



URBAN WATER MANAGEMENT PLAN · 2010

CITY OF CHINO HILLS

MAY 2012



PREPARED BY:

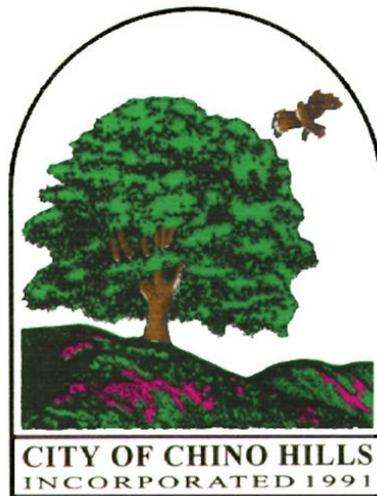
RBF Consulting

A COMPANY OF MICHAEL BAKER CORPORATION

CITY OF CHINO HILLS

2010 URBAN WATER MANAGEMENT PLAN

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May 2012

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 - Recycled Water Rates Ordinance No. 247
- G Groundwater Management Plan (OBMP Status Report January – June 2011)

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3. 2005 Chino Hills UWMP, PBS&J, December 2005
4. 2006 OBMP State of the Basin, Chino Basin Watermaster, July 2007
5. OBMP Annual Report, FY 2009-10, Chino Basin Watermaster
6. OBMP Status Report 2011-1: January to June 2011, Chino Basin Watermaster
7. Inland Empire Utilities Authority 2010 UWMP, June 2011
8. Monte Vista Water District 2010 UWMP, June 2011
9. Water Facilities Authority 2010 UWMP, May 2011
10. City of Chino 2010 UWMP, June 2011
11. 2010 UWMP Guidebook, CA Department of Water Resources

ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
Act	Urban Water Management Planning Act of 1983
AF	Acre Feet
AFY	Acre Feet per Year
AWWA	American Water Works Association
BMO	Basin Management Objective
BMP	Best Management Practices
CA	California
CBFIP	Chino Basin Facilities Improvement Program
CCWRP	Carbon Canyon Water Reclamation Plant
CDA	Chino Basin Desalter Authority
CDPH	Department of Public Health
CEQA	California Environmental Quality Act
CII	Commercial, Industrial and Institutional
CIMIS	California Irrigation Management Information System
CIP	Capital Improvement Program
CUWCC	California Urban Water Conservation Council
DFG	Department of Fish and Game (California)
DMM	Demand Management Measures
DWR	Department of Water Resources (California)
DYY	Dry Year Yield
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
ETo	Evapotranspiration
GIS	Geographic Information System

GP	General Plan
gpcd	Gallons Per Capita per Day
gpd	Gallons Per Day
gpf	Gallons Per Flush
gpm	Gallons Per Minute
GW	Groundwater
GWMP	Groundwater Management Plan
HET	High Efficiency Toilets
IEUA	Inland Empire Utilities Agency
Inst	Institutional
JCSD	Jurupa Community Services District
LS	Landscape
MCL	Maximum Contaminant Level
MF	Multi-Family
MG	Million Gallons
MGD	Million Gallons per Day
mg/L	Milligrams Per Liter
MOU	Memorandum of Understanding
MVWD	Monte Vista Water District
MWDSC	Metropolitan Water District of Southern California
NPDES	National Pollution Discharge Elimination System
OBMP	Optimum Basin Management Plan
Res	Residential
RO	Reverse Osmosis
RP	Regional Plant
RW	Recycled Water
RWQCB	Regional Water Quality Control Board
SAWCo	San Antonio Water Company
SAWPA	Santa Ana Watershed Project Authority
SB	Senate Bill
SBVMWD	San Bernardino Valley Municipal Water District
SBx7-7	Senate Bill 7 of Special Extended Session 7
SCADA	Supervisory Control Data Acquisition System
SCAG	Southern California Association of Governments
SF	Single Family
SWP	State Water Project
SWRCB	State Water Resources Control Board
TDS	Total Dissolved Solids
TVMWD	Three Valleys Municipal Water District
USGS	U.S. Geological Survey
UWMP	Urban Water Management Plan
WMWD	Western Municipal Water District
WFA	Water Facilities Authority

Chapter 1

Introduction

1.1 Background and Objective

The 2010 update of the City of Chino Hills' (City) Urban Water Management Plan (UWMP) is prepared in accordance with the California Urban Water Management Planning Act (Act) of 1983 and its amendments. The Act requires that an Urban Water Management Plan be prepared by all water purveyors having more than 3,000 accounts or supplying more than 3,000 acre-feet of water annually. Since its passage in 1983, several amendments have been added to the Act. Plans are required to be submitted every five years. The City adopted previous Plans in 1995, 2000, and 2005.

As with the 2005 UWMP, the 2010 UWMP incorporates Senate Bills 610 and 221, as well as Senate Bill 7, legislation and serves as the primary source documentation for future Water Supply Assessments and Written Verifications.

The purpose of this 2010 UWMP is to update the 2005 UWMP and its Supplement (January 2009), and include the requirements of the Delta Legislation of 2009. Senate Bill 7 (SBx7-7), also known as the Water Conservation Act, is recent legislation that is required to be included with the 2010 UWMP, which specifically mandates that a water agency outline water use reduction targets and procedures for achieving those targets. It's a demand-side solution aimed at reducing overall water demands within California, which could directly result in improvements to the reliability of the State Water Project. **Appendix A** includes a copy of the Water Conservation Act.

The 2010 UWMP was prepared in accordance with State requirements. The State Department of Water Resources (DWR) published the *Guidebook to assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan* (March 2011) which includes a checklist to assist DWR staff in reviewing UWMPs. **Appendix B** includes a completed checklist for the 2010 UWMP.

The 2010 UWMP will serve as:

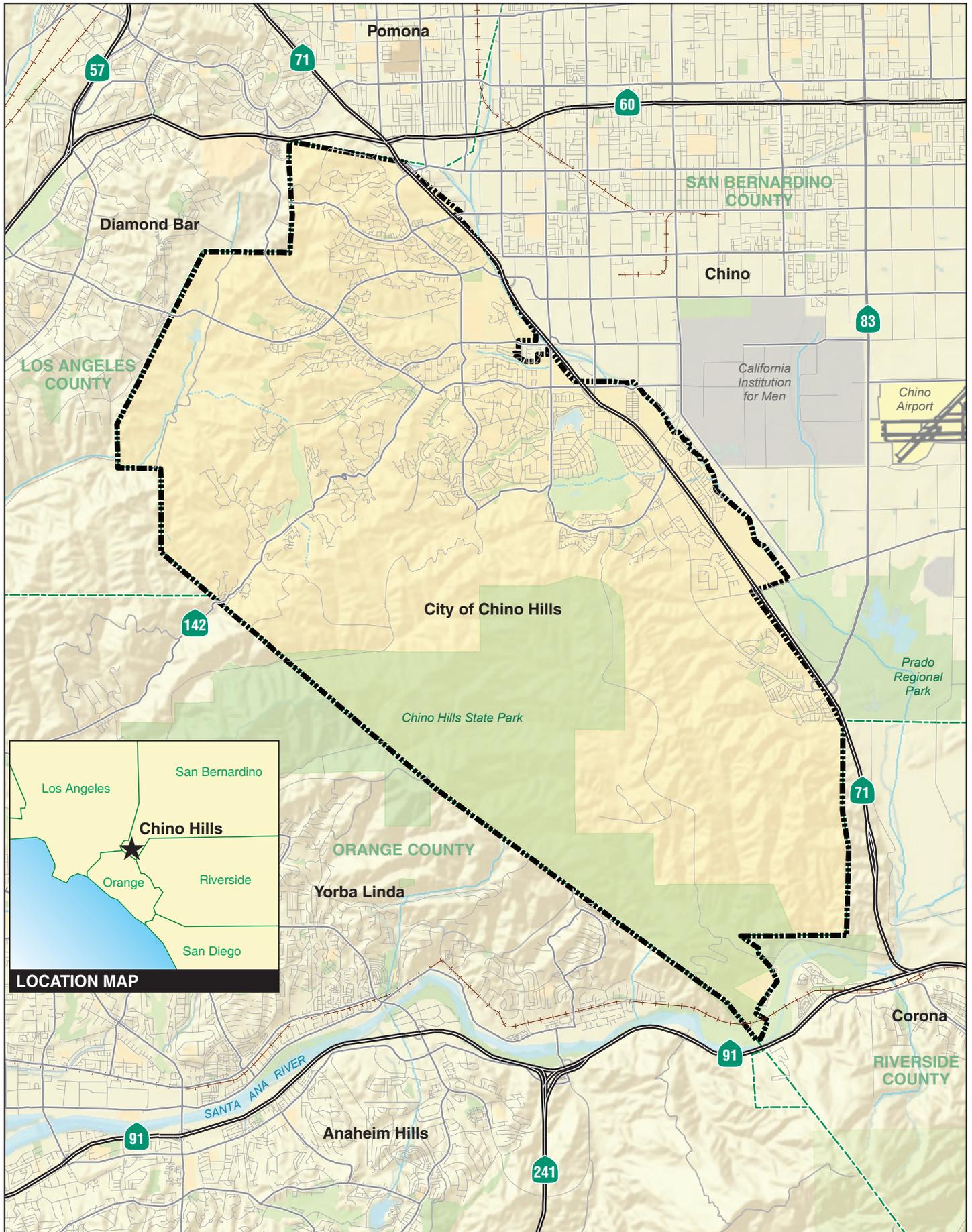
- Source documentation for Water Supply Assessments and Written Verifications
- Guidance document for water conservation
- Documentation of policy decisions and selection of water use reduction methodologies
- A long-range planning document for water supply
- A database for development of regional water plans and General Plans
- A component to Integrated Regional Water Management Plans

1.2 City History and Overview

The City is located in the southwest corner of San Bernardino County and immediately adjacent to three other southern California counties. A small portion of the southern and eastern City boundaries coincides with the Riverside County boundary. The southwestern City boundary is the Orange County border and the western and northern city boundaries are defined by the Los Angeles County border. The southeastern City boundary is the Riverside County border. The northeastern City boundary is generally defined as State Route 71 with the exception of developed and agricultural land east of SR71 between Chino Hills Parkway and Pine Avenue. The surrounding cities include Pomona to the north, Chino to the east, Brea and Yorba Linda to the southwest, and Diamond Bar to the northwest. **Figure 1-1** shows the vicinity and location of the City of Chino Hills.

The City was incorporated in 1991. The City boundaries encompass approximately 29,500 acres (46 square miles). The Chino Hills State Park Reserve dominates the southern portion of the City for approximately 6,915 acres (10.8 square miles). The City's natural terrain consists of rolling hills and valleys, with elevations ranging from approximately 410 feet to 1,780 feet above mean sea level.

The vast majority of developable land within the City is zoned residential. Residential development is more predominantly located along the City's significant transportation corridors, such as Chino Hills Parkway, Carbon Canyon Road, Butterfield Ranch Road, Peyton Drive and Grand Avenue. According to the 2010 Census, approximately 85 percent of the residential units are owner-occupied. Commercial development within the City is predominantly situated along the State Highway 71 corridor. Other land uses include ranch, agriculture, parks, institutional, and landscaping.



Source: Chino Hills 2005 Urban Water Management Plan



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CHINO HILLS URBAN WATER MANAGEMENT PLAN • 2010
Chino Hills Service Area

Figure 1-1

1.3 Water Master Plan and General Plan

The City's water system master plan is outlined in *Chino Hills Water, Recycled Water, and Sewer Master Plan* (PBS&J, 2005), and updates the City's existing and planned water sources, water and recycled water distribution systems, and sewer collection systems to serve existing and proposed land uses. The City is currently updating its General Plan and geographical information system (GIS) database. To the extent this new information is available for the 2010 UWMP, it is used to enhance the accuracy of this document.

1.4 Agency Coordination

The City is one of eight members of the Inland Empire Utilities Agency (IEUA), a wholesale water agency which provides the City's imported water purchased from the Metropolitan Water District of Southern California (MWDSC). The remainder of its supply is from local wells, local surface water, and recycled water. Other water agencies involved with water supply to the City of Chino Hills include the Chino Basin Desalter Authority (CDA), the Monte Vista Water District (MVWD) and the Water Facilities Authority. Therefore, preparation of the 2010 UWMP involved consultation with these agencies. **Table 1-1** summarizes the agencies that provided vital information for, or otherwise were involved with, the preparation of the City of Chino Hills 2010 UWMP.

Table 1-1
Coordination with Appropriate Agencies

Agency	Commented on the draft	Contacted for assistance	Received copy of draft	Sent notice of intention to adopt
IEUA		x		x
Chino Basin Desalter Authority				x
Monte Vista Water District		x		x
Water Facilities Authority				x
San Bernardino County				x

1.5 Service Area Population

Although water demands and production needs have declined in recent years, the City's population has grown. The population increased by approximately 12 percent from 2000 to 2010. The City's Water System Master Plan projected build-out to occur in 2025. With the recent economic recession and other growth factor considerations, the City currently anticipates buildout much later. For the purposes of the 2010 UWMP, buildout projection and associated population saturation, is assumed to be Year 2035. **Table 1-2** shows past, current and projected population in five year increments.

Table 1-2
City of Chino Hills Population

	2005	2010	2015	2020	2025	2030	2035
Service Area Population [1]	75,414	74,738	75,818	77,920	81,450	84,980	88,511

[1] Based on information provided by the City's Community Development department, March 2012.

