlikely with proper maintenance) at any time. The specific criteria for triggering the stages are listed in Table 4-4.

TABLE 4-4
Water Supply Rationing Triggering Levels Due to Shortages
(FY 2005-06 Normal Supply at 4,396 AFY)

Percent Shortage	Water Shortage	Minimum Water Required (Existing Customers)
Up to 10 percent supply reduction	Combined supply reductions totaling up to 440 AFY.	3,956 AFY
11 to 20 percent supply reduction	Combined supply reductions totaling between 484 AFY and 879 AFY.	3,912 to 3,517 AFY
21 to 35 percent supply reduction	Combined supply reductions totaling between 923 AFY and 1,539 AFY.	3,473 to 2,857 AFY
36 to 50+ percent supply reduction	Combined supply reductions totaling between 1,583 AFY and 2,198 AFY	2,813 to 2,198 AFY

MANDATORY PROHIBITIONS ON WATER USE

California Water Code Section 10631 (e) (4) Mandatory provisions to reduce water use which include prohibitions against specific wasteful practices, such as gutter flooding.

The County Board of Supervisors adopted a 'No Waste' Ordinance, Ordinance No1996-9 in 1990, please refer to Appendix "A".

CONSUMPTION LIMITS

California Water Code Section 10631 (e) (5) Consumption limits in the most restrictive stages. Each urban water supplier may use any type of consumption limit in its water shortage contingency plan that would reduce water use and is appropriate for its area. Examples of consumption limits that may be used include, but are not limited to, percentage reductions in water allotments, per capita allocations, an increasing block rate schedule for high usage of water with incentives for conservation, or restrictions on specific uses.

Baldy Mesa Water District has established the following restrictions on specific uses and other conservation measures.

- a. Lawns, trees, shrubs, and other landscaping shall not be excessively watered at any time, and water shall not be permitted to run off private property onto streets or adjacent lands.
- b. Sidewalks, walkways, driveways, parking areas, patios, porches or verandas shall not be washed off with hoses. The exception to this shall be flammable or other similar dangerous substances that require direct hose flushing.
- c. Water, sprinkling, aerial watering or irrigating of any landscaped or vegetated areas, including lawns, trees, shrubs, grass, ground cover, plants, vine gardens, vegetables, flowers or other landscaping shall not occur between the hours of 9:00 a.m. and 6:00 p.m. during high use season (May 1 through October 31 of each year). In the low use season (November 1 through April 30), such watering shall not occur between the hours of 3:00 p.m. and 9:00 a.m.
- d. Non-commercial washing of privately owned vehicles, trailers, motor homes, buses, boats and mobile homes is prohibited except from bucket and except that a hose equipped with a shut-off nozzle may be used for a quick rinse.
- e. Water shall not be used to clean, fill, operate or maintain levels in decorative fountains, unless such water is part of a recycling system.
- f. Water shall not be permitted to leak from any waterline, faucet or other facility on any premises. Any leak shall be repaired in a timely manner.
- g. Restaurants or other public places where food is served shall not routinely provide glasses of drinking water to customers unless specifically requested.
- h. Water for construction purposes, including, but not limited to, debrushing of vacant land, compaction of fills and pads, trench backfill and other construction uses, shall be used in an efficient manner. The use of "rainbird" type sprinklers is not recommended between the hours of 6:00 a.m. and 6:00 p.m.
- i. The use of water for any purpose shall not result in flooding or runoff onto gutters, driveways, streets or adjacent lands.
- j. All new construction, including residential, commercial and industrial, shall be equipped with low flow toilets with a maximum tank size or flush capacity of 3 gallons, and showerheads with a maximum flow capacity of 2 gallons per minute.
- k. All new model homes, commercial and industrial development, when landscaped, shall include low water use, drought-tolerant or native plant material, and matched precipitation rate, low-gallonage sprinkler heads, bubblers, drip irrigation and timing devices. Timing

devices should also include soil moisture sensors. Before any permit may be issued for new construction, the applicant shall submit a landscape plan for review and approval.

- l. Water used for cooling systems must be recycled to the extent possible.
- m. Evaporation resistant covers are required for all new swimming pools and hot tubs and are encouraged for existing pools. Safety covers required by this ordinance shall, at the time of purchase, installation and all subsequent maintenance, meet or exceed current standards and specifications for swimming pools, spa and hot tub covers adopted by the American Society for Testing and Materials (ASTM).
- n. Hotels/motels are required to post notices urging guests to conserve water.
- o. All current water customers are encouraged to install flow reducers and faucet aerators.
- p. Parks, golf courses, cemeteries and school grounds which use water provided by the Districts, shall irrigate between the hours specified in (c) above.

Customers will be notified of the specific percentage reductions requested at each level of shortage as presented in Table 4-1. If further water usage reduction beyond the present request of 10% is warranted, Baldy Mesa Water District staff will inform customers of the need for greater conservation. If reduction goals cannot be met by Ordinance No. 1996-9, the Board of Directors will take appropriate actions (after public hearings) which are supported by thorough engineering evaluations. Additionally, BMWD will coordinate such decision making activities with neighboring public entities. Any customers may make an appeal in accordance with Section 5-2 of Ordinance No. 1996-9.

PENALTIES OR CHARGES FOR EXCESSIVE USE

California Water Code Section 10631 (e) (6) Penalties or charges for excessive use

Baldy Mesa Water District current water rate structure is as follows:

2005-06 WATER RATE STRUCTURE

MONTHLY MINIMUM SERVICE CHARGE		MONTHLY WATER USAGE RATES	
METER SIZE	RATE	USAGE (CU. FT)	RATE/HCF (HUNDRED CUBIC FEET)
3/4"	\$9.27	100-400	\$0.59
1"	\$15.48	401-1500	\$0.84
1-1/2"	\$30.87	1501-2500	\$0.92
2"	\$38.66	2501-3500	\$1.02
3"	\$92.70	3501-5500	\$1.12
4"	\$231.75	5501-7500	\$1.16
6" & Up	Board Decision	7501-10,000	\$1.19
		10,001-20,000	\$1.24
		20,001-30,000	\$1.26
		30,001 & Greater	\$1.27

A customer who violates any provisions of this plan or Ordinance No. 1996-9 will be subject to the following penalties as identified in the Ordinance.

For a first violation, the District shall issue a written notice of violation to the water user violating the provisions of this Ordinance. For a second violation of this Ordinance within a 6-month period, or for failure to comply with the notice of violation within the period stated, a surcharge of \$100.00 is hereby imposed for the meter through which the "wasted" water was supplied. For a third violation of this Ordinance within a 12-month period, or for continued failure to comply within 30 days after notice and imposition of second violation sanctions, a monthly penalty surcharge in the amount of \$200.00 will be imposed for the meter through which the wasted water was supplied and will continue until the violation is corrected to the satisfaction of the District. (Refer to Appendix "A" for details of the Ordinance.)

ANALYSIS OF REVENUE AND EXPENDITURE IMPACTS

California Water Code Section 10631 (e) (7) An analysis of the impacts of the plan on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments.

Based on information provided in the Baldy Mesa Water Master Plan Report, a brief review of the District operations indicates that reduced water sales due to demand reduction will impact the District's revenues. However, with the reduced per capita water consumption, it will also reduce water replenishment payment to the Mojave Basin Area Water Master

Seventy five percent (75%) of Baldy Mesa Water District's revenue depends on water sales while

consumption related energy expenditures account for about 45% of the total annual expenditure. As water sales decrease, total expenditures do not reduce proportionally, which will cause a financial shortfall. While the District relies on the operating reserve to safeguard against this potential financial shortfall (due to reduced water sales), it is recommended that adjustments be made to the water rate structure to cover most of the fixed operating costs. Minimum monthly charges would more closely cover the actual fixed costs and water rates would reflect actual production and delivery costs. Under a higher fixed service charge water rate structure, the impact of reduced water sales on the overall District revenue will not be as significant.

PLAN IMPLEMENTATION

California Water Code Section 10631 (e) (8) A draft water shortage contingency resolution or ordinance to carry out the Urban Water Shortage Contingency Plan.

The Baldy Mesa Water District is operating under Ordinance No. 1996-9 establishing water conservation measures which will support this Water Shortage Contingency Program.

SECTION V

WATER RECYCLING

WASTEWATER COLLECTION AND TREATMENT

Currently, small portions of wastewater within the service boundary of Baldy Mesa Water District is being returned to the groundwater basin through existing septic tank, and leach-pit or leach-line systems. Other portions of the wastewater for new developments are collected via the collector sewer system. The wastewater is being processed at the regional wastewater reclamation facility owned and operated by the Victor Valley Wastewater Reclamation Authority (VWVRA). The areas that are being served via the collector sewer system include Dunia Mall and the residential developments on the north side of Bear Valley Road. All new developments, west of H-395 and south of Palmdale Road will be sewerred.

Following the 2005 focus water study for the area west of Highway 395, Baldy Mesa Water District staff and the Board of Directors recognize that water-reuse/conservation are important components to meet the future water requirements. The BMWD representative discussed with the City of Victorville (which has the sewer power) to consider a sub-regional wastewater reclamation plant near the intersection of Highway 395 and Palmdale Road. A potential reclamation plant site has been acquired.

RECYCLED WATER AND POTENTIAL USES

As discussed in the previous paragraphs, there has not been much reuse of the wastewater effluent in the region other than treated effluent being discharged at the VWVRA plant to meet the downstream water flow obligation of the Upper Mojave River Groundwater Basin adjudication settlement. The City of Victorville and all water purveyors in the region recognize the need and importance of water recycling and such use is also strongly supported by the State of California. Recycled water (meeting California Title 22 standards) could be used for existing and future parks and other landscape irrigation within the District and surrounding agencies, and for groundwater replenishment. The City of Victorville had constructed its first recycling water pumping station and pipeline to enable irrigating the West Winds Golf Course with reclaimed water. Baldy Mesa Water District will continue to coordinate with the City of Victorville and the County of San Bernardino and the Mojave Water Agency to discuss further planning and implementation of "water reuse" program. BMWD's new water connection fee also includes a component funding to develop a backbone reclaimed water delivery system. The backbone reclaimed water storage and delivery system is shown on Figure 3-2.

SECTION VI

CURRENT/ALTERNATIVE CONSERVATION MEASURES AND ALTERNATIVE SUPPLIES

While BMWD enjoys a favorable situation in providing high quality water at reasonable cost to its customers, and in maintaining adequate facilities (pumping, storage and transmission) to handle emergencies, the District Board of Directors and staff recognize that water is a valuable resource and should be conserved.

Within the greater Victor Valley area (including Phelan and Pinon Hills), the Mojave Water Agency is responsible for groundwater basin management and is also the regional contracting agency for the State Project Water. The Mojave Water Agency has maintained an on-going "water conservation program" since its inception. A lawsuit filed by the City of Barstow nearly 15 years ago resulted in the entire Mojave River Groundwater Basin being subject to adjudication, including the development of a basin wide Water Management Plan prepared for the Mojave Water Agency (MWA). The 2005-06 BMWD Urban Water Management Plan will be a part of the MWA Regional Water Management Plan (refer to Appendix "B"). Under the court approved stipulated judgement, the shared "free production allowance" of each water producer was reduced (to 65% in the Upper Mojave Groundwater Basin, Alto sub-area). Any production (pumping) of groundwater above the adjusted free production allowance will require the producer to pay for replenishment water to the Mojave Area Basin Water master. This replenishment water (or supplemental water source) is more expensive, may require additional treatment, and it is difficult to obtain. Therefore, each water customer must actively participate in water conservation. This Section briefly summarizes the conservation efforts of Baldy Mesa Water District.

