

Helix Water District
**Urban Water
Management Plan**
December
2005



Prepared by:
Helix Water District Staff

December 2005



Helix Water District

7811 University Ave.
La Mesa, CA 91941
www.hwd.com

**Helix Water District
2005 Urban Water Management Plan**

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INTRODUCTION

The California Water Code requires all urban water suppliers in the state to prepare an Urban Water Management Plans (UWMP) and update them every five. These plans satisfy the requirements of the Urban Water Management Planning Act of 1983 (the Act), including amendments that have been made to the Act. Sections 10610 through 10656 of the California Water Code detail the information that must be included in these plans, as well as who must file them.

Since the preparation of the Helix Water District's (District) 2000 UWMP update, major amendments made to the Act require additional information to be provided, including:

- Description of specific water supply projects and implementation schedules to meet projected demands over the planning horizon;
- Description of the opportunities for the development of desalinated water;
- Additional information on groundwater, where groundwater is identified as an existing or planned water source;
- Description of water quality over the planning horizon; and
- Description of water management tools that maximize local resources and minimize imported water uses.

Agencies subject to the Act must have adopted a complete UWMP that meets the requirements of the law and submitted it to the California Department of Water Resources (DWR). DWR staff reviews the plans to determine if the UWMP is complete, pursuant to the Act. In addition, DWR will consider whether the urban water supplier has submitted an updated plan when determining eligibility for funds made available pursuant to any program administered by the Department.

The District prepared an UWMP in 1985, updated it in 1990, 1995, and 2000, and filed those plans with DWR. This 2005 Urban Water Management Plan is an update to the 2000 UWMP and meets the requirements of Sections 10610 through 10656 of the California Water Code. This 2005 plan provides revisions to figures and projections in the 2000 plan, as well as new information relevant to the additional reporting requirements previously described.

DWR has prepared a "Review of Completeness" checklist for use by DWR staff in their review of 2005 UWMP's. This checklist has been filled out and is included as **Appendix A**.

The District is actively implementing the wise water management practices suggested by the California Urban Water Conservation Council and is a signatory to the Best Management Practices. This UWMP is coordinated with the UWMP updates prepared by both the San Diego County Water Authority (Authority), the District's wholesale agency, and the Metropolitan District of Southern California (MWD). In addition, the

participation of local agencies within the District's service area has been encouraged through communications of the on-going plan update and opportunities to review and comment on the plan. The District's coordination efforts are summarized below.

Local Agency Coordination

Agency	Participated in UWMP Development	Commented on the Draft	Attended Public Meetings	Contacted for Assistance	Received Copy of Draft	Sent Notice of Intention to Adopt
San Diego CWA	X			X	X	X
County of San Diego					X	X
City of Lemon Grove					X	X
City of La Mesa					X	X
City of El Cajon		X			X	X

The Helix Water District Board of Directors, through Resolution No. 05-71, adopted this 2005 Urban Water Management Plan on Wednesday, December 21, 2005, after conducting a public hearing. Notices of the public hearing were advertised in local publications twice, for each of the two weeks preceding the hearing.

This 2005 UWMP has been submitted to the California Department of Water Resources, to the local coordination agencies listed above, and has been made available for public review in hardcopy format at the District's Administrative Office or electronically at the District's website, as listed below:

Helix Water District
 7811 University Ave.
 La Mesa, CA 91941
www.hwd.com

SECTION 1 □DISTRICT BACKGROUND & DESCRIPTION

1.1 History of Helix Water District

Helix Water District's history dates back to 1885 when the San Diego Flume Company built Cuyamaca Dam, a diverting dam on the upper reaches of Boulder Creek (a tributary of the San Diego River), and 34 miles of wooden flume to deliver water to the people of San Diego. Subsequently the San Diego Flume Company was sold to the Cuyamaca Water Company. In 1913 the La Mesa, Lemon Grove and Spring Valley Irrigation District was organized. In 1926 the District purchased the Cuyamaca Water Company and became an operating public water agency. The eventual growth of the District's current boundaries was the result of various annexations of surrounding areas that are now part of the District. Subsequent District name changes included the renaming to □Helix Irrigation District□ in 1956 through a Board action, and the renaming to the current □Helix Water District□ in 1973 through an act of the California Legislature which also allowed for the District's continued operation under Irrigation District Law.

1.2 District Service Area

The District's boundaries encompass a highly urbanized service area with a population of approximately 260,000 residents and 55,000 water service connections. Covering an area of nearly 50 square miles, Helix Water District serves the cities of La Mesa, Lemon Grove, El Cajon, as well as various unincorporated communities of San Diego County, including portions of Spring Valley and Lakeside. Refer to the District service area map on **Figure 1-1**.

The District operates as a public agency under the Irrigation District Law of the State of California. The District is governed by a Board of five directors, elected to four-year terms by the registered voters in the division in which each director resides. The Board is empowered to establish water charges, levy assessments, and adopt all policies, procedures, and regulations for providing customers with high quality water that is fairly priced and served through an efficient, reliable water system.

The District is a member agency of the San Diego County Water Authority (Authority), which is in turn a member agency of the Metropolitan Water District of Southern California (MWD). As a retail agency, the District purchases imported water as needed through these wholesalers.

Helix Water District works today to manage the water demands of tomorrow. The District's mission states that □Helix Water District is a progressive industry leader, providing high quality water, through an efficient and reliable system. Our innovative and dedicated employees and Board members maximize human and technological resources, providing superior service to our customers.□

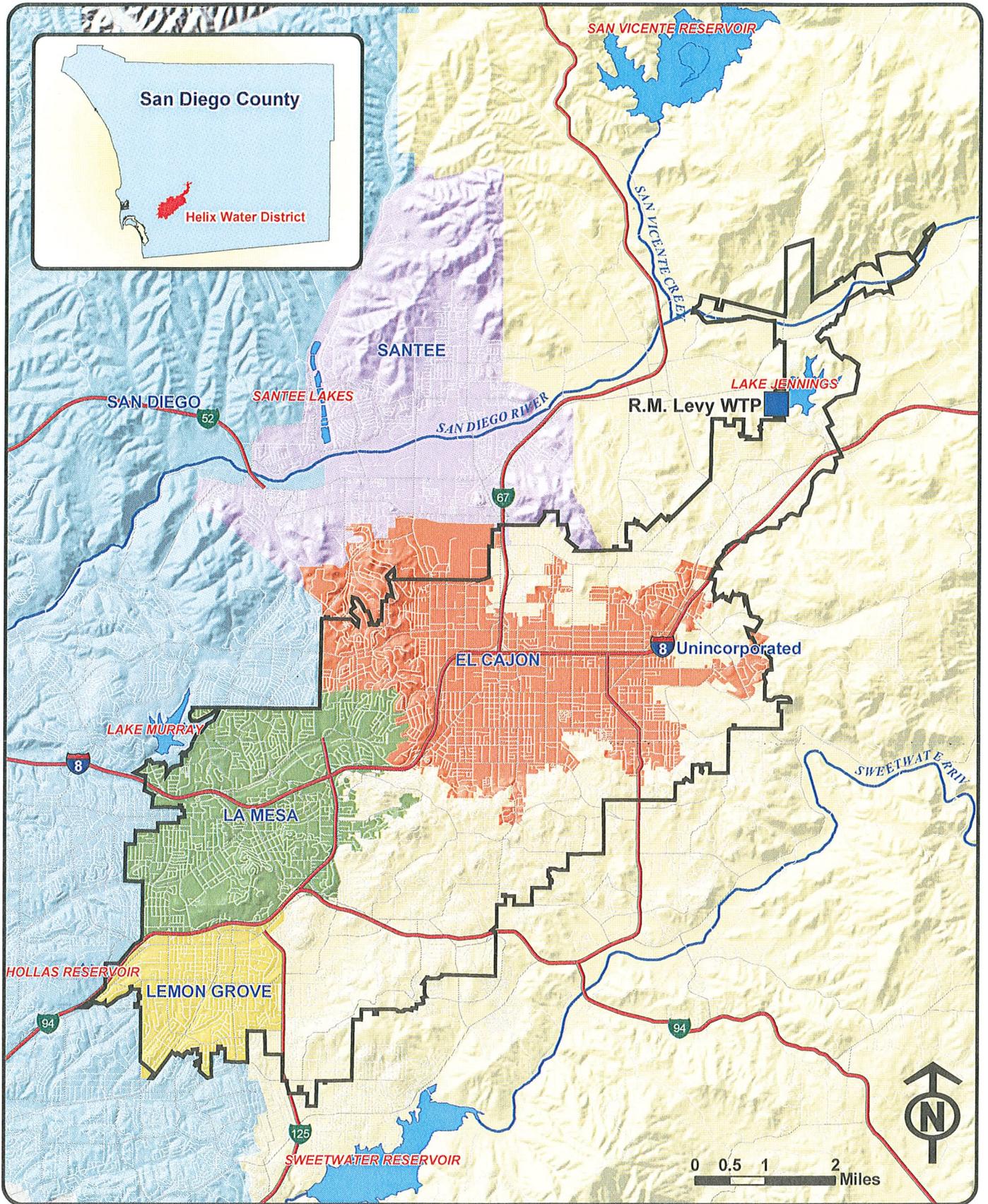


Figure 1
Helix Water District
Service Area Location Map

1.3 Water Sources and Facilities

1.3.1 Raw Water System

The District's raw water supply consists of both imported and local water sources. Imported water supplies are provided by the Authority and conveyed to the R.M. Levy Water Treatment Plant (Levy WTP) through the District's raw water aqueduct system. This raw water conveyance system is composed of three pipelines which receive imported water from the Authority's aqueduct, which in turn imports a blend of Colorado River and Northern California water through the State Water Project (SWP) system. Historically, SWP water constitutes less than 10 percent of imported water in the winter and about 50 percent in the summer. Deliveries through the Authority's aqueduct are stored at the San Vicente Reservoir, owned by the City of San Diego, and diversions to the District's aqueducts are made at a diversion facility just upstream of the reservoir. The capacity of the District's raw water supply system from the Authority is currently 62 million gallons per day (MGD) and will ultimately be 84 MGD after planned improvements to the Authority's imported water delivery system are completed by 2010.

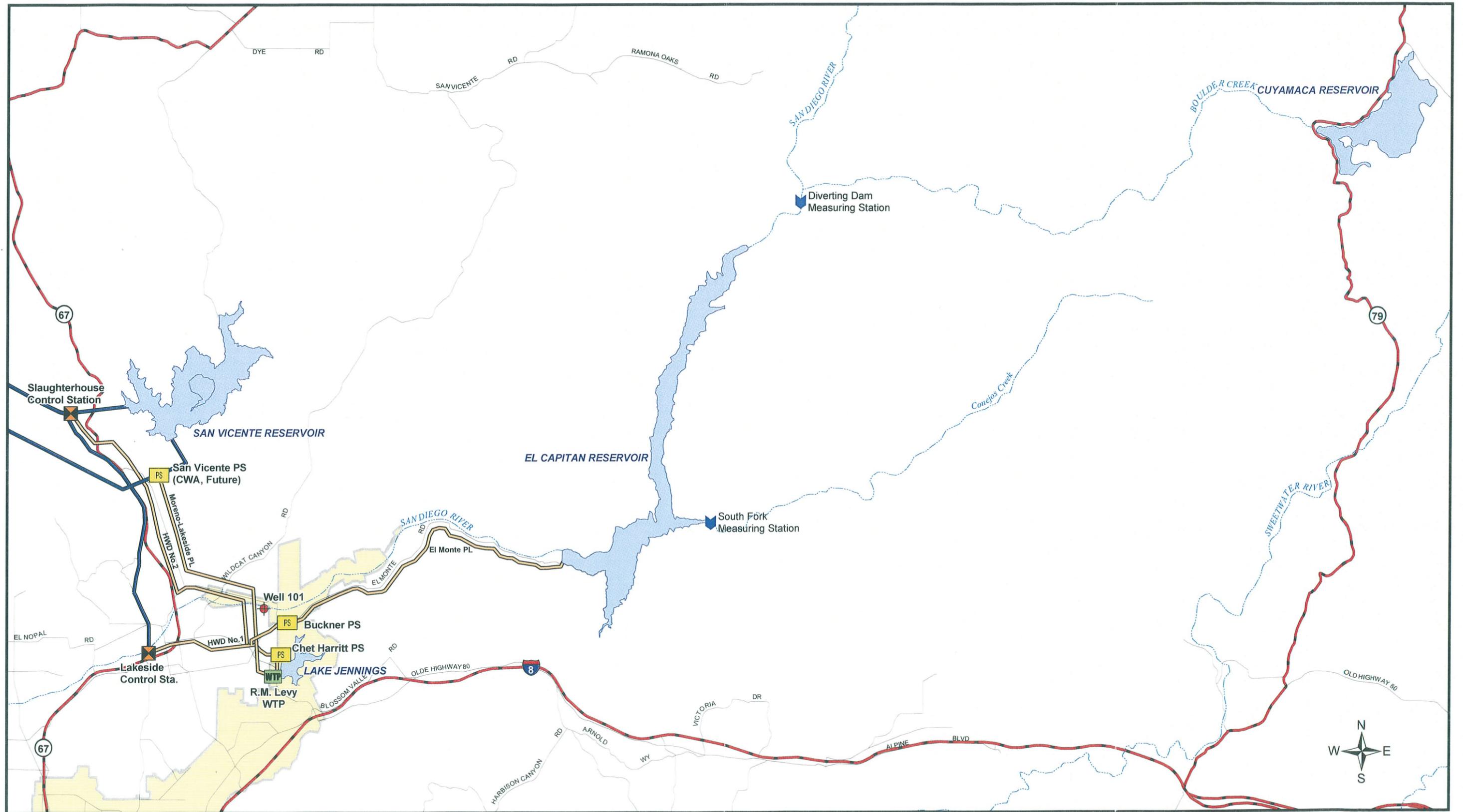
Local water sources are obtained from local runoff impounded at Lake Cuyamaca which has a storage capacity of 11,756 acre-feet, and El Capitan Reservoir, a City of San Diego reservoir for which the District has storage rights to 10,000 acre-feet. The District also owns and operates Lake Jennings, an impoundment behind Chet Harrit Dam which has a storage capacity of 9,790 acre-feet but impounds only imported water since it has a watershed with negligible runoff. An additional water source is a District well, referred to as Well 101, which constitutes less than one percent of the District's water supply.

Other raw water facilities within the District include two pipeline and pump station systems connected to local reservoir storage at Lake Jennings and El Capitan Reservoir, which connect to the Levy WTP. This system of pipelines and pump stations provides the ability to convey imported water into and out of storage as required under varying seasonal conditions.

Figure 1-2 illustrates the District's raw water supply system.

1.3.2 Treated Water System

Water treatment and conveyance facilities owned and operated by the District include the R.M. Levy Water Treatment Plant which produces treated water up to a capacity of 106 (MGD). Treated water storage facilities include the 30 million gallon (MG) Grossmont Reservoir and 25 storage tanks located throughout the District, providing for a total treated water storage capacity of 64 MG. Treated water conveyance facilities consist of a system of treated water transmission mains ranging from 16 to 54 inches in diameter, a 700-mile network of treated water distribution mains ranging in diameter from 2 to 14 inches, two transmission pump stations (Harold Ball and Los Coches Pump Station), and 21 distribution system pump stations located throughout the service area.



Legend:

Helix WD Service Area	Flow Control Station
R.M. Levy WTP	HWD Raw Water Pipeline
Raw Water Pump Station	SDCWA Pipeline
	Highways

FIGURE 1-2
Raw Water Supply System



The District has access to imported treated water through a connection to the Authority’s treated water aqueduct system (CWA Connection No.5). This treated water connection is used during emergency events or under special circumstances such as planned shutdowns for purposes of maintaining other District facilities.

Figures 1-3 and 1-4 illustrate the District’s treated water transmission and distribution systems, respectively.

1.4 LAND USE AND POPULATION

Current and projected land use and population data within the District’s service area is provided by the San Diego Association of Governments (SANDAG), a local planning agency. SANDAG uses available information including the various community general plans and census data to prepare a Regional Growth Forecast which carries projections through 2030. The various data contained in this forecast are readily available and can be modified and organized to coincide with the District’s service boundaries.

1.4.1 Land Use

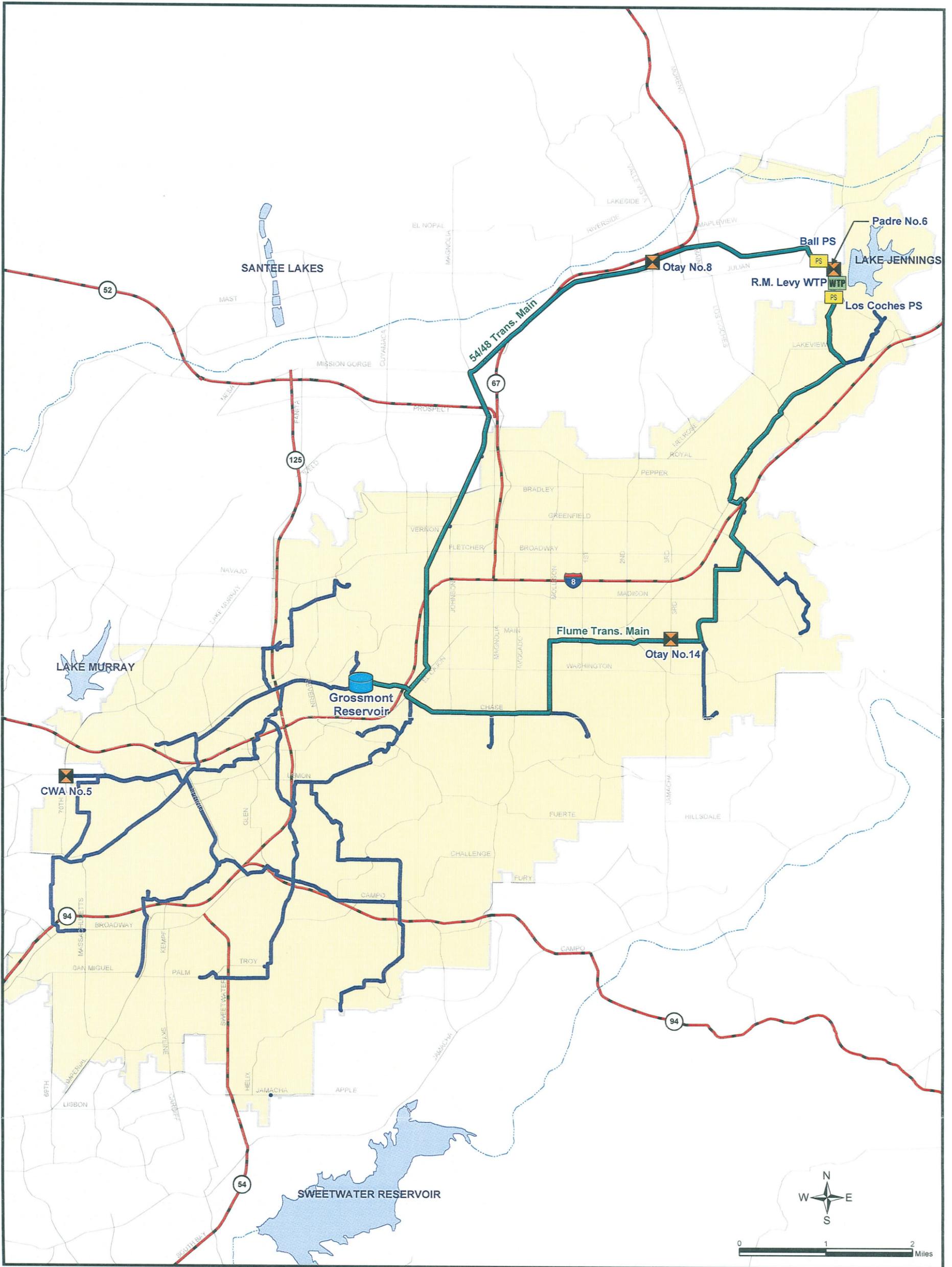
Approximately 58 percent of the District’s service area is dedicated to residential land use. **Table 1-1** below summarizes generalized land use categories and respective areas within the District boundaries. The figures presented are for both existing land use as well as 2030 land use projections derived from SANDAG’s regional growth forecast.

**Table 1-1
HWD Generalized Land Use Categories.**

	Existing		2030⁽¹⁾	
Land Use	Acres	%	Acres	%
Residential	17,051	57.7%	18,850	63.8%
Transportation and Utilities	5,557	18.8%	5,582	18.9%
Vacant, Open Space, Parks	2,983	10.1%	1,193	4.0%
Commercial/Industrial	1,950	6.6%	2,031	6.9%
Institutional	1,487	5.0%	1,508	5.1%
Agriculture	352	1.2%	216	0.7%
Water	186	0.6%	186	0.6%
TOTAL	29,565		29,565	

⁽¹⁾ Based on SANDAG 2030 Regional Growth Forecast

As can be confirmed from the table above, the majority of lands within the District boundaries are dedicated to intensive urban uses consisting of residential, transportation/utilities, commercial/industrial, and institutional (e.g. government) land use categories. These combined categories constitute nearly 90 percent of the land use now and will comprise 95 percent in the future. Also noteworthy are the anticipated reduction in open space by over 50 percent and the almost negligible agricultural land use both currently and in the future.



Legend:

- | | |
|--|---|
|  Helix WD Service Area |  Treated Water Flow Control Facility |
|  R.M. Levy WTP |  54/48 & Flume Transmission Mains |
|  Treated Water Pump Station |  Other Transmission Mains |
| |  Highways |

FIGURE 1-3
Treated Water Transmission System

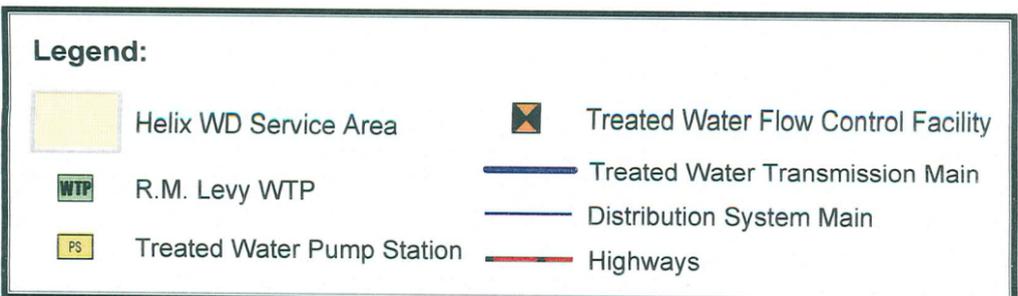
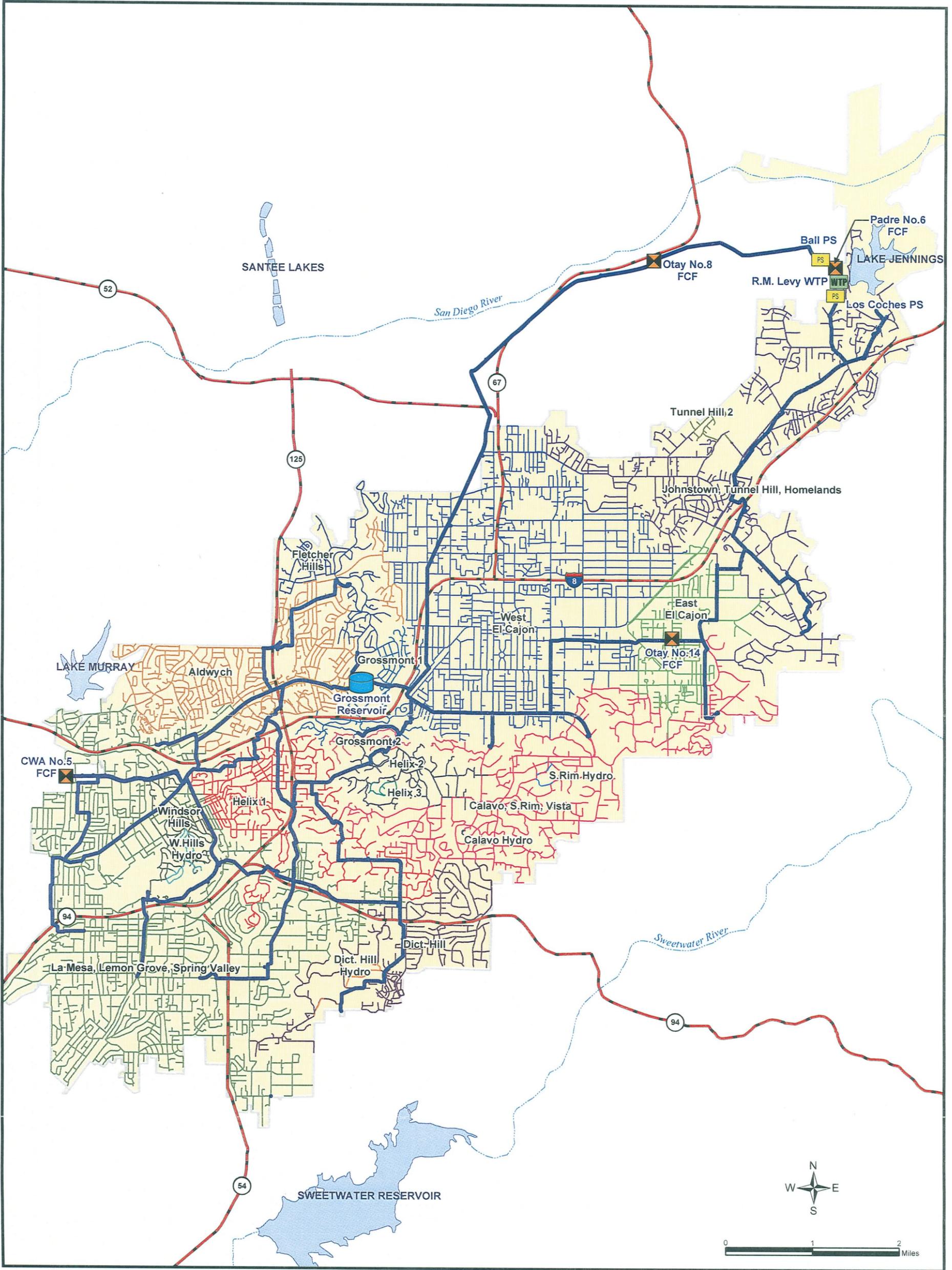


FIGURE 1-4
HWD Distribution Systems

Due to the nearly fully developed nature of the District's service area, the projected increases in future water demands will be attributed primarily to development of the remaining developable lands, the sources of which will be existing vacant and agricultural lands, and to redevelopment infill. The remaining developable lands constitute approximately 1,200 acres while redevelopment will affect approximately 700 acres, resulting in an estimated area of 1,900 acres that is expected to be affected by growth. This acreage constitutes approximately 6 percent of the District's service area.

1.4.2 Population Projections

Current and projected population within the District's service area are summarized in **Table 1-2** below. In summary, the forecast entails an average population growth rate of approximately 0.43 percent per year within the District over the next 30 years, resulting in a total population gain of about 30,000 people, or an overall growth of 11 percent within that time frame.

**Table 1-2
Current and Projected Population**

Year	HWD Service Area Population
2005	260,158
2010	263,681
2015	271,617
2020	278,913
2025	282,843
2030	289,519

1.5 Climate

The District's service area is entirely within an inland region of eastern San Diego County. Climate is warm and arid as is characteristic for the inland areas of the county, although temperature fluctuations can vary within the District as a result of the diverse topography ranging in elevation between 280 to 1270 feet (mean sea level). Water demands are generally dependent on weather patterns. Average temperature within the District is 74.8°F and average annual precipitations is 12.6 inches, as measured by NOAA's La Mesa, CA Station (Station No. 044735). This station has 56 years of available data spanning from July 1, 1948 through December 31, 2004 and is accepted as representative of the District's service areas. Roughly 82 percent of the rainfall occurs between the months of November through March.

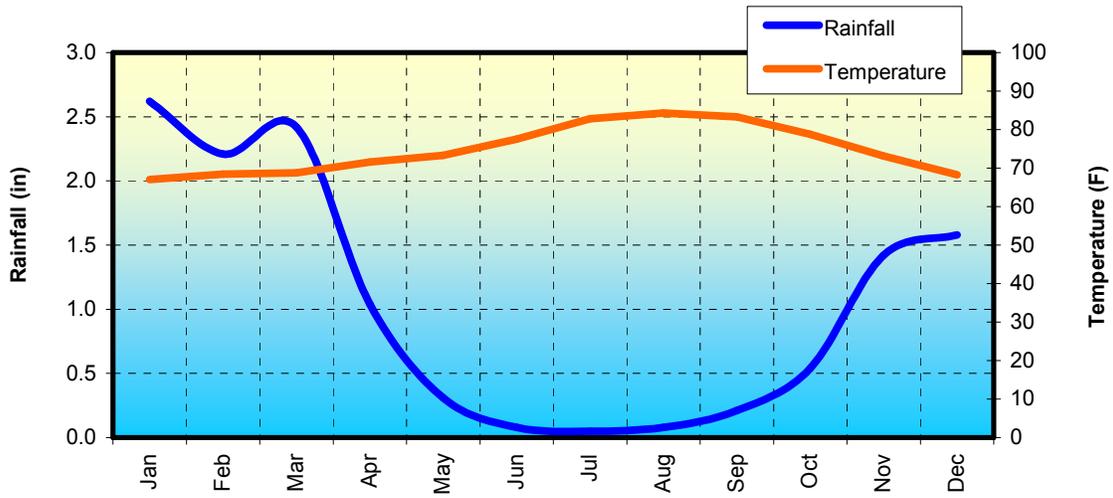
Evapotranspiration (ETo) data was obtained from the California Irrigation Management Information System (CIMIS), which maintains measuring stations throughout the state of California. The closest and most representative station maintained by CIMIS is the Miramar #150 station, which is approximately 10 miles from the District. This station recorded an average monthly ETo of 46.4 inches, based on data that spans between April

1999 to the present. A summary of climate data and illustration of the weather patterns are presented on **Table 1-3** and **Figure 1-5** below.