1.6 Climate

The City is located within the South Coast hydrologic region of southern California. In recent years, the City received an average annual rainfall of approximately 13.6 inches. Monthly average temperatures range from approximately 52 to 73 degrees. **Table 1-3** provides monthly average evapotranspiration (ET_o), rainfall, and temperature of the City of Chino Hills, as provided by the California Irrigation Management Information System (CIMIS) website for data recorded from 2000 to 2010.

Table 1-3
City of Chino Hills Climate

	Average ET_o	Precipitation	Average Air Temperature
January	1.97	2.60	53.15
February	2.19	4.14	53.23
March	3.81	1.50	56.40
April	4.52	0.98	58.26
May	5.47	0.28	63.59
June	5.78	0.02	67.74
July	6.36	0.02	72.37
August	6.38	0.00	72.45
September	4.97	0.09	70.27
October	3.17	1.07	63.59
November	2.27	1.04	57.66
December	1.75	1.93	51.95
Total	48.64	13.64	-

Note: Data taken from CIMIS website, Pomona Station (#78); monthly averages of data from 1/1/2000 through 11/30/2010.

1.7 Public Participation

In accordance with the UWMP Act and the California Water Code, the City provided a public review period for the draft 2010 UWMP, as well as electronic mail notices for the intent-to-adopt the 2010 UWMP, to the following interested parties:

- County of San Bernardino
- Inland Empire Utilities Agency
- Chino Basin Desalter Authority
- Monte Vista Water District
- Water Facilities Authority

Also pursuant to the Water Code, the City provided general public notifications via the local newspaper *Chino Hills Champion*, with the first notification occurring at least 14 days prior to the public hearing. The City held its public hearing on June 12, 2012 and adopted the 2010 UWMP at that time.

1.8 Plan Adoption

The preparation of this 2010 UWMP was announced in local newspapers, and notification was sent to the county of San Bernardino, Inland Empire Utilities Agency (IEUA), Water Facilities Authority (WFA), Chino Basin Desalter Authority (CDA) and Monte Vista Water District (MVWD) a minimum of 60 days prior to the planned adoption date. The final draft was made available at the Public Works counter at City Hall. The City of Chino Hills *2010 Urban Water Management Plan* was adopted by the Chino Hills City Council at a noticed Public Hearing held on May 22, 2012. The City submitted copies of the adopted 2010 UWMP to the State library and County of San Bernardino, and posted the adopted plan on the City's website for public review, within 30 days following adoption.

Chapter 2

Water Demand

2.1 Land Use

Water consumption within the City is largely dependent upon climatic, economic and demographic factors. The City is predominantly a residential community. Therefore, a majority of the water use is for private residences and residential landscapes, including private front and backyards and public community parks and common landscaping for slope maintenance. According to the City's Master Plan, zoned area within the City totals approximately 28,700 acres including: 7100 acres of residential; 1600 acres of Commercial, Commercial Recreation (golf courses) and Business Park; 800 acres of Institutional land uses (public, government and schools); and nearly 19,200 acres of Agriculture, Chino Hills State Park and public open space. As of the writing of the master plan, approximately 77 percent of the net developable acreage within the City is occupied. **Figure 2-1** illustrates the City's current zoned land uses.

This Chapter provides the basis for determining the City's water usage, including water loss, as well as anticipated water requirements for the UWMP planning horizon (Year 2035). Pursuant to the Water Code and SBx7-7, this also includes the City's baseline demand calculations on a per-capita basis as a measure against the water use reduction goals the City must meet for years 2015 and 2020.

2.2 Historical Water Demands

Since the City's incorporation in 1991, water use has grown along with the City's population and developed land area. From fiscal year 2005/06 through 2010/11, the City's annual water requirements have ranged from 15,268 to 18,234 acre-feet (AF). A portion of current water needs have been supplied by an increasing amount of recycled water, with the most recent fiscal year (2010/11) using over 1600 AF to replace potable water supplies. Current total water usage has decreased significantly in response to the recent drought and economic recession. Because this is likely due to mandated water conservation in recent years, the 2010 UWMP considers an average water requirement over multiple years as the true indication of current City water usage.

The City meters all of its end water users and classifies each within its defined water user classifications. Customer classifications allow the City to bill its customers within a tiered-rate structure, and monitor the total use within each customer class. **Table 2-1** summarizes the number of service connections, and **Table 2-2** summarizes the metered water consumption, for each customer class since FY 2005/06.

**Table 2-1
Water Service Connections (active)**

Service Type	# Accounts				
	2006/07	2007/08	2008/09	2009/10	2010/11
Residential (SF)	19,423	19,496	19,562	19,602	19,630
Residential (MF)	633	636	640	643	643
Comm/Institutional	746	770	822	825	799
Agriculture [1]	6	5	3	3	0
LSGC/Rec Water	69	88	97	104	107
Other	-	-	-	-	-
Total	20,877	20,995	21,124	21,177	21,178

[1] The City has discontinued its Agricultural water rates. The remaining users within this category are included within Residential (SF).