CURRENT CONSERVATION MEASURES BY BALDY MESA WATER DISTRICT

The BMWD active involvement in water conservation measures cover both its system maintenance as well as public awareness as follows:

Xeriscaping: Xeriscaping is a low water landscaping that usually consists of colored rock or gravel patterns and drought tolerant plants. BMWD promotes this aesthetically pleasing alternative to water intensive landscaping. BMWD participation in publishing a booklet about xeriscaping and drought tolerant plants is discussed under General Public Information Program.

Low Flow Flushing Devices: Low flow toilet flushing is now required for all new home constructions. Additionally, BMWD encourages efforts by homeowners to replace old devices with new low water use devices.

Leak Detection and Repair Program: In operating any water supply/distribution system, certain

losses are inevitable. Each year BMWD staff performs the following steps to assure that unnecessary water loss (for consumptive use) before sales are kept to the minimum:

- Periodically inspect for leaks in the several hundred miles of pipeline;
- As customers and services increase, BMWD will maintain adequate staff on duty to respond more efficiently to calls on pipe ruptures and leaks and have the leaks promptly repaired;
- Periodically locate and exercise control/shut-off valves such that leaks (in the event it occurs) can be corrected in a timely manner.

The BMWD leak detection program includes a meter check and calibration effort. Total volume of sales are compared with estimated volume of water pumped on a regular basis.

Corrosion Control: This program is aimed at reducing deterioration of pipeline and storage tanks to prevent leaks and therefore conserve water. Most existing facilities are less than 25 years old and pipeline leaks do not represent a significant concern in the system. Coated surfaces of steel storage tanks are routinely inspected and repairs are made as required to extend the service life of these facilities.

Soil within the BMWD service area generally has a high sand content; therefore, requirement for cathodic corrosion is generally non-existent. New facilities are constructed to the high standards of the American Water Work Association.

Rate Structure and Enactment of Conservation Ordinance: The BMWD rate structure covers a fixed minimum fee and a step-up incremental rate adjustment for consumption above the base allocation. The basic minimum fee will be adjusted upward to reflect increases in pumping power/operating cost. The step-up incremental rate is to encourage water conservation. Excessive amounts of consumption (or wastefulness) will result in the customer having to pay a significantly higher monthly service charge.

The Board of Directors as the Governing Body of BMWD has also adopted an Ordinance (No. 1996-9) establishing water conservation measures (Refer to Appendix "A").

General Public Information Program: Baldy Mesa Water District utilizes computerized billing format. On a regular basis, notations are placed on these billings to remind and encourage its customers to conserve water. Several pocket bulletins printed through the American Water Works Associations are made available to its customers at District offices (as handouts across the service counters). These bulletins include titles such as: The ABC's of Water Conservation, Wise Water Use Outdoors and About Groundwater Protection. BMWD has also participated in the funding and production of a booklet entitled "A Guide to High Desert Landscaping" to help advance public awareness of the merits of xeriscaping and native desert plants. The booklet is being distributed to

local nurseries, public libraries, landscaping contractors, and BMWD customers.

Public Education/School Programs: Fliers and bulletins printed by the American Water Works Association and similar associations are distributed to schools. Each year, BMWD staff participates in an area wide water conservation awareness program (High Desert Water Awareness Program).

ALTERNATIVE CONSERVATION MEASURES

While BMWD will continue to support its current water conservation programs, the following are items that the District Board of Directors, City Council of the City of Victorville, County Board of Supervisors, and the Local Advisory Committees may consider.

Home Retrofitting of Plumbing: BMWD is supportive of local energy utilities in their programs to encourage retrofitting of water saving shower and toilet devices. This effort conserves both water and energy.

New Landscaping Ordinance: BMWD supports the new landscaping ordinance adopted by the City of Victorville to restrict the extent of lawns in the front yard. Additionally, the new ordinance encourages new development to consider drought tolerant landscaping design.

Landscape Irrigation Control: Water waste through dilapidated irrigation systems often remains unnoticed. These irrigation systems frequently utilize materials and construction techniques, which cannot withstand water pressures common to municipal distribution networks. In addition, dispersion nozzles which spray a mist into the air do little to provide moisture to root zones in the ground. Some measures have been taken to improve the efficiency of irrigation, such as the establishment of legal watering hours between 9:00 p.m. and 6:00 a.m., (particularly during hot summer months) to reduce water loss via evaporation.

One water use efficiency measure might be to allow only drip irrigation systems conforming to high pressure rating to be installed in all new developments. Drip irrigation eliminates spray type water dispersal and can effectively saturate the soil. Another consideration for more water intensive landscapes might be the introduction of a hydro-philic polymer to topsoil. This material greatly reduces the number of water applications by retaining moisture near the root-zone.

Baldy Mesa Water District will continue to promote the use of drought tolerant plants through the joint publication with several local water agencies entitled: A Guide to High Desert Landscaping as discussed above. Additionally, Baldy Mesa Water District will continue to participate with the Alliance for Water Awareness and Conservation (AWAC) in their effort to promote water conservation goals, including school education, demonstration gardens etc.

Conservation for Specific Water Users: As higher density residential and commercial developments are being planned within the BMWD service area, BMWD staff will extend efforts to

work with the developers to effect the use of "reclaimed water" for landscaping at schools and parks, and street medians. BMWD will coordinate with local buildings designers, landscape architects, and contractors to encourage their assistance in the total water conservation efforts.

ALTERNATIVE WATER SUPPLIES

Section V briefly describes current wastewater collection, treatment, and water recycling effort by the City of Victorville at its West Wind Golf Course. Water reuse/recycling program will expand at the Southern California Logistics Airport, including the potential use in electrical power generation. BMWD recognizes the importance of water recycling and has included a funding component in its water connection fee to plan/construct a backbone reclaimed water delivery system. The following water supply components have been completed and/or being moved forward:

- (1) Working with the City of Victorville in securing a site for planning an upstream wastewater reclamation plant. Detailed design of the initial segments of reclaimed water pipeline (purple pipe), pump station, and storage reservoir are currently underway. This initial segment will permit the use of untreated state project water for construction.
- (2) Working with the Mojave Water Agency for securing State grant, federal grant, and local funding source to construct the Upper Mojave River Well Field and Supply Pipeline Project. This Project significantly benefits all water purveyors in the Upper Mojave Groundwater Basin.
- (3) Working with the Mojave Water Agency for securing State grant, federal grant, and local funding to construct the Oro Grande North Recharge Facility, which we can use the State Project Water and future tertiary treated recycled water for groundwater replenishment.
- (4) To meet long term future water needs, purchase of outside water rights (for wet delivery) and water exchange (desalination of sea water in exchange of additional State Project water) will be considered by the BMWD Board. However, such programs will be considered and implemented jointly with the Mojave Water Agency and all major water purveyors in the region.

IMPLEMENTATION SCHEDULE

Baldy Mesa Water District, as evidenced by information presented in this Plan, recognizes the need for water conservation, water reuse, and securing imported water to meet future water requirements. BMWD will continue to support and implement its current conservation measures as discussed in this Section. The alternative conservation measures will be reviewed by the District Board of Directors. Use of recycled water requires the education and acceptance of the public and a great deal of planning and coordination with the City of Victorville. However, the planning of the sub-regional wastewater reclamation plant will move forward with the assistance of the City of Victorville. BMWD Board and staff will continue to review and implement the following:

- Water Pricing Policy to effect conservation;
- Active Public Information Programs via District staff participation in AWAC;
- Continue the Stricter Policy to discourage water wastefulness;
- Implement the new Landscaping Policy adopted by the City of Victorville;
- Interim Use of untreated State Project Water for Construction;
- Implementation of water reuse by working with the City of Victorville to construct a sub-regional wastewater reclamation plant;
- Supporting the MWA for the Upper Mojave River Well Field and Supply Pipeline Project;
- Supporting the MWA for the Oro Grande North Recharge Facility;
- Considering a Joint Water Treatment Plant and Distribution Pipeline Facility with Its Neighboring Water Agencies.

APPENDIX A
BMWWD: ORDINANCE NO. 1996-9



ORDINANCE NO. 1996-9

ORDINANCE OF THE BALDY MESA WATER DISTRICT COUNTY
OF SAN BERNARDINO, CALIFORNIA, AMENDING PORTIONS OF
OF THE BALDY MESA WATER DISTRICT ORDINANCE NO. 1990-7
ESTABLISHING ADDITIONAL CONSERVATION MEASURES

WHEREAS, the Board of Directors of Baldy Mesa Water District finds that there is a critical water situation caused by continued overdraft of the groundwater, and

WHEREAS, the Board of Directors has determined that it is essential to conserve water in order to continue to meet the health and safety of the properties and residents of the District,

NOW, THEREFORE, BE IT ORDAINED by the Board of Directors of Baldy Mesa Water District as follows:

SECTION 1: PURPOSE, INTENT AND FINDINGS

1.1 The Baldy Mesa Water District ("District") is a public agency created under the County Water District Act, California Water Code Sections 30000 et seq. to, among other purposes, provide water service to the water users within the boundaries of the District.

1.2 The District is authorized by Water Code Sections 375-377, 1009 and 31026 to restrict the use of District water during any emergency caused by overdraft, drought or other threatened or existing water shortage, and to prohibit the waste of District water or the use of District water during such periods, for any purpose other than household uses or such other restricted uses as may be determined to be necessary by the District and may prohibit use of such water during such periods for specific uses which the District may from time to time find to be nonessential.

1.3 The District is further authorized by Water Code Sections 375-377, 1009, and 31027 to prescribe and define by ordinance those restrictions, prohibitions and exclusions it may determine to be necessary to restrict the use of District water during threatened or existing water shortages, and is authorized by Water Code Sections 377 and 31029 to declare violations of this Ordinance to be a misdemeanor.

1.4 The Board of Directors of Baldy Mesa Water District hereby finds that:

a. The Board of Directors at a duly-noticed public hearing considered the following evidence regarding water supplies in the Baldy Mesa Water District:

(1) The water production records and consumption of water;

(2) The Water Master Plan for the District;

(3) The stipulated judgment, statement of decision and judgment in City of Barstow v. City of Adelanto (Riverside Superior Court Case No. 208568), in which it has been determined that there is an overdraft of the Mojave River Basin Area and Each of its respective Subareas, including but not limited to the Subarea of which Baldy Mesa Water District is a part;

(4) Current problems existing with respect to the overuse and waste of water provided by the District to certain customers in connection with irrigation of landscaping and other outdoor vegetation, lawns, and other growth; and

(5) Other relevant evidence.

b. A water shortage emergency condition prevails within the geographic area served by the District, due to the limited amount of groundwater in the area, and the failure of rainfall to provide the average annual amounts for recovery of the water resources of the State and to provide for recharge of the water to the underground basins used to supply water to the District, creating the threat of a water shortage for the people of the District.