**Table 1-3
Climate Data**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Annual
Avg. Temp (F)	67.0	68.4	68.8	71.6	73.3	77.5	82.8	84.3	83.3	78.8	73.1	68.3	74.8
Avg. Rainfall (in)	2.62	2.21	2.42	1.04	0.31	0.08	0.05	0.08	0.21	0.54	1.42	1.58	12.6
ETo	1.83	2.20	3.42	4.49	5.25	5.67	5.86	5.61	4.49	3.42	2.36	1.83	46.4

**Figure 1-5
Average Monthly Temperature and Precipitation**



SECTION 2 □ WATER DEMANDS

2.1 Historic and Current Water Demands

The District provides primarily domestic water service to a 50 square-mile urbanized area which includes the cities of La Mesa, Lemon Grove, El Cajon, and various unincorporated communities of San Diego County, including portions of Spring Valley and Lakeside. This area, which has a current population of approximately 260,000 residents, is served by a total of 55,000 service connections.

The District maintains an account database that compiles data on water use, categorized by the type of use. Residential uses include domestic use and irrigation for single and multi-family homes, including mobile homes. Commercial uses include retail, restaurants, shopping centers, and other similar businesses. Industrial uses generally include manufacturing and equipment or material storage yards, which represents a minor category and is included within the commercial use category. Water used at medical facilities is also included in the commercial use category. Public water uses include government facilities, schools, and libraries. The irrigation use category includes the major irrigation uses such as parks and highway landscaping, as well as more minor uses such as multi-family housing irrigation and minor agricultural irrigation. The District also maintains records on water used for construction, which is included in the commercial category for purposes of this report, and also maintains estimates of unaccounted water (e.g., leaks, main breaks, etc.).

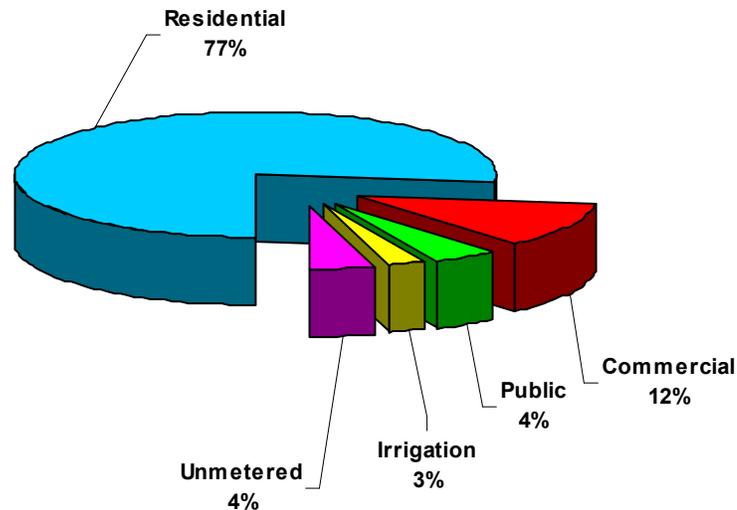
Consistent with the urbanized land uses within the District's service area, residential water use accounts for 77 percent of total water use, while commercial uses account for 11 percent, for a total of nearly 90 percent of water used within these two categories. Of the remaining ten percent of water consumption, the highest use is dedicated to public facilities (e.g., government, schools). **Table 1-4** below presents historical water demands and the number of accounts by use sector between the fiscal years of 1999 through 2005. An illustration of the categorical breakdown of water used in 2005 is presented on **Figure 1-5**.

**Table 1-4
Historic and Current Water Demands by Sector**

Fiscal Year		Single Family Resid.	Multi-Family Resid.	Commercial ⁽¹⁾	Irrigation	Public ⁽²⁾	Un-metered ⁽³⁾	Total
1999	No. of Meters	45,018	4,631	3,371	353	484	--	53,857
	AF/Y	19,581	10,960	4,804	855	1,512	2,103	39,816
2000	No. of Meters	45,067	4,663	3,418	376	479	--	54,003
	AF/Y	21,916	11,320	5,021	1,019	1,776	1,761	42,813
2001	No. of Meters	45,219	4,704	3,396	396	484	--	54,199
	AF/Y	19,999	11,028	4,862	942	1,635	1,583	40,049
2002	No. of Meters	45,361	4,729	3,408	417	503	--	54,418
	AF/Y	21,523	11,066	4,804	1,047	1,769	2,021	42,230
2003	No. of Meters	45,537	4,764	3,403	430	507	--	54,641
	AF/Y	20,457	10,646	4,774	983	1,660	1,181	39,700
2004	No. of Meters	45,726	4,783	3,416	448	515	--	54,888
	AF/Y	21,485	10,709	4,806	1,082	1,875	2,249	42,206
2005	No. of Meters	45,863	4,801	3,394	483	514	--	55,055
	AF/Y	19,593	10,226	4,563	1,022	1,677	1,705	38,785

- Notes: (1) Medical water use is included in □Commercial□category.
 (2) □Public□Includes public use facilities such as schools, libraries, and government/municipal offices.
 (3) Un-metered use includes fire protection, maintenance/flushing, pipe breaks, and system leakage.

**Figure 1-6
Water Use by Sector, Fiscal Year 2005**



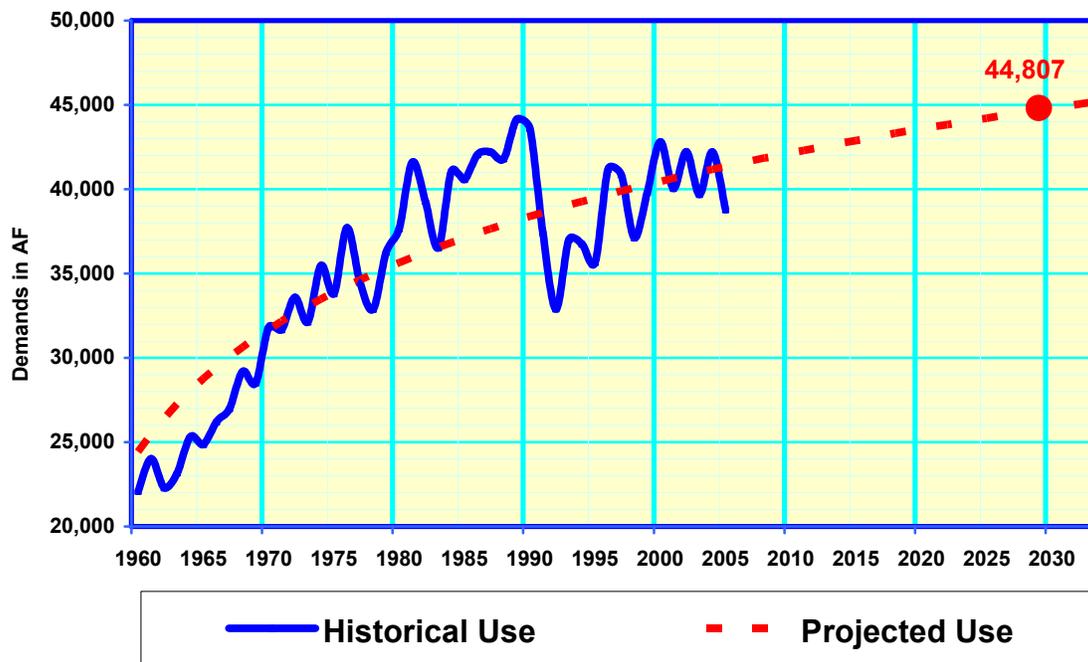
- Notes: □Public□includes public use facilities such as schools, libraries, and government offices.
 □Un-metered□uses include fire protection, maintenance/flushing, pipe breaks, and system leakage. Medical use is included in □Commercial□category.

2.2 Projected Water Demands

As presented previously, the District encompasses a service area with highly urbanized land use which will see little change in the future due to the nearly fully developed condition of the service area in the present. Correspondingly, no significant changes are anticipated in the overall makeup of water use sectors, aside from incidental changes within the residential use category resulting from development of the minor developable land remaining and changes from single-family to multi-family residential water use (i.e., redevelopment infill). The water use summary by sectors previously illustrated on **Figure 1-6** is therefore expected to remain constant the in the future.

An historical water consumption record dating back to 1953 is a source of information that is available to identify demand growth patterns and provides estimates of future water demands based on the observed trends. Such an approach was employed to obtain an initial estimate of future water demands through 2030. An illustration of this water demand record is presented on **Figure 1-7**, along with a representation of the anticipated trend in water demand growth through 2030. The anticipated water demand trend predicts a total water usage of 44,807 acre-feet per year (AF/Y) in 2030.

Figure 1-7
Historic & Projected Water Use



As a validation to the statistical estimate of projected demands based on observed trends, land use data from SANDAG's 2030 regional growth forecast was overlaid with the District's service area using a geographical information system (GIS). This provided for a method of summarizing projected land use changes within the boundaries of the District, as predicted by the regional growth forecast. This summary of land use changes, used in conjunction with the District's water use records, by sector, provided for the development of water duties. Water duties define a water usage rate by land use type, expressed in AF/Y, per acre. With the development of water duties, projections of future land uses can be converted into water use projections. Based on the water duty analysis using the regional growth forecast, a total annual demand of 44,848 AF/Y is predicted for the year 2030. A summary of results for the water duty analysis is presented on **Table 1-4**.

Table 1-4
2030 Demand Projections
Water Duty Analysis Summary⁽¹⁾

Type	2003 Demand AF/Y ⁽²⁾	2030 Demand Growth AF/Y	2030 Infill & Redev. AF/Y	2030 Total
Single Family Residential	20,457	1,227	621	22,305
Multi Family Residential	10,646	1,278	66	11,990
Commercial	4,774	286	502	5,562
Irrigation	983	59	0	1,042
Public	1,660	317	0	1,976
Unaccounted/Un-metered	1,181	--	--	2,136 ⁽³⁾
TOTAL	39,700	3,167	1,189	45,011

- (1) Based on future land uses projected in SANDAG's 2030 Regional Growth Forecast.
- (2) The existing land use data is based on 2003 land use conditions, therefore land use changes and the associated water demand increases are relative to a 2003 base year.
- (3) Un-metered losses are estimated at 4.75% of gross water production, which represents average system losses recorded since 1991 (i.e., after initial implementation of BMP's).

As presented on **Table 1-4**, the water duty approach for projected water uses predicts a total usage of 45,011 AF/Y by the year 2030, which is in close agreement with the statistical estimate of 44,807 AF/Y determined from the projection of observed demand growth patterns. On the basis of these two estimates, a total demand of 45,000 AF/Y is adopted for use in this report, providing for a projection that can be validated by both means of statistical and water duty analysis. Estimates for water demands during intermediate years between the present and 2030 are derived from the statistical model.

A detailed summary of water use projections by sector is presented on **Table 1-5**. This table spreads the anticipated future water demand figures into the same distribution of water use sectors as observed in 2005. Water sectors are defined in the same fashion as the historical water demand sectors presented previously on **Table 1-4**. It is noted that the projected water demand figures do not include reductions anticipated as a result of

future water conservation and other water savings programs. Potential savings from such measures are further discussed in Section 3, Demand Management Measures.

**Table 1-5
Projected Water Demands by Sector**

Fiscal Year		Single Family Resid.	Multi-Family Resid.	Commercial	Irrigation	Public	Un-metered	Total
2010	No. of Meters	46,918	4,911	3,472	494	526	0	56,322
	AF/Y	21,296	11,115	4,959	1,111	1,823	1,853	42,156
2015	No. of Meters	47,742	4,998	3,533	503	535	0	57,310
	AF/Y	21,669	11,310	5,046	1,130	1,855	1,885	42,896
2020	No. of Meters	48,503	5,077	3,589	511	544	0	58,224
	AF/Y	22,015	11,490	5,127	1,148	1,884	1,915	43,579
2025	No. of Meters	49,209	5,151	3,642	518	552	0	59,072
	AF/Y	22,336	11,658	5,201	1,165	1,912	1,943	44,214
2030	No. of Meters	50,084	5,243	3,706	527	561	0	60,122
	AF/Y	22,732	11,865	5,294	1,185	1,946	1,978	45,000

2.3 Dry Year Water Demands

Studies have shown that urban water demands during hot and dry periods tend to increase on the order of about seven percent over normal demands*. This documented figure is used to revise the projected water demands to represent the single and multiple dry year demands through 2030, which is consistent with the assumption used by the District's wholesale supplier in their UWMP. A summary of these dry year demand projections is presented on **Table 1-6**.

It is noted that the assumed demands for 2005 and subsequent multiple dry years (2006, 2007, 2008) are relative to a 2005 baseline derived from the demand projection curve rather than the actual recorded demand. The reason for this assumption is that wet weather conditions in 2005 resulted in lower than projected demands by approximately 2,500 acre-feet, and is therefore not considered a suitable planning number. Therefore, while actual water demand totaled 38,785 acre-feet in 2005, the baseline demand used for the dry year projections is 41,349 acre-feet. When scaled up by 7 percent to represent dry year demand increases, the single dry year baseline for 2005 becomes 44,243 acre-feet as listed on **Table 1-6**.

[*Source: Weather-Related Demand Variability in Metropolitan Water District Service Area, Sept.1990.]

**Table 1-6
Projected Water Demand During Single and Multiple Dry Years**

	Single Dry Water Year	Multiple Dry Water Years		
Year	2005 (base year)	2006	2007	2008
Demand (AF/Y)	44,243	44,416	44,589	44,761
Year	2010	2011	2012	2013
Demand (AF/Y)	45,107	45,265	45,423	45,582
Year	2015	2016	2017	2018
Demand (AF/Y)	45,899	46,045	46,191	46,337
Year	2020	2021	2022	2023
Demand (AF/Y)	46,630	46,766	46,902	47,038
Year	2025	2026	2027	2028
Demand (AF/Y)	47,309	47,477	47,646	47,814
Year	2030			
Demand (AF/Y)	48,150			

SECTION 3 - DEMAND MANAGEMENT MEASURES

Section 3.1 Summary of Demand Management Measures

The District has long had a commitment to water conservation as an invaluable part of wise water management. The District was one of the early signatories to the Memorandum of Understanding Regarding Urban Water Conservation in California (MOU). This document lists conservation practices that have proven to be effective, taking into account economic and non-economic factors. Some of those factors include environmental, social, health, technological and customer impacts. Agencies that signed on the MOU have agreed to implement fourteen Best Management Practices (BMPs) to the extent feasible, and to track progress towards meeting the intent of those goals. The fourteen BMPs are listed on **Table 3-1**.

Table 3-1
Best Management Practices

BMP	Description
1	Water Surveys for Single and Multi Family Customers
2	Residential Plumbing Retrofit
3	System Water Audits and Leak Detection
4	Metering With Commodity Rates
5	Large Landscape Conservation Programs and Incentives
6	High-Efficiency Washing Machine Rebate Programs
7	Public Information Programs
8	School Education Programs
9	Conservation Programs for Commercial, Industrial, and Institutional Accounts
10	Wholesale Agency Assistance Programs
11	Conservation Pricing
12	Conservation Coordinator
13	Water Waste Prohibition
14	Residential Ultra Low Flow Toilet Replacement Programs

As part of the MOU, the District has agreed to implement and track the performance and progress of its implementation of each BMP. These BMP monitoring reports are submitted bi-annually by the District to the California Urban Water Conservation Council (CUWCC). Copies of these monitoring reports, submitted by the District between 1999 through 2004, are provided in **Appendix B** of this report. These reports provide information specific to the District's implementation of the BMPs and performance monitoring data dating back to the inception of the BMPs in 1991. These reports, as well as additional BMP monitoring data are also publicly available for review at the CUWCC's website (<http://www.cuwcc.org>).

A more detailed view of each BMP and the current state of each BMP's implementation is presented in the following paragraphs.

3.2 Best Management Practices (BMP's)

BMP 1 - Residential Surveys. BMP 1 requires that the District complete residential surveys of 15 percent of our single-family customer accounts (6,731) and 15 percent of our multi-family customer accounts (691) by 2009. Currently, the District has completed 1,577 single-family and 238 multi-family surveys, or 23 percent of the requirement for single-family accounts and 34 percent of the requirement for multi-family accounts. In 2004/2005 the District began an in-house residential survey program. The District has marketed this program vigorously through a newsletter, events, and direct contact in order to be able to comply with this BMP.

BMP 2 - Residential Plumbing Retrofit. The Authority and its member agencies distributed more than 550,000 showerheads between 1991 and 2002. Shower heads and other retrofit devices such as toilet tank displacement fixtures and faucet aerators were distributed throughout the District in the early 1990s. Within the District, saturation figures for this program stand at 75 percent. With the advent of reliable Ultra-Low-Flow Toilets (ULFT) many of these retrofit devices are no longer needed. The District continues to distribute low-flow shower heads on demand to both single family and multi-family residences.

BMP 3 - System Water Audits. The District's unbilled water loss averaged 4.38% per year for the past 6 years (1999-2004). Unbilled water loss is the difference between water sales and water production, and can be accounted for by fire protection, system flushing, evaporation, meter error, major line breaks, etc.

Leak detection is performed through line surveys on an annual basis. A Supervisory Control and Data Acquisition (SCADA) system upgrade was part of the major upgrade of the Levy WTP which was completed in 2002. This system allows operators to rapidly detect significant pressure drops and other signals that may indicate line breaks or leaks.

Water system improvements are done on an ongoing basis. A massive Flume Replacement project was undertaken between 1978 and 2001, replacing nearly 13 miles of transmission pipelines ranging in diameter from 16 through 48 inches. Currently a large cast iron pipe replacement program is underway, aimed at replacing approximately 25,000 feet of cast iron pipeline per year, for the next fourteen years.

Meter maintenance and replacement is an ongoing program within the District. Meters are replaced on a 15 year cycle.

Ongoing inspection of facilities keeps the distribution system under tight surveillance, not only of potential breakage and leaks, but also for security purposes.

BMP 4- Metering With Commodity Rates. The District requires meters on all connections within its service area. Billing is done through a combination of a base charge and charge per unit of water used.

BMP 5 □Large Landscape Conservation Programs. In 2004, the District joined the Authority's Water Budget Program, and to date 45 of our 497 irrigation meters have been enrolled in the Conservation water budget program. Conservation provides computer record tracking for this program, including monthly contact with enrollees. This was the result of the District acquiring an in-house staff member to do landscape audits and manage this program. It is anticipated that the majority of irrigation meters will be participating in the monitoring program by 2009.

BMP 6 □High Efficiency Washing Machine Rebates. As of January 4, 2005, the District needed 1,137 High Efficiency Washing (HEW) machine vouchers to be redeemed to meet this BMP. Nine hundred three HEW vouchers were redeemed by District customers in 2003-2004, and as of September 23, 2005, an additional 82 have been redeemed. With the 300 plus vouchers allotted in 2005-06, the District expects to meet the BMP 6 voucher redemption coverage before the end of this fiscal year.

BMP 7 □Public Information. The District began a public information program in 1965, and has continued to promote water conservation through the use of its newsletter, billing inserts, website, annual report, annual water quality report, speakers bureau, media releases, paid advertisements, feature story placement, water conservation landscape contest, technology expositions, activities as a founding member of the Water Conservation Garden (4.2 acres on the grounds of Cuyamaca College), public events, and festivals.

District partners with other regional water districts to produce water educational activities such as the Technology Exposition held at the Water Conservation Garden, the California-Friendly Landscape Contest, and landscape classes held at the Water Conservation Garden.

BMP 8 □School Education. The District has had a school education program for 40 years, beginning with a water treatment plant tour and building into a program that encompasses pre-school through high school, with age appropriate presentations, tours, labs, kits, etc. for each grade level. Each grade level presentation is correlated with California State Department of Education Content Standards and assist teachers in meeting their goals for student learning. The District reaches approximately 10,000 students each year with tours and in-class presentations. The District also provides teacher education programs, including Project WET all-day workshops and in-service opportunities.

The Mini-Grant program provides funding for water education opportunities outside those provided by the District, such as the Mobile Splash Lab that is co-funded by Authority, drought tolerant school gardens, library resources dealing with water quality,

etc. Free materials are provided to schools including those produced by MWD. The Authority also provides educational opportunities for schools within the District.

BMP 9 □ Conservation Programs for Commercial, Industrial and Institutional (CII) Accounts. Condition 1 of BMP 9, Ranking of Commercial Industrial Institutional accounts, has been performed by the District since 1999. Condition 2 (b) states that the agency will reduce CII water use by 10 percent of the baseline year usage within 10 years of data implementation. Last year was year six, and the District had reduced CII water usage by 4.2 percent. A good-faith effort is underway to reduce CII water usage by the remaining 5.8 percent during the next four years. CII surveys continue to be available to commercial, institutional, and industrial customers, and the District will provide access to vouchers, such as: X-ray recycling units, high efficiency spray nozzles, water brooms, water efficient cooling towers, HEWs, ULFTs and urinals, and landscaping programs that include surveys and weather based irrigation controllers.

BMP 10 □ Wholesale Agency Assistance. This BMP applies only to wholesale agencies.

BMP 11- Conservation Pricing. The District has a three tiered, inclining-block rate structure to encourage conservation of water for domestic users. Commercial rates are set at the middle tier to encourage commercial user conservation.

BMP 12 □ Conservation Coordinator. Water conservation is handled by the District's Public Affairs Department which has the equivalent of a full-time Water Conservation Coordinator. This department oversees the development, marketing, and administration of water conservation programs including an in-house program that provides residential surveys and conducts surveys of dedicated irrigation meters for the purpose of water-budgets.

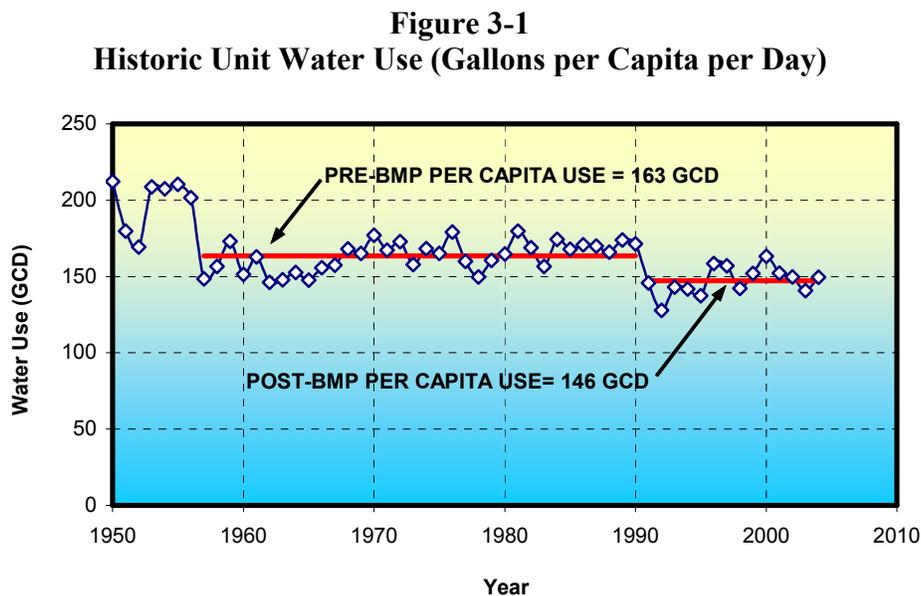
BMP 13 □ Water Waste Prohibition. This BMP requires a water waste prohibition. The Helix Policies and Procedures Manual (Section 4.9, Water Conservation and Water Emergency Plan) provides for mandatory restrictions on water consumption and water waste (see **Appendix C**). This policy was enacted by a resolution of the District's Board of Directors in 1992 is part of a comprehensive water conservation program. The policy delineates water use restrictions during shortages, has provisions for penalties, and was constructed with input from cities, laws enforcement agencies, and the public.

Helix is solely a water providing district. The cities and County of San Diego provide wastewater services within the Helix Water District. During non-shortage times, the above mentioned jurisdictions are the providers of waste-water restrictions. However, Helix is well aware that conservation of water leads to less run off and encourages its customers, through its strong educational programs, to use water saving devices and engage in behaviors that save water and lead to reduced runoff.

BMP 14 - Residential Ultra Low Flow Toilet (ULFT) Replacement. The District participates in the MWD/SDCWA ULFT toilet replacement voucher program. However, the District began a toilet replacement program before the Authority and has budgeted significant amounts to cover the cost to this program since 1991. Under the current voucher program only toilets that meet the higher efficiency of the Supplemental Standards list are available for purchase using the \$75 point-of-purchase voucher provided through a program administered by the Authority. Any single family or multi-family dwelling is eligible for vouchers provided it has 3 gallon per flush or higher water consuming toilet currently in use. In FY 2003 the District provided rebates for the installation of 1,669 single family ULFTs and 1056 multi-family ULFTs. In FY 2004 the District provided funding for rebates for 1,441 single family ULFTs and 870 multi-family ULFTs. The District is a 90 percent built out urban area, and the saturation is believed to be approximately 60 percent at this time. Helix Water District will continue to offer point-of-purchase vouchers to single and multi-family dwellings until such time as this program is deemed to not be cost effective.

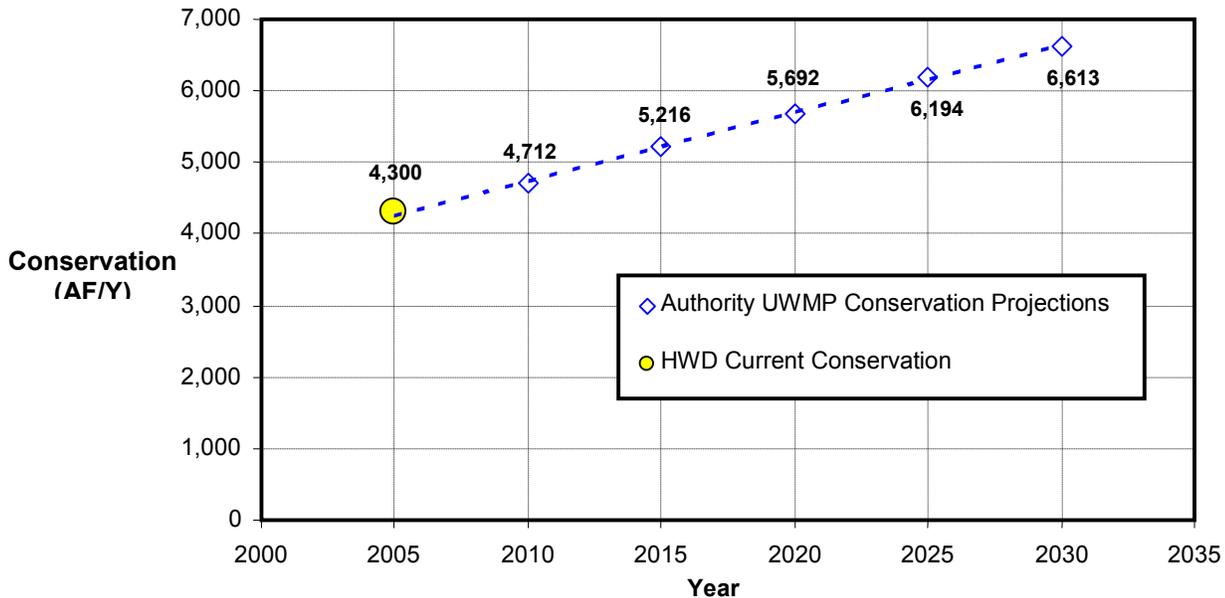
3.3 Future Water Conservation

It is estimated that the current level of water conservation attained through the implementation of BMPs is approximately 4,300 AF/Y. This current level of conservation is established through a comparison of water usage rates, on a per capita basis, between the initial baseline consumption rate up to the implementation of the BMPs in 1991, and the lower baseline consumption rate observed for years subsequent to BMP implementation. Based on this comparison, the per capita use rate since implementation of the BMPs has decreased by approximately 17 GCD. When applied to the current population and adjusted for system losses within each observed period (i.e., pre and post BMP implementation), this difference results in a current annual water savings of 4,300 AF/Y. **Figure 3-1** illustrates the per capita use trend and the two established baselines representing the impact of BMPs on water use.



As part of their analysis of future regional water demands, the Authority has used data obtained through collaboration with its member agencies and the CUWCC, to determine estimates of future conservation using industry-accepted methodologies for estimating water savings. The Authority considers the impact of implementing existing and proposed BMPs throughout the county to develop the water savings projections, by Agency, through 2030. In their analysis, total water demands are projected using the Authority's computer model, CWA-MAIN, representing total, unadjusted municipal and industrial demands. These demands are then adjusted by subtracting the total savings attained as a result of BMP implementation, which in turn form the basis of the Authority's water supply plan. The conservation figures determined by the Authority represent aggregate conservation achieved since the implementation of each agency's BMPs. Therefore, future incremental conservation estimates can be determined by subtracting the current level of conservation from the Authority's aggregate conservation figures. **Figure 3-2** presents the aggregate water conservation levels expected through the year 2030. The figure also illustrates the District's current level of conservation as a valid baseline for the Authority's conservation projections. By comparing the projected conservation figures to the current baseline, future water conservation rates are quantified and presented on **Table 3-2**. As will be subsequently presented in this report, the future conservation increments beyond the current baseline effectively represent an additional future water supply for the District.