**Table 2-2
Accounted-for (Metered) Water Use (AF)**

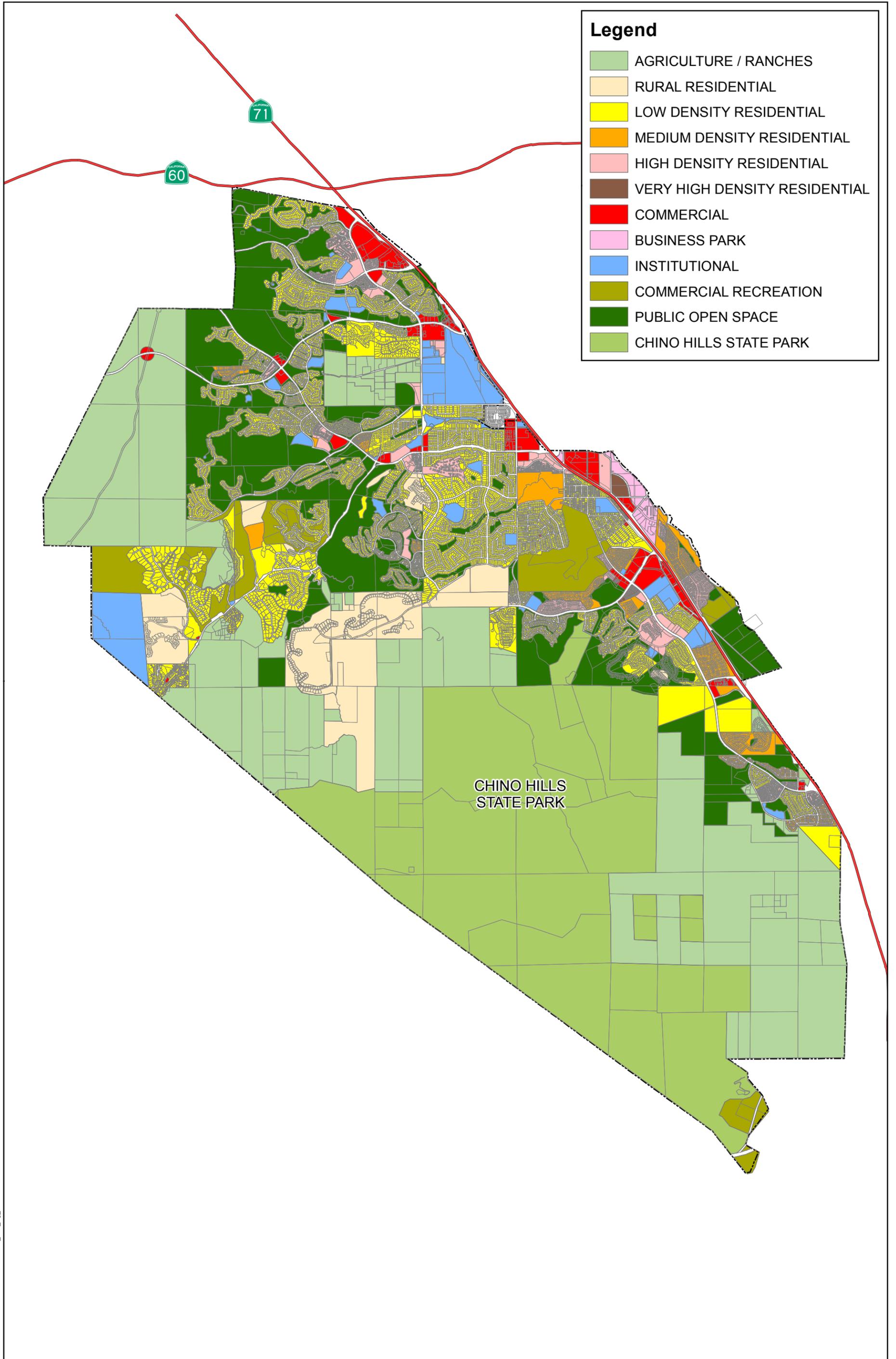
Service Type	Water Consumed by End Users						
	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	Average [2]
Residential (SF)	11,073	11,627	11,162	10,873	10,029	9,680	10,838
Residential (MF)	933	806	838	767	768	755	811
Comm/Institutional [1]	3,701	4,583	4,303	4,625	3,753	3,058	4,004
Agricultural [2]	149	253	118	24	30	11	0
LSGC/Rec Water	792	1,354	1,337	1,288	1,499	1,560	1,305
Other	-	-	-	-	-	-	-
Total	16,649	18,623	17,758	17,577	16,080	15,064	16,958

[1] Prior to FY 2009-10, Commercial/Institutional includes a portion of Los Serranos Golf Course irrigation demands, which was transferred to Landscape accounts thereafter.

[2] The City has discontinued its Agricultural water rates. The average water use within this category for Agricultural is included within Residential (SF).

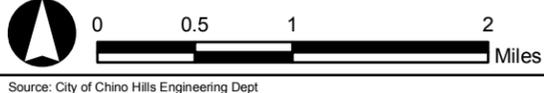
2.2.1 Residential Water Use

Within the City, residential water connections account for approximately 96 percent of total active connections, and usage accounts for approximately 69 percent of total consumption. Most of the future development is zoned for low density residential. Although water conservation will reduce per-capita water demand, total City water demand is expected to increase as residential development expands. Currently, no City-sponsored low-income housing exists within the City. However, residential land use sectors yet to be developed, or that may be redeveloped, within the City may include low-income housing for qualifying families. Currently, the City is in the process of a comprehensive update to the General Plan, including the housing element, which is anticipated to include high density residential land uses, and potentially provide an opportunity to participate in low-income housing programs.



- Legend**
- AGRICULTURE / RANCHES
 - RURAL RESIDENTIAL
 - LOW DENSITY RESIDENTIAL
 - MEDIUM DENSITY RESIDENTIAL
 - HIGH DENSITY RESIDENTIAL
 - VERY HIGH DENSITY RESIDENTIAL
 - COMMERCIAL
 - BUSINESS PARK
 - INSTITUTIONAL
 - COMMERCIAL RECREATION
 - PUBLIC OPEN SPACE
 - CHINO HILLS STATE PARK

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Source: City of Chino Hills Engineering Dept

Figure 2-1

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2.2.2 Commercial and Institutional

Commercial and Institutional water connections account for approximately four (4) percent of the total water connections in the City, and usage accounts for 11 percent of the City's total water consumption. It is assumed that the City's new general plan will result in land use zoning for future Commercial and Institutional land uses proportional to current land use.

2.2.3 Agricultural Water Use

The nature of agricultural use within the City is limited to supporting existing grazing lands and a small commercial agricultural area in the extreme southeastern portion of the City. This use accounts for less than one percent of the City's total water use. The relatively high land value within the City for municipal development will likely convert the remaining agricultural land to other uses by 2035.

2.2.4 Landscape Irrigation

Since 2005 potable water demand for landscaping has declined significantly due to the City's increased use of recycled water for this purpose. Recycled water conversion for irrigation water users remains a high priority for the City and can play an important role in the City's effort to meet the 2015 and 2020 milestones within the Compliance Plan as required by the State.

2.2.5 Other Water Use

Other water uses within the City may be metered or unmetered, and usually involve street and sewer cleaning, fire hydrant flushing, construction, and other temporary uses. Although these may not always be metered, the City can use other methods for accounting for the volume used and billing the user accordingly.

2.3 Total Historical Water Requirement

The City's water supply comes from local and imported sources, as described further in Chapter 4. The production facilities include: (1) turnouts from MVWD (combined imported water and groundwater); (2) a turnout served by the Water Facilities Authority imported raw water treated at the Agua de Lejos Water Treatment Plant; (3) the City's own groundwater wells; (4) turnouts supplying desalted water from the Chino Basin Desalter Authority; and (5) a service connection for recycled water from the Inland Empire Utilities Agency. These supply sources are closely monitored and recorded monthly by City water operations staff. The data was summarized, as required by the UWMP Act, for the last five years and shown in **Table 2-3**.