1.5 It is in the best interest of the public and the customers and users of District water services, for the Board of Directors to exercise its rights in the operation and use of its water system and providing of water, and to find that the prohibitions in this Ordinance are necessary to restrict the use and misuse of water and to prohibit waste of water, until and subject to further action by the District.

1.6 It is therefore the intent of the Board of Directors to establish by the Ordinance those procedures required to maximize the beneficial use of its available water resources to the extent to which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented and the conservation of such water is to be extended with a view to the reasonable and beneficial use thereof in the interests of the people of the community served by the Baldy Mesa Water District.

1.7 WHEREAS the purpose of the amendments is to provide the District with additional tools to control the amount of water utilized within the District's service area, particularly to control potential wasteful uses of scarce water resources when water supplies are limited. The Board of Directors hereby finds that the amendments will have a beneficial effect by ensuring that there will be adequate water supplies for all District customers while protecting the public health and safety. Based on the foregoing, the

Board of Directors has determined that there is no possibility that the amendments have any potential to cause significant effects on the environment, and that, pursuant to the California Environmental Quality Act (Public Resources Code Sections 21000, et seq.) ("CEQA"), the amendments to not constitute a "project" under Sections 15061 and 15378 of the State CEQA Guidelines, and are therefore exempt from environmental review"

SECTION 2. DEFINITIONS

2.1 "District" shall mean the Baldy Mesa Water District.

2.2 "Board of Directors" shall mean the Board of Directors of the Baldy Mesa Water District.

2.3 "General Manager" shall mean that person appointed by the Board of Directors pursuant to California Water Code Section 30540 to manage the activities of the Baldy Mesa Water District or his designee.

2.4 "May" shall mean an action which is discretionary.

2.5 "Overdraft" shall mean that wherein the current total annual consumptive use of water in the Mojave Basin Area exceeds the long-term average annual natural water supply to the Basin Area or Subarea.

2.6 "Shall" or "Must" shall mean an action which is mandatory.

2.7 "Water Supply Shortage" shall mean any water shortage caused by drought or any other threatened or existing water shortage, disaster or facility failure, earthquake, extended loss of electrical power, pipeline failure or other condition which results in or threatens to result in the District's inability to meet the water demands of its customers.

2.8 "Waste of Water" shall mean any unreasonable or non-beneficial use of water or any unreasonable method or use of water, including but expressly not limited to, the specific uses, conditions, actions or omissions prohibited or restricted by this Ordinance, as hereinafter set forth.

2.9 "Water User" shall mean any person, firm, partnership, association, corporation or political entity using water obtained from the water system of the District.

2.10 "Water" shall mean that water supplied by the Baldy Mesa Water District.

SECTION 3. WATER SUPPLY PLAN CREATED.

3.1 Stage No. 1. Normal Conditions: Conservation Measures. Normal conditions shall be in effect when the District is able to meet all the water demands of its customers in the immediate future. During normal conditions, all water users shall continue to use water wisely, to prevent the waste or unreasonable use of water, and to reduce water consumption to that necessary for ordinary domestic and commercial purposes. No water user shall allow water to be wasted or misused. All of the following applications or uses of water are determined to be a waste of water and are hereby prohibited.

a. The watering of lawns, grass, shrubbery, ground cover or other landscaping at any time between the hours of 9:00 A.M. and 6:00 p.m. during the months of May through October; and at any time between 3:00 P. M. and 9:00 A.M. during the remaining months of November through April.

b. The use of water for any purpose which allows flooding or runoff in gutters, driveways, streets or adjacent lands.

c. The washing of driveways, sidewalks, parking lots or other hard surfaces by direct hosing except when necessary to prevent or eliminate risk of fire or contamination which could result in a risk to public health and safety.

d. Allowing the waste of water through leaks or breaks in the users's water system. All leaks or breaks shall be repaired immediately upon discovery.

e. Noncommercial washing of privately owned vehicles, trailers, motor homes, buses, boats and mobile homes is prohibited except from bucket and EXCEPT that from a hose equipped with an automatic shut-off nozzle may be used for a quick rinse.

f. Water shall not be used to clean, fill, operate or maintain levels in decorative fountains, unless such water is a part of a recycling system.

g. Restaurants or other public places where food is served are requested to not routinely provide glasses of drinking water to customers unless specifically requested.

h. All new construction, including residential, commercial and industrial, shall install water conserving devices.

i. Water used for cooling systems must be recycled to the extent possible.

j. Evaporation resistant covers and water recirculation systems are required for all new swimming pools and hot tubs and are encouraged for existing pools.

k. Hotels/Motels shall post notices urging guests to conserve water.

l. All current water customers are encouraged to install low flush toilets, shower heads, flow reducers, and faucet aerators.

3.2 Stage No. 2. Threatened Water Supply Shortage. In the event of a threatened water supply shortage which will affect the District's ability to provide water for ordinary domestic and commercial uses, the Board of Directors shall hold a noticed public hearing after giving at least ten days notice by publication in a newspaper of general circulation. At said public hearing, consumers of the water supply shall have the opportunity to testify concerning the pending water supply shortage and for the District to determine required conservation measures to include restrictions of use and/or requirements for state of art irrigation systems, automatic controllers, use of drought resistant plants, shrubs, and drought resistant turf. The Board may, by Resolution, declare a water shortage condition to exist, and may impose any or all of the following conservation measures:

a. Exterior Landscape Plans. Exterior landscape plans for all new multi-family, commercial and industrial development shall provide for timed irrigation systems and shall require the use of drought resistant varieties of plants, shrubs, and turf. Such plans shall be presented to and approved by the District prior to issuance of a water service letter. Areas required for turf shall be restricted to no more than 20% of the total landscaped area.

b. Agricultural Irrigation. Persons receiving water from the District who are engaged in agricultural practices, whether for the purpose of crop production, growing of commercial ornamental plants or maintaining existing nursery stock shall provide, maintain and use irrigation equipment and practices which are the most efficient possible. The General Manager may require the owner or operators of these systems to prepare a plan describing their irrigation practices and equipment, including but not limited to, an estimate of the efficiency or the use of water on their properties.

c. Commercial Facilities. Commercial and industrial facilities shall, upon request of the General Manager, provide the District with their plan to insure conservation of water at their facilities. The District will provide these facilities with information regarding the average monthly water use by the facility for the last two year

period. The facility shall provide the District with a plan to conserve or reduce the amount of water used by that percentage deemed by the Board of Directors to be necessary under the circumstances. After review and approval by the General Manager, the water conservation plan shall be considered subject to inspection and enforcement by the District.

3.3 Stage No. 3. Water Shortage Emergency: Mandatory Conservation Measures. In the event of an unforeseeable disaster or water emergency such as an earthquake or other major disruption in the water supply or any emergency that prevents the District from meeting the water demands of the community, the General Manager is authorized to declare a water shortage emergency, subject to the ratification by the Board of Directors at a public hearing held within 72 hours of such declaration, or within such additional time as may be reasonable and necessary under the circumstances.

In the event of a foreseeable emergency such as extended drought conditions, the Board of Directors shall hold a public hearing after giving public notice as deemed reasonable by the General Manager under the circumstances.

At any public hearing held under this Section, customers of the District shall have the opportunity to protest and to present their respective needs to the Board of Directors. Public notice will follow enactment of the water shortage emergency by publishing notice of said action in a newspaper of general circulation.

After declaration of any water shortage emergency under this Section, the following rules and regulations, and any other rules and regulations deemed necessary by the General Manager and/or Board of Directors, shall be in effect immediately, and their violation may be enforced by Sections 6 through 11 of this Ordinance:

- a. Watering of parks, school grounds and golf courses is prohibited.
- b. Lawn watering and landscape irrigation is prohibited.
- c. Washing down of driveways, parking lots or other impervious surfaces is prohibited.
- d. Washing of vehicles is prohibited, except when done by commercial car wash establishments using recycled or reclaimed water.
- e. Filling or adding water to swimming pools, wading pools, spas, ornamental ponds, fountains and artificial lakes is prohibited.

- f. Restaurants shall not serve drinking water to patrons except by request.
- g. No new construction meter permits shall be issued by the District
- h. All existing construction meters shall be removed and/or locked.
- i. Commercial nurseries shall discontinue all watering and irrigation. Watering of livestock is permitted as necessary.

SECTION 4. IMPLEMENTATION AND TERMINATION OF MANDATORY COMPLIANCE STAGES. The General Manager of the District shall monitor the supply and demand for water on a daily basis to determine the level of conservation required by the water shortage emergency or to recommend termination of the Water Conservation Plan Stages, and shall notify the Board of Directors of the necessity for the implementation or termination of each stage. Each declaration of the Board of Directors implementing or terminating a water conservation stage shall be published at least once in a newspaper of general circulation, and shall remain in effect until the Board of Directors otherwise declares, as provided herein.

SECTION 5. EXCEPTIONS.

5.1 Application for Exception Permit. The General Manager may grant permits for uses of water otherwise prohibited under the provisions of this Ordinance if he finds and determines that special circumstances make compliance impossible, or that restrictions herein would:

- a. Emergency - Cause an emergency condition affecting the health, sanitation, fire protection or safety of the water user or of the public.
- b. Hardship - Cause an unnecessary and undue hardship to the water user of the public.

Such exceptions may be granted only upon written application therefor. Upon granting such exception permit, the General Manager may impose any conditions he determines to be just and proper.

5.2 Appeal to Board of Directors.

- a. Deadline - Any person whose application for an exception permit is denied by the General Manager, may appeal the denial to the Board of Directors. The applicant shall file a written appeal not later than ten (10) days following issuance of the General Manager's decision.

b. Hearing - The appeal shall be scheduled for the next regular meeting of the Board of Directors; provided that, the Board of Directors may continue the appeal hearing in order to carry out an investigation of the dispute and/or to receive additional information relating to the dispute.

c. Decision of the Board - The Board of Directors may affirm or deny any appeal, and may impose any and all conditions that the Board determines to be reasonable and necessary under the circumstances. The decision of the Board of Directors shall be final. Should the Board not render a decision within thirty (30) days of submittal of the appeal to the Board, this failure to act shall be deemed to be a denial of the appeal unless both parties have agreed to extend the resolution period.

SECTION 6. ENFORCEMENT.

6.1 Inspection. Authorized employees of the District, after proper identification, may during reasonable hours, inspect any facility having a water conservation plan, and may enter onto private property for the purpose of observing the operation of any water conservation device, irrigation equipment or water facility, and to investigate possible violations of this Ordinance.

The investigation shall be made with consent of the owner or tenant of the property. If consent is refused, the District may apply to the Superior Court for a warrant pursuant to California Code of Civil Procedure Section 1822.50, et seq.

6.2 Criminal Penalties for Violation. A person violating any provision of this Ordinance shall be guilty of a misdemeanor, and shall be punishable by imprisonment in the County jail for not more than 30 days, or by a fine of not more than six hundred dollars (\$600.00), or by both such fine and imprisonment as may be allowed by law. Each and every violation of this Ordinance and each day during which such violation is committed or continued shall constitute a separate offense.