Figure 3-2
Projected Conservation Levels



**Table 3-2
Future Water Conservation**

Year	Total Conservation ⁽¹⁾ (AF/Y)	Current Baseline Conservation (2005) (AF/Y)	Future Conservation (AF/Y)
2005	4,300	4,300	0
2010	4,712	4,300	412
2015	5,216	4,300	916
2020	5,692	4,300	1,392
2025	6,194	4,300	1,894
2030	6,613	4,300	2,313

⁽¹⁾ Total conservation since inception of BMP's.

SECTION 4 □ WATER SOURCES

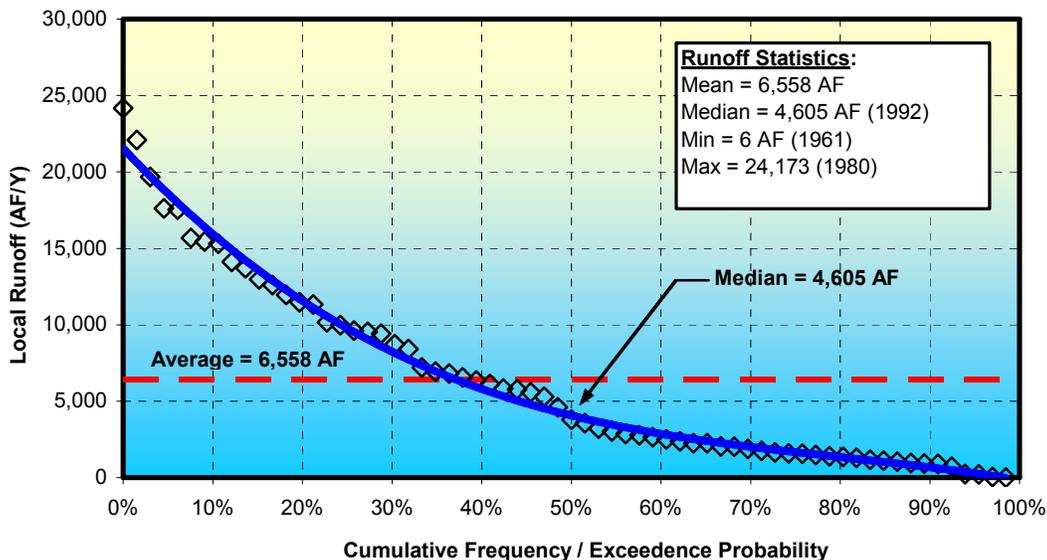
The District's water sources are a combination of imported and locally produced water. Imported water is provided by the Authority, via the District's raw water transmission system. This imported water is a blend of Colorado River and Northern California water, and it constitutes the primary source of water for the District, which has comprised about 83% of the District's normal supply, on average, since the importation of water began. From year to year, a significant amount of variability in the mix of imported to local water can be observed, as these fluctuations are sensitive to seasonal climatic changes.

4.1 Local Water Supplies

Local water sources are obtained from local runoff impounded behind Lake Cuyamaca which has a storage capacity of 11,756 acre-feet, and El Capitan Reservoir, a City of San Diego reservoir for which the District has storage rights to 10,000 acre-feet. The District also owns and operates Lake Jennings, an imported water impoundment behind Chet Harrit with a storage capacity of 9,790 acre-feet. An additional water source is a District well, referred to as Well 101, which constitutes less than one percent of the District's water supply.

The District's normal local water supply has a historical median runoff value of 4,605 AF/Y based on the recorded data beginning in 1938. The median runoff value corresponds to the level recorded in 1992. The average runoff recorded over the same record is 6,558 AF/Y. **Figure 4-1** illustrates the cumulate frequency distribution of the runoff record. For purposes of this report the median runoff value of 4,605 AF/Y, representing a 50% exceedence probability, represents a normal water year.

Figure 4-1
Local Runoff Production-Frequency Distribution



The operation of the District’s single production well has historically produced about 250 AF/Y. Together with runoff, these local supply sources represent approximately 17% of the total supply available to the District. The balance of the District’s supply has historically been obtained from the Authority, through the imported water facilities previously described. For purposes of this report, the available supply of local water during a “normal” water year has been assumed to be 4,855 AF/Y, based on the sum of the median runoff and the current production rate of Well 101. Although the current production rate in Well 101 represents less than 1 percent of the District’s overall water supply, the groundwater basin can support significantly greater production and may be further developed to contribute more water to the District’s supply. This groundwater basin, located in the El Monte valley, and the District’s development plans, are further described in the Section 4.4, Planned Water Supplies.

4.2 Dry Year Local Supply Assessment

Local runoff production is expected to significantly drop off during dry years. Conversely, the productions of local groundwater from Well 101, as previously described, is expected to remain in its constant production mode of 250 AF/Y.

The basis for quantifying the amount of runoff during dry years is the District’s runoff record for the Cuyamaca/El Capitan watersheds dating back to 1938. The single lowest recorded seasonal runoff within this data was 6 acre-feet, recorded in 1961. For purposes of this report, no local runoff is assumed to occur during a single dry year. Within the same data record, the single lowest multiple year runoff was produced in the three-year period between 2001 and 2003, during which an average seasonal runoff of 640 AF/Y was recorded. This runoff value is used for quantifying the multiple dry year scenario for purposes of this study. A summary of local water supplies for the District under normal and dry year conditions is presented on **Table 4-1**.

**Table 4-1
Normal and Dry Year Local Water Supplies**

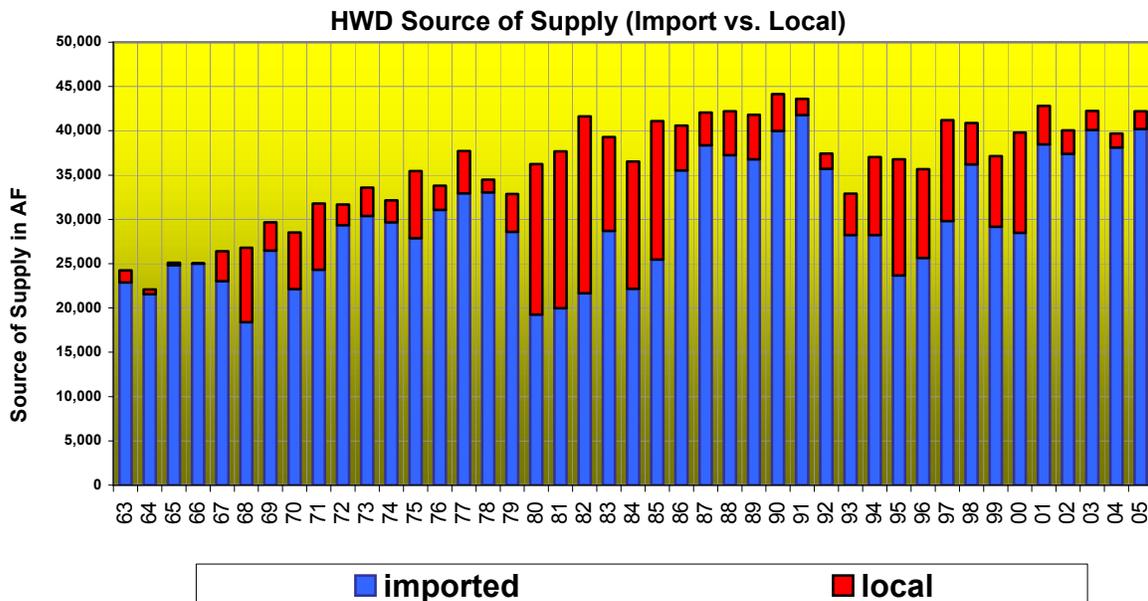
	Normal Water Year (1992)	Single Dry Water Year (1961)	Multiple Dry Years		
			Year 1 (2001)	Year 2 (2002)	Year 3 (2003)
Cuyamaca & El Capitan Watersheds	4,605	0	640	640	640
Well 101	250	250	250	250	250
Total Local Supply	4,855	250	890	890	890

4.3 Imported Water Supplies

Although the District originated as a retailer of purely local runoff, since the completion of the first imported water aqueduct by the Authority in 1948, the District has relied primarily on this imported water source, presently comprised of a combination of Colorado River and Northern California water. As a member agency, the District purchases water from the Authority on a wholesale basis, which in turn purchases water from the Metropolitan District of Southern California. Water purchased from Metropolitan by the Authority is imported through Metropolitan facilities which supply the Authority's aqueducts near the San Diego/Riverside county line. Since 1962, imported supplies to the District have averaged 83 percent of the total water supply, with the minimum and maximum imported water rates ranging from 52 percent in 1981 to 100 percent in 1965. Seasonal variations in the blend of water are further illustrated on **Figure 4-2**. The overall proportion of imported water is expected to increase gradually through 2030.

During dry water years during which local runoff is minimal, imported water supplies from the Authority are expected to increase in order to meet anticipated demands. In their UWMP, the Authority has identified the additional sources of imported water that will be available to supply its member agencies during single and multiple dry water years. Based on the availability of local water production that each member agency has provided to the Authority, the UWMP has determined the amount of water that will be available for each member agency during drought conditions. These numbers are consistent with the demand requirements presented in this UWMP.

Figure 4-2



4.4 Planned Water Supplies

The Helix Water District is an almost completely urbanized district with a highly built-out service area and receives the majority of its water from the San Diego County Water Authority. Planned Water Supply Projects and Programs are limited due to the nature of the district. Detailed descriptions of expected future supply projects and programs that may be undertaken to meet projected water use are listed below.

4.4.1 The Santee-El Monte Groundwater Basin

The Santee-El Monte groundwater basin is an alluvial aquifer underlying the San Diego River and its tributaries. The basin is approximately 13 miles long and varies in width from 500 feet to 5,000 feet. The basin spans approximately 10 square miles in exposed surface area and has a storage capacity of up to 70,000 acre-feet. It is an alluvial aquifer with depths ranging from 100 to 200 feet and water quality as measure by Total Dissolved Solids ranges between 500 mg/L to 3000 mg/L. The basin has multiple users, is not adjudicated and does not have a management plan.

The district has operated only one well located on property the District owns within the basin. This well is located within El Monte valley which is within the eastern portion of the Santee-El Monte Basin. This eastern portion of the aquifer is referred to the El Monte Basin in this report. The first well, constructed in 1975, was named Well 100. That well collapsed in the 1990's and a second well, named Well 101, was constructed in 2001. The most production achieved from the original Well 100 was approximately 500 AFY in the late 1970's. For purposes of this report, 500 AFY will be considered the District's groundwater pumping right. Groundwater production out of Well 101 has never produced more than 1 percent of the District's total supply of water.

Table 4-2 lists annual production rates from Well 101 in recent years.

**Table 4-2
Well 101 (El Monte Basin) Production**

Year	Production (AFY)
2000	0
2001	0
2002	113
2003	324
2004	352

Usage of the groundwater by local water agencies within the Santee-El Monte basin includes Helix Water District, Lakeside Water District, and Riverview Water District. Current average annual extraction rates by each agency, as well as by private well users, are listed on Table 4-3 below.

Table 4-3
Santee-El Monte Groundwater Basin
Current Production by Water Districts *

<u>Agency</u>	<u>Average Annual Production (AFY)</u>
Helix Water District	250
Lakeside Water District	1,000
Riverview Water District	350
Private Well Use	4,000
<u>Total Basin Groundwater Use</u>	5,600

* Source: San Diego County Water Authority Groundwater Report, June 1997.

The total groundwater production out of the Santee-El Monte Basin by all producers is estimated to be within the aquifer’s potential yield, which is the yield that can be expected with natural recharge and existing recharge operations (e.g., irrigation return, etc., see footnote on **Table 4-3**). As noted in the referenced Authority report, greater yields can be attained through artificial recharge and management of the basin.

4.4.2 El Monte Basin Recharge Project

The Helix Water District continues to analyze the feasibility of a purified water project in the El Monte Basin that would be capable of supplying additional water for the District. Studies have been performed over the last several years by various agencies to determine the feasibility of recharging purified water into the El Monte Groundwater Basin and removal of resulting surplus groundwater for use as an additional water source. These studies have estimated yields up to 8,500 AF/Y to be sustainable through this project.

Padre Dam Municipal Water District (PDMWD) is in the process of sizing an expansion to their wastewater recycling facility. Presently, an average dry weather flow of 4.9 MGD of wastewater is generated within PDMWD’s service area, with additional wastewater flows expected through continued development in the area. Wastewater flows generated within PDWMD’s service area will be available for diversion to the Santee Water Reclamation Facility (WRF) by the same means in which that facility is currently supplied. Such flow diversions are taken away from the City of San Diego’s trunk sewer and force main system, which serves PDMWD and other neighboring sewer collection districts, and is situated on a location where flows can be diverted to the Santee WRF.

The District will be conducting a feasibility study in fiscal year 2005/06 to determine if adding capacity to the wastewater recycling facility along with transmission and recharge of the El Monte Groundwater Basin is feasible. If it is determined to be feasible, up to 5,000 AF/Y of surplus groundwater during normal rainfall years may be available as

additional water supply to the District. For planning purposes, the approximate dry year supply has been estimated at 80 percent of normal for a single dry year, and progressively reduced by 90 percent on years 2 and 3 for multiple dry years. Extraction from the El Monte Basin would be accomplished using wells. Well water could be used locally near the El Monte Basin for irrigation water, or transmitted via an existing pipeline to the Levy WTP as an additional water source, resulting in an equivalent offset in the imported water supply. It is expected that feasibility and planning studies would be conducted over the next two years to define the feasibility and water supply volumes. Initiation of project design and construction, if the project were determined to be feasible, would be in the 4 to 6 year time frame. The preliminary project timeline can be summarized as follows

Feasibility Studies: July 2005 to June 2007
 Design: July 2007 to June 2009
 Construction: July 2009 to June 2010

The additional supply of water resulting from implementation of this project during normal and dry years is summarized on **Table 4-4** below.

**Table 4-4
 El Monte Basin Recharge Project
 Total Additional Water Supplies**

Normal-year AF to agency	Single-Dry AF/Year to agency	Multiple-Dry Years		
		Year 1	Year 2	Year 3
5,000	4,000	4,000	3,600	3,240

The District does not have the opportunity for future supply development from water transfers, exchanges, desalination, or brackish groundwater treatment.

4.5 Water Supply and Demand Summary

An overall summary of current and planned water supplies within the District through the year 2030 is presented on **Table 4-5**.

**Table 4-5
Current and Planned Water Supplies**

Water Supply Sources	2005 (Actual)	2010	2015	2020	2025	2030
SDCWA	32,528	36,889	37,125	37,332	37,465	37,832
Groundwater (Well 101)	127	250	250	250	250	250
Local Runoff ⁽²⁾	14,429	4,605	4,605	4,605	4,605	4,605
Estimated Future Conservation	--	412	916	1,392	1,894	2,313
TOTAL PROJECTED SUPPLY	47,084⁽¹⁾	42,156	42,896	43,579	44,214	45,000
Potential Groundwater (GW) Recharge	0	5,000	5,000	5,000	5,000	5,000
POTENTIAL SUPPLY (with GW recharge)	47,084⁽¹⁾	47,156	47,896	48,579	49,214	50,000

Notes: (1) Based on actual 2005 supplies. Water supply in excess of demands was placed into local storage.
(2) Local runoff projection (2010 and beyond) is based on the mean historical runoff.

4.6 Water Supply Reliability

The District, Authority, and MWD are implementing plans that include projects to help ensure that the existing and planned water users within the District’s service area have an adequate and reliable water supply. The tables in this section present summaries of the forecasted water demands compared with anticipated supplies. These tables summarize how with the implementation of the projects discussed in agencies’ planning documents there will be adequate water supplies to serve the District under normal and drought conditions.

To assess current and future water service reliability, the Urban Water Management Plan Act requires that normal, single dry year, and multiple dry year projections be developed for both supplies and demands. The projections for normal, single dry year, and multiple dry year water supplies and demands have been presented in previous sections of this report. These projections are combined in the following tables to provide for a complete water supply assessment through 2030.

Table 4-6 provides a comparison of anticipated water supplies and demands for normal water years in five year increments, while **Table 4-7** provides a similar comparison for a single dry year condition. **Tables 4-8** through **4-12** present a comparison of supply and demands for a series of multiple dry years, within each five year incremental projection spanning to 2030.

**Table 4-6
Projected Water Supply and Demand
Normal Water Years, 2005 - 2030**

Water Supply Sources	2010	2015	2020	2025	2030
Imported/SDCWA	36,889	37,125	37,332	37,465	37,832
Local Groundwater	250	250	250	250	250
Local Runoff	4,605	4,605	4,605	4,605	4,605
Future Conservation ⁽¹⁾	412	916	1,392	1,894	2,313
Total Projected Supplies	42,156	42,896	43,579	44,214	45,000
Total Projected Demand	42,156	42,896	43,579	44,214	45,000

⁽¹⁾ See Section 3 for explanation of future conservation.

**Table 4-7
Projected Water Supply and Demand
Single Dry Water Years, 2005 - 2030**

Water Supply Sources	2010	2015	2020	2025	2030
Imported/SDCWA	44,445	44,733	44,988	45,165	45,587
Local Groundwater	250	250	250	250	250
Local Runoff	0	0	0	0	0
Future Conservation ⁽¹⁾	412	916	1,392	1,894	2,313
Total Projected Supplies	45,107	45,899	46,630	47,309	48,150
Total Projected Demand	45,107	45,899	46,630	47,309	48,150

⁽¹⁾ See Section 3 for explanation of future conservation.

**Table 4-8
Projected Water Supply and Demand
Multiple Dry Water Years, 2006 Through 2008**

Water Supply Sources	2006	2007	2008
Imported/SDCWA	43,444	43,534	43,624
Local Groundwater	250	250	250
Local Runoff	640	640	640
Future Conservation	82	165	247
Total Projected Supplies	44,416	44,589	44,761
Total Projected Demands	44,416	44,589	44,761

**Table 4-9
Projected Water Supply and Demand
Multiple Dry Water Years, 2011 Through 2013**

Water Supply Sources	2011	2012	2013
Imported/SDCWA	43,862	43,920	43,977
Local Groundwater	250	250	250
Local Runoff	640	640	640
Future Conservation	513	614	714
Total Projected Supplies	45,265	45,423	45,582
Total Projected Demands	45,265	45,423	45,582

**Table 4-10
Projected Water Supply and Demand
Multiple Dry Water Years, 2016 Through 2018**

Water Supply Sources	2016	2017	2018
Imported/SDCWA	44,144	44,195	44,246
Local Groundwater	250	250	250
Local Runoff	640	640	640
Future Conservation	1,011	1,106	1,202
Total Projected Supplies	46,045	46,191	46,337
Total Projected Demands	46,045	46,191	46,337

**Table 4-11
Projected Water Supply and Demand
Multiple Dry Water Years, 2021 Through 2023**

Water Supply Sources	2021	2022	2023
Imported/SDCWA	44,383	44,419	44,454
Local Groundwater	250	250	250
Local Runoff	640	640	640
Future Conservation	1,492	1,593	1,693
Total Projected Supplies	46,766	46,902	47,038
Total Projected Demands	46,766	46,902	47,038

Table 4-12
Projected Water Supply and Demand
Multiple Dry Water Years, 2026 Through 2028

Water Supply Sources	2026	2027	2028
Imported/SDCWA	44,610	44,694	44,778
Local Groundwater	250	250	250
Local Runoff	640	640	640
Future Conservation	1,978	2,062	2,145
Total Projected Supplies	47,477	47,646	47,814
Total Projected Demands	47,477	47,646	47,814

SECTION 5 □ WATER QUALITY

In general, the influence of water quality on source reliability is a matter of time, scale, and cost. Currently both local and imported water sources require treatment to meet federal and state drinking water standards. A gradual degradation of these sources, occurring over several years could be accommodated with additional and more costly treatment and would therefore not necessarily influence reliability. This additional treatment may require capital facilities, and take several years to plan and construct. Or the added treatment may involve operational changes, for example higher chemical dosing, which could be implemented immediately. From the perspective of supply reliability the water quality impacts that would have the most significant influence on reliability are those that would be sudden and would require substantial capital facilities to treat the water. Some of these scenarios are discussed below.

Table 5-1 summarizes the projected sources of water for the District. The local supply percentage assumes a median annual yield of 4,885 acre-ft for the combined sources of runoff and groundwater. The slight drop in percentage of the local supply through year 2030 is the result of a projected increase in the total demand and treatment plant production with a constant local supply.

Table 5-1
Projected Sources of Water

Water Source	2005	2010	2015	2020	2025	2030
Imported (CWA)	88%	88%	88%	88%	89%	89%
Local	12%	12%	12%	12%	11%	11%

The local supply is produced from the Cuyamaca/El Capitan watersheds. Currently these watersheds are largely undeveloped with a considerable percentage of the watersheds within national and state park holdings. The District's management strategy with these sources is to maximize the yield by using most of the winter runoff in the following spring and summer months. Some local water is left in storage as an emergency supply. Use of the local water in the spring and early summer minimizes evaporation and increases available storage to increase yield the following winter. In addition, carryover storage held for several years tends to degrade in quality due to concentration of salts and organics as the source evaporates.

The quality of the imported water supply has rarely influenced the use or management of this source. On the contrary the District has made investments in its treatment plant and adapted operation to use this source. For example, the addition of ozonation to the treatment plant has allowed the District to sustain normal use of the imported water supply through occasional episodes of algae-produced tastes and odors. Also, the increased percentage of State Project Water in the imported water source has added treatment cost for a number of water agencies due to compliance with federal regulations for disinfection by products. Unforeseen or catastrophic water quality events threaten the

reliability of the imported water supply. Such events include, for example, failure of the radioactive waste stockpile in Moab, Utah along the Colorado River or massive failure of the levee system within the Sacramento-San Joaquin delta. Planning and mitigation for such events is being addressed at the federal and state levels.

SECTION 6 □SHORTAGE CONTINGENCY PLANNING

6.1 Mandatory Limits

Within its Policies and Procedures, the District has in place a Water Conservation and Water Emergency Plan that provides for constant mandatory provisions against water waste. A copy of this policy is attached to this report as **Appendix C**. The policy was enacted by a resolution of the District's Board of Directors in 1992 as part of the District's comprehensive water conservation program. The plan delineates water use restrictions during various shortage levels, and has provisions for potential penalties and penalty appeals procedures. The policy was developed to be compatible with other water suppliers' policies and was completed with input from cities, law enforcement agencies, and the general public. In its existing form, the policy requires that a declaration of a water shortage emergency be made by the Board of Directors after a public hearing unless the emergency is the result of a failure or catastrophe, in which case the declaration may be made by the District's General Manager. The policy was most recently enacted in 1992.

6.2 Shortage Contingency Analysis

The Urban Water Management Planning Act requires that water suppliers prepare a shortage contingency analysis to address the agency's plan for severe water shortages that would result from catastrophic events such as earthquakes or prolonged, severe drought. The District completed an analysis of financial impacts and methods to mitigate the effects of reduced revenues as a result of severe water shortages. **Table 6-1** presents a summary of revenues and expenditures by drought stages ranging from 10 percent to 50 percent reduced water supply. A detailed summary of revenues and expenditures providing more detail on the sources of revenues and expenditures is provided in **Appendix D**.

Initially drought conditions will result in increased usage and water sales revenue. Severe or prolonged drought conditions could decrease water availability and cause usage to be curtailed resulting in a reduction of the District's water sales revenues.

With the decreased usage in severe drought conditions, water purchases expense, pumping expenses and water treatment costs would decrease by a corresponding amount. Other operating expenses, such as administrative expense, would be relatively unaffected unless specific actions are taken to reduce staff and or services.

**Table 6-1
Revenues and Expenditures by Drought Stages**

	FY 2005-06	10% Supply Reduction	25% Supply Reduction	50% Supply Reduction
Water Production Level (AF/Y)	44,737	40,263	33,553	22,369
Total Revenues	\$ 47,851,213	\$ 44,498,841	\$ 39,470,282	\$ 31,089,352
Total Operating Expenses	\$ 46,176,168	\$ 43,817,877	\$ 40,280,441	\$ 34,384,714
Net Operating Income	\$ 1,675,045	\$ 680,964	\$ (810,159)	\$ (3,295,362)
Less PAYGO Capital Expenditures	\$ (6,068,000)	\$ (6,068,000)	\$ (6,068,000)	\$ (6,068,000)
General Funds	\$ 4,392,955	\$ 4,392,955	\$ 4,392,955	\$ 4,708,270
Increased Water Rates (over normal)	\$ -	\$ 416,219	\$ 734,046	\$ 855,092
Rate Stabilization Fund	\$ -	\$ 577,863	\$ 1,751,157	\$ 3,800,000
Surplus/(Deficiency)	\$ -	\$ -	\$ -	\$ -

Since water sales revenues are relied upon to cover operating expenses, a shortfall in revenues would be covered by increased water rates and fund balances. Helix has a rate stabilization fund along with general fund balances that could be utilized to cover operating expenses. In severe drought situations where the offset of fund balances and acceptable rate increases are not enough to cover operating expenses, the reduction of Capital PAYGO expenditures and non-essential operating expenses may need to be cut back in order to offset lower revenues.

Appendix A

California Department of Water Resources Review of Completeness Form

2005 Urban Water Management Plan "Review for Completeness" Form
For DWR Review Staff Use

Coordination with Appropriate Agencies (Water Code § 10620 (d)(1)(2))

Yes

Participated in area, regional, watershed or basin wide plan Intro, pg.1 Reference & Page Number

Name of plan 2005 UWMP Lead Agency San Diego County Water Authority Intro, pg.1

Describe the coordination of the plan preparation and anticipated benefits. Intro, pg.2 Reference & Page Number

Table 1 Coordination with Appropriate Agencies							
Check at least one box on each row	Participated in developing the plan	Commented on the draft	Attended public meetings	Was contacted for assistance	Was sent a copy of the draft plan	Was sent a notice of intention to adopt	Not Involved / No Information
Other water suppliers							
Water management agencies							
Relevant public agencies	SEE REPORT TABLE ON PAGE 2						
Other							
Other							

Describe resource maximization / import minimization plan (Water Code §10620 (f))

Describe how water management tools / options maximize resources & minimize need to import water Section 3, pg.14 / Sec.4.4, pg.24 / Sec.5, pg.31 Reference & Page Number

Plan Updated in Years Ending in Five and Zero (Water Code § 10621(a))

Date updated and adopted plan received _____ (enter date) Intro, pg.2 Reference & Page Number
(plan adopted on Dec.21, 2005)

City and County Notification and Participation (Water Code § 10621(b))

Notify any city or county within service area of UWMP of plan review & revision Intro, pg.2 Reference & Page Number

Consult and obtain comments from cities and counties within service area Intro, pg.2 Reference & Page Number

Service Area Information Water Code § 10631 (a)

Include current and projected population Table 1-2, pg.6 Reference & Page Number

Population projections were based on data from state, regional or local agency Sec.1.4, pg.5 Reference & Page Number

Table 2 Population - Current and Projected						
	2005	2010	2015	2020	2025	2030 - opt
Service Area Population	260,158	263,681	271,617	278,913	282,843	289,519

- Describe climate characteristics that affect water management Sec.1.5, pg.6 Reference & Page Number
- Describe other demographic factors affecting water management sec.1.4.1, pg.5 Reference & Page Number

Table 3 Climate						
	January	February	March	April	May	June
Standard Average ETo	1.83	2.2	3.42	4.49	5.25	5.67
Average Rainfall	2.62	2.21	2.42	1.04	0.31	0.08
Average Temperature	67	68.4	68.8	71.6	73.3	77.5

Table 3 (continued) Climate							
	July	August	September	October	November	December	Annual
Average ETo	5.86	5.61	4.49	3.42	2.36	1.83	46.4
Average Rainfall	0.05	0.08	0.21	0.54	1.42	1.58	12.6
Average Temperature	82.8	84.3	83.3	78.8	73.1	68.3	74.8

Water Sources

(Water Code § 10631 (b))

- Identify existing and planned water supply sour Sec.1.3, pg.4(exist.); Sec.4,pg.21(exist. & planned) Reference & Page Number
- Provide current water supply quantities Table 4-5, pg.27 Reference & Page Number
- Provide planned water supply quantities Table 4-5, pg.27 Reference & Page Number

Table 4 Current and Planned Water Supplies - AFY						
Water Supply Sources	2005	2010	2015	2020	2025	2030 - opt
Water purchased from:						
U.S. Bureau of Reclamation						
Department of Water Resources						
Arcade Water District						
Calleguas Municipal Water District						
Castaic Lake Water Agency						
Central Basin Municipal Water District						

Chino Basin Municipal Water District						
Coastal Municipal Water District						
Contra Costa Water District						
Eastern Municipal Water District						
Foothill Municipal Water District						
Humboldt Bay Municipal Water District						
Inland Empire Utilities Agency						
Joint Regional Water Supply System						
Kern County Water Agency						
Metropolitan Water District of Southern Ca						
Municipal Water District of Orange County						
North of The River Municipal Water District						
Placer County Water Agency						
Sacramento County Water Management Di						
San Diego County Water Authority	32,528	36,889	37,125	37,332	37,465	37,832
San Francisco City of						
San Juan Water District						
San Luis Obispo County						
Santa Clara Valley Water District						
Solano County Water Agency						
Sonoma County Water Agency						
Stockton East Water District						
Tehachapi-Cummings County Water Distri						
Three Valleys Municipal Utility District						
Upper San Gabriel Valley Municipal Water						
Water Facilities Authority						
West Basin Municipal Water District						
Western Municipal Water Dist of Riverside						
Zone 7						
Other Wholesaler 1 (enter agency name)						
Other Wholesaler 2 (enter agency name)						
Other Wholesaler 3 (enter agency name)						
Supplier produced groundwater	127	250	250	250	250	250
Supplier surface diversions	14,429	4,605	4,605	4,605	4,605	4,605
Transfers in or out						
Exchanges In or out						
Recycled Water (projected use)						
Desalination						
Future Conservation	0	412	916	1,392	1,894	2,313
Other						
Total	47,084	42,156	42,896	43,579	44,214	45,000

If Groundwater identified as existing or planned source

(Water Code §10631 (b)(1-4))

<input type="checkbox"/>	Has management plan (no management plan)	<u>Sec.4.4, pg.24</u>	Reference & Page Number
<input type="checkbox"/>	Attached management plan (b)(1) (no management plan)	<u>Sec.4.4, pg.24</u>	Reference & Page Number
<input checked="" type="checkbox"/>	Description of basin(s) (b)(2)	<u>Sec.4.4.1, pg.24</u>	Reference & Page Number
<input type="checkbox"/>	Basin is adjudicated (basin is not adjudicated)	<u>Sec.4.4, pg.24</u>	Reference & Page Number
<input type="checkbox"/>	If adjudicated, attached order or decree (b)(2) (basin is not adjudicated)	<u>Sec.4.4, pg.24</u>	Reference & Page Number
<input checked="" type="checkbox"/>	Quantified amount of legal pumping right (b)(2)	<u>Table 4-3, pg.25</u>	Reference & Page Number

Table 5 Groundwater Pumping Rights - AF Year	
Basin Name	Pumping Right - AFY
see table 4-3, pg.25	
Total	0

<input type="checkbox"/>	DWR identified, or projected to be, in overdraft (b)(2) - N/A	<u>NA</u>	Reference & Page Number
<input type="checkbox"/>	Plan to eliminate overdraft (b)(2) - N/A	<u>NA</u>	Reference & Page Number
<input checked="" type="checkbox"/>	Analysis of location, amount & sufficiency, last five years (b)(3)	<u>Sec.4.4.1, pg.24</u>	Reference & Page Number
<input checked="" type="checkbox"/>	Analysis of location & amount projected, 20 years (b)(4)	<u>Table 4-5, pg.27</u>	Reference & Page Number

Table 6 Amount of Groundwater pumped - AFY					
Basin Name (s)	2000	2001	2002	2003	2004
El Monte Basin	0	0	113	324	352
% of Total Water Supply	0%	0%	<1%	<1%	<1%

Table 7 Amount of Groundwater projected to be pumped - AFY					
Basin Name(s)	2010	2015	2020	2025	2030 - opt
El Monte Basin	250	250	250	250	250
% of Total Water Supply	<1%	<1%	<1%	<1%	<1%

Reliability of Supply

(Water Code §10631 (c) (1-3))

<input checked="" type="checkbox"/>	Describes the reliability of the water supply and vulnerability to seasonal or climatic shortage	<u>Sec.4.2, pg.22</u>	Reference & Page Number
		<u>Sec.4.6, pg.27</u>	

Table 8 Supply Reliability - AF Year					
Average / Normal Water Year	Single Dry Water Year	Multiple Dry Water Years			
		Year 1	Year 2	Year 3	Year 4
SEE TABLES 4-6 THROUGH 4-12					
% of Normal					

Table 9 Basis of Water Year Data	
Water Year Type	Base Year(s)
Average Water Year (*)	1992
Single-Dry Water Year	1961
Multiple-Dry Water Years	2001,02,03

Sec.4.2, pg.22 / Sec.4.6, pg.27 Reference & Page Number

Sec.4.2, pg.22 / Sec.4.6, pg.27 Reference & Page Number

Sec.4.2, pg.22 / Sec.4.6, pg.27 Reference & Page Number

(*) For purposes of this UWMP, the District has defined an "average" year as one with local water production at historical median levels.