**Table 2-3
Historical Water Production (AF)**

Water Supply Sources	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	Average
Imported Water (WFA)	12,049	10,346	7,958	5,411	1,114	1,512	6,398
Imported Water & Ground-water (MVWD)	1,402	3,090	4,494	5,386	9,035	6,697	5,017
Groundwater (City)	852	2,010	2,490	1,905	1,446	1,986	1,781
Desalted Water (CDA) ^[1]	1,954	2,290	1,339	4,295	4,395	4,266	3,090
Recycled Water	948	1,634	1,480	1,237	1,525	1,614	1,406
Total Produced for use within City ^[1]	17,205	19,371	17,761	18,234	17,514	16,075	17,692

[1] Chino Hills supplied wholesale water to Jurupa Community Services District from June 2006 through October 2006, and from June 2007 through November 2007 through its capacity entitlements to CDA water. The production for the impacted fiscal years (2005-06, 06-07 and 07-08) excludes supply produced for the District.

The Water Code requires a determination of all water needs, including unaccounted-for water loss. The City's water production facilities must supply all accounted-for water demands and water loss. Every water system has a certain amount of unaccounted water use (pipeline leaks, fire flows, pipe failures, and illicit connections). The meters installed on City water production facilities and wholesaler water supply turnouts enables the City to define its "unaccounted for" water loss.

Table 2-4 summarizes the historical water production since 2005, and resulting "unaccounted-for" water using the data from Tables 2-2 and 2-3.

**Table 2-4
Water Loss**

Fiscal Year	Metered Use (AF)	Total Production (AF) [1]	Water Loss (AF)	Percent Loss
2005/06	16,649	17,205	556	3.2%
2006/07	18,623	19,371	748	3.9%
2007/08	17,758	17,761	3	0.0%
2008/09	17,577	18,234	657	3.6%
2009/10	16,080	17,514	1,434	8.2%
2010/11	15,064	16,075	1,011	6.3%
Average	16,951	17,692	742	4.2%

[1] Excludes production for JCSD.

Actual water deliveries required of the water system by year can then be calculated by adding a proportionate water loss ‘share’ to the metered water consumption of Table 2-2, as shown in **Table 2-5**.

Table 2-5
Water Requirement per Account

Service Type	Current AFY/Account		
	AFY [1]	Accounts	AFY/ Account
Residential (SF)	10,838	19,630	0.58
Residential (MF)	811	643	1.32
Comm/Institutional	4,004	799	5.23
Agricultural	0	0	0
LSGC/Rec Water	1,305	107	12.75
Other	-	-	-
Metered Total	16,958	21,178	0.80
Water Loss	742	-	-
Production Total	17,701	21,178	0.84

[1] Represents the average usage over FY 05/06 to FY 10/11.

2.4 Projected Water Use

Total water production that all City water supply facilities must meet, at a minimum, are metered consumption, unmetered public water uses (other), wholesale water committed to outside agencies, and water loss. The City’s water use reduction plan (Chapter 3) includes programs designed to detect and quickly repair system leaks, and replacement of water meters and distribution facilities which maximizes service life and minimizes operational failure. This has allowed the City to achieve and maintain a very low water loss rate. By implementing a regular replacement program, water loss will be minimized and should maintain or reduce Chino Hills’ current water loss rate. For the purposes of identifying future water production needs, it is assumed the City can, at a minimum, maintain a water loss rate of four (4) percent.

For the purposes of the 2010 UWMP, an analysis of historical meter connections in recent years shows that the last five years underwent minimal or no growth. However, City population is expected to grow in the next 25 years. As the economy improves, development activity will increase. The City will need to serve the associated increase in water demands. Although the mandated gallon-per-capita-per-day (gpcd) water use will decrease, overall demands are expected to increase. The City provided its population growth projections, which are assumed to remain proportional to water demands. **Table 2-6** calculates future projected water service accounts based on the current ratio of City population to water service accounts.

**Table 2-6
Projected Water Needs**

Fiscal Year	Cap/Account	Population	Projected Total Accounts
2010/11	3.53	74,738	21,178
2014/15	3.53	75,818	21,484
2019/20	3.53	77,920	22,080
2024/25	3.53	81,450	23,080
2029/30	3.53	84,980	24,081
2034/35	3.53	88,511	25,081

The UWMP Guidelines require projected water demands in five-year increments for a minimum of 20 years. In order to maintain the 20-year minimum until the 2015 UWMP updates are due, it is necessary to present these projections to Year 2035. The guidelines also require a projection of total metered service connections by customer classification. The City's current proportionate breakdown of accounts by customer classification, as shown in Table 2-5, was used to estimate the future accounts and water delivery capacity. **Table 2-7a** through **Table 2-7e** calculate the estimated customer accounts and water deliveries in five-year increments.

**Table 2-7a
2014/15 Projected Deliveries (AFY)**

Customer Class	# Accounts	Deliveries
Residential (SF)	19,914	11,476
Residential (MF)	652	859
Comm/Institutional	810	4,240
Agricultural	-	-
Landscape/Rec Water	108	1,382
Other	-	-
Total	21,484 accounts	17,950 AFY

**Table 2-7b
2019/20 Projected Deliveries (AFY)**

Customer Class	# Accounts	Deliveries
Residential (SF)	20,466	11,794
Residential (MF)	670	883
Comm/Institutional	832	4,357
Agricultural	-	-
Landscape/Rec Water	111	1,420
Other	-	-
Total	22,080 accounts	18,450 AFY

Table 2-7c
2024/25 Projected Deliveries (AFY)

Customer Class	# Accounts	Deliveries
Residential (SF)	21,393	12,329
Residential (MF)	701	923
Comm/Institutional	870	4,555
Agricultural	-	-
Landscape/Rec Water	116	1,484
Other	-	-
Total	23,080 accounts	19,280 AFY

Table 2-7d
2029/30 Projected Deliveries (AFY)

Customer Class	# Accounts	Deliveries
Residential (SF)	22,320	12,863
Residential (MF)	731	963
Comm/Institutional	908	4,752
Agricultural	-	-
Landscape/Rec Water	121	1,549
Other	-	-
Total	24,081 accounts	20,120 AFY

Table 2-7e
2034/35 Projected Deliveries (AFY)

Customer Class	# Accounts	Deliveries
Residential (SF)	23,247	13,398
Residential (MF)	762	1,003
Comm/Institutional	946	4,949
Agricultural	-	-
Landscape/Rec Water	127	1,613
Other	-	-
Total	25,081 accounts	20,950 AFY

For the 2010 UWMP, and pursuant to State direction and SBx7-7, the Department of Water Resources (DWR) requires that Chino Hills meet its per-capita goals for 2015 and 2020. The following sections describe the data analysis for estimating the City's baseline demands, pursuant to SBx7-7. As shown in Table 2-7e, ultimate water system requirements are estimated at 20,950 AFY. The projected water requirements for Year 2035 represents an 18 percent increase over current average conditions.

2.5 Demand Analysis for SBx7-7

The City conducted the 20x2020 analysis per the methodology provided in the DWR 2010 UWMP Guidelines. The annual gallon per capita per day (gpcd) is calculated over a 16-year period and is used to develop the 2020 water reduction targets. The process involves two main components - water supplied and population served - as described below. Per the UWMP Guidelines, the gpcd calculation can factor in the use of recycled water if recycled water used exceeded 15 percent of total water use in 2008.