6.3 Surcharge for Violation. In addition to criminal penalties, violators of the mandatory provisions of this Ordinance shall be subject to surcharge and other enforcement rights of the District, as follows:

a. First Violation. For a first violation, the District shall issue a written notice of violation to the water user violating the provisions of this Ordinance. The notice shall be given pursuant to the requirements of Sections 7 herein.

b. Second Violation: \$100.00 Surcharge. For a second violation of this Ordinance within a 6-month period, or for failure to comply with the notice of violation within the period stated, a surcharge of \$100.00 is hereby imposed for the meter through which the wasted water was supplied.

c. Third Violation: \$200.00 Surcharge and/or Installation of Flow Restrictor. For a third violation of this Ordinance within a 12-month period, or for continued failure to comply within 30 days after notice and imposition of second violation sanctions, a monthly penalty surcharge in the amount of \$200.00 is hereby imposed for the meter through which the wasted water was supplied and will continue until the violation is corrected to the satisfaction of the District. In addition to the surcharge, the District may, at its discretion, install a flow-restricting device at such meter with a one-eighth inch orifice for services up to one and one-half inch size, and comparatively sized restructures of large services, on the service of the customer at the premises in which the violation occurred for a period of not less than 48 hours. The charge to the customer for installing a flow-restricting device shall be based upon the size of the meter and the actual cost of installation but shall not be less than that provided in the District's Rules and Regulations. The charge for removal of the flow-restricting device and restoration of normal service shall be as provided in the District's Rules and Regulations.

d. Subsequent Violations: Discontinuance of service for any fourth violation of this Ordinance within 24 calendar months after the first violation as provided in Section 6.3.a. hereof, the District may discontinue water service to that customer at the premises or to the meter where the violation occurred after giving reasonable notice pursuant to District regulations. The charge for reconnection and restoration of normal service shall be as provided in the Rules and Regulations of the District. Such restoration of service shall not be made until the General Manger of the District has determined that the water user has provided reasonable assurances that future violations of this Ordinance by such user will not occur.

SECTION 7. NOTICE

7.1 First Violation. For a first violation, written notice shall be given to the customer and/or property owner personally or by regular mail.

7.2 Subsequent Violations. If the penalty assessed is a surcharge for a second or third violation, notice may be given by regular mail.

7.3 Violations Involving Installation of Flow-Restrictors or Discontinuance of Water Service. If the penalty assessed is, or includes, the installation of a flow restrictor or the discontinuance of water service to the customer for any period of time, notice of the violation shall be given in the following manner:

a. By giving written notice thereof to the occupant and/or property owner personally; or

b. If the occupant and/or property owner is absent from his/her place of residence and from his/her assumed place of business, by leaving a copy with some person of suitable age and discretion at either place, and sending a copy through the United States mail addressed to the occupant and/or owner at his/her place of business or residence; or

c. If such place of residence and business cannot be ascertained, or a person of suitable age or discretion cannot be located, then by affixing a copy in a conspicuous place on the property where the failure to comply is occurring and also by delivering a copy to a person there residing, if such person can be found, and also sending a copy through the United States mail addressed to the occupant at the place where the property is situated and to the owner, if different.

d. Form of Notice. All notices provided for in this Section shall contain, in addition to the facts of the violation, a statement of the possible penalties for each violation and a statement informing the occupant/owner of his/her right to a hearing on the violation.

SECTION 8. HEARING.

8.1 General Manager Hearing. Any customer or property owner against whom a penalty is levied pursuant to this Ordinance, shall have a right to a hearing. A written request for a hearing before the General Manager shall be filed with the General Manager within ten (10) business days after notification by the District of the alleged violation.

8.2 Appeal. The customer or property owner may appeal the General Manager's decision to the Board of Directors. Such appeal shall be filed within ten (10) business days of issuance of the General Manager's decision. The appeal shall be scheduled at the next regularly scheduled meeting of the Board of Directors; provided that, the Board of Directors may continue the appeal hearing in order to carry out an investigation of the dispute and/or to receive additional information relating to the dispute. The customer or property owner may appear and present any evidence in support of his/her position to the Board of Directors.

8.3 Decision of the Board. The Board of Directors may affirm, reverse or modify the decision of the General Manager, in its discretion. The decision of the Board of Directors shall be final. Should the Board not render a decision within thirty (30) days of submittal of the appeal to the Board, this failure to act shall be deemed to be a denial of the appeal unless both parties have agreed to extend the resolution period.

SECTION 9. INJUNCTION. In addition to the remedies set forth in this Ordinance, the District may file a civil action to compel compliance with this Ordinance, including but expressly not limited to, an action to enjoin any pending or future violations of the Ordinance, or for the issuance of an order stopping or disconnecting a service if the charges for that service are unpaid at the time specified in the Ordinance.

SECTION 10. ENFORCEMENT OFFICER. The General Manager is hereby declared and appointed as the enforcement officer of this Ordinance, and shall be empowered to issue criminal citations for violations of this Ordinance, and to take such other actions as authorized herein, or as may be authorized by the Board of Directors, for enforcement of the Ordinance.

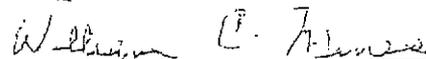
SECTION 11. RESERVATION OF RIGHTS. All remedies set forth in this Ordinance are herein declared to be cumulative and non-exclusive, and shall not preclude the District from enforcing any other rights or remedies to discontinue service and/or otherwise enforce this Ordinance or any other rules and regulations of the District.

SECTION 12. SEVERABILITY. If any section, subsection, sentence, clause or phrase of this Ordinance is for any reason held to be unconstitutional or invalid, such decisions shall not affect the validity of the remaining portions of this Ordinance.

SECTION 13. REPEAL OF PRIOR ORDINANCE. Ordinance No. 1990-7 is hereby repealed in its entirety.

SECTION 14. PUBLICATION AND POSTING. The Secretary of the Board of Directors is hereby directed to cause a summary of this Ordinance to be published at least five (5) days prior to the date of adoption hereof in a newspaper of general circulation printed and a copy of the full text must be posted at the District office at least five (5) days prior to the meeting. The summary must be published again within fifteen (15) days after adoption with the names of the directors voting for and against the adoption, and the full text must likewise be posted at the District office.

SECTION 12. EFFECTIVE DATE. This Ordinance shall become effective immediately upon its adoption. APPROVED AND ADOPTED this 17th day of October, 1996.



President of the Baldy Mesa Water
District and of the Board of Directors
thereof.

STATE OF CALIFORNIA)
)
COUNTY OF SAN BERNARDINO)

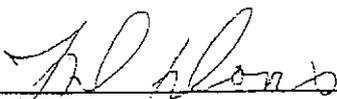
I, Jesse Duane Davis, Secretary of the Board of Directors of the Baldy Mesa Water District, do hereby certify that the foregoing Ordinance, being Ordinance No. 1996-9, was duly adopted by the Board of Directors of said District at a regular meeting of said Board held on the 17th day of October, 1996, and that it was so adopted by the following vote:

AYES: Directors Almond, East, Ervin, and Mines.

NOES: None.

ABSENT: Director Smith.

ATTEST:



Secretary of the Baldy Mesa Water District and
of the Board of Directors thereof.

SEAL

APPENDIX B
MOJAVE WATER AGENCY: REGIONAL WATER MANAGEMENT PLAN
(TABLE OF CONTENTS ONLY)



MOJAVE WATER AGENCY



2004 REGIONAL WATER MANAGEMENT PLAN

INTEGRATED REGIONAL WATER MANAGEMENT PLAN
GROUNDWATER MANAGEMENT PLAN
URBAN WATER MANAGEMENT PLAN



**Mojave
Water
Agency**

**VOLUME 1:
REPORT**

September 2004
Adopted February 24, 2005

**Schlumberger
Water Services**

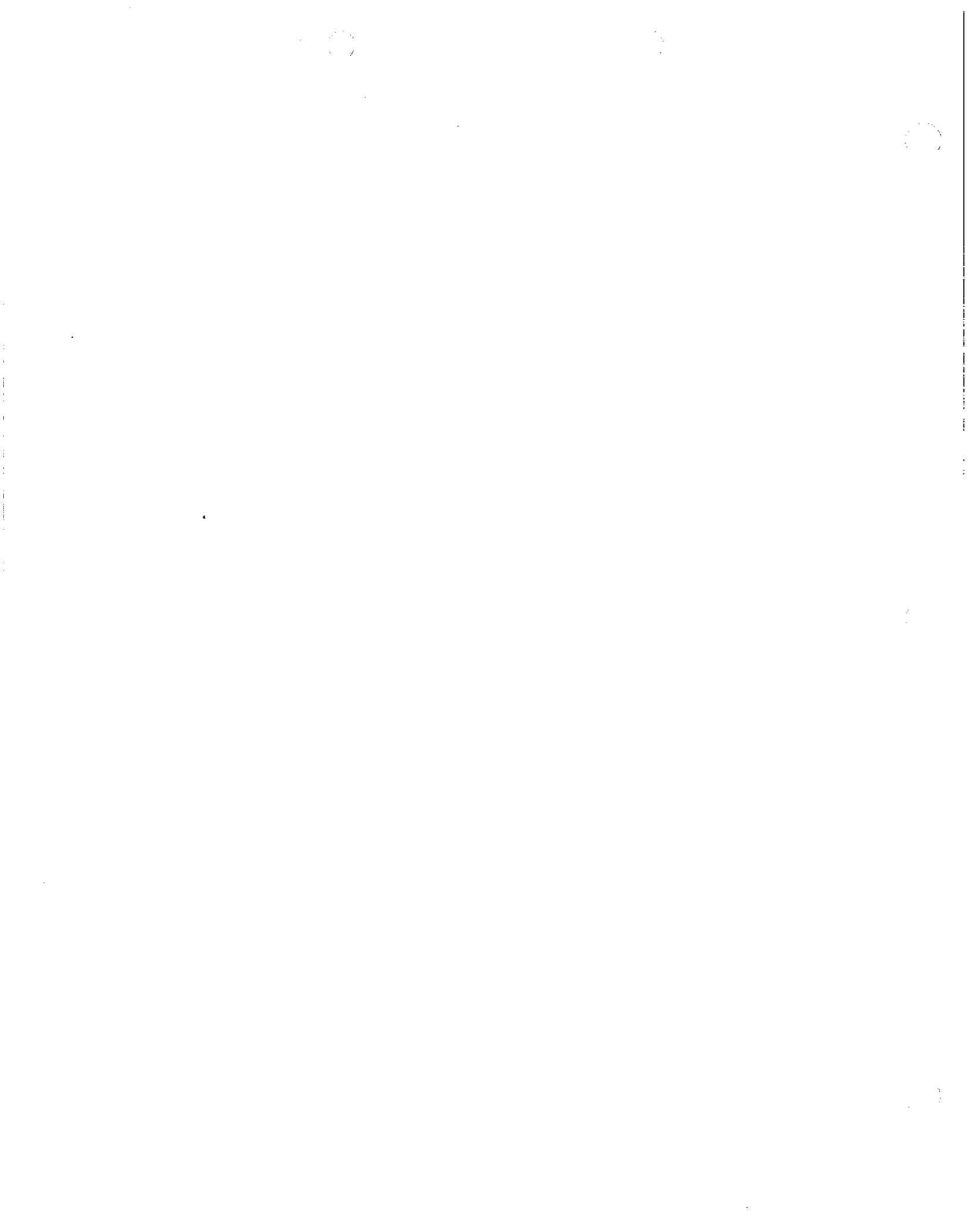


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- Appendix D Issues Questionnaire, Summary of Responses to the Issues Questionnaire
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- Appendix F *The Panorama* -A newsletter published by the Mojave Water Agency
- Appendix G Resolution approving the Mojave Water Agency 2004 Regional Water Management Plan
- Appendix H Existing Monitoring Protocols
- Appendix I Well Construction Data from MWA Well Database
- Appendix J AB 3030 - Groundwater Management Planning
SB 1938 - Groundwater Management and State Funding
California Urban Water Management Planning Act
Proposition 50 - Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002