Water Sources Not Available on a Consistent Basis (Water Code §10631 (c))

- Describe the reliability of the water supply due to seasonal or climatic shortages Sec.4.6, pg.27 Reference & Page Number
- Describe the vulnerability of the water supply to seasonal or climatic shortages Sec.4.6, pg.27 Reference & Page Number
- No unreliable sources NA Reference & Page Number

Table 10 Factors resulting in inconsistency of supply				
Name of supply	Legal	Environmental	Water Quality	Climatic

- Describe plans to supplement or replace inconsistent sources with alternative sources or DMMs NA Reference & Page Number
- No inconsistent sources NA Reference & Page Number

Transfer or Exchange Opportunities (Water Code §10631 (d))

- Describe short term and long term exchange or transfer opportunities NA Reference & Page Number
- No transfer opportunities Sec.4.4.2, pg.26 Reference & Page Number

Table11 Transfer and Exchange Opportunities - AF Year					
Transfer Agency	Transfer or Exchange	Short term	Proposed Quantities	Long term	Proposed Quantities
Total			0		0

Water Use Provisions

(Water Code §10631 (e)(1)(2))

- Quantify past water use by sector Table 1-4, pg.9 Reference & Page Number
- Quantify current water use by sector Table 1-4, pg.9 Reference & Page Number
- Project future water use by sector Table 1-5, pg.12 Reference & Page Number

TABLE 12 - Past, Current and Projected Water Deliveries								
Water Use Sectors	2000				2005			
	metered		unmetered		metered		unmetered	
	# of accounts	Deliveries AFY	# of accounts	Deliveries AFY	# of accounts	Deliveries AFY	# of accounts	Deliveries AFY
Single family								
Multi-family								
Commercial								
Industrial	SEE TABLE 1-4 & TABLE 1-5							
Institutional/gov								
Landscape								
Agriculture								
other								
Total	0	0	0	0	0	0	0	0

TABLE12 (continued) - Past, Current and Projected V								
Water Use Sectors	2015				2020			
	metered		unmetered		metered		unmetered	
	# of accounts	Deliveries AFY	# of accounts	Deliveries AFY	# of accounts	Deliveries AFY	# of accounts	Deliveries AFY
Single family								
Multi-family								
Commercial								
Industrial	SEE TABLE 1-4 & TABLE 1-5							
Institutional/gov								
Landscape								
Agriculture								
other								
Total	0	0	0	0	0	0	0	0

- Identify and quantify sales to other agencies N/A Reference & Page Number
- No sales to other agencies N/A Reference & Page Number

Table 13 Sales to Other Agencies - AF Year							
Water Distributed	2000	2005	2010	2015	2020	2025	2030 - opt
name of agency		0	0	0	0	0	0
name of agency							
name of agency							
Total	0	0	0	0	0	0	0

- Identify and quantify additional water uses (no additional uses) N/A Reference & Page Number

Table 14 Additional Water Uses and Losses - AF Year							
Water Use	2000	2005	2010	2015	2020	2025	2030 - opt
Saline barriers							
Groundwater recharge							
Conjunctive use							
raw water							
recycled							
other (define)							
Unaccounted-for system losses							
Total	0	0	0	0	0	0	0

Table 15 Total Water Use - AF Year							
Water Use	2000	2005	2010	2015	2020	2025	2030 - opt
Total of Tables 12, 13, 14	0	0	0	0	0	0	0

2005 Urban Water Management Plan "Review of DMMs for Completeness" Form (Water Code §10631 (f))

(Water Code §10631 (f) & (g), the 2005 Urban Water Management Plan "Review of DMMs for Completeness" Form is found on Sheet 2

(Section 3, DMM's)

Planned Water Supply Projects and Programs, including non-implemented DMMs (Water Code §10631 (g))

- No future water supply projects or programs and no non-implemented / not scheduled DMMs Sec.3, DMM's Reference & Page Number
- Cost-Benefit includes economic and non-economic factors (environmental, social, health, customer impact, and technological factors) NA Reference & Page Number
- Cost-Benefit analysis includes total benefits and total costs NA Reference & Page Number
- Identifies funding available for Projects with higher per-unit-cost than DMMs NA Reference & Page Number
- Identifies suppliers' legal authority to implement DMMs, efforts to implement the measures and efforts to identify cost share partners NA Reference & Page Number

Table 16 Evaluation of unit cost of water resulting from non-implemented / non-scheduled DMMs and planned water supply project and programs	
Non-implemented & Not Scheduled DMM / Planned Water Supply Projects (Name)	Per-AF Cost (\$)

Planned Water Supply Projects and Programs (Water Code §10631 (h))

- No future water supply projects or programs
- Detailed description of expected future supply projects & programs Sec.4.4.2, pg.25 Reference & Page Number
- Timeline for each proposed project Sec.4.4.2, pg.25 Reference & Page Number
- Quantification of each projects normal yield (AFY) Sec.4.4.2, pg.25 Reference & Page Number
- Quantification of each projects single dry-year yield (AFY) Sec.4.4.2, pg.25 Reference & Page Number
- Quantification of each projects multiple dry-year yield (AFY) Sec.4.4.2, pg.25 Reference & Page Number

Table 17 Future Water Supply Projects							
Project Name	Projected Start Date	Projected Completion Date	Normal-year AF to agency	Single-dry year yield AF	Multiple-Dry-Year 1 AF	Multiple-Dry-Year 2 AF	Multiple-Dry-Year 3 AF
El Monte GW Recharge (*)		2010	5,000	4,000	4,000	3,600	3,240
					4,000		3,240

(*) This project is not currently part of the projected water supply figures. Implementation will offset future water importation.

Opportunities for development of desalinated water (Water Code §10631 (i))

- Describes opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply (Sec.4.4.2, pg.25)

Table 18 Opportunities for desalinated water	
Sources of Water	Check if yes
Ocean Water	
Brackish ocean water	
Brackish groundwater	
other	
other	

District is a CUWCC signatory

(Water Code § 10631 (j))

Urban suppliers that are California Urban Water Conservation Council members may submit the annual reports identifying water demand management measures currently being implemented, or scheduled for implementation, to satisfy the requirements of subdivisions (f) and (g).

The supplier's CUWCC Best Management Practices Report should be attached to the UWMP.

- Agency is a CUWCC member Sec.3.1, pg.14 Reference & Page Number
- 2003-04 annual updates are attached to plan Sec.3.1, pg.14 Reference & Page Number
- Both annual updates are considered completed by CUWCC website Sec.3.1, pg.14 Reference & Page Number

If Supplier receives or projects receiving water from a wholesale supplier

(Water Code §10631 (k))

Yes

- Agency receives, or projects receiving, wholesale water Sec.4.3, pg.23 Reference & Page Number
- Agency provided written demand projections to wholesaler, 20 years Sec.4.3, pg.23 Reference & Page Number

Table 19 Agency demand projections provided to wholesale suppliers - AFY					
Wholesaler	2010	2015	2020	2025	2030 - opt
	SEE TABLE 4-5, "SDCWA"				

- Wholesaler provided written water availability projections, by source, to agency, 20 years Sec.4.3, pg.23 Reference & Page Number
(if agency served by more than one wholesaler, duplicate this table and provide the source availability for each wholesaler)

Table 20 Wholesaler identified & quantified the existing and planned sources of water- AFY					
Wholesaler sources	2010	2015	2020	2025	2030 - opt
(source 1)					
(source 2)	SEE TABLE 4-5				
(source 3)					

- Reliability of wholesale supply provided in writing by wholesale agency Sec.4.6, pg.27 Reference & Page Number
(if agency served by more than one wholesaler, duplicate this table and provide the source availability for each wholesaler)

Table 21 Wholesale Supply Reliability - % of normal AFY					
Wholesaler sources	Multiple Dry Water Years				
	Single Dry	Year 1	Year 2	Year 3	Year 4
(source 1)					
(source 2)	SEE TABLES 4-7 THROUGH 4-12				
(source 3)					

Table 22 Factors resulting in inconsistency of wholesaler's supply				
Name of supply	Legal	Environment	Water Quality	Climatic
(source 1)				
(source 2)				

Water Shortage Contingency Plan Section (Water Code § 10632)
Stages of Action (Water Code § 10632 (a))

- Provide stages of action Sec.6.1, pg.33, Appx.C Reference & Page Number
- Provide the water supply conditions for each stage Sec.6.1, pg.33, Appx.C Reference & Page Number
- Includes plan for 50 percent supply shortage Sec.6.2, pg.33 Reference & Page Number

Table 23 Water Supply Shortage Stages and Conditions RATIONING STAGES		
Stage No.	Water Supply Conditions	% Shortage
	SEE APPENDIX C	

Three-Year Minimum Water Supply (Water Code §10632 (b))

- Identifies driest 3-year period Sec.4.6, pg.27 Reference & Page Number
- Minimum water supply available by source for the next three years Tables 4-8 through 4-12 Reference & Page Number

Table 24 Three-Year Estimated Minimum Water Supply - AF Year				
source**	Normal	Year 1	Year 2	Year 3
	SEE TABLEs 4-8 THROUGH 4-12			
Total	0	0	0	0

*Note: If reporting after 2005, please change the column headers (Year 1, 2, & 3) to the appropriate years

Preparation for catastrophic water supply interruption (Water Code §10632 (c))

- Provided catastrophic supply interruption plan Sec.6, pg.33 Reference & Page Number

Table 25 Preparation Actions for a Catastrophe	
Possible Catastrophe	Check if Discussed
Regional power outage	
Earthquake	
<p>Separate from efforts outlined in this UWMP, the District, Authority, and MWD are implementing plans that include projects to help ensure that the existing and planned water users within the District's service area have an adequate and reliable water supply. In its UWMP, the Authority confirmed that with the development of its water supply projects along with those of its member agencies and MWD, no water shortages within the Authority's service area are anticipated under single or multiple dry year periods, through 2030. Also, in order to meet future water demands throughout the Southern California region, the MWD has identified in its Integrated Resources Plan (IRP) a planning buffer which is intended to mitigate the risk of local agency projects not being developed. However, since the Authority identified the risk of not meeting all of its water demands should supplies identified in MWD's IRP not be developed, it is mitigating that risk by pursuing potential water supplies involving additional seawater desalination, storage, and conjunctive-use supplies outside of its service area.</p>	

Prohibitions

(Water Code § 10632 (d))

- List the mandatory prohibitions against specific water use practices during water shortages Sec.6.1, pg.33, Appx.C Reference & Page Number
Sec.6.1, pg.33, Appx.C Reference & Page Number

Table 26 Mandatory Prohibitions	
Examples of Prohibitions	Stage When Prohibition Becomes Mandatory
Using potable water for street washing	
SEE APPENDIX C	
Other	

Consumption Reduction Methods

(Water Code § 10632 (e))

- List the consumption reduction methods the water supplier will use to reduce water use in the most restrictive stages with up to a 50% reduction. Sec.6.2, p.33 Reference & Page Number

Table 27 Consumption Reduction Methods		
Consumption Reduction Methods	Stage When Method Takes Effect	Projected Reduction (%)
SEE APPENDIX C		

Penalties (Water Code § 10632 (f))

- List excessive use penalties or charges for excessive use Sec.6.1, pg.33 Reference & Page Number
Appendix C

Table 28 Penalties and Charges	
Penalties or Charges	Stage When Penalty Takes Effect
Penalty for excess use	
Charge for excess use	
SEE APPENDIX C	
Other	

Revenue and Expenditure Impacts (Water Code § 10632 (g))

- Describe how actions and conditions impact revenues Sec.6.2, pg.33 Reference & Page Number
- Describe how actions and conditions impact expenditures Sec.6.2, pg.33 Reference & Page Number
- Describe measures to overcome the revenue and expenditure impacts Sec.6.2, pg.33 Reference & Page Number

Table 29 Proposed measures to overcome revenue impacts	
Names of measures	Check if Discussed
Rate adjustment	
Development of reserves	
SEE APPENDIX D	x

Table 30 Proposed measures to overcome expenditure impacts	
Names of measures	Check if Discussed
SEE APPENDIX D	x

Water Shortage Contingency Ordinance/Resolution (Water Code § 10632 (h))
 Attach a copy of the draft water shortage contingency resolution or ordinance. Appendix C Reference & Page Number

Reduction Measuring Mechanism (Water Code § 10632 (i))
 Provided mechanisms for determining actual reductions Sec.6.1, pg.34 Reference & Page Number

Table 31 Water Use Monitoring Mechanisms	
Mechanisms for determining actual reductions	Type data expected (pop-up?)
Name mechanism	
Name mechanism	
Name mechanism	

Recycling Plan Agency Coordination Water Code § 10633
 Describe the coordination of the recycling plan preparation information to the extent available. Sec.4.4.2, pg.25 Reference & Page Number

Table 32 Participating agencies	
	participated
Water agencies	
Wastewater agencies	
Groundwater agencies	
Planning Agencies	

Wastewater System Description (Water Code § 10633 (a))
 Describe the wastewater collection and treatment systems in the supplier's service area Sec.4.4.2, pg.25 Reference & Page Number
(discussed as it applies to District's water recycling goals)
 Quantify the volume of wastewater collected and treated Sec.4.4.2, pg.25 Reference & Page Number

Table 33 Wastewater Collection and Treatment - AF Year							
Type of Wastewater	2000	2005	2010	2015	2020	2025	2030 - opt
Wastewater collected & treated in service area							
Volume that meets recycled water standard							

Wastewater Disposal and Recycled Water Uses (Water Code § 10633 (a - d))

- Describes methods of wastewater disposal Sec.4.4.2, pg.25 Reference & Page Number
- Describe the current type, place and use of recycled water NA Reference & Page Number
- None (no current water recycling)
- Describe and quantify potential uses of recycled water Sec.4.4.2, pg.25 Reference & Page Number

Table 34 Disposal of wastewater (non-recycled) AF Year							
Method of disposal	Treatment Level	2005	2010	2015	2020	2025	2030 - opt
Name of method							
Name of method							
Name of method							
Name of method							
Total		0	0	0	0	0	0

Table 35 Recycled Water Uses - Actual and Potential (AFY)							
User type	Treatment Level	2005	2010	2015	2020	2025	2030 - opt
Agriculture							
Landscape							
Wildlife Habitat							
Wetlands							
Industrial							
Groundwater Recharge	See Table 4-4, pg.26 (El Monte Basin Recharge Project)						
Other (user type)							
Other (user type)							
Total		0	0	0	0	0	0

- Determination of technical and economic feasibility of serving the potential uses Sec.4.4.2,pg.25 Reference & Page Number (currently in feasibility phase)

Projected Uses of Recycled Water (Water Code § 10633 (e))

- Projected use of recycled water, 20 years Table 4-5, pg.27 Reference & Page Number

Table 36 Projected Future Use of Recycled Water in Service Area - AF Year					
	2010	2015	2020	2025	2030 - opt
Projected use of Recycled Water	TABLE 4-5, PG.27				

Compare UWMP 2000 projections with UWMP 2005 actual (§ 10633 (e)) NA Reference & Page Number
 None

Table 37 Recycled Water Uses - 2000 Projection compared with 2005 actual - AFY		
User type	2000 Projection for 2005	2005 actual use
Agriculture		
Landscape		
Wildlife Habitat		
Wetlands		
Industrial		
Groundwater Recharge		
Other (user type)		
Other (user type)		
Total	0	0

Plan to Optimize Use of Recycled Water (Water Code § 10633 (f))

Describe actions that might be taken to encourage recycled water uses NA Reference & Page Number
 Describe projected results of these actions in terms of acre-feet of recycled water used per year NA Reference & Page Number

Table 38 Methods to Encourage Recycled Water Use					
Actions	AF of use projected to result from this action				
	2010	2015	2020	2025	2030 - opt
Financial incentives					
In 1992, a study performed to analyze the feasibility of developing a recycled water system to serve the District's customers resulted in the identification of few reclaimed water markets that were relatively small and widespread. A financial analysis for the development of a reclaimed water program, including incentives, further yielded the conclusion that it is not financially feasible.					
Total	0	0	0	0	0

Provide a recycled water use optimization plan which includes actions to facilitate the use of recycled water (dual distribution systems, promote recirculating uses) NA Reference & Page Number

Water quality impacts on availability of supply

(Water Code §10634)

- Discusses water quality impacts (by source) upon water management strategies and supply reliability Reference & Page Number
- No water quality impacts projected Sec.5, pg.31

Table 39
Current & projected water supply changes due to water quality - percentage

water source	2005	2010	2015	2020	2025	2030 - opt

Supply and Demand Comparison to 20 Years

(Water Code § 10635 (a))

- Compare the projected normal water supply to projected normal water use over the next 20 years, in 5-year increments. Reference & Page Number
- Table 4-6, pg.28

Table 40
Projected Normal Water Supply - AF Year

(from table 4)	2010	2015	2020	2025	2030 - opt
Supply	42,156	42,896	43,579	44,214	45,000
% of year 2005					

Table 41
Projected Normal Water Demand - AF Year

(from table 15)	2010	2015	2020	2025	2030 - opt
Demand	42,156	42,896	43,579	44,214	45,000
% of year 2005					

Table 42
Projected Supply and Demand Comparison - AF Year

	2010	2015	2020	2025	2030 - opt
Supply totals	42,156	42,896	43,579	44,214	45,000
Demand totals	42,156	42,896	43,579	44,214	45,000
Difference	0	0	0	0	0
Difference as % of Supply	0.0%	0.0%	0.0%	0.0%	0.0%
Difference as % of Demand	0.0%	0.0%	0.0%	0.0%	0.0%

Supply and Demand Comparison: Single-dry Year Scenario

(Water Code § 10635 (a))

X Compare the projected single-dry year water supply to projected single-dry year water use over the next 20 years, in 5-year increments. _____ Reference & Page Number

Table 4-7, pg.28

Table 43 Projected single dry year Water Supply - AF Year					
	2010	2015	2020	2025	2030 - opt
Supply	45,107	45,889	46,630	47,309	48,150
% of projected normal					

Table 44 Projected single dry year Water Demand - AF Year					
	2010	2015	2020	2025	2030 - opt
Demand	45,107	45,889	46,630	47,309	48,150
% of projected normal					

Table 45 Projected single dry year Supply and Demand Comparison - AF Year					
	2010	2015	2020	2025	2030 - opt
Supply totals	45,107	45,889	46,630	47,309	48,150
Demand totals	45,107	45,889	46,630	47,309	48,150
Difference	0	0	0	0	0
Difference as % of Supply	0.0%	0.0%	0.0%	0.0%	0.0%
Difference as % of Demand	0.0%	0.0%	0.0%	0.0%	0.0%

Supply and Demand Comparison: Multiple-dry Year Scenario

(Water Code § 10635 (a))

X Project a multiple-dry year period (as identified in Table 9) occurring between 2006-2010 and compare projected supply and demand during those years. _____ Reference & Page Number

Table 4-8, pg.28

Table 46 Projected supply during multiple dry year period ending in 2010 - AF Year					
	2006	2007	2008	2009	2010
Supply	44,416	44,589	55,761		
% of projected normal					

Table 47 Projected demand multiple dry year period ending in 2010 - AFY					
	2006	2007	2008	2009	2010
Demand	44,416	44,589	55,761		
% of projected normal					

Table 48 Projected Supply and Demand Comparison during multiple dry year period ending in 2010- AF Year					
	2006	2007	2008	2009	2010
Supply totals	44,416	44,589	55,761	0	0
Demand totals	44,416	44,589	55,761	0	0
Difference	0	0	0	0	0
Difference as % of Supply	0.0%	0.0%	0.0%		
Difference as % of Demand	0.0%	0.0%	0.0%		

X Project a multiple-dry year period (as identified in Table 9) occurring between 2011-2015 _____ Reference & Page Number
and compare projected supply and demand during those years

Table 4-9, pg.29

Table 49 Projected supply during multiple dry year period ending in 2015 - AF Year					
	2011	2012	2013	2014	2015
Supply	45,265	45,423	45,582		
% of projected normal					

Table 50 Projected demand multiple dry year period ending in 2015 - AFY					
	2011	2012	2013	2014	2015
Demand	45,265	45,423	45,582		
% of projected normal					

Table 51 Projected Supply and Demand Comparison during multiple dry year period ending in 2015- AF Year					
	2011	2012	2013	2014	2015
Supply totals	45,265	45,423	45,582	0	0
Demand totals	45,265	45,423	45,582	0	0
Difference	0	0	0	0	0
Difference as % of Supply	0.0%	0.0%	0.0%		
Difference as % of Demand	0.0%	0.0%	0.0%		

X Project a multiple-dry year period (as identified in Table 9) occurring between 2016-2020 _____ Reference & Page Number
and compare projected supply and demand during those years

Table 4-10, pg.29

Table 52 Projected supply during multiple dry year period ending in 2020 - AF Year					
	2016	2017	2018	2019	2020
Supply	46,045	46,191	46,337		
% of projected normal					

Table 53 Projected demand multiple dry year period ending in 2020 - AFY					
	2016	2017	2018	2019	2020
Demand	46,045	46,191	46,337		
% of projected normal					

Table 54 Projected Supply and Demand Comparison during multiple dry year period ending in 2020- AF Year					
	2016	2017	2018	2019	2020
Supply totals	46,045	46,191	46,337	0	0
Demand totals	46,045	46,191	46,337	0	0
Difference	0	0	0	0	0
Difference as % of Supply	0.0%	0.0%	0.0%		
Difference as % of Demand	0.0%	0.0%	0.0%		

X Project a multiple-dry year period (as identified in Table 9) occurring between 2021-2025 _____ Reference & Page Number
and compare projected supply and demand during those years

Table 4-10, pg.29

Table 55 Projected supply during multiple dry year period ending in 2025 - AF Year					
	2021	2022	2023	2024	2025
Supply	46,766	46,902	47,038		
% of projected normal					

Table 56 Projected demand multiple dry year period ending in 2025 - AFY					
	2021	2022	2023	2024	2025
Demand	46,766	46,902	47,038		
% of projected normal					

Table 57 Projected Supply and Demand Comparison during multiple dry year period ending in 2025- AF Year					
	2021	2022	2023	2024	2025
Supply totals	46,766	46,902	47,038	0	0
Demand totals	46,766	46,902	47,038	0	0
Difference	0	0	0	0	0
Difference as % of Supply	0.0%	0.0%	0.0%		
Difference as % of Demand	0.0%	0.0%	0.0%		

Provision of Water Service Reliability section to cities/counties within service area (Water Code § 10635(b))

Provided Water Service Reliability section of UWMP to cities and counties within which it provides water supplies within 60 days of UWMP submission to DWR Intro., pg.2 Reference & Page Number

Does the Plan Include Public Participation and Plan Adoption (Water Code § 10642)

- Attach a copy of adoption resolution Appx.F Reference & Page Number
- Encourage involvement of social, cultural & economic community groups Intro.pg.2 Reference & Page Number
- Plan available for public inspection Intro.pg.2 Reference & Page Number
- Provide proof of public hearing Intro.pg.2 & Appx.E Reference & Page Number
- Provided meeting notice to local governments Intro.pg.2 Reference & Page Number

Review of implementation of 2000 UWMP (Water Code § 10643)

- Reviewed implementation plan and schedule of 2000 UWMP Intro, pg.1 Reference & Page Number
- Implemented in accordance with the schedule set forth in plan Intro, pg.1 Reference & Page Number
- 2000 UWMP not required _____ Reference & Page Number

Provision of 2005 UWMP to local governments (Water Code § 10644 (a))

Provide 2005 UWMP to DWR, and cities and counties within 30 days of adoption Intro.pg.2 Reference & Page Number

Does the plan or correspondence accompanying it show where it is available for public review (Water Code § 10645)

Does UWMP or correspondence accompanying it show where it is available for public review _____ Reference & Page Number
Intro.pg.2

Appendix B

Best Management Practices (BMP's)
Monitoring Reports, 2001 □ 2004

Best Management Practices (BMP[s])
Base Year Data

Base Year Data

Reporting Unit:
Helix Water District

Submitted to
CUWCC
11/01/2000

1. Your **BASE YEAR is 1997.**

NOTE: Many calculations in determining credit history and coverage requirements are contingent on your BASE YEAR, which is calculated based on the following criteria. If a Signatory signed the MOU in 1997 or earlier, then the Base Year is 1997. If a Signatory signed the MOU after 1997, then the Base Year is the year the MOU was signed. The same holds true for USBR Contractors, except the date their Base Year is calculated from is the date that their Plan was noticed in the Federal Register.