The water supplied volume is the sum of groundwater and surface water put into the potable water distribution system. Over the 16-year period, the City purchased most of its water from outside sources, namely MVWD, IEUA and the Chino Basin Desalter Authority. The City also purchases recycled water from IEUA. However, in 2008 total recycled water usage was less than 15 percent of total supply; therefore, the City must use a 10-year time frame for its baseline calculations. Each supply delivery point is metered to provide the total supply delivery volumes used in the analysis.

The City used population estimates from the State Department of Finance for the City of Chino Hills to determine its service area population. The estimated population served, water supplied, and resulting gpcd are summarized in **Table 2-8**. The 10-year running average for gpcd is indicated in the right column. The UWMP Guidelines list the methodology for 20x2020 requirements, including the baseline demand analysis. The baseline demand is the 10-year average for gpcd ending no earlier than 2004. The highest 10-year average is 218 gpcd for the 1995-2004 period. Therefore, the City selected 218 gpcd as the baseline demand for the analysis.

Per the UWMP Guidelines, the 2020 goal must be no more than 95 percent of a five-year gpcd average ending no earlier than 2007. The 5-year gpcd average is calculated in **Table 2-9**. The 2008 five-year average of 226 gpcd is selected. Therefore, the 2020 goal must be less than 215 gpcd.

Table 2-8
Based Daily Per Capita Use (DWR Table 14)

Year	Population Served	Water Supplied AF		Annual gpcd	10-year Running gpcd
		AF	MG		
1995	50,527	13,008	4,239	229.87	--
1996	53,063	13,911	4,534	234.08	--
1997	56,083	15,037	4,901	239.40	--
1998	59,546	13,529	4,409	202.86	--
1999	63,699	16,918	5,514	237.14	--
2000	66,787	16,522	5,385	220.88	--
2001	68,124	15,641	5,097	205.00	--
2002	70,488	16,671	5,433	211.17	--
2003	71,854	16,249	5,296	201.91	--
2004	74,809	16,852	5,492	201.14	218.35
2005	75,414	16,461	5,365	194.89	214.85
2006	74,943	17,084	5,568	203.54	211.79
2007	75,168	20,699	6,746	245.87	212.44
2008	74,964	21,713	7,076	258.62	218.02
2009	74,725	19,213	6,262	229.57	217.26
2010	74,738	14,534	4,737	173.63	212.54

Table 2-9
5-Year Range Base GPCD (DWR Table 15)

Year	Population Served	Water Supplied MG	Annual gpcd	5-year Running gpcd
2003	71,854	5,296	201.91	--
2004	74,809	5,492	201.14	--
2005	75,414	5,365	194.89	--
2006	74,943	5,568	203.54	--
2007	75,168	6,746	245.87	209.47
2008	74,964	7,076	258.62	220.81
2009	74,725	6,262	229.57	226.50
2010	74,738	4,737	173.63	222.25

The City is selecting 20x2020 Target Option 1 for its DWR UWMP compliance target. Option 1 is based on a 20 percent reduction from the baseline demands. The baseline demand is 218 gpcd, and the 2020 target is then 177 gpcd. The 2015 target, 10 percent reduction from baseline, is 199 gpcd. The targets are summarized in **Table 2-10**.

Table 2-10
DWR Compliance Targets

Baseline GPCD	2015 Goal GPCD	2020 Goal GPCD
218	196	175

Chapter 3

Demand Management Measures

3.1 Introduction

The California Urban Water Conservation Council (CUWCC) was formed to assist water retailers in implementing an effective conservation program through Best Management Practices (BMPs). The CUWCC was formed in 1991 through a Memorandum of Understanding (MOU) regarding urban water conservation in California. The MOU includes a list of BMPs to help define appropriate water conservation measures for urban water agencies. Agencies signing the MOU commit to implementing these BMPs. The State Department of Water Resources fully endorses the BMPs of CUWCC and its signatories who update their annual reports and show progress toward water use reduction.

The DWR has given CUWCC signatories the option to attach their 2009/2010 CUWCC compliance reports as a method of compliance with the conservation demand management measure requirements of the UWMP Act. The City has chosen to attach its 2009/2010 CUWCC compliance reports as its method of compliance. The compliance reports are included in **Appendix C**. These compliance reports confirm the City is on track to satisfy its CUWCC gpcd conservation savings requirements and has active programs to ensure its compliance.

3.2 Water Conservation Program

The DWR 2010 UWMP Guidelines also require a description of the efforts and plans to meet the 20x2020 target requirements. In addition to its own operational conservation programs, the City is also a participating member in the IEUA Regional Water Efficiency Business Plan. The City intends to meet the gpcd target requirements through the combination of its own internal conservation programs and the regional conservation program efforts, as described below. The City will also convert some of its existing potable water irrigation customers to recycled water to reduce gpcd. The City will track monthly production, gpcd, and customer demands to evaluate program effectiveness and change or modify programs as necessary to maintain compliance.

The City also supports IEUA's efforts to continually track and evaluate the regional conservation program for effectiveness and cost efficiency. The IEUA Water Use Efficiency Business Plan evaluated a large group of potential programs to evaluate water savings potential and impact to the regional alliance gpcd targets. The Business Plan selected the group of programs that provided the most cost efficient mix of water savings. The IEUA regional conservation program is evaluated annually for implementation results. Specific programs are also evaluated periodically to confirm or modify water savings estimates per program. Program verifications include review of water demands before and after device installation or program implementation to compare savings assumptions to actual results. Annual implementation and verification results are used to revise and improve the conservation program on a continuous basis.

The City's conservation programs are summarized in **Table 3-1** and described below.

Table 3-1
City of Chino Hills Conservation Program

Title	Reference
Conservation Coordinator	CUWCC 1.1.1
Water Waste Prevention	CUWCC 1.1.2
Water Loss Control	CUWCC 1.2
Metering with Commodity Rates	CUWCC 1.3
Retail Conservation Pricing	CUWCC 1.4
Public Information	CUWCC 2.1
School Education	CUWCC 2.2
Free High Efficiency Sprinkler Nozzles	IEUA Regional Program
GeoSmart Landscape Finance	IEUA Regional Program
Save a Buck	IEUA and MWDSC Regional Program
SoCal Water\$mart	IEUA and MWDSC Regional Program
Smart Controller Direct Installation	IEUA Regional Program
Water Budget Development	IEUA Regional Program
Landscape Evaluation	IEUA Regional Program
Multi-Family HET Direct Installation	IEUA Regional Program

3.2.1 Conservation Coordinator

The City maintains a conservation coordinator position that oversees and implements the conservation program. The coordinator is responsible for participation in and development of the regional conservation efforts with IEUA and others. Other responsibilities include program budgeting, program data collection and analysis, and annual reporting requirement for the regional efforts, CUWCC, UWMP, grant and loan efforts, and others.