APPENDIX C
CALIFORNIA DEPARTMENT OF WATER RESOURCES: BULLETIN 118



Upper Mojave River Valley Groundwater Basin

- Groundwater Basin Number: 6-42
- County: San Bernardino
- Surface Area: 413,000 acres (645 square miles)

Basin Boundaries and Hydrology

The Upper Mojave River Valley Groundwater Basin underlies an elongate north-south valley, with the Mojave River flowing (occasionally) through the valley from the San Bernardino Mountains on the south, northward into the Middle Mojave River Valley Groundwater Basin at the town of Helendale. The groundwater basin is bounded on the north by a roughly east-west line from basement rock outcrops near Helendale to those in the Shadow Mountains. The southern boundary is the contact between Quaternary sedimentary deposits and unconsolidated basement rocks of the San Bernardino Mountains. The basin is bounded on the southeast by the Helendale fault and on the east by basement exposures of the mountains surrounding Apple Valley. In the west, the boundary is marked by a surface drainage divide between this basin and El Mirage Valley Basin, and a contact between alluvium and basement rocks that form the Shadow Mountains. Average precipitation varies across the basin from 5 to 36 inches with the average for the basin near 12 inches (USDA 1999).

Hydrogeologic Information

Water Bearing Formations

The two primary water-bearing units within the Mojave River Valley Basin system consist of regional Pliocene and younger alluvial fan deposits (fan unit) and of overlying Pleistocene and younger river channel and floodplain deposits, which have been called the floodplain unit (DWR 1967), or the floodplain aquifer (Lines 1996; Stamos and others 2001). Other potential, but not regionally significant, water-bearing units include older alluvium, old fan deposits, old lake and lakeshore deposits, and dune sand deposits (DWR 1967). Water-bearing deposits in this basin are predominantly unconfined, though some perched water appears near Adelanto. Well yields typically range from 100 to 2000 gpm (Hardt 1969; Lines 1996; Stamos and others 2001) with an average of about 630 gpm for all units (BEE 1994).

Pleistocene and Younger Floodplain Unit. The floodplain unit is the more productive and extensively studied of the two units and extends 50 to 200 feet deep in this basin, but is restricted to within about 1 mile of the active Mojave River channel (Stamos and others 2001). The average thickness is estimated to be about 150 feet through this basin. Specific yield for this unit ranges from 23 to 39 percent (Lines 1996) and the average specific yield for this unit is about 27 percent in this basin (DWR 1967; Lines 1996).

Pliocene and Younger Fan Unit. The regional fan unit is composed of late Tertiary and younger unconsolidated to partially consolidated alluvial fan deposits up to 1,000 feet thick (Stamos and Predmore 1995; Lines 1996). The permeability of these deposits decreases with depth (Stamos and others 2001). Estimated average effective thickness in the Upper Mojave River

Valley Groundwater Basin is about 300 feet thick (DWR 1967). Available information indicates that specific yields and well yields are generally less for the fan unit compared to the floodplain unit, but suggest generally higher well yields for younger fan deposits and lower well yields for older fan deposits (DWR 1967). The specific yields for this unit range from 4 percent to 25 percent with an estimated average of 10 percent (DWR 1967).

Restrictive Structures

This groundwater basin is bounded on the northeast by the Helendale fault zone which forms a barrier to groundwater flow in the regional fan unit, but does not appear to be a barrier to groundwater flow in the floodplain unit (Stamos and Predmore 1995; Stamos and others 2001). The fault zone causes an eastward lowering of the water table across the southeastern boundary into the Lucerne Valley Basin in the fan unit deposits (Stamos and Predmore 1995; Lines 1996). Stamos and others (2001) also interpret unexposed faults acting as barriers to cause steep groundwater gradients between Victorville and Adelanto.

In the southern portion of the basin, bedrock constriction causes water to rise to the surface of the Mojave River at the Upper and Lower Narrows (Lines 1996; Stamos and others 2001). Historically, such locations have been used for camping and watering spots, such as Lane's Crossing just north of the Lower Narrows (Lines 1996).

Recharge Areas

Natural recharge of the basin is from direct precipitation, ephemeral stream flow, infrequent surface flow of the Mojave River, and underflow of the Mojave River into the basin from the southwest (Eccles 1981; Stamos and Predmore 1995; Lines 1996). Treated wastewater effluent, septic tank effluent, effluent from two fish hatchery operations, and irrigation waters are allowed to percolate into the ground and recharge the groundwater system (Eccles 1981; Lines 1996). A large, but sporadic contribution to recharge occurs when the Mojave River is flowing, with 40 feet of rise in the water table observed during 1969 and 16 to 48 feet of rise observed in 1993 (Hardt 1969; Robson 1974; Lines 1996). The general groundwater flow is toward the active channel of the Mojave River and then it follows the course of the river through the valley (Stamos and Predmore 1995; Lines 1996). The Helendale fault forms a barrier to groundwater flow in the southeast corner of the basin. This barrier causes groundwater to flow northwestward under a surface drainage divide into the Mojave River drainage instead of northeastward into Lucerne Lake (dry) in the Lucerne Valley Basin.

Groundwater Level Trends

Groundwater levels in wells in the floodplain unit near the Mojave River tend to vary in concert with rainfall and runoff rates, whereas groundwater levels in the fan unit do not show significant changes due to local rainfall (MWA 1999). The general trend in this basin is for declining groundwater levels, particularly in the fan unit. Three of the ten highest precipitation years over a 60-year base period occurred during 1991 through 1999 (MWA 1999). Infiltration of the runoff from this relatively abundant precipitation has produced an increase in groundwater level (and groundwater storage) in the

floodplain unit near the Mojave River (MWA 1999). A hydrograph for a well near Adelanto shows a gentle decline of about 25 feet during 1955 through 1985 and a faster decline of about 35 feet since about 1985. Another well near Victorville in the fan unit shows a range of about 30 feet in water level over the last 20 years, with a decrease in water level of about 10 feet (MWA 1999).

Groundwater Storage

Groundwater Storage Capacity. Published total storage capacity for the Upper Mojave River Valley Groundwater Basin varies. The boundaries of the Upper Mojave River Valley Groundwater Basin of this report correspond closely to the Upper Mojave River Basin and Fifteen Mile storage units discussed by DWR (1967). DWR (1967) calculated the total storage capacity for these storage units using the base of water-bearing materials, an average of about 300 feet. The total storage for the Upper Mojave River Basin and Fifteen Mile storage units is 27,839,000 af (DWR 1967). The Upper Mojave River Valley Groundwater Basin also roughly underlies the Alto subarea and about one-third of the Este subarea under the administration of the Mojave Water Agency (MWA 1999). The MWA uses an economic pumping depth of 100 feet as a limit for effective basin depth, and calculates a total effective storage capacity of 2,086,000 af for the Alto subarea and 530,000 af for the Este subarea (BEE, 1994). Using an overlying area of about 413,000 acres, an average thickness of about 300 feet, and an average specific yield of about 10.5 percent indicates a total storage capacity of about 13,000,000 af.

Groundwater in Storage. MWA (1999) calculated the available stored groundwater underlying the Alto subarea at the end of 1998 was 960,000 af and the available storage space was 1,126,000 af. MWA (1999) calculated the available stored groundwater in the Este subarea at the end of 1998 was 420,000 af and the available storage space was 110,000 af. The basin is considered to be effectively full when 1930 water level elevations are reached (BEE, 1994). Assuming an overlying area of about 413,000 acres, a saturated thickness of about 250 feet, and a specific yield of 10.5 percent indicates about 10,800,000 af of stored groundwater at the end of 1998. This amount indicates that about 2,200,000 af of additional storage space was available.

Groundwater Budget (Type A)

Not enough data exist to compile a detailed groundwater budget for the basin. However, MWA monitors groundwater extraction and reports extractions of 58,300 af for urban uses, 7,800 af for agriculture, and 11,900 af for industrial and recreational uses in the 1997-1998 water year (MWA 1999). In addition to the extraction data, several other components of the water budget have been reported. For the 1997-1998 water year, MWA (1999) estimated natural recharge at 105,000 af, artificial recharge at 16,350 af, and applied water recharge at 3,900 af. Subsurface inflow and outflow averages are estimated by DWR (1967) at 950 af inflow and 2,000 af outflow. Bookman-Edmonston Engineering (1994) set the average inflow at about 1,000 af and the average outflow at 2,000 af. Stamos and others (2001) an estimate that 5,000 to 6,000 af flows through the floodplain unit into the Middle Mojave River Valley Groundwater Basin near the Helendale fault.

Groundwater Quality

Characterization. Calcium bicarbonate character waters are found near the San Bernardino Mountains and near the Mojave River channel. Sodium bicarbonate waters are found near Victorville. Sodium bicarbonate-sulfate waters are found near Adelanto. Sodium-calcium sulfate waters occur west of Victorville. Sodium chloride waters are found in Apple Valley. Small areas of calcium-sodium sulfate and calcium-sodium bicarbonate also occur in this basin (DWR 1967). Total dissolved solids content typically is less than 500 mg/L (BEE 1994), but concentrations up to 1,105 mg/L were found near Apple Valley (DWR 1967). Electrical Conductivity readings range as high as 1,529 μ mhos, with lower values of 650 μ mhos found near Apple Valley, and 550 μ mhos found near Adelanto (DWR 1967).

Impairments. High nitrate concentrations occur in the southern portion of the basin and high iron and manganese concentrations are found near Oro Grande. Groundwater has been contaminated with trichloroethane (TCE) at the former George Air Force Base, now a federal Superfund site (BEE 1994). Leaking underground storage tanks in and around Victorville have introduced fuel additives benzene, toluene, ethylbenzene, xylene, and methyl tertiary butyl ether (MTBE) into groundwater (BEE 1994; MWA 1999).

Water Quality in Public Supply Wells

Constituent Group ¹	Number of wells sampled ²	Number of wells with a concentration above an MCL ³
Inorganics – Primary	122	9
Radiological	115	2
Nitrates	125	2
Pesticides	117	0
VOCs and SVOCs	120	0
Inorganics – Secondary	122	11

¹ A description of each member in the constituent groups and a generalized discussion of the relevance of these groups are included in *California's Groundwater – Bulletin 118* by DWR (2003).

² Represents distinct number of wells sampled as required under DHS Title 22 program from 1994 through 2000.

³ Each well reported with a concentration above an MCL was confirmed with a second detection above an MCL. This information is intended as an indicator of the types of activities that cause contamination in a given basin. It represents the water quality at the sample location. It does not indicate the water quality delivered to the consumer. More detailed drinking water quality information can be obtained from the local water purveyor and its annual Consumer Confidence Report.