BMP 1

2. Number of single-family customers in 1997	44876
3. Number of multi-family units in 1997	4606

BMPs 2 and 14

4. Number of single-family housing units constructed prior to 1992	44800
5. Number of multi-family units prior to 1992	4590

BMP 4

6. Number of unmetered accounts in 1997	0
---	---

BMPs 5 and 9

7. Number of commercial accounts in 1997	3366
8. Number of industrial accounts in 1997	0
9. Number of institutional accounts in 1997	479
10. Total water use (AF) by commercial, industrial and institutional accounts in 1997	6558

BMP 14

11. Average number of toilets per single-family household	1.7
12. Average number of toilets per multi-family household	1.3
13. Five-year average resale rate of single-family households	10
14. Five-year average resale rate of multi-family households	4
15. Average persons per single-family household	4
16. Average persons per multi-family household	3

Reported as of 12/20/05

Best Management Practices (BMP[s])
2004 Monitoring Report

Water Supply & Reuse

Reporting Unit:
Helix Water District

Year:
2004

Water Supply Source Information

Supply Source Name	Quantity (AF) Supplied	Supply Type
HWD Aq. #1	13733.13	Imported
HWD Aq. #2	10408.03	Imported
HWD Aq. #5	6042.2	Imported
HWD Aq. #8	2988.42	Imported
Chet Harritt PS (Lake Jennings)	3904.41	Local Watershed
Buckner PS (from El Capitan)	4736.52	Local Watershed
Well 101	351.22	Groundwater

Total AF: 42163.93

Reported as of 12/20/05

Accounts & Water Use

Reporting Unit Name:
Helix Water District

Submitted to
CUWCC
11/30/2004

Year:
2004

A. Service Area Population Information:

1. Total service area population 252000

B. Number of Accounts and Water Deliveries (AF)

Type	Metered		Unmetered	
	No. of Accounts	Water Deliveries (AF)	No. of Accounts	Water Deliveries (AF)
1. Single-Family	45654	21930.979	0	0
2. Multi-Family	4779	10784.471	0	0
3. Commercial	3258	4765.559	0	0
4. Industrial	0	0	0	0
5. Institutional	0	0	0	0
6. Dedicated Irrigation	440	1150.316	0	0
7. Recycled Water	0	0	0	0
8. Other	635	2097.019	0	0
9. Unaccounted	NA	0	NA	0
Total	54766	40728.344	0	0

Metered

Unmetered

Reported as of 12/20/05

BMP 01: Water Survey Programs for Single-Family and Multi-Family Residential Customers

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2004**

A. Implementation

- | | |
|--|------------|
| 1. Based on your signed MOU date, 08/14/1991, your Agency STRATEGY DUE DATE is: | 08/13/1993 |
| 2. Has your agency developed and implemented a targeting/marketing strategy for SINGLE-FAMILY residential water use surveys? | yes |
| a. If YES, when was it implemented? | 7/1/1995 |
| 3. Has your agency developed and implemented a targeting/marketing strategy for MULTI-FAMILY residential water use surveys? | yes |
| a. If YES, when was it implemented? | 7/1/1995 |

B. Water Survey Data

Survey Counts:	Single Family Accounts	Multi-Family Units
1. Number of surveys offered:	47	1
2. Number of surveys completed:	47	1

Indoor Survey:

- | | | |
|---|-----|-----|
| 3. Check for leaks, including toilets, faucets and meter checks | yes | yes |
| 4. Check showerhead flow rates, aerator flow rates, and offer to replace or recommend replacement, if necessary | yes | yes |
| 5. Check toilet flow rates and offer to install or recommend installation of displacement device or direct customer to ULFT replacement program, as necessary; replace leaking toilet flapper, as necessary | yes | yes |

Outdoor Survey:

- | | | |
|--|-----|--------|
| 6. Check irrigation system and timers | yes | yes |
| 7. Review or develop customer irrigation schedule | yes | yes |
| 8. Measure landscaped area (Recommended but not required for surveys) | yes | yes |
| 9. Measure total irrigable area (Recommended but not required for surveys) | yes | yes |
| 10. Which measurement method is typically used (Recommended but not required for surveys) | | Pacing |
| 11. Were customers provided with information packets that included evaluation results and water savings recommendations? | yes | yes |
| 12. Have the number of surveys offered and completed, survey results, and survey costs been tracked? | yes | yes |

- a. If yes, in what form are surveys tracked? database
- b. Describe how your agency tracks this information.

Contractor tracks number of surveys through a database.

C. Water Survey Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	4000	4000
2. Actual Expenditures	1387.5	

D. "At Least As Effective As"

- 1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
 - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

E. Comments

Some of the funding shown under "C." Water Survey Program Expenditures. 1. Budgeted Expenditures. Next Year funds for weather-based irrigation controllers. At some time in the future, the BMP report may be rewritten to include these funds under a separate BMP.

Reported as of 12/20/05

BMP 02: Residential Plumbing Retrofit

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2004**

A. Implementation

1. Is there an enforceable ordinance in effect in your service area requiring replacement of high-flow showerheads and other water use fixtures with their low-flow counterparts? yes

a. If YES, list local jurisdictions in your service area and code or ordinance in each:

La Mesa -Ordinance No. 2587, adopted on August 27, 1991.

2. Has your agency satisfied the 75% saturation requirement for single-family housing units? yes

3. Estimated percent of single-family households with low-flow showerheads: 75%

4. Has your agency satisfied the 75% saturation requirement for multi-family housing units? yes

5. Estimated percent of multi-family households with low-flow showerheads: 75%

6. If YES to 2 OR 4 above, please describe how saturation was determined, including the dates and results of any survey research.

The San Diego County Water Authority and its member agencies distributed over 550,000 showerheads between 1991 and 2002. The average rate of natural replacement is 4.0% while housing demolition is 0.5. Since January 1, 1994, showerheads manufactured in the United States must be in compliance with 2.5 gpm maximum. Data gathered from the Residential Survey Program showed an 80-95% saturation of showerheads in homes surveyed. The Water Authority was unable to secure monies for a formal saturation study on showerheads during this period, but is continuing to pursue grant-funding opportunities.

B. Low-Flow Device Distribution Information

1. Has your agency developed a targeting/ marketing strategy for distributing low-flow devices? yes

a. If YES, when did your agency begin implementing this strategy? 07/01/1996

b. Describe your targeting/ marketing strategy.

Over 550,000 showerheads have been distributed in the region to date. Marketing that has been done in the San Diego region include the following: Residential Survey distribution. Direct distribution to customers (lobby counter). Distribution at community events. By customer request. Distribution at CBO events.

Low-Flow Devices Distributed/ Installed	SF Accounts	MF Units
2. Number of low-flow showerheads distributed:	25	237
3. Number of toilet-displacement devices distributed:	0	0
4. Number of toilet flappers distributed:	0	0
5. Number of faucet aerators distributed:	0	0

6. Does your agency track the distribution and cost of low-flow devices? yes

a. If YES, in what format are low-flow devices tracked? Spreadsheet

b. If yes, describe your tracking and distribution system :

The Authority documented distribution in the region in a spreadsheet, by region, rather than specific member agencies.

C. Low-Flow Device Distribution Expenditures

	This Year	Next Year
1. Budgeted Expenditures	1970	1970
2. Actual Expenditures	1970	

D. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? yes

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

The San Diego County Water Authority and its member agencies distributed over 550,000 showerheads between 1991 and 2002. The average rate of natural replacement is 4.0%, while housing demolition is 0.5%. And, effective January 1, 1994, showerheads manufactured in the United States must be 2.5 gpm maximum. Data gathered from the Residential Survey Program (2001 and 2002) showed a 80-95% saturation of showerheads in homes surveyed. The Authority was unable to secure monies for a formal saturation study during this period, but is continuing to pursue grant-funding opportunities in the future.

E. Comments

BMP 03: System Water Audits, Leak Detection and Repair

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2004**

A. Implementation

1. Has your agency completed a pre-screening system audit for this reporting year? yes
2. If YES, enter the values (AF/Year) used to calculate verifiable use as a percent of total production:
 - a. Determine metered sales (AF) 39956
 - b. Determine other system verifiable uses (AF) 0
 - c. Determine total supply into the system (AF) 42206
 - d. Using the numbers above, if (Metered Sales + Other Verifiable Uses) / Total Supply is < 0.9 then a full-scale system audit is required. 0.95
3. Does your agency keep necessary data on file to verify the values used to calculate verifiable uses as a percent of total production? yes
4. Did your agency complete a full-scale audit during this report year? no
5. Does your agency maintain in-house records of audit results or the completed AWWA audit worksheets for the completed audit? yes
6. Does your agency operate a system leak detection program? no
 - a. If yes, describe the leak detection program:

B. Survey Data

1. Total number of miles of distribution system line. 714.64
2. Number of miles of distribution system line surveyed. 0

C. System Audit / Leak Detection Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

D. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
 - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

E. Comments

Loss results of 5.3% do not justify a more indepth leak detection program. B.2 - While Helix does not "survey" its distribution lines, approximately 35 - 40 miles of pipe line is "patrolled" each year looking for leaks and potential leaks.

Reported as of 12/20/05

BMP 04: Metering with Commodity Rates for all New Connections and Retrofit of Existing

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2004**

A. Implementation

- | | |
|---|-----|
| 1. Does your agency require meters for all new connections and bill by volume-of-use? | yes |
| 2. Does your agency have a program for retrofitting existing unmetered connections and bill by volume-of-use? | no |
| a. If YES, when was the plan to retrofit and bill by volume-of-use existing unmetered connections completed? | |
| b. Describe the program: | |
| 3. Number of previously unmetered accounts fitted with meters during report year. | 0 |

B. Feasibility Study

- | | |
|--|----|
| 1. Has your agency conducted a feasibility study to assess the merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters? | no |
| a. If YES, when was the feasibility study conducted? (mm/dd/yy) | |
| b. Describe the feasibility study: | |
| 2. Number of CII accounts with mixed-use meters. | 0 |
| 3. Number of CII accounts with mixed-use meters retrofitted with dedicated irrigation meters during reporting period. | 0 |

C. Meter Retrofit Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

D. "At Least As Effective As"

- | | |
|--|----|
| 1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? | No |
| a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as." | |

E. Comments

Metering of all water use and billing by volume of use has long been the standard practice of Helix Water District.

Reported as of 12/20/05

BMP 05: Large Landscape Conservation Programs and Incentives

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2004**

A. Water Use Budgets

- | | |
|--|-----|
| 1. Number of Dedicated Irrigation Meter Accounts: | 436 |
| 2. Number of Dedicated Irrigation Meter Accounts with Water Budgets: | 0 |
| 3. Budgeted Use for Irrigation Meter Accounts with Water Budgets (AF): | 0 |
| 4. Actual Use for Irrigation Meter Accounts with Water Budgets (AF): | 0 |
| 5. Does your agency provide water use notices to accounts with budgets each billing cycle? | no |

B. Landscape Surveys

- | | |
|--|-----------|
| 1. Has your agency developed a marketing / targeting strategy for landscape surveys? | yes |
| a. If YES, when did your agency begin implementing this strategy? | 8/10/1990 |
| b. Description of marketing / targeting strategy: | |

On behalf of the member agency via consultant: *Potential customers are prescreened by the review of water usage data records and the comparison of typical patterns of other industry or SIC water usage. *Customers that exhibit unusually high water usage relative to the size of the property are sent a letter and a program brochure, inviting them to participate in the program. *Dispersal of brochures and advertising to a variety of candidates, homeowners, associations as well as large turf customers. *Outreach to landscape organizations (i.e. California Landscape Contractors Association). Member agency steps: *Outreach at community events *Refer customers to program *Positive outreach to customers that are creating runoff

- | | |
|---|-----|
| 2. Number of Surveys Offered. | 9 |
| 3. Number of Surveys Completed. | 9 |
| 4. Indicate which of the following Landscape Elements are part of your survey: | |
| a. Irrigation System Check | yes |
| b. Distribution Uniformity Analysis | yes |
| c. Review / Develop Irrigation Schedules | yes |
| d. Measure Landscape Area | yes |
| e. Measure Total Irrigable Area | yes |
| f. Provide Customer Report / Information | yes |
| 5. Do you track survey offers and results? | yes |
| 6. Does your agency provide follow-up surveys for previously completed surveys? | yes |
| a. If YES, describe below: | |

C. Other BMP 5 Actions

- 1. An agency can provide mixed-use accounts with ETo-based landscape budgets in lieu of a large landscape survey program. Does your agency provide mixed-use accounts with landscape budgets? no
- 2. Number of CII mixed-use accounts with landscape budgets. 0
- 3. Do you offer landscape irrigation training? yes
- 4. Does your agency offer financial incentives to improve landscape water use efficiency? yes

Type of Financial Incentive:	Budget (Dollars/Year)	Number Awarded to Customers	Total Amount Awarded
a. Rebates	0	0	0
b. Loans	0	0	0
c. Grants	0	0	0

- 5. Do you provide landscape water use efficiency information to new customers and customers changing services? yes
 - a. If YES, describe below:
- 6. Do you have irrigated landscaping at your facilities? yes
 - a. If yes, is it water-efficient? yes
 - b. If yes, does it have dedicated irrigation metering? no
- 7. Do you provide customer notices at the start of the irrigation season? no
- 8. Do you provide customer notices at the end of the irrigation season? no

D. Landscape Conservation Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	4000	4000
2. Actual Expenditures	2119.39	

E. "At Least As Effective As"

- 1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
 - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

F. Comments

BMP 06: High-Efficiency Washing Machine Rebate Programs

Reporting Unit:
Helix Water District

BMP Form Status:
100% Complete

Year:
2004

A. Implementation

1. Do any energy service providers or waste water utilities in your service area offer rebates for high-efficiency washers? yes

a. If YES, describe the offerings and incentives as well as who the energy/waste water utility provider is.

San Diego Gas & Electric offered tiered rebates of \$75 and \$125.

2. Does your agency offer rebates for high-efficiency washers? yes

3. What is the level of the rebate? 125

4. Number of rebates awarded. 781

B. Rebate Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	21000	21000
2. Actual Expenditures	17963	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Reported as of 12/20/05

BMP 07: Public Information Programs

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2004**

A. Implementation

1. Does your agency maintain an active public information program to promote and educate customers about water conservation? yes
- a. If YES, describe the program and how it's organized.

Helix has three staff members in public information who plan special events, distribute literature regarding conservation, sponsor Water Awareness programs, write press releases, prepare literature pieces and interface with the public during special events.

2. Indicate which and how many of the following activities are included in your public information program.

Public Information Program Activity	Yes/No	Number of Events
a. Paid Advertising	no	0
b. Public Service Announcement	yes	1
c. Bill Inserts / Newsletters / Brochures	yes	8
d. Bill showing water usage in comparison to previous year's usage	yes	
e. Demonstration Gardens	yes	4
f. Special Events, Media Events	yes	4
g. Speaker's Bureau	yes	8
h. Program to coordinate with other government agencies, industry and public interest groups and media	yes	

B. Conservation Information Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	235423	225121
2. Actual Expenditures	164274	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
- a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Helix Water District is a member of the JPA for The Water Conservation Garden located in El Cajon. Helix participates extensively in the activities and plans events at The Garden in order to promote outdoor water conservation.

Reported as of 12/20/05

BMP 08: School Education Programs

Reporting Unit:
Helix Water District

BMP Form Status:
100% Complete

Year:
2004

A. Implementation

1. Has your agency implemented a school information program to promote water conservation? yes

2. Please provide information on your school programs (by grade level):

Grade	Are grade-appropriate materials distributed?	No. of class presentations	No. of students reached	No. of teachers' workshops
Grades K-3rd	yes	125	3536	4
Grades 4th-6th	yes	176	6746	4
Grades 7th-8th	yes	5	135	0
High School	yes	1	125	4

3. Did your Agency's materials meet state education framework requirements? yes

4. When did your Agency begin implementing this program? 09/01/1991

B. School Education Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	140550	130600
2. Actual Expenditures	122077	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Water education in the San Diego Region is extensive. The Helix Water District began its educational program in 1965. It now has programs that serve every grade level K through 12. Helix also provides an active teacher education program in order to provide teachers with much needed curriculum and materials. In 2002, Helix started a photo contest for high school students. The district also participated in the high school poster contest sponsored by Metropolitan Water District. Helix also served 940 Head Start Pre-School children through a new program, which brought lesson plans in their classrooms and conservation materials for their parents. Member agencies provide individual youth educational opportunities. Additionally, the San Diego County Water Authority has implemented an extensive water education to both elementary and secondary schools to the entire region. At no cost to the member agencies, the Authority provides teacher education, school supplies, traveling library, mobile lab, Science Fair awards, and mini-

grants. Hands-on curriculums include School-to-Career Education program, Regional Water Quality Testing, Water Politics, and Xeriscape Gardening. The numbers provided for this year include both Helix educational outreach and that of the San Diego County Water Authority.

Reported as of 12/20/05

BMP 09: Conservation Programs for CII Accounts

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2004**

A. Implementation

- | | |
|--|-----|
| 1. Has your agency identified and ranked COMMERCIAL customers according to use? | yes |
| 2. Has your agency identified and ranked INDUSTRIAL customers according to use? | yes |
| 3. Has your agency identified and ranked INSTITUTIONAL customers according to use? | yes |

Option A: CII Water Use Survey and Customer Incentives Program

- | | |
|---|----|
| 4. Is your agency operating a CII water use survey and customer incentives program for the purpose of complying with BMP 9 under this option? | no |
|---|----|

CII Surveys	Commercial Accounts	Industrial Accounts	Institutional Accounts
a. Number of New Surveys Offered	0	0	0
b. Number of New Surveys Completed	0	0	0
c. Number of Site Follow-ups of Previous Surveys (within 1 yr)	0	0	0
d. Number of Phone Follow-ups of Previous Surveys (within 1 yr)	0	0	0
CII Survey Components	Commercial Accounts	Industrial Accounts	Institutional Accounts
e. Site Visit	no	no	no
f. Evaluation of all water-using apparatus and processes	no	no	no
g. Customer report identifying recommended efficiency measures, paybacks and agency incentives	no	no	no
Agency CII Customer Incentives	Budget (\$/Year)	No. Awarded to Customers	Total \$ Amount Awarded
h. Rebates	0	0	0
i. Loans	0	0	0
j. Grants	0	0	0
k. Others	0	0	0

Option B: CII Conservation Program Targets

5. Does your agency track CII program interventions and water savings for the purpose of complying with BMP 9 under this option?	yes
6. Does your agency document and maintain records on how savings were realized and the method of calculation for estimated savings?	yes
7. Estimated annual savings (AF/yr) from site-verified actions taken by agency since 1991.	154.62
8. Estimated annual savings (AF/yr) from non-site-verified actions taken by agency since 1991.	0

B. Conservation Program Expenditures for CII Accounts

	This Year	Next Year
1. Budgeted Expenditures	23000	23000
2. Actual Expenditures	14001	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?No
 - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Reported as of 12/20/05

BMP 09a: CII ULFT Water Savings

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2004**

1. Did your agency implement a CII ULFT replacement program in the reporting year? No
 If No, please explain why on Line B.10.

A. Targeting and Marketing

1. What basis does your agency use to target customers for participation in this program? Check all that apply.
- a. Describe which method you found to be the most effective overall, and which was the most effective per dollar expended.
2. How does your agency advertise this program? Check all that apply.
- a. Describe which method you found to be the most effective overall, and which was the most effective per dollar expended.

B. Implementation

1. Does your agency keep and maintain customer participant information? (Read the Help information for a complete list of all the information for this BMP.)
2. Would your agency be willing to share this information if the CUWCC did a study to evaluate the program on behalf of your agency?
3. What is the total number of customer accounts participating in the program during the last year ?

CII Subsector	Number of Toilets Replaced					Type Not Specified
	Standard Gravity Tank	Air Assisted	Valve Floor Mount	Valve Wall Mount		
4.						
a. Offices						
b. Retail / Wholesale						
c. Hotels						
d. Health						
e. Industrial						

- f. Schools:
K to 12
- g. Eating
- h. Govern-
ment
- i. Churches
- j. Other

5. Program design.

6. Does your agency use outside services to implement this program?

a. If yes, check all that apply.

7. Participant tracking and follow-up.

8. Based on your program experience, please rank on a scale of 1 to 5, with 1 being the least frequent cause and 5 being the most frequent cause, the following reasons why customers refused to participate in the program.

- a. Disruption to business
- b. Inadequate payback
- c. Inadequate ULFT performance
- d. Lack of funding
- e. American's with Disabilities Act
- f. Permitting
- g. Other. Please describe in B. 9.

9. Please describe general program acceptance/resistance by customers, obstacles to implementation, and other issues affecting program implementation or effectiveness.

10. Please provide a general assessment of the program for this reporting year. Did your program achieve its objectives? Were your targeting and marketing approaches effective? Were program costs in line with expectations and budgeting?

Under the direction of CUWCC staff this was only a program for 2003.

C. Conservation Program Expenditures for CII ULFT

1. CII ULFT Program: Annual Budget & Expenditure Data

	Budgeted	Actual Expenditure
--	-----------------	-------------------------------

- a. Labor
- b. Materials
- c. Marketing &

Advertising		
d. Administration & Overhead		
e. Outside Services		
f. Total	0	0

2. CII ULFT Program: Annual Cost Sharing

a. Wholesale agency contribution		
b. State agency contribution		
c. Federal agency contribution		
d. Other contribution		
e. Total		0

D. Comments

Reported as of 12/20/05

BMP 11: Conservation Pricing

Reporting Unit:
Helix Water District

BMP Form
Status:
100% Complete

Year:
2004

A. Implementation

Rate Structure Data Volumetric Rates for Water Service by Customer Class

1. Residential

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$25885426
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$8672460

2. Commercial

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$3757203
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$1054956

3. Industrial

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$0
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$0

4. Institutional / Government

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$1484127
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$327942

5. Irrigation

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$850048
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$208884

6. Other

a. Water Rate Structure	Uniform
-------------------------	---------

BMP 12: Conservation Coordinator

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2004**

A. Implementation

1. Does your Agency have a conservation coordinator? yes
2. Is this a full-time position? no
3. If no, is the coordinator supplied by another agency with which you cooperate in a regional conservation program ? no
4. Partner agency's name: N/A
5. If your agency supplies the conservation coordinator:
 - a. What percent is this conservation coordinator's position? 30%
 - b. Coordinator's Name Kate Breece
 - c. Coordinator's Title Senior Public Affairs Representative
 - d. Coordinator's Experience and Number of Years 10, 4
 - e. Date Coordinator's position was created (mm/dd/yyyy) 07/01/1994
6. Number of conservation staff, including Conservation Coordinator. 3

B. Conservation Staff Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	63923	66321
2. Actual Expenditures	48195	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no
 - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Reported as of 12/20/05

BMP 13: Water Waste Prohibition

Reporting Unit:

Helix Water District

BMP Form Status:

100% Complete

Year:

2004

A. Requirements for Documenting BMP Implementation

1. Is a water waste prohibition ordinance in effect in your service area? yes

a. If YES, describe the ordinance:

Section 4.9 Water Conservation and Water Emergency Plan

2. Is a copy of the most current ordinance(s) on file with CUWCC? yes

a. List local jurisdictions in your service area in the first text box and water waste ordinance citations in each jurisdiction in the second text box:

El Cajon

Chapter 13.04 Water
Ordinance 4318, 1991

B. Implementation

1. Indicate which of the water uses listed below are prohibited by your agency or service area.

a. Gutter flooding yes

b. Single-pass cooling systems for new connections no

c. Non-recirculating systems in all new conveyor or car wash systems no

d. Non-recirculating systems in all new commercial laundry systems no

e. Non-recirculating systems in all new decorative fountains no

f. Other, please name yes
hand-held hoses must have automatic shutoff nozzle

2. Describe measures that prohibit water uses listed above:

Penalties - first violation-customer notification; subsequent violations cause monetary penalties at increasing rates.

Water Softeners:

3. Indicate which of the following measures your agency has supported in developing state law:

a. Allow the sale of more efficient, demand-initiated regenerating DIR models. yes

b. Develop minimum appliance efficiency standards that:

i.) Increase the regeneration efficiency standard to at least 3,350 grains of hardness removed per pound of common salt used. yes

ii.) Implement an identified maximum number of gallons discharged per gallon of soft water produced. yes

c. Allow local agencies, including municipalities and special districts, to set more stringent standards and/or to ban on-site regeneration of water softeners if it is demonstrated and found by the agency governing board that there is an adverse effect on the reclaimed water or groundwater supply. yes

- 4. Does your agency include water softener checks in home water audit programs? no
- 5. Does your agency include information about DIR and exchange-type water softeners in educational efforts to encourage replacement of less efficient timer models? no

C. Water Waste Prohibition Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

D. "At Least As Effective As"

- 1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no

- a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

E. Comments

Reported as of 12/20/05

BMP 14: Residential ULFT Replacement Programs

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2004**

A. Implementation

	Single-Family Accounts	Multi- Family Units
1. Does your Agency have program(s) for replacing high-water-using toilets with ultra-low flush toilets?	yes	yes
Number of Toilets Replaced by Agency Program During Report Year		
Replacement Method	SF Accounts	MF Units
2. Rebate	0	0
3. Direct Install	0	0
4. CBO Distribution	0	0
5. Other	1441	870
Total		
	1441	870

6. Describe your agency's ULFT program for single-family residences.

Through this program, residential customers are offered a voucher redeemable for up to \$75 off the purchase price of an approved ultra-low-flush toilet. The voucher is for a point-of-purchase discount only. ULFTs must be from the list of approved toilets. No after-purchase rebates are available.

7. Describe your agency's ULFT program for multi-family residences.

Same as above. Single-family and multi-family customers are eligible to participate. Customers must be replacing existing high-volume fixtures.

8. Is a toilet retrofit on resale ordinance in effect for your service area? no

9. List local jurisdictions in your service area in the left box and ordinance citations in each jurisdiction in the right box:

B. Residential ULFT Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	56000	56000
2. Actual Expenditures	50981.61	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Helix also awarded 1 Dual-Flush voucher to a multi-family customer and

19 Dual-Flush vouchers to single-family customers.

Reported as of 12/20/05

Best Management Practices (BMP[s])
2003 Monitoring Report

Water Supply & Reuse

Reporting Unit:
Helix Water District

Year:
2003

Water Supply Source Information

Supply Source Name	Quantity (AF) Supplied	Supply Type
HWD Aq. #1	13177.48	Imported
HWD Aq. #2	13792.34	Imported
HWD Aq. #5	6454.4	Imported
Chet Harritt PS (Lake Jennings)	3826.15	Local Watershed
Buckner PS (from El Capitan)	2112.52	Local Watershed
Well 101	324	Groundwater

Total AF: 39686.89

Reported as of 12/20/05

Accounts & Water Use

Reporting Unit Name:
Helix Water District

Submitted to
CUWCC
11/30/2004

Year:
2003

A. Service Area Population Information:

1. Total service area population 252000

B. Number of Accounts and Water Deliveries (AF)

Type	Metered		Unmetered	
	No. of Accounts	Water Deliveries (AF)	No. of Accounts	Water Deliveries (AF)
1. Single-Family	45431	20047.511	0	0
2. Multi-Family	4772	10615.584	0	0
3. Commercial	3243	4665.96	0	0
4. Industrial	0	0	0	0
5. Institutional	0	0	0	0
6. Dedicated Irrigation	431	976.91	0	0
7. Recycled Water	0	0	0	0
8. Other	625	1694.625	0	0
9. Unaccounted	NA	0	NA	0
Total	54502	38000.59	0	0

Metered

Unmetered

Reported as of 12/20/05

BMP 01: Water Survey Programs for Single-Family and Multi-Family Residential Customers

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2003**

A. Implementation

- | | |
|--|------------|
| 1. Based on your signed MOU date, 08/14/1991, your Agency STRATEGY DUE DATE is: | 08/13/1993 |
| 2. Has your agency developed and implemented a targeting/marketing strategy for SINGLE-FAMILY residential water use surveys? | yes |
| a. If YES, when was it implemented? | 7/1/1995 |
| 3. Has your agency developed and implemented a targeting/marketing strategy for MULTI-FAMILY residential water use surveys? | yes |
| a. If YES, when was it implemented? | 7/1/1995 |

B. Water Survey Data

Survey Counts:	Single Family Accounts	Multi-Family Units
1. Number of surveys offered:	20	3
2. Number of surveys completed:	20	3

Indoor Survey:

- | | | |
|---|-----|-----|
| 3. Check for leaks, including toilets, faucets and meter checks | yes | yes |
| 4. Check showerhead flow rates, aerator flow rates, and offer to replace or recommend replacement, if necessary | yes | yes |
| 5. Check toilet flow rates and offer to install or recommend installation of displacement device or direct customer to ULFT replacement program, as necessary; replace leaking toilet flapper, as necessary | yes | yes |

Outdoor Survey:

- | | | |
|--|-----|--------|
| 6. Check irrigation system and timers | yes | yes |
| 7. Review or develop customer irrigation schedule | yes | yes |
| 8. Measure landscaped area (Recommended but not required for surveys) | yes | yes |
| 9. Measure total irrigable area (Recommended but not required for surveys) | yes | yes |
| 10. Which measurement method is typically used (Recommended but not required for surveys) | | Pacing |
| 11. Were customers provided with information packets that included evaluation results and water savings recommendations? | yes | yes |
| 12. Have the number of surveys offered and completed, survey results, and survey costs been tracked? | yes | yes |

- a. If yes, in what form are surveys tracked? database
- b. Describe how your agency tracks this information.

Contractor tracks data, including number of surveys, in a database.

C. Water Survey Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	4000	4000
2. Actual Expenditures	687.5	

D. "At Least As Effective As"

- 1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
 - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

E. Comments

Some of the funding shown under "C." Water Survey Program Expenditures. 1. Budgeted Expenditures. Next Year includes funds for weather-based irrigation controllers. At some time in the future, the BMP Report may be rewritten to include these funds under a separate BMP.

Reported as of 12/20/05

BMP 02: Residential Plumbing Retrofit

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2003**

A. Implementation

1. Is there an enforceable ordinance in effect in your service area requiring replacement of high-flow showerheads and other water use fixtures with their low-flow counterparts? yes

a. If YES, list local jurisdictions in your service area and code or ordinance in each:

La Mesa -Ordinance No. 2587, adopted on August 27, 1991.

2. Has your agency satisfied the 75% saturation requirement for single-family housing units? yes

3. Estimated percent of single-family households with low-flow showerheads: 75%

4. Has your agency satisfied the 75% saturation requirement for multi-family housing units? yes

5. Estimated percent of multi-family households with low-flow showerheads: 75%

6. If YES to 2 OR 4 above, please describe how saturation was determined, including the dates and results of any survey research.

The San Diego County Water Authority and its member agencies distributed over 550,000 showerheads between 1991 and 2002. The average rate of natural replacement is 4.0% while housing demolition is 0.5. Since January 1, 1994, showerheads manufactured in the United States must be in compliance with 2.5 gpm maximum. Data gathered from the Residential Survey Program showed an 80-95% saturation of showerheads in homes surveyed. The Water Authority was unable to secure monies for a formal saturation study on showerheads during this period, but is continuing to pursue grant-funding opportunities.

B. Low-Flow Device Distribution Information

1. Has your agency developed a targeting/ marketing strategy for distributing low-flow devices? yes

a. If YES, when did your agency begin implementing this strategy? 7/1/1996

b. Describe your targeting/ marketing strategy.