3.2.2 Water Waste Prevention

The City maintains Ordinance 214 Water Conservation. The ordinance describes water use restrictions in force during City Council-declared supply conditions. The restrictions prohibit water waste and water uses in progressively more restrictive water shortage stages. Penalties are listed and enforced for non-compliance. Also, City staff continually monitors visible water waste within residential neighborhoods by using door hangars at residents' homes where water waste is apparent. Followup notification is performed by the City's conservation coordinator to ensure the water waste issue is resolved.

3.2.3 Water Loss Control

Water loss control efforts have always been a main component of the water system operations. Pipeline leaks and breaks are repaired as soon as possible to minimize water loss. The City now maintains a water loss component tracking tool developed by the American Water Works Association. The tool, which is also required for CUWCC compliance, identifies all quantifiable water uses and potential unquantifiable water uses. Recommendations are provided for further

investigation to determine actual water loss values and costs and benefits to eliminate the water loss. Working together with operations and maintenance, these efforts will provide the largest water loss reduction with the most cost effective approach.

3.2.4 Metering with Commodity Rates

This program is required for CUWCC compliance, but the City has been metering all its customer connections and charging commodity rates for many years. The City maintains some commercial account connections that provide both (indoor use and outdoor irrigation). Depending on future gpcd trending and other conservation program results, the City may investigate efforts required to split the connection and add an irrigation-only meter.

3.2.5 Retail Conservation Pricing

The City maintains a rates structure consisting of a fixed connection fee and a volumetric rate. The rate structure provides a significant price signal for water use. In 2010, the volumetric-based revenue portion of water billing revenue was 65 percent. The City continues to monitor its revenue needs compared to the need to provide a conservation-pricing signal and will update the rate structure as necessary. The City recently commissioned a study *Water Cost of Service and Rate Design Study (March 3, 2011)*, which resulted in the current rate structure for domestic and recycled water as defined in Ordinances 245 and 247, respectively. Copies of the these ordinances are included in **Appendix F**.

3.2.6 Public Information Programs

The City's conservation program maintains an extensive public information and outreach program in coordination with IEUA regional conservation program. The City's outreach program together with the IEUA regional program provides information on water conservation available programs and practices through multiple mediums such as web site, print, TV, bill stuffers, flyers, movie theater ads, and other media. Information is also displayed and provided at regional garden shows, fairs, and other community events. Customers are encouraged to utilize the available rebates and information to help implement water use efficiency measures. The City is also a member of the Water Education Water Awareness Committee, a coalition of 13 agencies whose mission is to promote the efficient use of water and increase public awareness of the importance of water in Southern California. The City partners with other agencies to conduct water conservation and awareness classes and workshops, and to provide conservation kiosks at local events.

3.2.7 School Education

The City's conservation program maintains a school education information and outreach program in coordination with IEUA regional conservation program. The program supports the

National Theater for Children that presents water and water use efficiency programs to school children. Numerous age-appropriate water education games and links are provided on the IEUA website. The *Garden in Every School* program provides grants and information to schools to construct and maintain water efficient gardens. Conservation staff are available to provide presentations and age-appropriate brochures and workbooks presenting information on water and water use efficiency to schools. More recently, the City has developed an educational program in which a team visits the schools and presents the water cycle and its role in providing the water served locally, and the benefits of the local water supplies from their unique Chino Groundwater Basin. Presentation items are designed around the specific groundwater use issues and the desalination system. The City also sponsors a water conservation Design-a-Sign contest for grades K through 12 in the service area. Winning posters are made into street signs then displayed at the winner's school before permanent display throughout the City. School education materials are provided in classrooms, at garden shows, fairs, and other community events.

3.2.8 Free High Efficiency Sprinkler Nozzles

Program offers vouchers for free high efficiency sprinkler nozzles for landscape irrigation to both residential and commercial customers through the IEUA regional program.

3.2.9 GeoSmart Landscape Finance Program

Program offers low interest financing for turf replacement projects. Program will be offered and funded by the IEUA regional program.

3.2.10 Sava A Buck Program

Customers are eligible to participate in MWDSC's Save a Buck Program. The program offers rebates to non-residential customers for high efficiency and zero water toilets and urinals, pressurized waterbrooms, connectionless food steamers, cooling tower controllers, smart irrigation controllers, various high efficiency irrigation sprayers, dry-vacuum pumps, air-cooled ice machines, and landscape audits. MWDSC funds the program on an annual basis and rebates are available until the fiscal year budget is expended.

3.2.11 SoCal Water\$mart Program

Customers are eligible to participated in MWDSC's SoCal Water\$mart Program. The program offers rebates to residential customers for high efficiency clothes washers, rotary nozzles with pressure regulating heads, and weather-based irrigation controllers. MWDSC funds the program on an annual basis and rebates are available until fiscal year budget is expended.

3.2.12 Smart Controller Direct Installation Program

Offers and installs weather based irrigation controllers and efficiency nozzles to largest landscape water users. Program targets both residential and commercial large lots with irrigation areas over 1 acre. Program is administered by IEUA.

3.2.13 Landscape Evaluation Program

Program offers landscape review and irrigation evaluations. The customer is provided a list of recommendations to improve overall water use efficiency through plantings, landscape design, irrigation design, irrigation scheduling, and water use patterns. Program is implemented by IEUA through the Chino Basin Water Conservation District.

3.2.14 Multi-Family HET Direct Installation

Program targets owners of multi-family properties and offers to provide and install High-Efficiency Toilets (HETs) to replace older toilets. The program provides the new HETs at a significantly reduced cost. IEUA contracts with a private contractor to market and implement the installations.