Well Production Characteristics

Well yields (gal/min)		
Municipal/Irrigation	Range: to 5,500 gal/min	Average: 1,030 gal/min Median: 980 (130 Well Completion Reports)
	100-2,000 gal/min for floodplain unit (Hardt 1969; Lines 1996)	Average = 630 gal/min for all units (BEE 1994)
Total depths (ft)		
Domestic	Range: 22-1,140 ft	Average: 250 ft Median: 210 ft (1,188 Well Completion Reports)
Municipal/Irrigation	Range: 50-1,970 ft	Average: 360ft Median: 300 ft (326 Well Completion Reports)

Active Monitoring Data

Agency	Parameter	Number of wells /measurement frequency
US Geological Survey	Water level	120/ Annually
US Geological Survey	Water Quality	22/ Annually
Department of Health Services	Title 22 Water Quality	153/ Annually

Basin Management

Groundwater management	The Upper Mojave River Valley Groundwater Basin is a portion of an area adjudicated in 1996 setting the Mojave Water Agency as watermaster. MWA has proposed three basic management strategy alternatives that would reduce and eliminate overdraft in the basin: water conservation, water supply enhancement, and water allocation. These alternatives will likely be implemented together in the final management strategy adopted by MWA (BEE 1994).
Water agencies	
Public	Mojave Water Agency, Victor Valley Water District, Thunderbird County Water District, Juniper Riveria County Water District, Mariana Ranchos County Water District, Hesperia Water District, Baldy Mesa Water District, County Service Area Number 64, Apple Valley Heights County Water District, Apple Valley Foothill County Water District
Private	Apple Valley Ranchos Water Company, Southern California Water Company, Rancheritos Mutual Water Company

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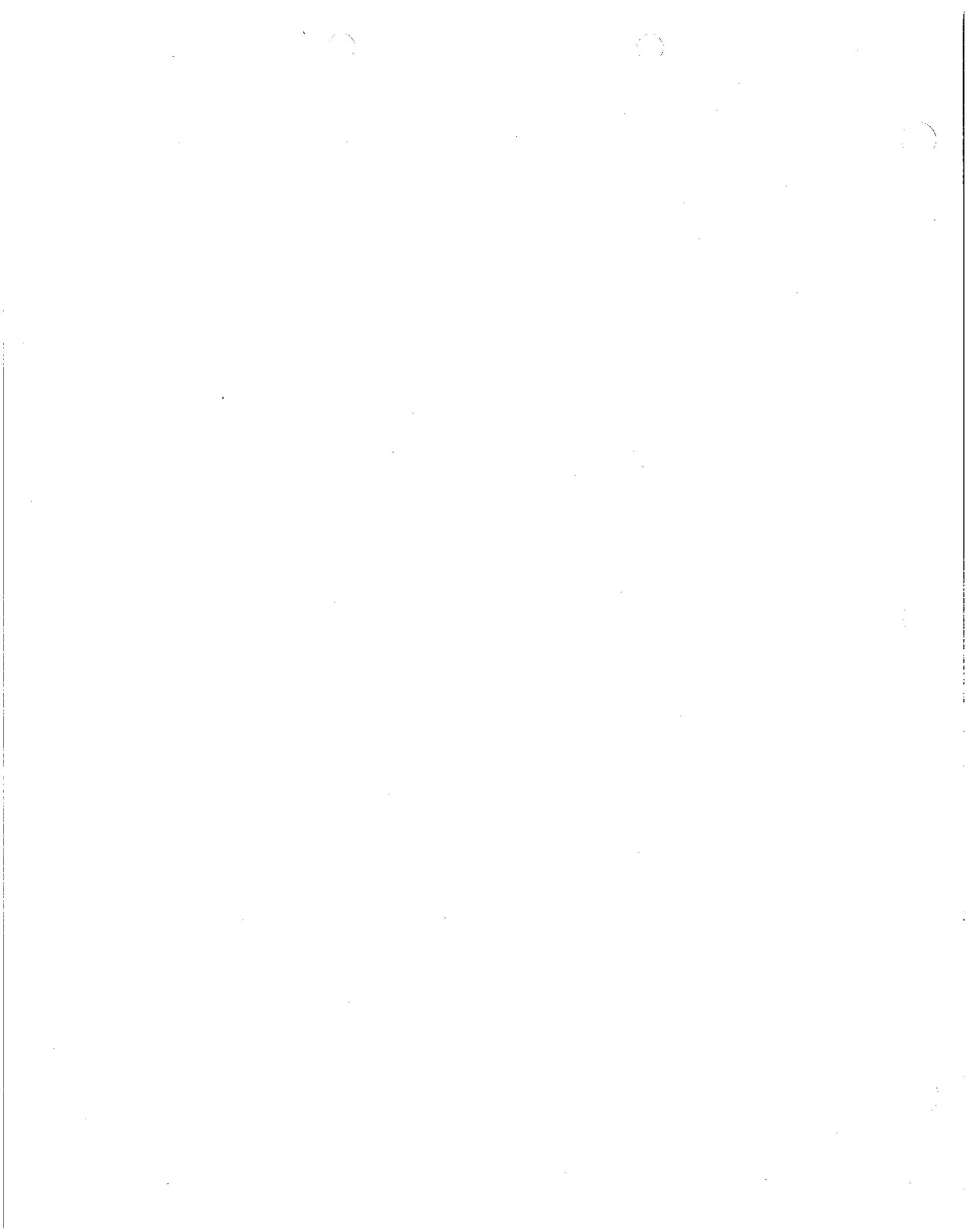
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Errata

Substantive changes made to the basin description will be noted here.



APPENDIX D
VICTORVILLE ORDINANCE NO. 2138 RELATING TO WATER
CONSERVATION AND LANDSCAPING



ORDINANCE NO. 2138

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF VICTORVILLE ADDING SECTION 13.60.195 "RECLAIMED WATER PIPELINES" TO CHAPTER 13.60 "WATER CONSERVATION" OF THE VICTORVILLE MUNICIPAL CODE RELATING TO WATER CONSERVATION AND LANDSCAPING

WHEREAS, on October 4, 2005, the City of Victorville (the "City") adopted Ordinance No. 2114, amending Chapter 13.60 of the Victorville Municipal Code; and

WHEREAS, consistent with the City's overall policy of conservation of potable water, the City desires to add section 13.60.195 "Reclaimed water pipelines" to Chapter 13.60 "Water Conservation" to require all new residential tract development to provide for the installation of reclaimed water pipelines.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF VICTORVILLE DOES HEREBY ORDAIN AS FOLLOWS:

Section 1. RECITALS

The recitals set forth above are true and correct, and are hereby incorporated by this reference as if set forth in their entirety.

Section 2. ADDITION OF SECTION 13.60.195 "RECLAIMED WATER PIPELINES"

Section 13.60.195 "Reclaimed water pipelines" shall be added to the Victorville Municipal Code to read as follows:

13.60.195 Reclaimed Water Pipelines

a. All new residential tract development shall provide for the installation of reclaimed water pipelines, to the extent required by the responsible water purveyor. Such pipelines shall be connected to the water purveyor's reclaimed water system. The foregoing requirements are not applicable to individual residential lots.

b. It is the policy of the City to encourage the use of reclaimed water, whenever such use is appropriate and safe, in order to conserve potable water in the Victor Valley. To further these efforts, all water users with reclaimed water pipelines should make reasonable efforts to use reclaimed water for landscaping purposes, whenever reclaimed water is readily available and will not pose a danger to human health and safety.

Section 3. SEVERABILITY

The City Council declares that, should any provision, section, paragraph, sentence or word of this ordinance be rendered or declared invalid by any final court action in a court of competent jurisdiction or by reason of any preemptive legislation, the remaining provisions, sections, paragraphs, sentences or words of this ordinance as hereby adopted shall remain in full force and effect.

Section 5. REPEAL OF CONFLICTING PROVISIONS

All the provisions of the Victorville Municipal Code as heretofore adopted by the City of Victorville that are in conflict with the provisions of this ordinance are hereby repealed.

ORDINANCE NO. 2114

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF VICTORVILLE AMENDING CHAPTER 13.60 "WATER CONSERVATION" OF THE VICTORVILLE MUNICIPAL CODE RELATING TO WATER CONSERVATION AND LANDSCAPING

WHEREAS, the rapid growth of the Victor Valley (the "Valley") generally, and the City of Victorville (the "City") specifically, has placed and continues to place a substantial strain on the water resources of the Valley; and

WHEREAS, it is the policy of the City to conserve and protect its valuable and critical water resources; and

WHEREAS, it is the intent and policy of the City Council of the City (the "City Council") to ensure the continued health, safety, welfare, and quality of life for the existing and future residents and visitors to the City by assisting in the conservation of its water resources; and

WHEREAS, the City Council finds that it is in the best interests of citizens of the City to enact an ordinance that seeks to prevent the misuse of our water supply through measures that include restrictions on water usage; and

WHEREAS, enforcement of water restrictions may be made more effective through education and/or the use of a citation system; and

WHEREAS, use of the citation system will allow the imposition of civil penalties for violation of the provisions of the Water Conservation Ordinance; and

WHEREAS, the imposition of civil penalties for violations of the Water Conservation Ordinance will protect the water resources of the City;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF VICTORVILLE DOES HEREBY ORDAIN AS FOLLOWS:

Section 1. RECITALS

The recitals set forth above are true and correct, and are hereby incorporated by this reference as if set forth in their entirety.

Section 2. AMENDMENT OF CHAPTER 13.60 "WATER CONSERVATION"

The Victorville Municipal Code Chapter 13.60 "Water Conservation" shall be amended to read as follows:

- 13.60.100 Definitions
- 13.60.105 Application of Chapter
- 13.60.110 Drought Tolerant Plants
- 13.60.115 Prohibited Water Uses
- 13.60.120 Limitation on Water Intensive Landscape and Turf Areas Within New Nonresidential Facilities
- 13.60.130 Limitations on Model Home Landscaping
- 13.60.140 Public Education During Drought
- 13.60.150 Drought Management Plan Implementation
- 13.60.160 Notification and Publication of Drought Management Plan
- 13.60.170 Enforcement of Drought Management Plan
- 13.60.180 Variances From Drought Management Plan
- 13.60.190 Limited Exemption to Restrictions for Users of Reclaimed Water
- 13.60.200 Violations
- 13.60.210 Right to Hearing

13.60.100 Definitions

Acre-foot of water means that quantity of water required to cover one (1) acre of land one (1) foot deep, or three hundred twenty-five thousand, eight hundred fifty-one (325,851) gallons.

Active recreational area means an area designated and primarily used for organized sports, including, without limitation, softball, baseball, football, soccer or a similar related sport, including all amenities related to the activity.

Body of water means any artificially constructed lake, pond or lagoon, regardless of size.

City means the City of Victorville.

Controller means a mechanical timer capable of operating valve stations to set days, length of time and frequency of water application.

Escaped water means the pumping, flow release, escape or leakage of any water from any pipe, valve, faucet, connection,

diversion berm, well, or any facility for the purposes of water supply, transport, storage, disposal, or delivery onto adjacent property or public right-of-way.

Excess runoff means water accumulation on streets, gutters, neighboring properties or other areas in an amount sufficient to cause flow.

Manager means the City Manager or the City Manager's designee.