Over 550,000 showerheads have been distributed in the region to date. Marketing that has been done in the San Diego region include the following: Residential Survey distribution. Direct distribution to customers (lobby counter). Distribution at community events. By customer request. Distribution at CBO events.

Low-Flow Devices Distributed/ Installed	SF Accounts	MF Units
2. Number of low-flow showerheads distributed:	77	50
3. Number of toilet-displacement devices distributed:	0	0
4. Number of toilet flappers distributed:	0	0
5. Number of faucet aerators distributed:	0	0

6. Does your agency track the distribution and cost of low-flow devices? yes

a. If YES, in what format are low-flow devices tracked? Spreadsheet

b. If yes, describe your tracking and distribution system :

The Authority documented distribution in the region in a spreadsheet, by region, rather than specific member agencies.

C. Low-Flow Device Distribution Expenditures

	This Year	Next Year
1. Budgeted Expenditures	1970	1970
2. Actual Expenditures	1970	

D. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? yes

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

The San Diego County Water Authority and its member agencies distributed over 550,000 showerheads between 1991 and 2002. The average rate of natural replacement is 4.0%, while housing demolition is 0.5%. And, effective January 1, 1994, showerheads manufactured in the United States must be 2.5 gpm maximum. Data gathered from the Residential Survey Program (2001 and 2002) showed a 80-95% saturation of showerheads in homes surveyed. The Authority was unable to secure monies for a formal saturation study during this period, but is continuing to pursue grant-funding opportunities in the future.

E. Comments

BMP 03: System Water Audits, Leak Detection and Repair

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2003**

A. Implementation

1. Has your agency completed a pre-screening system audit for this reporting year? yes
2. If YES, enter the values (AF/Year) used to calculate verifiable use as a percent of total production:
 - a. Determine metered sales (AF) 38518
 - b. Determine other system verifiable uses (AF) 0
 - c. Determine total supply into the system (AF) 39700
 - d. Using the numbers above, if (Metered Sales + Other Verifiable Uses) / Total Supply is < 0.9 then a full-scale system audit is required. 0.97
3. Does your agency keep necessary data on file to verify the values used to calculate verifiable uses as a percent of total production? yes
4. Did your agency complete a full-scale audit during this report year? no
5. Does your agency maintain in-house records of audit results or the completed AWWA audit worksheets for the completed audit? yes
6. Does your agency operate a system leak detection program? no
 - a. If yes, describe the leak detection program:

B. Survey Data

1. Total number of miles of distribution system line. 712.5
2. Number of miles of distribution system line surveyed. 0

C. System Audit / Leak Detection Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

D. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
 - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

E. Comments

Loss results of 2.9% do not justify a more indepth leak detection program. B.2 - While Helix does not "survey" its distribution lines, approximately 35 - 40 miles of pipe line is "patrolled" each year looking for leaks and potential leaks.

Reported as of 12/20/05

BMP 04: Metering with Commodity Rates for all New Connections and Retrofit of Existing

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2003**

A. Implementation

- | | |
|---|-----|
| 1. Does your agency require meters for all new connections and bill by volume-of-use? | yes |
| 2. Does your agency have a program for retrofitting existing unmetered connections and bill by volume-of-use? | no |
| a. If YES, when was the plan to retrofit and bill by volume-of-use existing unmetered connections completed? | |
| b. Describe the program: | |
| 3. Number of previously unmetered accounts fitted with meters during report year. | 0 |

B. Feasibility Study

- | | |
|--|----|
| 1. Has your agency conducted a feasibility study to assess the merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters? | no |
| a. If YES, when was the feasibility study conducted? (mm/dd/yy) | |
| b. Describe the feasibility study: | |
| 2. Number of CII accounts with mixed-use meters. | 0 |
| 3. Number of CII accounts with mixed-use meters retrofitted with dedicated irrigation meters during reporting period. | 0 |

C. Meter Retrofit Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

D. "At Least As Effective As"

- | | |
|--|----|
| 1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? | No |
| a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as." | |

E. Comments

Metering of all water use and billing by volume of use has long been the standard practice of Helix Water District.

Reported as of 12/20/05

BMP 05: Large Landscape Conservation Programs and Incentives

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2003**

A. Water Use Budgets

- | | |
|--|-----|
| 1. Number of Dedicated Irrigation Meter Accounts: | 436 |
| 2. Number of Dedicated Irrigation Meter Accounts with Water Budgets: | 0 |
| 3. Budgeted Use for Irrigation Meter Accounts with Water Budgets (AF): | 0 |
| 4. Actual Use for Irrigation Meter Accounts with Water Budgets (AF): | 0 |
| 5. Does your agency provide water use notices to accounts with budgets each billing cycle? | no |

B. Landscape Surveys

- | | |
|--|-----------|
| 1. Has your agency developed a marketing / targeting strategy for landscape surveys? | yes |
| a. If YES, when did your agency begin implementing this strategy? | 8/10/1990 |
| b. Description of marketing / targeting strategy: | |

On behalf of the member agency via consultant: *Potential customers are prescreened by the review of water usage data records and the comparison of typical patterns of other industry or SIC water usage. *Customers that exhibit unusually high water usage relative to the size of the property are sent a letter and a program brochure, inviting them to participate in the program. *Dispersal of brochures and advertising to a variety of candidates, homeowners, associations as well as large turf customers. *Outreach to landscape organizations (i.e. California Landscape Contractors Association). Member agency steps: *Outreach at community events *Refer customers to program *Positive outreach to customers that are creating runoff

- | | |
|---|-----|
| 2. Number of Surveys Offered. | 8 |
| 3. Number of Surveys Completed. | 8 |
| 4. Indicate which of the following Landscape Elements are part of your survey: | |
| a. Irrigation System Check | yes |
| b. Distribution Uniformity Analysis | yes |
| c. Review / Develop Irrigation Schedules | yes |
| d. Measure Landscape Area | yes |
| e. Measure Total Irrigable Area | yes |
| f. Provide Customer Report / Information | yes |
| 5. Do you track survey offers and results? | yes |
| 6. Does your agency provide follow-up surveys for previously completed surveys? | yes |
| a. If YES, describe below: | |
| At the discretion of the customer. | |

C. Other BMP 5 Actions

- 1. An agency can provide mixed-use accounts with ETo-based landscape budgets in lieu of a large landscape survey program. no
Does your agency provide mixed-use accounts with landscape budgets?
- 2. Number of CII mixed-use accounts with landscape budgets. 0
- 3. Do you offer landscape irrigation training? yes
- 4. Does your agency offer financial incentives to improve landscape water use efficiency? yes

Type of Financial Incentive:	Budget (Dollars/Year)	Number Awarded to Customers	Total Amount Awarded
a. Rebates	0	0	0
b. Loans	0	0	0
c. Grants	0	0	0

- 5. Do you provide landscape water use efficiency information to new customers and customers changing services? yes

a. If YES, describe below:

San Diego County Water Authority provides literature to be given to the customer by our member agency.

- 6. Do you have irrigated landscaping at your facilities? yes
 - a. If yes, is it water-efficient? yes
 - b. If yes, does it have dedicated irrigation metering? no
- 7. Do you provide customer notices at the start of the irrigation season? no
- 8. Do you provide customer notices at the end of the irrigation season? no

D. Landscape Conservation Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	4000	4000
2. Actual Expenditures	1805.25	

E. "At Least As Effective As"

- 1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
 - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

F. Comments

BMP 06: High-Efficiency Washing Machine Rebate Programs

Reporting Unit:
Helix Water District

BMP Form Status:
100% Complete

Year:
2003

A. Implementation

1. Do any energy service providers or waste water utilities in your service area offer rebates for high-efficiency washers? yes

a. If YES, describe the offerings and incentives as well as who the energy/waste water utility provider is.

San Diego Gas & Electric offered rebate of \$75.

2. Does your agency offer rebates for high-efficiency washers? yes

3. What is the level of the rebate? 125

4. Number of rebates awarded. 589

B. Rebate Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	12000	21000
2. Actual Expenditures	13524.5	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Reported as of 12/20/05

BMP 07: Public Information Programs

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2003**

A. Implementation

1. Does your agency maintain an active public information program to promote and educate customers about water conservation? yes
- a. If YES, describe the program and how it's organized.

Helix has three staff members in public information who plan special events, distribute literature regarding conservation, sponsor Water Awareness programs, write press releases, prepare literature pieces and interface with the public during special events.

2. Indicate which and how many of the following activities are included in your public information program.

Public Information Program Activity	Yes/No	Number of Events
a. Paid Advertising	no	0
b. Public Service Announcement	yes	3
c. Bill Inserts / Newsletters / Brochures	yes	10
d. Bill showing water usage in comparison to previous year's usage	yes	
e. Demonstration Gardens	yes	2
f. Special Events, Media Events	yes	4
g. Speaker's Bureau	yes	3
h. Program to coordinate with other government agencies, industry and public interest groups and media	yes	

B. Conservation Information Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	285696	235423
2. Actual Expenditures	212402	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
- a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Helix Water District is a member of the JPA for The Water Conservation Garden located in El Cajon. Helix participates extensively in the activities and plans events at The Garden in order to promote outdoor water conservation.

Reported as of 12/20/05

BMP 08: School Education Programs

Reporting Unit:
Helix Water District

BMP Form Status:
100% Complete

Year:
2003

A. Implementation

1. Has your agency implemented a school information program to promote water conservation? yes

2. Please provide information on your school programs (by grade level):

Grade	Are grade-appropriate materials distributed?	No. of class presentations	No. of students reached	No. of teachers' workshops
Grades K-3rd	yes	183	4116	3
Grades 4th-6th	yes	164	7023	4
Grades 7th-8th	yes	0	0	0
High School	yes	2	50	5

3. Did your Agency's materials meet state education framework requirements? yes

4. When did your Agency begin implementing this program? 09/01/1991

B. School Education Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	123720	140550
2. Actual Expenditures	89251	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Water education in the San Diego Region is extensive. The Helix Water District began its educational program in 1965. It now has programs that serve every grade level K through 12. Helix also provides an active teacher education program in order to provide teachers with much needed curriculum and materials. In 2002, Helix started a photo contest for high school students. The district also participated in the high school poster contest sponsored by Metropolitan Water District. Member agencies provide individual youth educational opportunities. Additionally, the San Diego County Water Authority has implemented an extensive water education to both elementary and secondary schools to the entire region. At no cost to the member agencies, the Authority provides teacher education, school supplies, traveling library, mobile lab, Science Fair awards, and mini-grants. Hands-on curriculums include School-to-Career Education program, Regional Water Quality Testing, Water Politics, and Xeriscape Gardening. The numbers provided for this year

include both Helix educational outreach and that of the San Diego County Water Authority.

Reported as of 12/20/05

BMP 09: Conservation Programs for CII Accounts

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2003**

A. Implementation

1. Has your agency identified and ranked COMMERCIAL customers according to use? yes
2. Has your agency identified and ranked INDUSTRIAL customers according to use? yes
3. Has your agency identified and ranked INSTITUTIONAL customers according to use? yes

Option A: CII Water Use Survey and Customer Incentives Program

4. Is your agency operating a CII water use survey and customer incentives program for the purpose of complying with BMP 9 under this option? no

CII Surveys	Commercial Accounts	Industrial Accounts	Institutional Accounts
a. Number of New Surveys Offered	0	0	0
b. Number of New Surveys Completed	0	0	0
c. Number of Site Follow-ups of Previous Surveys (within 1 yr)	0	0	0
d. Number of Phone Follow-ups of Previous Surveys (within 1 yr)	0	0	0
CII Survey Components	Commercial Accounts	Industrial Accounts	Institutional Accounts
e. Site Visit	no	no	no
f. Evaluation of all water-using apparatus and processes	no	no	no
g. Customer report identifying recommended efficiency measures, paybacks and agency incentives	no	no	no
Agency CII Customer Incentives	Budget (\$/Year)	No. Awarded to Customers	Total \$ Amount Awarded
h. Rebates	0	0	0
i. Loans	0	0	0
j. Grants	0	0	0
k. Others	0	0	0

Option B: CII Conservation Program Targets

5. Does your agency track CII program interventions and water savings for the purpose of complying with BMP 9 under this option?	yes
6. Does your agency document and maintain records on how savings were realized and the method of calculation for estimated savings?	yes
7. Estimated annual savings (AF/yr) from site-verified actions taken by agency since 1991.	132.88
8. Estimated annual savings (AF/yr) from non-site-verified actions taken by agency since 1991.	0

B. Conservation Program Expenditures for CII Accounts

	This Year	Next Year
1. Budgeted Expenditures	20000	23000
2. Actual Expenditures	16870	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?No
 - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Reported as of 12/20/05

BMP 09a: CII ULFT Water Savings

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2003**

1. Did your agency implement a CII ULFT replacement program in the reporting year? Yes
If No, please explain why on Line B.
10.

A. Targeting and Marketing

1. What basis does your agency use to target customers for participation in this program? Check all that apply. Potential savings
CII Sector or subsector

a. Describe which method you found to be the most effective overall, and which was the most effective per dollar expended.

Our CII Voucher Incentive Program contractor, HDMC has been a significant player in the promotion of water-efficient products in San Diego County. Working in cooperation with WSA Marketing, a San Diego-based marketing and communications firm, HDMC has conducted extensive education, outreach, public relations, advertising and direct-marketing activities. HDMC and WSA Marketing have created relationships with the owners, managers, and related customer service supervisors and staff at water-efficient product supplies from Valley Center to San Ysidro for the past five years. Partnerships have been established with business owners, as well as key employees at wholesale and retail suppliers. Understanding of suppliers' business profiles, sales operations and accounting policies and procedures are key to the success of the program. Working relationships and/or qualified data has been gathered on over 200 plumbers. Dealers sign contracts each year in order to participate in a program that is responsible for increasing their sales substantially.

2. How does your agency advertise this program? Newsletter
Web page
Newspapers
Trade publications
Other print media
Trade shows and events
Check all that apply.

a. Describe which method you found to be the most effective overall, and which was the most effective per dollar expended.

Extensive marketing in the region, outreach to retail and wholesale dealers with ongoing communication and training has made this program successful in this region.

B. Implementation

- | | |
|--|-----|
| 1. Does your agency keep and maintain customer participant information? (Read the Help information for a complete list of all the information for this BMP.) | Yes |
| 2. Would your agency be willing to share this information if the CUWCC did a study to evaluate the program on behalf of your agency? | Yes |
| 3. What is the total number of customer accounts participating in the program during the last year ? | 32 |

CII Subsector	Number of Toilets Replaced					
4.	Standard Gravity Tank	Air Assisted	Valve Floor Mount	Valve Wall Mount	Type Not Specified	
a. Offices	0	0	0	0	57	
b. Retail / Wholesale	0	0	0	0	10	
c. Hotels	0	0	0	0	277	
d. Health	0	0	0	0	0	
e. Industrial	0	0	0	0	0	
f. Schools: K to 12	0	0	0	0	1	
g. Eating	0	0	0	0	3	
h. Government	0	0	0	0	0	
i. Churches	0	0	0	0	40	
j. Other	0	0	0	0	2	
5. Program design.						Rebate or voucher
6. Does your agency use outside services to implement this program?						Yes
a. If yes, check all that apply.						Consultant Plumbing contractors/subcontracts
7. Participant tracking and follow-up.						Telephone Site Visit
8. Based on your program experience, please rank on a scale of 1 to 5, with 1 being the least frequent cause and 5 being the most frequent cause, the following reasons why customers refused to participate in the program.						
a. Disruption to business						4
b. Inadequate payback						5

- c. Inadequate ULFT performance 3
- d. Lack of funding 5
- e. American's with Disabilities Act 2
- f. Permitting 2
- g. Other. Please describe in B. 9.

9. Please describe general program acceptance/resistance by customers, obstacles to implementation, and other issues affecting program implementation or effectiveness.

The CII Voucher Incentive Program continues to increase in popularity in the San Diego region. Extensive marketing by our contractor, coupled with our member agency support, has proven to be quite successful.

10. Please provide a general assessment of the program for this reporting year. Did your program achieve its objectives? Were your targeting and marketing approaches effective? Were program costs in line with expectations and budgeting?

The Helix Water District: a. Spent the maximum allowed for matching funds b. Had a high success rate for fixtures based on the waiting list status for CII c. Reduced waiting list several times as matching funds became available from other agencies

C. Conservation Program Expenditures for CII ULFT

1. CII ULFT Program: Annual Budget & Expenditure Data

	Budgeted	Actual Expenditure
a. Labor	0	0
b. Materials	0	0
c. Marketing & Advertising	0	0
d. Administration & Overhead	7380.75	12870
e. Outside Services	0	0
f. Total	7380.75	12870

2. CII ULFT Program: Annual Cost Sharing

a. Wholesale agency contribution	23760
b. State agency contribution	0
c. Federal agency contribution	0
d. Other contribution	7380.75
e. Total	31140.75

D. Comments

C.2.a. = SDCWA and MWD contributions to this program.

C.2.d. = Helix Water District contribution to this program.
Funding for the CII Program includes many other devices.
Therefore, the budgeted amount was also spent on
commercial high-efficiency clothes washers, urinals, cooling
tower conductivity controllers, as well as ULFTs.

Reported as of 12/20/05

BMP 11: Conservation Pricing

Reporting Unit:
Helix Water District

BMP Form
Status:
100% Complete

Year:
2003

A. Implementation

Rate Structure Data Volumetric Rates for Water Service by Customer Class

1. Residential

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$24523415
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$8310632

2. Commercial

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$3673634
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$1019109

3. Industrial

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$0
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$0

4. Institutional / Government

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$1291454
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$316769

5. Irrigation

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$765572
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$194797

6. Other

a. Water Rate Structure	Uniform
-------------------------	---------

BMP 12: Conservation Coordinator

Reporting Unit:

Helix Water District

BMP Form Status:

100% Complete

Year:

2003

A. Implementation

1. Does your Agency have a conservation coordinator? yes
2. Is this a full-time position? no
3. If no, is the coordinator supplied by another agency with which you cooperate in a regional conservation program ? no
4. Partner agency's name: N/A
5. If your agency supplies the conservation coordinator:
 - a. What percent is this conservation coordinator's position? 30%
 - b. Coordinator's Name Kate Breece
 - c. Coordinator's Title Senior Public Affairs Representative
 - d. Coordinator's Experience and Number of Years 9, 3
 - e. Date Coordinator's position was created (mm/dd/yyyy) 07/01/1994
6. Number of conservation staff, including Conservation Coordinator. 3

B. Conservation Staff Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	56922	63923
2. Actual Expenditures	52658	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no
 - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Reported as of 12/20/05

BMP 13: Water Waste Prohibition

Reporting Unit:

Helix Water District

BMP Form Status:

100% Complete

Year:

2003

A. Requirements for Documenting BMP Implementation

1. Is a water waste prohibition ordinance in effect in your service area? yes

a. If YES, describe the ordinance:

Section 4.9 Water Conservation and Water Emergency Plan

2. Is a copy of the most current ordinance(s) on file with CUWCC? yes

a. List local jurisdictions in your service area in the first text box and water waste ordinance citations in each jurisdiction in the second text box:

El Cajon

Chapter 13.04 Water
Ordinance 4318, 1991

B. Implementation

1. Indicate which of the water uses listed below are prohibited by your agency or service area.

a. Gutter flooding yes

b. Single-pass cooling systems for new connections no

c. Non-recirculating systems in all new conveyor or car wash systems no

d. Non-recirculating systems in all new commercial laundry systems no

e. Non-recirculating systems in all new decorative fountains no

f. Other, please name yes
hand-held hoses must have automatic shutoff nozzle

2. Describe measures that prohibit water uses listed above:

Penalties - first violation-customer notification; subsequent violations cause monetary penalties at increasing rates.

Water Softeners:

3. Indicate which of the following measures your agency has supported in developing state law:

a. Allow the sale of more efficient, demand-initiated regenerating DIR models. yes

b. Develop minimum appliance efficiency standards that:

i.) Increase the regeneration efficiency standard to at least 3,350 grains of hardness removed per pound of common salt used. yes

ii.) Implement an identified maximum number of gallons discharged per gallon of soft water produced. yes

c. Allow local agencies, including municipalities and special districts, to set more stringent standards and/or to ban on-site regeneration of water softeners if it is demonstrated and found by the agency governing board that there is an adverse effect on the reclaimed water or groundwater supply. yes

- 4. Does your agency include water softener checks in home water audit programs? no
- 5. Does your agency include information about DIR and exchange-type water softeners in educational efforts to encourage replacement of less efficient timer models? no

C. Water Waste Prohibition Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

D. "At Least As Effective As"

- 1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no

- a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

E. Comments

Reported as of 12/20/05

BMP 14: Residential ULFT Replacement Programs

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2003**

A. Implementation

	Single-Family Accounts	Multi-Family Units
1. Does your Agency have program(s) for replacing high-water-using toilets with ultra-low flush toilets?	yes	yes
Number of Toilets Replaced by Agency Program During Report Year		
Replacement Method	SF Accounts	MF Units
2. Rebate	0	0
3. Direct Install	0	0
4. CBO Distribution	0	0
5. Other	1669	1056
Total	1669	1056

6. Describe your agency's ULFT program for single-family residences.

Through this program, residential customers are offered a voucher redeemable for up to \$75 off the purchase price of an approved ultra-low-flush toilet. The voucher is for a point-of-purchase discount only. ULFTs must be from the list of approved toilets. No after-purchase rebates are available.

7. Describe your agency's ULFT program for multi-family residences.

Same as above. Single-family and multi-family customers are eligible to participate. Customers must be replacing existing high-volume fixtures.

8. Is a toilet retrofit on resale ordinance in effect for your service area? no

9. List local jurisdictions in your service area in the left box and ordinance citations in each jurisdiction in the right box:

B. Residential ULFT Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	55350	56000
2. Actual Expenditures	59370.76	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Reported as of 12/20/05

Best Management Practices (BMP[s])
2002 Monitoring Report

Water Supply & Reuse

Reporting Unit:
Helix Water District

Year:
2002

Report Not Filed

Accounts & Water Use

Reporting Unit Name:
Helix Water District

Submitted to
CUWCC
11/26/2002

Year:
2002

A. Service Area Population Information:

1. Total service area population 252000

B. Number of Accounts and Water Deliveries (AF)

Type	Metered		Unmetered	
	No. of Accounts	Water Deliveries (AF)	No. of Accounts	Water Deliveries (AF)
1. Single-Family	45360	21517.651	0	0
2. Multi-Family	4729	11063.659	0	0
3. Commercial	3260	4727.362	0	0
4. Industrial	0	0	0	0
5. Institutional	0	0	0	0
6. Dedicated Irrigation	417	1046.456	0	0
7. Recycled Water	0	0	0	0
8. Other	653	1844.608	0	0
9. Unaccounted	NA	0	NA	0
Total	54419	40199.736	0	0

Metered

Unmetered

Reported as of 12/20/05

BMP 01: Water Survey Programs for Single-Family and Multi-Family Residential Customers

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2002**

A. Implementation

- | | |
|---|------------|
| 1. Based on your signed MOU date, 08/14/1991, your Agency STRATEGY DUE DATE is: | 08/13/1993 |
| 2. Has your agency developed and implemented a targeting/ marketing strategy for SINGLE-FAMILY residential water use surveys? | yes |
| a. If YES, when was it implemented? | 7/1/1995 |
| 3. Has your agency developed and implemented a targeting/ marketing strategy for MULTI-FAMILY residential water use surveys? | yes |
| a. If YES, when was it implemented? | 7/1/1995 |

B. Water Survey Data

Survey Counts:	Single Family Accounts	Multi-Family Units
1. Number of surveys offered:	26	3
2. Number of surveys completed:	26	3

Indoor Survey:

- | | | |
|---|-----|-----|
| 3. Check for leaks, including toilets, faucets and meter checks | yes | yes |
| 4. Check showerhead flow rates, aerator flow rates, and offer to replace or recommend replacement, if necessary | yes | yes |
| 5. Check toilet flow rates and offer to install or recommend installation of displacement device or direct customer to ULFT replacement program, as necessary; replace leaking toilet flapper, as necessary | yes | yes |

Outdoor Survey:

- | | | |
|--|-----|--------|
| 6. Check irrigation system and timers | yes | yes |
| 7. Review or develop customer irrigation schedule | yes | yes |
| 8. Measure landscaped area (Recommended but not required for surveys) | yes | yes |
| 9. Measure total irrigable area (Recommended but not required for surveys) | yes | yes |
| 10. Which measurement method is typically used (Recommended but not required for surveys) | | Pacing |
| 11. Were customers provided with information packets that included evaluation results and water savings recommendations? | yes | yes |
| 12. Have the number of surveys offered and completed, survey results, and survey costs been tracked? | yes | yes |

- a. If yes, in what form are surveys tracked? database
- b. Describe how your agency tracks this information.

Contractor tracks number of surveys through a database.

C. Water Survey Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	4770	4956
2. Actual Expenditures	802.5	

D. "At Least As Effective As"

- 1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

- a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

E. Comments

*Because there is no comment box on Accounts and Water Use, Helix wishes to note that all CII are listed under Commercial. Helix has no ability to separate Industrial and Institutional from the total Comercial figure at this time.

Reported as of 12/20/05

BMP 02: Residential Plumbing Retrofit

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2002**

A. Implementation

1. Is there an enforceable ordinance in effect in your service area requiring replacement of high-flow showerheads and other water use fixtures with their low-flow counterparts? yes

a. If YES, list local jurisdictions in your service area and code or ordinance in each:

La Mesa -Ordinance No. 2587, adopted on August 27, 1991.

2. Has your agency satisfied the 75% saturation requirement for single-family housing units? yes

3. Estimated percent of single-family households with low-flow showerheads: 75%

4. Has your agency satisfied the 75% saturation requirement for multi-family housing units? yes

5. Estimated percent of multi-family households with low-flow showerheads: 75%

6. If YES to 2 OR 4 above, please describe how saturation was determined, including the dates and results of any survey research.

The San Diego County Water Authority and its member agencies distributed over 550,000 showerheads between 1991 and 2002. The average rate of natural replacement is 4.0%, while housing demolition is 0.5%. And, effective January 1, 1994 showerheads manufactured in United States must be 2.5 gpm maximum. Data gathered from the Residential Survey Program (2001 and 2002) showed an 80-95% saturation of showerheads in homes surveyed. The Authority was unable to secure monies for a formal saturation study on showerheads during this period, but is continuing to pursue grant-funding opportunities in the future.

B. Low-Flow Device Distribution Information

1. Has your agency developed a targeting/ marketing strategy for distributing low-flow devices? yes

a. If YES, when did your agency begin implementing this strategy? 7/1/1996

b. Describe your targeting/ marketing strategy.

Over 550,000 showerheads have been distributed in the region to date. Marketing that has been done in the San Diego region include the following: Residential Survey distribution. Direct distribution to customers (lobby counter). Distribution at community events. By customer request. Distribution at CBO events.

Low-Flow Devices Distributed/ Installed	SF Accounts	MF Units
2. Number of low-flow showerheads distributed:	0	0
3. Number of toilet-displacement devices distributed:	0	0
4. Number of toilet flappers distributed:	0	0
5. Number of faucet aerators distributed:	0	0

6. Does your agency track the distribution and cost of low-flow devices? no

a. If YES, in what format are low-flow devices tracked?

b. If yes, describe your tracking and distribution system :

The Authority documented distribution in the region in a spreadsheet, by region, rather than specific member agencies.

C. Low-Flow Device Distribution Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

D. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? yes

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

The San Diego County Water Authority and its member agencies distributed over 550,000 showerheads between 1991 and 2002. The average rate of natural replacement is 4.0%, while housing demolition is 0.5%. And, effective January 1, 1994, showerheads manufactured in the United States must be 2.5 gpm maximum. Data gathered from the Residential Survey Program (2001 and 2002) showed a 80-95% saturation of showerheads in homes surveyed. The Authority was unable to secure monies for a formal saturation study during this period, but is continuing to pursue grant-funding opportunities in the future.

E. Comments

Reported as of 12/20/05

BMP 03: System Water Audits, Leak Detection and Repair

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2002**

A. Implementation

- 1. Has your agency completed a pre-screening system audit for this reporting year? yes
- 2. If YES, enter the values (AF/Year) used to calculate verifiable use as a percent of total production:
 - a. Determine metered sales (AF) 40207
 - b. Determine other system verifiable uses (AF) 0
 - c. Determine total supply into the system (AF) 42148
 - d. Using the numbers above, if (Metered Sales + Other Verifiable Uses) / Total Supply is < 0.9 then a full-scale system audit is required. 0.95
- 3. Does your agency keep necessary data on file to verify the values used to calculate verifiable uses as a percent of total production? yes
- 4. Did your agency complete a full-scale audit during this report year? no
- 5. Does your agency maintain in-house records of audit results or the completed AWWA audit worksheets for the completed audit? yes
- 6. Does your agency operate a system leak detection program? no
 - a. If yes, describe the leak detection program:

B. Survey Data

- 1. Total number of miles of distribution system line. 712.33
- 2. Number of miles of distribution system line surveyed. 0

C. System Audit / Leak Detection Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

D. "At Least As Effective As"

- 1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
 - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

E. Comments

Loss results of 4.6% do not justify a more indepth leak detection program. B.2 - While Helix does not "survey" its distribution lines, approximately 35 - 40 miles of pipe line is "patrolled" each year looking for leaks and potential leaks.

Reported as of 12/20/05

BMP 04: Metering with Commodity Rates for all New Connections and Retrofit of Existing

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2002**

A. Implementation

- | | |
|---|-----|
| 1. Does your agency require meters for all new connections and bill by volume-of-use? | yes |
| 2. Does your agency have a program for retrofitting existing unmetered connections and bill by volume-of-use? | no |
| a. If YES, when was the plan to retrofit and bill by volume-of-use existing unmetered connections completed? | |
| b. Describe the program: | |
| 3. Number of previously unmetered accounts fitted with meters during report year. | 0 |

B. Feasibility Study

- | | |
|--|----|
| 1. Has your agency conducted a feasibility study to assess the merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters? | no |
| a. If YES, when was the feasibility study conducted? (mm/dd/yy) | |
| b. Describe the feasibility study: | |
| 2. Number of CII accounts with mixed-use meters. | 0 |
| 3. Number of CII accounts with mixed-use meters retrofitted with dedicated irrigation meters during reporting period. | 0 |

C. Meter Retrofit Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

D. "At Least As Effective As"

- | | |
|--|----|
| 1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? | No |
| a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as." | |

E. Comments

Metering of all water use and billing by volume of use has long been the standard practice of Helix Water District.

Reported as of 12/20/05

BMP 05: Large Landscape Conservation Programs and Incentives

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2002**

A. Water Use Budgets

- | | |
|--|-----|
| 1. Number of Dedicated Irrigation Meter Accounts: | 356 |
| 2. Number of Dedicated Irrigation Meter Accounts with Water Budgets: | 0 |
| 3. Budgeted Use for Irrigation Meter Accounts with Water Budgets (AF): | 0 |
| 4. Actual Use for Irrigation Meter Accounts with Water Budgets (AF): | 0 |
| 5. Does your agency provide water use notices to accounts with budgets each billing cycle? | no |

B. Landscape Surveys

- | | |
|--|-----------|
| 1. Has your agency developed a marketing / targeting strategy for landscape surveys? | yes |
| a. If YES, when did your agency begin implementing this strategy? | 8/10/1990 |
| b. Description of marketing / targeting strategy: | |

Our contractor prescreens potential customers by reviewing water usage data records and comparing typical patterns of other industry or SIC water usage. Customers that exhibit unusually high water usage relative to the size of the property are sent a letter and a program brochure, inviting them to participate in the program. Dispersal of brochures and advertising to a variety of candidates, homeowner's associations as well as large turf customers. Conservation Coordinator's initiative. Referral from customers.

- | | |
|---|-----|
| 2. Number of Surveys Offered. | 7 |
| 3. Number of Surveys Completed. | 7 |
| 4. Indicate which of the following Landscape Elements are part of your survey: | |
| a. Irrigation System Check | yes |
| b. Distribution Uniformity Analysis | yes |
| c. Review / Develop Irrigation Schedules | yes |
| d. Measure Landscape Area | yes |
| e. Measure Total Irrigable Area | yes |
| f. Provide Customer Report / Information | yes |
| 5. Do you track survey offers and results? | yes |
| 6. Does your agency provide follow-up surveys for previously completed surveys? | yes |
| a. If YES, describe below: | |

At the discretion of the customer.

C. Other BMP 5 Actions

- | | |
|--|----|
| 1. An agency can provide mixed-use accounts with ETo-based | no |
|--|----|

landscape budgets in lieu of a large landscape survey program.
Does your agency provide mixed-use accounts with landscape budgets?

2. Number of CII mixed-use accounts with landscape budgets. 0
3. Do you offer landscape irrigation training? yes
4. Does your agency offer financial incentives to improve landscape water use efficiency? yes

Type of Financial Incentive:	Budget (Dollars/Year)	Number Awarded to Customers	Total Amount Awarded
a. Rebates	0	0	0
b. Loans	0	0	0
c. Grants	0	0	0

5. Do you provide landscape water use efficiency information to new customers and customers changing services? yes

a. If YES, describe below:

San Diego County Water Authority provides literature to be given to the customer by our member agency.

6. Do you have irrigated landscaping at your facilities? yes
- a. If yes, is it water-efficient? yes
- b. If yes, does it have dedicated irrigation metering? no
7. Do you provide customer notices at the start of the irrigation season? no
8. Do you provide customer notices at the end of the irrigation season? no

D. Landscape Conservation Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	4001	4001
2. Actual Expenditures	1724	

E. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
- a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

F. Comments

BMP 06: High-Efficiency Washing Machine Rebate Programs

Reporting Unit:
Helix Water District

BMP Form Status:
100% Complete

Year:
2002

A. Implementation

1. Do any energy service providers or waste water utilities in your service area offer rebates for high-efficiency washers? yes

a. If YES, describe the offerings and incentives as well as who the energy/waste water utility provider is.

San Diego Gas & Electric provided \$75 rebates on qualified high-efficiency clothes washers in their service area.

2. Does your agency offer rebates for high-efficiency washers? yes

3. What is the level of the rebate? 125

4. Number of rebates awarded. 290

B. Rebate Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	7561.5	11865
2. Actual Expenditures	10150	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Reported as of 12/20/05

BMP 07: Public Information Programs

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2002**

A. Implementation

1. Does your agency maintain an active public information program to promote and educate customers about water conservation? yes

a. If YES, describe the program and how it's organized.

Helix has three staff in public information who plan special events, distribute literature regarding conservation, sponsor Water Awareness programs, write press releases, prepare literature pieces, and interface with the public during special events.

2. Indicate which and how many of the following activities are included in your public information program.

Public Information Program Activity	Yes/No	Number of Events
a. Paid Advertising	no	0
b. Public Service Announcement	yes	3
c. Bill Inserts / Newsletters / Brochures	yes	10
d. Bill showing water usage in comparison to previous year's usage	yes	
e. Demonstration Gardens	yes	7
f. Special Events, Media Events	yes	12
g. Speaker's Bureau	yes	14
h. Program to coordinate with other government agencies, industry and public interest groups and media	yes	

B. Conservation Information Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	330057	285696
2. Actual Expenditures	295671	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Reported as of 12/20/05

BMP 08: School Education Programs

Reporting Unit:

Helix Water District

BMP Form Status:

100% Complete

Year:

2002

A. Implementation

1. Has your agency implemented a school information program to promote water conservation? yes

2. Please provide information on your school programs (by grade level):

Grade	Are grade-appropriate materials distributed?	No. of class presentations	No. of students reached	No. of teachers' workshops
Grades K-3rd	yes	74	4965	0
Grades 4th-6th	yes	127	7657	5
Grades 7th-8th	yes	1	30	13
High School	yes	2	60	2

3. Did your Agency's materials meet state education framework requirements? yes

4. When did your Agency begin implementing this program? 9/1/1991

B. School Education Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	76118	104750
2. Actual Expenditures	78343	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Water education in the San Diego Region is extensive. The Helix Water District began its educational program in 1965. It now has programs that serve every grade level K through 12. Helix also provides an active teacher education program in order to provide teachers with much needed curriculum and materials. Member agencies provide individual youth educational opportunities. Additionally, the San Diego County Water Authority has implemented an extensive water education to both elementary and secondary schools to the entire region. At no cost to the member agencies, the Authority provides teacher education, school supplies, traveling library, mobile lab, Science Fair awards, and mini-grants. Hands-on curriculums include School-to-Career Education program, Regional Water Quality Testing, Water Politics, and Xeriscape Gardening. The numbers provided for this year include both Helix educational outreach and that of the San Diego County Water Authority.

Reported as of 12/20/05

BMP 09: Conservation Programs for CII Accounts

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2002**

A. Implementation

- | | |
|--|-----|
| 1. Has your agency identified and ranked COMMERCIAL customers according to use? | yes |
| 2. Has your agency identified and ranked INDUSTRIAL customers according to use? | yes |
| 3. Has your agency identified and ranked INSTITUTIONAL customers according to use? | yes |

Option A: CII Water Use Survey and Customer Incentives Program

- | | |
|---|----|
| 4. Is your agency operating a CII water use survey and customer incentives program for the purpose of complying with BMP 9 under this option? | no |
|---|----|

CII Surveys	Commercial Accounts	Industrial Accounts	Institutional Accounts
a. Number of New Surveys Offered	0	0	0
b. Number of New Surveys Completed	0	0	0
c. Number of Site Follow-ups of Previous Surveys (within 1 yr)	0	0	0
d. Number of Phone Follow-ups of Previous Surveys (within 1 yr)	0	0	0
CII Survey Components	Commercial Accounts	Industrial Accounts	Institutional Accounts
e. Site Visit	no	no	no
f. Evaluation of all water-using apparatus and processes	no	no	no
g. Customer report identifying recommended efficiency measures, paybacks and agency incentives	no	no	no
Agency CII Customer Incentives	Budget (\$/Year)	No. Awarded to Customers	Total \$ Amount Awarded
h. Rebates	0	0	0
i. Loans	0	0	0
j. Grants	0	0	0
k. Others	0	0	0

Option B: CII Conservation Program Targets

5. Does your agency track CII program interventions and water savings for the purpose of complying with BMP 9 under this option?	yes
6. Does your agency document and maintain records on how savings were realized and the method of calculation for estimated savings?	yes
7. Estimated annual savings (AF/yr) from site-verified actions taken by agency since 1991.	109.55
8. Estimated annual savings (AF/yr) from non-site-verified actions taken by agency since 1991.	0

B. Conservation Program Expenditures for CII Accounts

	This Year	Next Year
1. Budgeted Expenditures	9872	10114
2. Actual Expenditures	7510	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
 - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Reported as of 12/20/05

BMP 09a: CII ULFT Water Savings

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2002**

1. Did your agency implement a CII ULFT replacement program in the reporting year? Yes
If No, please explain why on Line B.
10.

A. Targeting and Marketing

1. What basis does your agency use to target customers for participation in this program? Check all that apply. Potential savings
CII Sector or subsector

a. Describe which method you found to be the most effective overall, and which was the most effective per dollar expended.

Our CII Voucher Incentive Program contractor, HDMC has been a significant player in the promotion of water-efficient products in San Diego County. Working in cooperation with WSA Marketing, a San Diego-based marketing and communications firm, HDMC has conducted extensive education, outreach, public relations, advertising and direct-marketing activities. HDMC and WSA Marketing have created relationships with the owners, managers, and related customer service supervisors and staff at water-efficient product supplies from Valley Center to San Ysidro for the past five years. Partnerships have been established with business owners, as well as key employees at wholesale and retail suppliers. Understanding of suppliers' business profiles, sales operations and accounting policies and procedures are key to the success of the program. Working relationships and/or qualified data has been gathered on over 200 plumbers. Dealers sign contracts each year in order to participate in a program that is responsible for increasing their sales substantially.

2. How does your agency advertise this program? Newsletter
Web page
Newspapers
Trade publications
Other print media
Trade shows and events
Check all that apply.

a. Describe which method you found to be the most effective overall, and which was the most effective per dollar expended.

Extensive marketing in the region, outreach to retail and wholesale dealers with ongoing communication and training has made this program successful in this region.

B. Implementation

1. Does your agency keep and maintain customer participant information? (Read the Help information for a complete list of all the information for this BMP.) Yes
2. Would your agency be willing to share this information if the CUWCC did a study to evaluate the program on behalf of your agency? Yes
3. What is the total number of customer accounts participating in the program during the last year ? 205

CII Subsector	Number of Toilets Replaced					Type Not Specified
	Standard Gravity Tank	Air Assisted	Valve Floor Mount	Valve Wall Mount		
4.						
a. Offices	3	0	0	0	0	0
b. Retail / Wholesale	6	0	0	0	0	0
c. Hotels	70	0	0	0	0	0
d. Health	0	0	0	0	0	0
e. Industrial	2	0	0	0	0	0
f. Schools: K to 12	0	0	0	0	0	0
g. Eating	5	0	0	0	0	0
h. Government	0	0	0	0	0	0
i. Churches	0	0	0	0	0	0
j. Other	0	0	0	0	0	0
5. Program design.					Rebate or voucher	
6. Does your agency use outside services to implement this program?						Yes
a. If yes, check all that apply.					Consultant Plumbing contractors/subcontracts	
7. Participant tracking and follow-up.					Letter Telephone Site Visit	
8. Based on your program experience, please rank on a scale of 1 to 5, with 1 being the least frequent cause and 5 being the most frequent cause, the following reasons why customers refused to participate in the program.						
a. Disruption to business						4
b. Inadequate payback						5

- c. Inadequate ULFT performance 3
- d. Lack of funding 5
- e. American's with Disabilities Act 2
- f. Permitting 2

g. Other. Please describe in B. 9.

9. Please describe general program acceptance/resistance by customers, obstacles to implementation, and other issues affecting program implementation or effectiveness.

The CII Voucher Incentive Program continues to increase in popularity in the San Diego region. Extensive marketing by our contractor, coupled with our member agency support, has proven to be quite successful.

10. Please provide a general assessment of the program for this reporting year. Did your program achieve its objectives? Were your targeting and marketing approaches effective? Were program costs in line with expectations and budgeting?

The Helix Water District: a. Spent the maximum allowed for matching funds b. Had a high success rate for fixtures based on the waiting list status for CII c. Reduced waiting list several times as matching funds became available from other agencies

C. Conservation Program Expenditures for CII ULFT

1. CII ULFT Program: Annual Budget & Expenditure Data

	Budgeted	Actual Expenditure
a. Labor	39366	39366
b. Materials	15200	7510
c. Marketing & Advertising	500	500
d. Administration & Overhead	0	0
e. Outside Services	0	0
f. Total	55066	47376

2. CII ULFT Program: Annual Cost Sharing

a. Wholesale agency contribution	32223.78
b. State agency contribution	0
c. Federal agency contribution	0
d. Other contribution	7463.78
e. Total	39687.56

D. Comments

C.2.a. = SDCWA and MWD contributions to this program.

C.2.d. = Helix Water District contribution to this program.

Reported as of 12/20/05

BMP 12: Conservation Coordinator

Reporting Unit:
Helix Water District

BMP Form Status:
100% Complete

Year:
2002

A. Implementation

1. Does your Agency have a conservation coordinator? yes
2. Is this a full-time position? no
3. If no, is the coordinator supplied by another agency with which you cooperate in a regional conservation program ? no
4. Partner agency's name:
5. If your agency supplies the conservation coordinator:
 - a. What percent is this conservation coordinator's position? 30%
 - b. Coordinator's Name Lynn Young
 - c. Coordinator's Title Board Secretary/Support Services Mgr
 - d. Coordinator's Experience and Number of Years 9, 3
 - e. Date Coordinator's position was created (mm/dd/yyyy) 7/1/1994
6. Number of conservation staff, including Conservation Coordinator. 3

B. Conservation Staff Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	62980	65340
2. Actual Expenditures	62453	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no
 - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Reported as of 12/20/05

BMP 13: Water Waste Prohibition

Reporting Unit:

Helix Water District

BMP Form Status:

100% Complete

Year:

2002

A. Requirements for Documenting BMP Implementation

1. Is a water waste prohibition ordinance in effect in your service area? yes

a. If YES, describe the ordinance:

Section 4.9 Water Conservation and Water Emergency Plan

2. Is a copy of the most current ordinance(s) on file with CUWCC? yes

a. List local jurisdictions in your service area in the first text box and water waste ordinance citations in each jurisdiction in the second text box:

El Cajon

Chapter 13.04 Water
Ordinance 4318, 1991

B. Implementation

1. Indicate which of the water uses listed below are prohibited by your agency or service area.

a. Gutter flooding yes

b. Single-pass cooling systems for new connections no

c. Non-recirculating systems in all new conveyor or car wash systems no

d. Non-recirculating systems in all new commercial laundry systems no

e. Non-recirculating systems in all new decorative fountains no

f. Other, please name yes
hand-held hoses must have automatic shutoff nozzle

2. Describe measures that prohibit water uses listed above:

Penalties - first violation-customer notification; subsequent violations cause monetary penalties at increasing rates.

Water Softeners:

3. Indicate which of the following measures your agency has supported in developing state law:

a. Allow the sale of more efficient, demand-initiated regenerating DIR models. yes

b. Develop minimum appliance efficiency standards that:

i.) Increase the regeneration efficiency standard to at least 3,350 grains of hardness removed per pound of common salt used. yes

ii.) Implement an identified maximum number of gallons discharged per gallon of soft water produced. yes

c. Allow local agencies, including municipalities and special districts, to set more stringent standards and/or to ban on-site regeneration of water softeners if it is demonstrated and found by the agency governing board that there is an adverse effect on the reclaimed water or groundwater supply. yes

- 4. Does your agency include water softener checks in home water audit programs? no
- 5. Does your agency include information about DIR and exchange-type water softeners in educational efforts to encourage replacement of less efficient timer models? no

C. Water Waste Prohibition Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

D. "At Least As Effective As"

- 1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no

- a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

E. Comments

Reported as of 12/20/05

BMP 14: Residential ULFT Replacement Programs

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2002**

A. Implementation

	Single-Family Accounts	Multi- Family Units
1. Does your Agency have program(s) for replacing high-water-using toilets with ultra-low flush toilets?	yes	yes
Number of Toilets Replaced by Agency Program During Report Year		
Replacement Method	SF Accounts	MF Units
2. Rebate	0	0
3. Direct Install	0	0
4. CBO Distribution	0	0
5. Other	1276	1351
Total	1276	1351

6. Describe your agency's ULFT program for single-family residences.

Through this program, participating residential customers are offered a voucher redeemable for up to \$75 off the purchase price. Voucher can only be used to replace toilets that are 3.5 gpf or more. The ULFT Voucher Incentive Program has extensive marketing outreach.

7. Describe your agency's ULFT program for multi-family residences.

Same as above. Single-family and multi-family customers are eligible to participate. Customers must be replacing existing high-volume fixtures.

8. Is a toilet retrofit on resale ordinance in effect for your service area? no

9. List local jurisdictions in your service area in the left box and ordinance citations in each jurisdiction in the right box:

B. Residential ULFT Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	57563	53400
2. Actual Expenditures	55921	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Best Management Practices (BMP[s])
2001 Monitoring Report

Water Supply & Reuse
Reporting Unit:

Year:
2001

Report Not Filed

Accounts & Water Use

Reporting Unit Name:
Helix Water District

Submitted to
CUWCC
11/26/2002

Year:
2001

A. Service Area Population Information:

1. Total service area population 249000

B. Number of Accounts and Water Deliveries (AF)

Type	Metered		Unmetered	
	No. of Accounts	Water Deliveries (AF)	No. of Accounts	Water Deliveries (AF)
1. Single-Family	45216	19993.232	0	0
2. Multi-Family	4704	11025.903	0	0
3. Commercial	3256	4787.177	0	0
4. Industrial	0	0	0	0
5. Institutional	0	0	0	0
6. Dedicated Irrigation	396	941.762	0	0
7. Recycled Water	0	0	0	0
8. Other	628	1709.969	0	0
9. Unaccounted	NA	0	NA	0
Total	54200	38458.043	0	0

Metered

Unmetered

Reported as of 12/20/05

BMP 01: Water Survey Programs for Single-Family and Multi-Family Residential Customers

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2001**

A. Implementation

- | | |
|---|------------|
| 1. Based on your signed MOU date, 08/14/1991, your Agency STRATEGY DUE DATE is: | 08/13/1993 |
| 2. Has your agency developed and implemented a targeting/ marketing strategy for SINGLE-FAMILY residential water use surveys? | yes |
| a. If YES, when was it implemented? | 7/1/1995 |
| 3. Has your agency developed and implemented a targeting/ marketing strategy for MULTI-FAMILY residential water use surveys? | yes |
| a. If YES, when was it implemented? | 7/1/1995 |

B. Water Survey Data

Survey Counts:	Single Family Accounts	Multi-Family Units
1. Number of surveys offered:	40	1
2. Number of surveys completed:	40	1

Indoor Survey:

- | | | |
|---|-----|-----|
| 3. Check for leaks, including toilets, faucets and meter checks | yes | yes |
| 4. Check showerhead flow rates, aerator flow rates, and offer to replace or recommend replacement, if necessary | yes | yes |
| 5. Check toilet flow rates and offer to install or recommend installation of displacement device or direct customer to ULFT replacement program, as necessary; replace leaking toilet flapper, as necessary | yes | yes |

Outdoor Survey:

- | | | |
|--|-----|--------|
| 6. Check irrigation system and timers | yes | yes |
| 7. Review or develop customer irrigation schedule | yes | yes |
| 8. Measure landscaped area (Recommended but not required for surveys) | yes | yes |
| 9. Measure total irrigable area (Recommended but not required for surveys) | yes | yes |
| 10. Which measurement method is typically used (Recommended but not required for surveys) | | Pacing |
| 11. Were customers provided with information packets that included evaluation results and water savings recommendations? | yes | yes |
| 12. Have the number of surveys offered and completed, survey results, and survey costs been tracked? | yes | yes |

- a. If yes, in what form are surveys tracked? database
- b. Describe how your agency tracks this information.

Contractor tracks number of surveys through a database.

C. Water Survey Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	6360	4770
2. Actual Expenditures	900	

D. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

E. Comments

*Because there is no comment box on Accounts and Water Use, Helix wishes to note that all CII are listed unter Commercial. Helix has no ability to separate Industrial and Institutional from the total Comercial figure at this time.

Reported as of 12/20/05

BMP 02: Residential Plumbing Retrofit

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2001**

A. Implementation

1. Is there an enforceable ordinance in effect in your service area requiring replacement of high-flow showerheads and other water use fixtures with their low-flow counterparts? yes

a. If YES, list local jurisdictions in your service area and code or ordinance in each:

La Mesa - Ordinance No. 2587, adopted on August 27, 1991

2. Has your agency satisfied the 75% saturation requirement for single-family housing units? yes

3. Estimated percent of single-family households with low-flow showerheads: 75%

4. Has your agency satisfied the 75% saturation requirement for multi-family housing units? yes

5. Estimated percent of multi-family households with low-flow showerheads: 75%

6. If YES to 2 OR 4 above, please describe how saturation was determined, including the dates and results of any survey research.

The San Diego County Water Authority and its member agencies distributed over 550,000 showerheads between 1991 and 2002. The average rate of natural replacement is 4.0%, while housing demolition is 0.5%. And, effective January 1, 1994 showerheads manufactured in United States must be 2.5 gpm maximum. Data gathered from the Residential Survey Program (2001 and 2002) showed an 80-95% saturation of showerheads in homes surveyed. The Authority was unable to secure monies for a formal saturation study on showerheads during this period, but is continuing to pursue grant-funding opportunities in the future.

B. Low-Flow Device Distribution Information

1. Has your agency developed a targeting/ marketing strategy for distributing low-flow devices? yes

a. If YES, when did your agency begin implementing this strategy? 7/1/1996

b. Describe your targeting/ marketing strategy.

Over 550,000 showerheads have been distributed in the region to date. Marketing that has been done in the San Diego region includes the following: Residential Survey distribution. Direct distribution to customers (lobby counter). Distribution at community events. By customer request. Distribution at CBO events.

Low-Flow Devices Distributed/ Installed	SF Accounts	MF Units
2. Number of low-flow showerheads distributed:	0	0
3. Number of toilet-displacement devices distributed:	0	0
4. Number of toilet flappers distributed:	0	0
5. Number of faucet aerators distributed:	0	0

6. Does your agency track the distribution and cost of low-flow devices? no

a. If YES, in what format are low-flow devices tracked?

b. If yes, describe your tracking and distribution system :

The County Water Authority documented distribution in the region in a spreadsheet, by region, rather than specific member agencies

C. Low-Flow Device Distribution Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

D. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? yes

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

The San Diego County Water Authority and its member agencies distributed over 550,000 showerheads between 1991 and 2002. The average rate of natural replacement is 4.0%, while housing demolition is 0.5%. And, effective January 1, 1994, showerheads manufactured in the United States must be 2.5 gpm maximum. Data gathered from the Residential Survey Program (2001 and 2002) showed a 80-95% saturation of showerheads in homes surveyed. The Authority was unable to secure monies for a formal saturation study during this period, but is continuing to pursue grant-funding opportunities in the future.

E. Comments

Reported as of 12/20/05

BMP 03: System Water Audits, Leak Detection and Repair

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2001**

A. Implementation

1. Has your agency completed a pre-screening system audit for this reporting year? yes
2. If YES, enter the values (AF/Year) used to calculate verifiable use as a percent of total production:
 - a. Determine metered sales (AF) 38465
 - b. Determine other system verifiable uses (AF) 0
 - c. Determine total supply into the system (AF) 40054
 - d. Using the numbers above, if (Metered Sales + Other Verifiable Uses) / Total Supply is < 0.9 then a full-scale system audit is required. 0.96
3. Does your agency keep necessary data on file to verify the values used to calculate verifiable uses as a percent of total production? yes
4. Did your agency complete a full-scale audit during this report year? no
5. Does your agency maintain in-house records of audit results or the completed AWWA audit worksheets for the completed audit? yes
6. Does your agency operate a system leak detection program? no
 - a. If yes, describe the leak detection program:

B. Survey Data

1. Total number of miles of distribution system line. 710.69
2. Number of miles of distribution system line surveyed. 0

C. System Audit / Leak Detection Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

D. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
 - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

E. Comments

Loss results of 4% do not justify a more indepth leak detection program.
B.2 - While Helix does not "survey" its distribution lines, approximately 35 - 40 miles of pipe line is "patrolled" each year looking for leaks and potential leaks.

Reported as of 12/20/05

BMP 04: Metering with Commodity Rates for all New Connections and Retrofit of Existing

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2001**

A. Implementation

- | | |
|---|-----|
| 1. Does your agency require meters for all new connections and bill by volume-of-use? | yes |
| 2. Does your agency have a program for retrofitting existing unmetered connections and bill by volume-of-use? | no |
| a. If YES, when was the plan to retrofit and bill by volume-of-use existing unmetered connections completed? | |
| b. Describe the program: | |
| 3. Number of previously unmetered accounts fitted with meters during report year. | 0 |

B. Feasibility Study

- | | |
|--|----|
| 1. Has your agency conducted a feasibility study to assess the merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters? | no |
| a. If YES, when was the feasibility study conducted? (mm/dd/yy) | |
| b. Describe the feasibility study: | |
| 2. Number of CII accounts with mixed-use meters. | 0 |
| 3. Number of CII accounts with mixed-use meters retrofitted with dedicated irrigation meters during reporting period. | 0 |

C. Meter Retrofit Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

D. "At Least As Effective As"

- | | |
|--|----|
| 1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? | No |
| a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as." | |

E. Comments

Metering of all water use and billing by volume has long been the standard practice of Helix Water District

Reported as of 12/20/05

BMP 05: Large Landscape Conservation Programs and Incentives

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2001**

A. Water Use Budgets

- | | |
|--|-----|
| 1. Number of Dedicated Irrigation Meter Accounts: | 396 |
| 2. Number of Dedicated Irrigation Meter Accounts with Water Budgets: | 0 |
| 3. Budgeted Use for Irrigation Meter Accounts with Water Budgets (AF): | 0 |
| 4. Actual Use for Irrigation Meter Accounts with Water Budgets (AF): | 0 |
| 5. Does your agency provide water use notices to accounts with budgets each billing cycle? | no |

B. Landscape Surveys

- | | |
|--|-----------|
| 1. Has your agency developed a marketing / targeting strategy for landscape surveys? | yes |
| a. If YES, when did your agency begin implementing this strategy? | 8/10/1990 |
| b. Description of marketing / targeting strategy: | |

Our contractor prescreens potential customers by reviewing water usage data records and comparing typical patterns of other industry or SIC water usage. Customers that exhibit unusually high water usage relative to the size of the property are sent a letter and a program brochure, inviting them to participate in the program. Dispersal of brochures and advertising to a variety of candidates, homeowners' associations as well as large turf customers. Conservation Coordinator's initiative. Referral from customers.

- | | |
|---|-----|
| 2. Number of Surveys Offered. | 3 |
| 3. Number of Surveys Completed. | 3 |
| 4. Indicate which of the following Landscape Elements are part of your survey: | |
| a. Irrigation System Check | yes |
| b. Distribution Uniformity Analysis | yes |
| c. Review / Develop Irrigation Schedules | yes |
| d. Measure Landscape Area | yes |
| e. Measure Total Irrigable Area | yes |
| f. Provide Customer Report / Information | yes |
| 5. Do you track survey offers and results? | yes |
| 6. Does your agency provide follow-up surveys for previously completed surveys? | yes |
| a. If YES, describe below: | |

At the discretion of the customer.

C. Other BMP 5 Actions

- | | |
|--|----|
| 1. An agency can provide mixed-use accounts with ETo-based | no |
|--|----|

landscape budgets in lieu of a large landscape survey program.
Does your agency provide mixed-use accounts with landscape budgets?

2. Number of CII mixed-use accounts with landscape budgets. 0
3. Do you offer landscape irrigation training? yes
4. Does your agency offer financial incentives to improve landscape water use efficiency? yes

Type of Financial Incentive:	Budget (Dollars/Year)	Number Awarded to Customers	Total Amount Awarded
a. Rebates	0	0	0
b. Loans	0	0	0
c. Grants	0	0	0

5. Do you provide landscape water use efficiency information to new customers and customers changing services? yes

a. If YES, describe below:

San Diego County Water Authority provides literature to be given to the customer by our member agency.

6. Do you have irrigated landscaping at your facilities? yes
- a. If yes, is it water-efficient? yes
- b. If yes, does it have dedicated irrigation metering? no
7. Do you provide customer notices at the start of the irrigation season? no
8. Do you provide customer notices at the end of the irrigation season? no

D. Landscape Conservation Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	3802	4001
2. Actual Expenditures	452.5	

E. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
- a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

F. Comments

BMP 06: High-Efficiency Washing Machine Rebate Programs

Reporting Unit:
Helix Water District

BMP Form Status:
100% Complete

Year:
2001

A. Implementation

1. Do any energy service providers or waste water utilities in your service area offer rebates for high-efficiency washers? yes

a. If YES, describe the offerings and incentives as well as who the energy/waste water utility provider is.