Lot means a legally created parcel of land occupied or intended for occupancy by one (1) main building together with its accessory buildings, and uses customarily incidental to it, including the open space required by the City's zoning ordinance, and having its principal frontage upon a street as defined in the City's zoning ordinance.

Model home means a facility used exclusively for the promotion and sale of homes similar to the model.

Person means an individual, corporation, partnership, incorporated association or any other similar entity.

Public water system means any publicly or privately owned network of pipes, conduits, wells, reservoirs, holding tanks and other components, including any combination thereof, which supplies water to water users, who are charged a fee of any kind or nature for such purpose, or which is designed to supply water or is capable of supplying water to water users for a fee, and includes any such system whether it is operated under the regulatory authority of the City of Victorville, but does not include any irrigation company or district whose primary purpose is to supply water for farming.

Residential development means the development of any type of dwelling unit or units suitable or designed for human habitation, including, but not limited to, single family homes, condominiums or manufactured homes, but not including hotels, motels, licensed convalescent homes, commercially operated retirement homes, time share units, or the like. "Residential development" shall not include remodeling or reconstruction where no new dwelling unit is created.

Right of way means land which by deed, conveyance, agreement, easement, dedication, usage or process of law is

reserved for or dedicated to the general public for street, highway, alley, public utility, or pedestrian walkway purposes.

Turf means a surface layer of earth containing grass with its roots.

Turf-related facility means a school, public recreational facility, cemetery, golf course, industrial park or common area of a housing development that applies water from any source, including effluent.

Water intensive landscape means an area of land that is watered with a permanent water application system and planted primarily with plants not listed in section 13.60.110 "Drought Tolerant Plants." Included is the total surface area of all water features (i.e. swimming pools of any size, fountains, ponds, water courses, waterfalls, and other artificial water structures) filled or refilled with water from any source.

Water purveyor means the owner or operator of a public water system.

Water user means those persons, customers and properties served by a water purveyor within the incorporated boundaries of the City.

Water waste means the intentional or unintentional use or excessive dissipation of water, which is unproductive or does not reasonably sustain life or economic benefits.

13.60.105 Application of Chapter

The provisions of this chapter shall apply to all water users. The restrictions or prohibitions in this chapter shall not apply to water use, runoff or flow:

- (a) resulting from fire fighting, hydrant flushing or fire training activities; or
- (b) necessary to prevent or abate threats to the public health or safety; or
- (c) from routine maintenance of any public water system, well flushing, or from temporary water system failures or malfunctions.

13.60.110 Drought Tolerant Plants

The following categories of plants are hereby designated as "drought tolerant plants" and are not subject to any limitations in this chapter relating to water intensive landscape restrictions.

Accents

Agave species: *A. Americana* (Century Plant);
A. parryi huachucensis; *A. victoriae-reginae*
Dasyilirion wheeleri, Desert Spoon
Nolina microcarpa, Bear Grass
Hesperaloe parviflora, Red Yucca
Kniphofia uvaria, Red-Hot Poker, Torch Lily
Yucca species: *Y. aloifolia*, Spanish Bayonet;
Y. baccata, Banana Yucca, Datil; *Y.*
brevifolia, Joshua Tree; *Y. elata*, Soaptree
Yucca
Chamaerops humilis, Mediterranean Fan Palm
Trachycarpus fortunei, Windmill Palm
Washingtonia filifera, California Fan Palm

Grasses

Ornamental

Muhlenbergia rigens, Deer Grass
Muhlenbergia capillaris, Regal Mist
Muhlenbergia lindheimeri, Autumn Glow
Festuca ovina glauca, Blue Fescue
Bouteloua gracilis, Blue Grama
Nassella tenuissima (*Stipa tenuissima*),
Mexican Feather Grass

Turf

Buchloe dactyloides, Buffalo Grass (Legacy)
Buchloe dactyloides, Buffalo Grass (UC
Verde)

Warm-Season Grasses (winter dormant):

Zoysia, Zoysia Grass

Stenotaphrum secundatum, St. Augustine Grass

Cool-Season Grasses (year round):

Festuca arundinacea, Tall Fescue

Lolium perenne, Perennial Ryegrass

Poa pratensis, Kentucky Bluegrass

Ground Covers

Oenothera berlandieri, Mexican Evening Primrose

Santolina chamaecyparissus, Lavender Cotton

Cerastium tomentosum, Snow-in-Summer

Gazania, most varieties

Sedum, most varieties

Thymus, most varieties

Verbena peruviana; *V. pulchella*

Dalea greggii, Trailing Indigo Bush

Rosmarinus officinalis, 'Prostratus'

Phlox, most varieties

Perennial Flowers

Coreopsis, most varieties

Penstemon ambiguus, *P. barbatus*, *P.*

centranthifolius, *P. eatonii*, *P. palmeri*, *P.*

parryi, *P. pinifolius*, *P. pseudospectabilis*,

P. strictus

Cosmos, most varieties

Convolvulus cneorum, Bush Morning Glory

Perovskia, Russian Sage or Blue Spire

Berlandiera lyrata, Chocolate Flower

Gaura lindheimeri, 'Whirling Butterflies,'

'Siskiyou Pink'

Hemerocallis, Daylily, most varieties

Rosmarinus officinalis, most prostrate and upright varieties

Verbena gooddingii, *V. peruviana*, *V. rigida*

Shrubs

Salvia greggii, Red Sage, Autumn Sage

Salvia clevelandii, Blue Sage, Cleveland Sage

Salvia chamaedryoides, Germander Sage

Fallugia paradoxa, Apache Plume

Leucophyllum frutescens, Texas Ranger species, several varieties

Leucophyllum laevigatum, Chihuahuan Sage

Baccharis 'Centennial', Coyote Bush

Baccharis pilularis, Dwarf Coyote Brush

Artemisia, 'Powis Castle'

Cotoneaster horizontalis, Rock Cotoneaster

Photinia fraseri

Grevillea 'Noellii'

Trees

Evergreen

Eucalyptus camaldulensis (rostrata), Red River

Eucalyptus microtheca, Coolibah

Pinus eldarica, Eldarica Pine, Afghan Pine, Russian Pine

Pinus halepensis, Aleppo Pine

Pinus pinea, Italian Stone Pine

Cedrus deodara, Deodar Cedar

Calocedrus decurrens, Incense Cedar

Heteromeles arbutifolia, Toyon

Sophora secundiflora, Texas Mountain Laurel

Arbutus unedo, Strawberry Tree
Pithecellobium flexicaule, Texas Ebony

Deciduous

Albizia julibrissin, Silk Tree, Mimosa
Chilopsis linearis, Desert Willow,
'Burgundy'
Chitalpa tashkentensis, Pink Dawn, Morning
Cloud
Parkinsonia floridum, Blue Palo Verde
Parkinsonia microphyllum, Littleleaf Palo
Verde
Parkinsonia aculeata, Mexican Palo Verde
Fraxinus angustifolia, 'Raywood' (Raywood
Ash)
Fraxinus velutina, Arizona Ash
Fraxinus velutina, 'Modesto' (Modesto Ash)
Prosopis chilensis, Chilean Mesquite
Prosopis glandulosa, Honey Mesquite
Prosopis pubescens, Screw Bean Mesquite
Gleditsia triacanthos, Honey Locust
Pistacia chinensis, Chinese Pistache
Vitex agnus-castus, Chaste Tree, Monk Tree

13.60.115 Prohibited Water Uses and Water Waste

(a) It shall be unlawful for any water user of a public water system to allow water waste at any location or premises within the City limits after having been served with a notice of violation, pursuant to section 13.60.200 of this chapter, for wasting water from the same location or premises.

(b) It shall be unlawful for any owner, occupier or manager of real property within the City to allow water waste at any such real property after having been served with a notice of violation, pursuant to section 13.60.200 of this chapter, for wasting water from the same location or premises.

(c) It shall be unlawful for any water user within the City to make, cause, use or permit the use of water for residential, commercial, industrial, agricultural or any other purpose in a manner contrary to any provision of this chapter.

(d) It shall be unlawful for any water user to cause or permit any water furnished to any property within the City to run or to escape from any hose, pipe, valve, faucet, sprinkler or irrigation device onto any sidewalk, street or gutter or to otherwise escape from the property, if such running or escaping can reasonably be prevented.

(e) It shall be unlawful for any water user to wash any vehicle, equipment, or other object, or any driveway, parking lot, sidewalk, street or other paved surface, in any manner permitting runoff for more than five consecutive minutes, or a total of twenty minutes in any 24-hour period.

(f) Commercial and noncommercial watering of turf, ground cover, open ground, shrubbery, crops, gardens and trees, including agricultural irrigation, in a manner or to an extent which allows excess runoff shall not be permitted. A minimum amount of runoff, which is a natural consequence of conservative watering, either by hand or by mechanical or automated sprinkling facilities, is permitted, so long as such runoff does not amount to excess runoff as defined in this chapter.

(g) It shall be unlawful for any water user permit the excess use, loss or escape of water through breaks, leaks or other malfunctions in the water user's plumbing or distribution system for any period of time after such escape of water should have reasonably been discovered and corrected.

(h) It shall be unlawful for any water user to willfully or negligently permit or cause the escape or flow of irrigation water in such quantity as to cause flooding, impede vehicular or pedestrian traffic, create a hazardous condition to such traffic, or cause damage to public or private rights of way through failure or neglect to properly operate or maintain any irrigation structure, delivery ditch or waste ditch.

(i) It shall be unlawful for any water user to water or permit the watering of water intensive landscape or turf at time other than as authorized by the water purveyor.

(j) It shall be unlawful for any water user to willfully or negligently fail to accept irrigation water after it has been ordered.

13.60.120 Limitation on Water Intensive Landscape and Turf Areas Within New Nonresidential Facilities

(a) The following types of facilities shall limit the water intensive landscape and turf within the landscaped area to the following percentages of the total lot area, and all remaining landscaped area shall consist of plants listed in section 13.60.110 of this chapter:

(1) Churches: Twenty five percent (25%) of total lot area.

(2) Resorts, including hotels and motels: Ten percent (10%) of the total lot area.

(3) Commercial and industrial uses, fewer than nine thousand square feet: Ten percent (10%) of the total lot area.

(4) Commercial and industrial uses, nine thousand square feet to one acre: Ten percent (10%) of the first nine thousand (9,000) square feet, and five percent (5%) of the remaining lot area.

(5) Commercial and industrial uses, greater than one acre: No additional water intensive landscape and turf beyond the amounts allowed in section 13.60.120(a)(4).

(6) Common areas in residential developments: Ten percent (10%) of the first acre and five percent (5%) of each additional acre up to five (5) acres. Residential developments larger than five (5) acres shall not plant any additional water intensive landscape and turf in common areas.

(b) Active recreational areas shall not be considered in calculating the percentage of the total lot area and shall not be considered in determining compliance with this section.

(c) No water intensive landscape or turf shall be permitted in any right of way.

13.60.130 Limitations on Model Home and New Residential Development Landscaping

(a) All new model homes and new residential development shall limit water intensive landscape and turf area to the rear yard at the following percentage of the total lot area, and all remaining landscaped area shall consist of plants listed in section 13.60.110 of this chapter:

(1) Nine thousand (9,000) square feet or less. Ten percent (10%) of the total lot area.

(2) Nine thousand one (9,001) square feet to one (1) acre. Ten percent (10%) of the first nine thousand (9,000) square feet and five (5) percent of the remainder of the lot area.

(3) Greater than one (1) acre. No additional water intensive landscape or turf area shall be permitted beyond that allowed in section 13.60.130(a)(2).

(b) Water intensive landscape or turf shall only be located in rear yards.

(c) No water intensive landscape or turf shall be planted in any right of way. Drought tolerant plants or landscape listed under section 13.60.110 shall not be planted in any right of way, unless prior approval is obtained from the City.

(d) Prior to closing on a new residential unit, the developer shall provide the homeowner with a copy of the City requirements for water conservation. Upon receipt, the homeowner shall sign an affidavit of acceptance. The developer shall permanently maintain the signed affidavit.

13.60.140 Public Education

The City will use intensive public education to assist water users to understand the City's need for voluntary compliance. In addition to education, the City may use enforcement measures to curb water misuse.

13.60.150 Drought Management Plan Implementation

(a) The City Manager shall promulgate a drought management plan containing regulations setting forth the criteria for

implementation and termination of various water use reduction stages.

(b) The City Manager is authorized to declare a drought, and to implement a drought management plan, in response to events including, but not limited to, the following: reductions in supply from any water purveyor, or when an insufficient supply appears likely due to water system limitations or structural failure.

(c) Such declaration may designate the entire area of the City, or a portion of it if the shortage is not citywide.

(d) The City Manager may terminate the drought declaration when it is determined that the events that triggered the drought no longer exist.

13.60.160 Notification and Publication of Drought Management Plan

If the City Manager determines that the health and safety of the City dictate implementing the drought management plan, notification shall be published in a paper of general circulation, to educate the public about the need for the plan, and give them notice of conservation regulations and requirements of the applicable stage of the plan. A copy of the drought management plan shall also be available for inspection at the City Clerk's office.

13.60.170 Enforcement of Drought Management Plan

(a) The City Manager or his or her designee shall have authority to take actions to enforce any mandatory elements that are part of drought management plans.

(b) A written notice shall be placed on the property when a first violation occurs, and a duplicate mailed to the person who responsible for the service to the property where the violation took place. The notice shall describe the violation and order that it be abated immediately.

(c) For subsequent violations, the City will issue citations and fines according to the provisions of this chapter.

(d) Funds generated by the fines under this section shall be used to mitigate the impact of the drought.

13.60.180 Variances From Drought Management Plan

Variances to drought management plan provisions may be granted at the discretion of the City Manager or his or her designee. Applicants for a variance must apply in writing to the City manager or his or her designee, and demonstrate special circumstances such as health and safety needs or obligation of contract.

13.60.190 Limited Exemption to Restrictions for Users of Reclaimed Water

To the extent they are exempt from the drought management plan, users of reclaimed or recycled water shall clearly post notices stating that the water being used is not potable and not from the public drinking water supply, and is in conformance to drought management plan in force at the time.

13.60.200 Violations

(a) For a first violation of any provision of this chapter, the City shall issue a written notice of first violation and provide the violator with educational materials on water conservation, including a copy of the relevant provisions of this chapter. The City shall give the water user a reasonable period of time to correct the violation. Failure to correct the violation within a reasonable period of time shall constitute a second violation.

(b) For a second violation of any provision of this chapter, the City shall issue a written notice of second violation to the water user imposing a fine in an amount not to exceed Fifty Dollars (\$50.00), and requiring immediate correction of the violation.

(c) For a third violation of any provision of this section, the City shall issue a written notice of third violation to the water user imposing a fine in an amount not to exceed Two Hundred Dollar (\$200.00), and requiring immediate correction of the violation.

(d) For a fourth or subsequent violation of this section, the City shall impose a fine in an amount not to exceed Five Hundred Dollars (\$500.00). The fourth and each subsequent violation of this chapter shall be deemed a public nuisance, which may be abated pursuant to the procedures provided in Chapter 13.02 "Nuisances" of this Code.

(e) Any fine imposed under this section shall be collected in accordance with the procedures of Chapter 1.05 "Administrative Remedies" of this Code. Failure to pay any portion of a water user's account, including any fines imposed pursuant to this section, shall subject said account to termination of water service in accordance with the provisions of this section.

(f) In addition to the remedies set forth above, the City may seize equipment, line, fountains and other devices that are operated in violation of this chapter, until the fine is paid. The City may dispose of these items if the fine is not paid in six (6) months from the date the equipment was confiscated.

13.60.210 Right to Hearing

Any water user against whom a penalty is levied under this chapter shall have a right to a hearing before the City Manager or his or her designee.

Section 3. SEVERABILITY

The City Council declares that, should any provision, section, paragraph, sentence or word of this ordinance be rendered or declared invalid by any final court action in a court of competent jurisdiction or by reason of any preemptive legislation, the remaining provisions, sections, paragraphs, sentences or words of this ordinance as hereby adopted shall remain in full force and effect.

Section 4. REPEAL OF CONFLICTING PROVISIONS

All the provisions of the Victorville Municipal Code as heretofore adopted by the City of Victorville that are in conflict with the provisions of this ordinance are hereby repealed.

THIS ORDINANCE SHALL BE IN FULL FORCE AND EFFECT ON NOVEMBER 3, 2005.

PASSED, APPROVED AND ADOPTED THIS 4TH DAY OF OCTOBER, 2005.

Mike Rothschild
MAYOR OF THE CITY OF VICTORVILLE

ATTEST:

Carolee Bates
CITY CLERK

APPROVED AS TO FORM:

Abel H. Hunter
CITY ATTORNEY

I, CAROLEE BATES, City Clerk of the City of Victorville and ex-officio Clerk to the City Council of said City, DO HEREBY CERTIFY that the foregoing is a true and correct copy of Ordinance No. 2114 which was introduced at a meeting held on September 20, 2005 and duly adopted at a meeting held on the 4th day of October, 2005 by the following roll call vote, to wit:

AYES: Councilmembers Almond, Cabriales, Caldwell and Rothschild

NOES: None

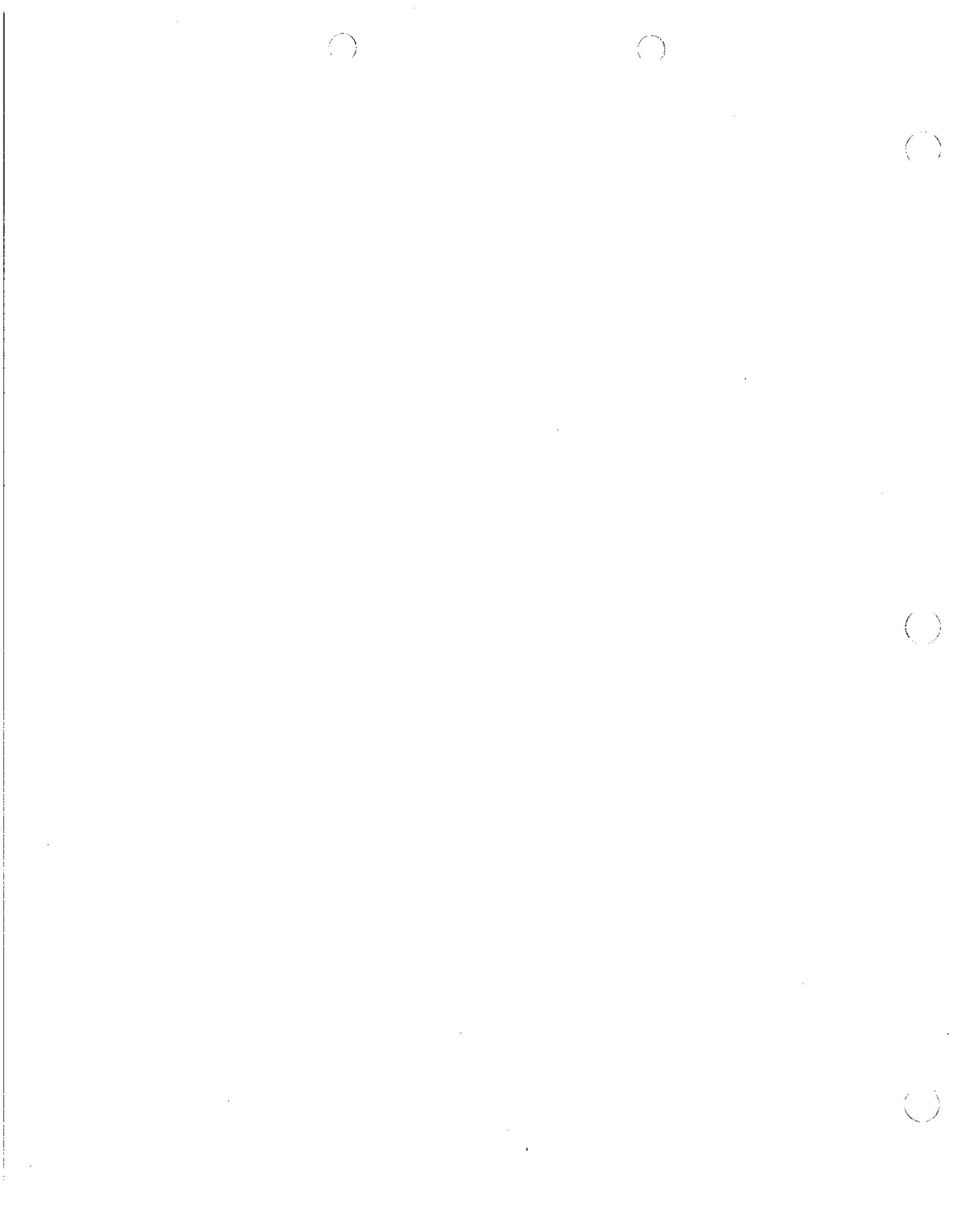
ABSENT: Councilmember Hunter

ABSTAIN: None

Carolee Bates
CITY CLERK OF THE CITY OF VICTORVILLE



APPENDIX E
ABBREVIATIONS



ABBREVIATIONS

The following are abbreviations that may be used in this report.

AWWA	American Water Works Association
CSA	County Service Area
CWD	County Water District
DOF	Department of Finance
DWR	California Department of Water Resource
EDA	Economic Development Administration
ENR	Engineering New Record
EPA	United States Environmental Protection Agency
FmHa (FHA)	Farmers Home Administration
HUD	Department of Housing and Urban Development
HWD	Hesperia Water District
LAFC	Local Agency Formation Commission
MWA	Mojave Water Agency
PUC	Public Utilities Commission
SCAG	Southern California Association of Governments
SCE	Southern California Edison
USCGS	United States Coast and Geodetic Survey
USGS	United States Geological Survey
USPHS	United States Public Health Service
VVWD	Victor Valley Water District
VVWRA	Victor Valley Wasterwater Reclamation Authority
ADD	Average Day Demand
ac-ft	acre-feet
cfs	cubic-feet per second
cu.ft.	cubic feet
gpcd	gallons per capita per day
gpd	gallons per day
gpm	gallons per minute
hp	horsepower
MDD	Maximum Day Demand
MG	Million Gallons
mgd	million gallons per day
mg/l	milligrams per liter
ppm	parts per million
PRV	Pressure Reducing Valve
psi	pounds per square inch
TDH	Total Dynamic Head (pumps)