San Diego Gas & Electric provided \$75 rebates on qualified high-efficiency clothes washers in their service area.

2. Does your agency offer rebates for high-efficiency washers? yes

3. What is the level of the rebate? 125

4. Number of rebates awarded. 146

B. Rebate Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	3900	7561.5
2. Actual Expenditures	3650	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Reported as of 12/20/05

BMP 07: Public Information Programs

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2001**

A. Implementation

1. Does your agency maintain an active public information program to promote and educate customers about water conservation? yes

a. If YES, describe the program and how it's organized.

Helix has three staff in public information who plan special events, distribute literature regarding conservation, sponsor Water Awareness campaigns, write press releases, prepare conservation literature, and interface with the public during special events.

2. Indicate which and how many of the following activities are included in your public information program.

Public Information Program Activity	Yes/No	Number of Events
a. Paid Advertising	no	0
b. Public Service Announcement	yes	1
c. Bill Inserts / Newsletters / Brochures	yes	8
d. Bill showing water usage in comparison to previous year's usage	yes	
e. Demonstration Gardens	yes	2
f. Special Events, Media Events	yes	2
g. Speaker's Bureau	yes	8
h. Program to coordinate with other government agencies, industry and public interest groups and media	yes	

B. Conservation Information Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	340042	330057
2. Actual Expenditures	315162	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Reported as of 12/20/05

BMP 08: School Education Programs

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2001**

A. Implementation

1. Has your agency implemented a school information program to promote water conservation? yes

2. Please provide information on your school programs (by grade level):

Grade	Are grade-appropriate materials distributed?	No. of class presentations	No. of students reached	No. of teachers' workshops
Grades K-3rd	yes	36	2354	0
Grades 4th-6th	yes	63	3370	10
Grades 7th-8th	yes	1	30	1
High School	yes	1	30	2

3. Did your Agency's materials meet state education framework requirements? yes

4. When did your Agency begin implementing this program? 9/1/1991

B. School Education Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	64500	76118
2. Actual Expenditures	62479	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Water education in the San Diego region is extensive. The Helix Water District began its educational program in 1965. Helix now has programs for every grade level K through 12. Helix also provides teacher training opportunities to assist educators with much needed curriculum and materials. Additionally, the San Diego County Water Authority has implemented an extensive water education to both elementary and secondary schools to the entire region. At no cost to the member agencies, the Authority provides teacher education, school supplies, traveling library, mobile lab, Science Fair awards, and mini-grants. Hands-on curriculums include School-to-Career Education program, Regional Water Quality Testing, Water Politics, and Xeriscape Gardening. The numbers provided in this year's report reflect only the Helix Water District's educational program. No figures were provided from SDCWA.

BMP 09: Conservation Programs for CII Accounts

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2001**

A. Implementation

- | | |
|--|-----|
| 1. Has your agency identified and ranked COMMERCIAL customers according to use? | yes |
| 2. Has your agency identified and ranked INDUSTRIAL customers according to use? | yes |
| 3. Has your agency identified and ranked INSTITUTIONAL customers according to use? | yes |

Option A: CII Water Use Survey and Customer Incentives Program

- | | |
|---|----|
| 4. Is your agency operating a CII water use survey and customer incentives program for the purpose of complying with BMP 9 under this option? | no |
|---|----|

CII Surveys	Commercial Accounts	Industrial Accounts	Institutional Accounts
a. Number of New Surveys Offered	0	0	0
b. Number of New Surveys Completed	0	0	0
c. Number of Site Follow-ups of Previous Surveys (within 1 yr)	0	0	0
d. Number of Phone Follow-ups of Previous Surveys (within 1 yr)	0	0	0
CII Survey Components	Commercial Accounts	Industrial Accounts	Institutional Accounts
e. Site Visit	no	no	no
f. Evaluation of all water-using apparatus and processes	no	no	no
g. Customer report identifying recommended efficiency measures, paybacks and agency incentives	no	no	no
Agency CII Customer Incentives	Budget (\$/Year)	No. Awarded to Customers	Total \$ Amount Awarded
h. Rebates	0	0	0
i. Loans	0	0	0
j. Grants	0	0	0
k. Others	0	0	0

Option B: CII Conservation Program Targets

5. Does your agency track CII program interventions and water savings for the purpose of complying with BMP 9 under this option?	yes
6. Does your agency document and maintain records on how savings were realized and the method of calculation for estimated savings?	yes
7. Estimated annual savings (AF/yr) from site-verified actions taken by agency since 1991.	96.42
8. Estimated annual savings (AF/yr) from non-site-verified actions taken by agency since 1991.	0

B. Conservation Program Expenditures for CII Accounts

	This Year	Next Year
1. Budgeted Expenditures	9872	9872
2. Actual Expenditures	16440	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?No
 - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Reported as of 12/20/05

BMP 09a: CII ULFT Water Savings

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2001**

1. Did your agency implement a CII ULFT replacement program in the reporting year? Yes
If No, please explain why on Line B.
10.

A. Targeting and Marketing

1. What basis does your agency use to target customers for participation in this program? Check all that apply. Potential savings
CII Sector or subsector

a. Describe which method you found to be the most effective overall, and which was the most effective per dollar expended.

Our CII Voucher Incentive Program contractor, HDMC has been a significant player in the promotion of water-efficient products in San Diego County. Working in cooperation with WSA Marketing, a San Diego-based marketing and communications firm, HDMC has conducted extensive education, outreach, public relations, advertising and direct-marketing activities. HDMC and WSA Marketing have created relationships with owners, managers and related customer service supervisors and staff at water-efficient product suppliers from Valley Center to San Ysidro for the past five years. Partnerships have been established with business owners, as well as key employees at wholesale and retail suppliers. Understanding of suppliers' business profiles, sales operations and accounting policies and procedures are key to the success of the program. Working relationships and/or qualified data has been gathered on over 200 plumbers. Dealers sign contracts each year in order to participate in a program that is responsible for increasing their sales substantially.

2. How does your agency advertise this program? Newsletter
Web page
Newspapers
Trade publications
Other print media
Trade shows and events
Check all that apply.

a. Describe which method you found to be the most effective overall, and which was the most effective per dollar expended.

Extensive marketing in the region, outreach to retail and wholesale dealers with ongoing communication and training has made thi sprogram successful in this region.

B. Implementation

1. Does your agency keep and maintain customer participant information? (Read the Help information for a complete list of all the information for this BMP.) Yes
2. Would your agency be willing to share this information if the CUWCC did a study to evaluate the program on behalf of your agency? Yes
3. What is the total number of customer accounts participating in the program during the last year ? 556

CII Subsector	Number of Toilets Replaced					Type Not Specified
	Standard Gravity Tank	Air Assisted	Valve Floor Mount	Valve Wall Mount		
4.						
a. Offices	52	0	0	0	0	0
b. Retail / Wholesale	12	0	0	0	0	0
c. Hotels	76	0	0	0	0	0
d. Health	2	0	0	0	0	0
e. Industrial	0	0	0	0	0	0
f. Schools: K to 12	0	0	0	0	0	0
g. Eating	3	0	0	0	0	0
h. Government	0	0	0	0	0	0
i. Churches	0	0	0	0	0	0
j. Other	0	0	0	0	0	0
5. Program design.					Rebate or voucher	
6. Does your agency use outside services to implement this program?						Yes
a. If yes, check all that apply.					Consultant Plumbing contractors/subcontracts	
7. Participant tracking and follow-up.					Letter Telephone Site Visit	
8. Based on your program experience, please rank on a scale of 1 to 5, with 1 being the least frequent cause and 5 being the most frequent cause, the following reasons why customers refused to participate in the program.						
a. Disruption to business						4
b. Inadequate payback						5

- c. Inadequate ULFT performance 3
- d. Lack of funding 5
- e. American's with Disabilities Act 2
- f. Permitting 2

g. Other. Please describe in B. 9.

9. Please describe general program acceptance/resistance by customers, obstacles to implementation, and other issues affecting program implementation or effectiveness.

The CII Voucher Incentive Program continues to increase in popularity in the San Diego region. Extensive marketing by our contractor, coupled with our member agency support, has proven to be quite successful.

10. Please provide a general assessment of the program for this reporting year. Did your program achieve its objectives? Were your targeting and marketing approaches effective? Were program costs in line with expectations and budgeting?

The Helix Water District: a. Spent the maximum allowed for matching funds b. Had a high success rate for fixtures based on the waiting list status for CII c. Reduced waiting list several times as matching funds became available from other agencies

C. Conservation Program Expenditures for CII ULFT

1. CII ULFT Program: Annual Budget & Expenditure Data

	Budgeted	Actual Expenditure
a. Labor	35428	35428
b. Materials	15200	17535
c. Marketing & Advertising	500	500
d. Administration & Overhead	0	0
e. Outside Services	0	0
f. Total	51128	53463

2. CII ULFT Program: Annual Cost Sharing

a. Wholesale agency contribution	44635.3
b. State agency contribution	0
c. Federal agency contribution	0
d. Other contribution	5855.3
e. Total	50490.6

D. Comments

C.2.a. = SDCWA and MWD contribution toward this program.

C.2.d. = Helix Water District contribution toward this program.

Reported as of 12/20/05

BMP 11: Conservation Pricing

Reporting Unit:
Helix Water District

BMP Form
Status:
100% Complete

Year:
2001

A. Implementation

Rate Structure Data Volumetric Rates for Water Service by Customer Class

1. Residential

a. Water Rate Structure	Increasing Block
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$15148007
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$6139133

2. Commercial

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$3654955
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$955818

3. Industrial

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$0
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$0

4. Institutional / Government

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$1242598
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$278352

5. Irrigation

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$712204
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$170679

6. Other

a. Water Rate Structure	Uniform
-------------------------	---------

BMP 12: Conservation Coordinator

Reporting Unit:

Helix Water District

BMP Form Status:

100% Complete

Year:

2001

A. Implementation

1. Does your Agency have a conservation coordinator? yes
2. Is this a full-time position? no
3. If no, is the coordinator supplied by another agency with which you cooperate in a regional conservation program ? no
4. Partner agency's name:
5. If your agency supplies the conservation coordinator:
 - a. What percent is this conservation coordinator's position? 30%
 - b. Coordinator's Name Lynn Young
 - c. Coordinator's Title Board Secretary/Support Services Mgr
 - d. Coordinator's Experience and Number of Years 8,2
 - e. Date Coordinator's position was created (mm/dd/yyyy) 7/1/1994
6. Number of conservation staff, including Conservation Coordinator. 3

B. Conservation Staff Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	56680	62980
2. Actual Expenditures	47233	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no
 - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Reported as of 12/20/05

BMP 13: Water Waste Prohibition

Reporting Unit:

Helix Water District

BMP Form Status:

100% Complete

Year:

2001

A. Requirements for Documenting BMP Implementation

1. Is a water waste prohibition ordinance in effect in your service area? yes

a. If YES, describe the ordinance:

Section 4.9 Water Conservation and Water Emergency Plan

2. Is a copy of the most current ordinance(s) on file with CUWCC? yes

a. List local jurisdictions in your service area in the first text box and water waste ordinance citations in each jurisdiction in the second text box:

El Cajon

Chapter 13.04. Water
Ordinance 4318, 1991

B. Implementation

1. Indicate which of the water uses listed below are prohibited by your agency or service area.

a. Gutter flooding yes

b. Single-pass cooling systems for new connections no

c. Non-recirculating systems in all new conveyor or car wash systems no

d. Non-recirculating systems in all new commercial laundry systems no

e. Non-recirculating systems in all new decorative fountains no

f. Other, please name yes
hand-held hoses must have automatic shutoff nozzle

2. Describe measures that prohibit water uses listed above:

Penalties - first violation-customer notification; subsequent violations cause monetary penalties at increasing rates.

Water Softeners:

3. Indicate which of the following measures your agency has supported in developing state law:

a. Allow the sale of more efficient, demand-initiated regenerating DIR models. yes

b. Develop minimum appliance efficiency standards that:

i.) Increase the regeneration efficiency standard to at least 3,350 grains of hardness removed per pound of common salt used. yes

ii.) Implement an identified maximum number of gallons discharged per gallon of soft water produced. yes

c. Allow local agencies, including municipalities and special districts, to set more stringent standards and/or to ban on-site regeneration of water softeners if it is demonstrated and found by the agency governing board that there is an adverse effect on the reclaimed water or groundwater supply. yes

- 4. Does your agency include water softener checks in home water audit programs? no
- 5. Does your agency include information about DIR and exchange-type water softeners in educational efforts to encourage replacement of less efficient timer models? no

C. Water Waste Prohibition Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

D. "At Least As Effective As"

- 1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no

- a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

E. Comments

Reported as of 12/20/05

BMP 14: Residential ULFT Replacement Programs

Reporting Unit: **Helix Water District** BMP Form Status: **100% Complete** Year: **2001**

A. Implementation

	Single-Family Accounts	Multi- Family Units
1. Does your Agency have program(s) for replacing high-water-using toilets with ultra-low flush toilets?	yes	yes
Number of Toilets Replaced by Agency Program During Report Year		
Replacement Method	SF Accounts	MF Units
2. Rebate	0	0
3. Direct Install	0	0
4. CBO Distribution	0	0
5. Other	1029	1800
Total		
	1029	1800

6. Describe your agency's ULFT program for single-family residences.

Through this program, participating residential customers are offered a voucher redeemable for up to \$75 off the purchase price. Voucher can only be used to replace toilets that are 3.5 gpf or more. The ULFT Voucher Incentive Program has extensive marketing outreach.

7. Describe your agency's ULFT program for multi-family residences.

Same as above. Single-family and multi-family customers are eligible to participate. Customers must be replacing existing high-volume fixtures.

8. Is a toilet retrofit on resale ordinance in effect for your service area? no

9. List local jurisdictions in your service area in the left box and ordinance citations in each jurisdiction in the right box:

B. Residential ULFT Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	58555.18	57563
2. Actual Expenditures	55226.37	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Appendix C

Helix Water District Water Conservation and Water Emergency Plan

SECTION 4.9 WATER CONSERVATION AND WATER EMERGENCY PLAN**SECTION 4.9 WATER CONSERVATION AND WATER EMERGENCY PLAN****4.9-1 POLICY**

The District hereby establishes a comprehensive water conservation program pursuant to California Water Code sections 375 through 377, based upon the need to conserve the water supplies and to avoid or minimize the effects of any future shortage.

4.9-2 FINDINGS

The District finds that a water shortage could exist based upon the occurrence of one or more of the following conditions:

- 4.9-2(A)** A general water supply shortage due to increased demand or limited supplies.
- 4.9-2(B)** A major failure of the supply, transmission, storage, and distribution facilities of the Metropolitan Water District of Southern California, the San Diego County Water Authority, or of the Helix Water District.
- 4.9-2(C)** Metropolitan Water District of Southern California (MWDSC) or the San Diego County Water Authority adopt measures, to effect reductions in water consumption.

The District also finds that the conditions existing in San Diego County require the water resources available be put to maximum beneficial use. The waste or unreasonable use of water shall not occur. The conservation of such water is encouraged to ensure the most reasonable and beneficial use.

4.9-3 CEQA EXEMPTION

The District finds that this policy and actions taken hereafter pursuant to this policy are exempt from the California Environmental Quality Act (CEQA) as specific actions necessary to prevent or mitigate an emergency pursuant to Public Resources Code section 21080(b)(4) and the California Environmental Quality Act Guidelines section 15269(c).

4.9-4 APPLICATIONS

The provisions of this policy shall apply to all persons, customers, and property served by the District.

4.9-5 DETERMINATION AND DECLARATION OF MANDATORY CONSERVATION GOALS OR WATER EMERGENCY

The Board of Directors, General Manager, or designee, shall access available data and declare the water conservation goals to be achieved as determined by the District or its suppliers. The general public shall be notified of the appropriate conservation goals by posting a notice thereof in the lobby of the District's Administrative Office. The declaration

SECTION 4.9 WATER CONSERVATION AND WATER EMERGENCY PLAN

shall also be made public by publishing notices in newspapers of general circulation and issuing press releases, and by other publicity means.

The declaration of a water shortage emergency shall be made by the Board of Directors after a public hearing held pursuant to sections 350 and 352 of the Water Code unless the emergency is the result of a breakage or failure of a dam, pump, pipeline, or conduit, in which case the declaration may be made by the General Manager or his designee.

If the declaration of the water conservation goals or an emergency water shortage is declared by the General Manager or his designee, it shall be reported to the Board of Directors at its next regular meeting, at which time the Board shall ratify, modify, or rescind the declaration.

4.9-6 DURATION OF DECLARATION

The declaration of any water conservation goals or water emergency shall remain in effect until it is modified or rescinded.

4.9-7 WATER CONSERVATION MEASURES

No person shall knowingly use water supplied by the District contrary to the provisions of this policy. The following measures shall apply at all times and will be enforced by the District:

- 4.9-7(A)** At no time shall water be wasted or used unreasonably.
- 4.9-7(B)** Water shall not be allowed to leave the customer's property by drainage onto adjacent properties or public or private roadways or streets due to excessive irrigation and/or neglect.
- 4.9-7(C)** Customers shall be required to repair all water leaks within 48 hours of knowledge that a leak exists.
- 4.9-7(D)** Water shall not be used to wash down sidewalks, driveways, parking areas, tennis courts, patios, or other paved areas except to alleviate IMMEDIATE safety or sanitation hazards.
- 4.9-7(E)** The use of a hand-held hose for spraying, lawn watering, vehicle washing, or structure washing is prohibited without an automatic shutoff nozzle.
- 4.9-7(F)** Lawn watering or irrigation, other than by hand or by drip methods, is prohibited EXCEPT between the hours of 4:00 p.m. and 9:00 a.m. the following morning.
- 4.9-7(G)** Restaurants are encouraged not to serve water to their customers except when specifically requested.

4.9-8 WATER EMERGENCY MEASURES

Water emergency measures will be required when a water shortage emergency has been declared due to drought conditions or when a major failure of any supply or distribution facility, whether temporary or permanent, occurs in the water distribution system of the State Water Project, the Metropolitan Water District of Southern California, the San Diego County Water Authority, or Helix Water District facilities.

The following measures shall apply during a water emergency and will be enforced by the District:

4.9-8(A) General Requirements

All water users are expected to minimize potable water use for the duration of the emergency.

Indoor uses will, in general, be reduced by such practices as fewer and shorter showers and baths, no running water while brushing teeth and shaving, full loads in dish and clothes washers, avoidance of unnecessary toilet flushing, frequent checking and repair of leaks, and other conservation practices.

4.9-8(B) Additional Restrictions

Certain restrictions will apply from time to time as imposed by our water suppliers or as declared by the Board or General Manager and later ratified by the Board. Restrictions may include, but not be limited to the following:

- (1) Irrigation of turf may be prohibited or restricted.
- (2) Irrigation of ground cover may be prohibited or restricted.
- (3) Outside irrigation of trees, shrubs, and other plants which are not turf or ground cover may be restricted and/or allowed only by hand-held hose with positive shutoff nozzle, bucket, or micro irrigation systems/equipment.
- (4) Filling of new residential pools and spas may be prohibited or restricted.

Draining of existing pools may be prohibited except under orders of the appropriate local health or building official.

- (5) Operation of ornamental fountains may be prohibited unless using recycled water.
- (6) Washing of vehicles may be prohibited or restricted.
- (7) New services may be restricted or prohibited. Construction or temporary connections may be turned off. Exceptions may be provided for:
 - (a) projects necessary to protect the public's health, safety, and welfare;
 - (b) when it can be demonstrated that no net increase in water use will occur; or

SECTION 4.9 WATER CONSERVATION AND WATER EMERGENCY PLAN

(c) when a conservation offset is provided.

4.9-8(C) Definitions

- (1) "Conservation offset" means the implementation of proven conservation techniques which, when installed, will result in a reduction equal to demand of the proposed use. Calculation of demand and saving shall be performed or verified by the member agency or the General Manager based upon nondrought conditions.
- (2) "Microirrigation systems/equipment" means low-pressure, low-volume methods of water application. These devices include drip emitters, T-tape, micro sprayers, micro sprinklers, twirlers, and spaghetti tubing. Pop-up sprinklers are not considered low-volume, low-pressure irrigation systems/equipment.
- (3) "Potable water" means water delivered by a member agency or the San Diego County Water Authority which meets drinking water standards.

4.9-9 APPEALS PROCEDURE

Any customer desiring to initiate a penalty appeal may do so within five days of receipt of penalty notice. Any such complaint or request must be in writing and filed with the District Review Manager. Customers shall have the right to appeal the decision to the District Board of Directors by filing a written appeal within seven days of the decision of the District Review Manager.

4.9-10 PENALTIES

Any violation of this policy is a misdemeanor (California Water Code section 377). In addition or as an alternative, at any time, violators are subject to flow restrictions or termination of service. In addition or as a further alternative, the District may impose the following charges for violation of any water conservation measure:

First violation	Customer notification of the violation.
Second violation	Monetary penalty of 25% of the previous bill or \$250, whichever is less.
Third violation	Monetary penalty of 50% of the previous bill or \$500, whichever is less.
Fourth violation	Monetary penalty of 100% of the previous bill or \$1,000, whichever is less.

4.9-11 EFFECTIVE DATE AND PUBLICATION

This policy shall become effective as of the date of adoption and pursuant to California Water Code section 376; within ten (10) days hereof a copy of this resolution shall be published in a newspaper of general circulation printed, published, and circulated in the District.

Appendix D

Water Shortage Contingency Analysis Revenue and Expenditure Summary

Helix Water District
Revenues & Expenditures by Drought Stages

fixed revenue/expenses in black
variable revenue/expenses in blue

	2005-06 BUDGET	10% Reduced Supply	25% Reduced Supply	50% Reduced Supply
WATER PRODUCTION A.F.:	44,737	40,263	33,553	22,369
REVENUE:				
Water Billings-Commodity Charges	32,796,985	29,517,287	24,597,739	16,398,493
Water Billings-Base Charges	12,104,569	12,104,569	12,104,569	12,104,569
Water Treatment Charge	726,738	654,064	545,054	363,369
Other Collections	2,222,921	2,222,921	2,222,921	2,222,921
TOTAL REVENUE	47,851,213	44,498,841	39,470,282	31,089,352
EXPENSE:				
Water Purchases	19,358,553	17,422,698	14,518,915	9,679,277
Raw Water Pumping	242,034	217,831	181,526	121,017
Water Treatment	2,215,019	1,993,517	1,661,264	1,107,510
Filtered Water Pumping	1,767,303	1,590,573	1,325,477	883,652
Distribution System Maintenance	2,325,726	2,325,726	2,325,726	2,325,726
Engineering	923,142	923,142	923,142	923,142
Customer Service	1,144,010	1,144,010	1,144,010	1,144,010
Administrative & General	15,263,876	15,263,876	15,263,876	15,263,876
Bond Service	2,562,312	2,562,312	2,562,312	2,562,312
Insurance & Damages	577,531	577,531	577,531	577,531
Less Recaptured Overhead	(203,338)	(203,338)	(203,338)	(203,338)
Subtotal	46,176,168	43,817,877	40,280,441	34,384,714
Operating Income	1,675,045	680,964	(810,159)	(3,295,362)
Less PAYGO Capital Expenditures	(6,068,000)	(6,068,000)	(6,068,000)	(6,068,000)
Genral Funds	4,392,955	4,392,955	4,392,955	4,708,270
Revenue from increased water rates over normal annual rate increase	-	416,219	734,046	855,092
Rate Stabilizaton Fund	-	577,863	1,751,157	3,800,000
Surplus(Deficiency)	0	0	0	0

Appendix E

Notice of Public Hearing

Affidavit of Publication

HELIX WATER DISTRICT
7811 UNIVERSITY AVE.
LA MESA, CA 91941-4927
ATTN: DONNA BONNIN

STATE OF CALIFORNIA} ss.
County of San Diego}

The Undersigned, declares under penalty of perjury under the laws of the State of California: That...She is a resident of the County of San Diego. THAT...She is and at all times herein mentioned was a citizen of the United States, over the age of twenty-one years, and thatShe is not a party to, nor interested in the above entitled matter; thatShe is..... Chief Clerk for the publisher of

The San Diego Union-Tribune

a newspaper of general circulation, printed and published daily in the City of San Diego, County of San Diego, and which newspaper is published for the dissemination of local news and intelligence of a general character, and which newspaper at all the times herein mentioned had and still has a bona fide subscription list of paying subscribers, and which newspaper has been established, printed and published at regular intervals in the said City of San Diego, County of San Diego, for a period exceeding one year next preceding the date of publication of the notice hereinafter referred to, and which newspaper is not devoted to nor published for the interests, entertainment or instruction of a particular class, profession, trade, calling, race, or denomination, or any number of same; that the notice of which the annexed is a printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following date, to-wit:

NOVEMBER 5 & 12, 2005


Chief Clerk for the Publisher

Affidavit of Publication of

Legal Classified Advertisement
Ad # 1096739
Ordered by: DONNA BONNIN

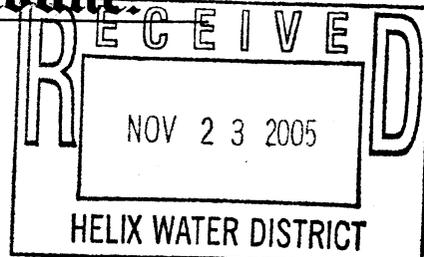
NOTICE OF MEETING OF THE BOARD OF DIRECTORS OF HELIX WATER DISTRICT TO CONSIDER INCREASE IN MISCELLANEOUS FEES AND CHARGES

NOTICE IS HEREBY GIVEN that the Board of Directors of Helix Water District will hold a public hearing at 2:00 p.m. on WEDNESDAY, DECEMBER 7, 2005 at 7811 University Avenue, La Mesa, California, at which time the Board will consider and may adopt increases in certain fees and charges of the District.

Data indicating the amount of costs, or estimated costs, required to provide the services for which the fees and charges are to be levied, and the revenue sources anticipated to provide the services, are available for public review. Any person desiring to review this data should contact Donna Bartlett-May, Board Secretary, Helix Water District, 7811 University Avenue, La Mesa, California (619) 460-0585.

Date: November 3, 2005
/s/ Donna Bartlett-May
Board Secretary

The San Diego
Union-Tribune



Appendix F

Resolution Adopting the 2005 Urban Water Management Plan

**RESOLUTION NO. 05-71 OF THE BOARD OF DIRECTORS OF
HELIX WATER DISTRICT ADOPTING THE HELIX WATER DISTRICT
URBAN WATER MANAGEMENT PLAN 2005**

WHEREAS, Water Code §10610 et. seq., the Urban Water Management Planning Act, mandates that every urban supplier of water providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually, prepare an Urban Water Management Plan (Plan), the primary objective of which is to plan for the conservation and efficient use of water; and

WHEREAS, Water Code §10621 requires that an amendment to said Plan be adopted by December 31 in years ending in five and zero, after public review and hearing, and filed with the California Department of Water Resources within 30 days of the adoption; and

WHEREAS, the Helix Water District did prepare and file said Plan with the California Department of Water Resources in December, 2000; and

WHEREAS, Water Code §10621 requires that said Plan be periodically reviewed at least once every five years, and that the urban water supplier shall make any amendments or changes to its plan which are indicated by the review; and

WHEREAS, the District is an urban water supplier providing water to more than 260,000 customers, and has therefore, prepared and circulated for public review a Draft Urban Water Management Plan 2005, in compliance with the requirements of the Urban Water Management Planning Act, and a properly noticed public hearing regarding said Draft Plan was held by the Board of Directors on December 21, 2005, and a Final Plan prepared;

NOW, THEREFORE, IT IS HEREBY RESOLVED, DETERMINED, AND ORDERED, by the Board of Directors of Helix Water District as follows:

1. The Urban Water Management Plan 2005 is hereby adopted.
2. The General Manager is hereby authorized and directed to file the Urban Water Management Plan 2005 with the California Department of Water Resources within 30 days after this date, in accordance with the Urban Water Management Planning Act (Water Code §10610 et. seq.)
3. The General Manager is hereby authorized and directed to implement the Water Conservation Programs as detailed in the adopted Urban Water Management Plan 2005, including recommendations to the Board of Directors regarding necessary procedures, rules, and regulations to carry out effective and equitable water conservation programs.

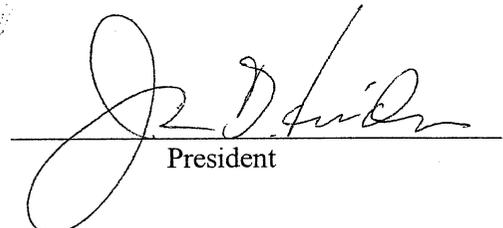
PASSED, ADOPTED AND APPROVED this 21st day of December, 2005, by the following vote:

AYES: Directors Linden, Lewanski, Smith, Muse, and Verbeke
NOES: None
ABSENT: None



ATTEST:


Secretary


President



Helix Water District

Setting standards of excellence in public service

7811 University Avenue
La Mesa, CA 91941-4927

(619) 466-0585
FAX (619) 466-1823
www.hwd.com

Certification

I, Donna Bartlett-May, Secretary of the Helix Water District, do hereby certify the foregoing to be a true and exact copy of Resolution 05-71 of said Water District passed and adopted at the date and by the vote set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of said Water District this 21st day of December, 2005.




Donna Bartlett-May



**Elected Board
of Directors:**
John B. Linden
President

James J. Lewanski, P.E.
Vice President
Richard K. Smith
Charles W. Muse
DeAna R. Verbeke

Staff:
Mark S. Weston
General Manager

Donna Bartlett-May
Board Secretary

Legal Counsel:
Scott C. Smith