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Chapter 4 Water Supply

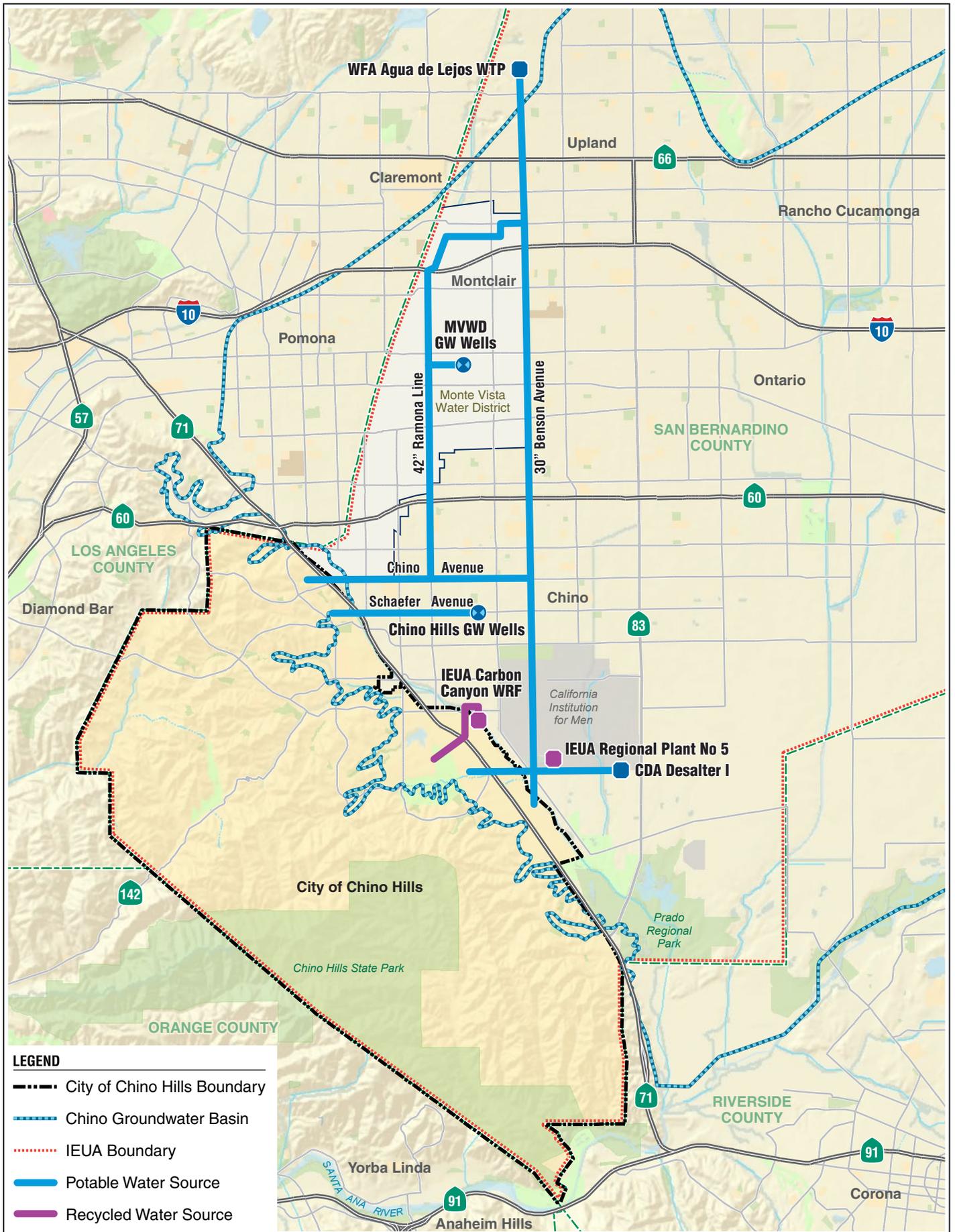
4.1 Overview of Water Sources

The City relies on a variety of sources of water supply to meet demands, and several agencies other than the City are involved. The City works cooperatively with other agencies to achieve water supply reliability for its customers. The City's current portfolio of water supply sources is shown in **Table 4-1**. The table also indicates which agencies are involved and what their roles are, with regard to each listed supply source. **Figure 4-1** shows the relative locations of each supply source provided to the City, as well as the location of the Chino Basin.

**Table 4-1
Chino Hills Water Supply Sources and Coordinating Agencies**

Supply Source	Description	Agencies Involved							
		IEUA	MWDSC	WFA	MVWD	Water-Master	SAWPA	CDA	RWQCB
Imported water (WFA)	Imported water from the State Water Project (SWP) purchased from IEUA, a member agency of the Metropolitan Water District of Southern California (MWDSC). This water is delivered to the Agua de Lejos Regional Water Treatment Facility in Upland and conveyed to the City's system through the 30-inch TM in Benson Avenue or the 42-inch TM in Ramona Avenue. The water treatment plant and delivery facilities are owned and operated by the Water Facilities Authority (WFA). Chino Hills is a member of the WFA.	X	X	X	X				
Imported Water and Groundwater (MVWD)	Groundwater from the Chino Basin extracted by Monte Vista Water district (MVWD) wells and imported water allocated to MVWD, delivered to the City under the terms of a contractual agreement between the City and MVWD. A portion of the City's rights to this water derives from the City's original WFA entitlement, and a portion derives from additional entitlement acquired from MVWD.	X	X		X	X	X		X
Groundwater (City)	Groundwater from the Chino Basin extracted by City-owned wells.	X	X			X	X		X
Desalted Groundwater (CDA)	Desalted groundwater from the Chino Basin through the reverse osmosis (RO) treatment facilities of the Chino Basin Desalter Authority (CDA).	X				X	X	X	X
Recycled water	Recycled water from the IEUA regional recycled water facilities, delivered through a separate recycled water system to meet non-potable uses in the City.	X				[1]			X

[1] Although the Watermaster is not directly involved with the City of Chino Hills' use of recycled water, it is involved with the regional use of recycled water and its use within the recharge master plan of the groundwater basin.



Source: Chino Hills 2005 Urban Water Management Plan



4/2/12 JN 10-107223-16830 MAS

CHINO HILLS URBAN WATER MANAGEMENT PLAN • 2010
Water Supply Sources

Figure 4-1

Each of the relevant agencies to the City's water supply is briefly described below, based on the information based on the information obtained within the respective 2010 Urban Water Management Plans.

4.1.1 Inland Empire Utilities Agency

The Inland Empire Utilities Agency (IEUA) distributes water, provides industrial/municipal wastewater collection and treatment services, supplies the region with fully-compliant Title 22 recycled water, and provides other related utility services for the western portion of San Bernardino County. The Agency's service area is located in the southwestern section of San Bernardino County. According to the IEUA 2010 UWMP, the IEUA service area has a population of approximately 850,000 residents. The 242 square mile service area generally encompasses the Chino Basin, which consists of a relatively flat alluvial valley that slopes from north to south at a one to two percent grade. Valley elevation ranges from about 2,000 feet in the foothills below the San Gabriel Mountains to about 500 feet near Prado Dam.

Chino Hills is a member agency of the IEUA. The IEUA is a member agency of MWDSC, which supplies imported water to its member agencies. IEUA also supplies recycled water to Chino Hills, as well as the cities of Chino, Fontana, Montclair, Ontario and Upland, and the Monte Vista Water District, the Jurupa Community Services District, and the Cucamonga Valley Water District. Although Chino Hills is a member of IEUA, it receives its imported water supplies through contract with MVWD and the Water Facilities Authority.

The principal drainage for the Chino Basin is the Santa Ana River, which flows sixty-nine miles from its origin in the San Bernardino Mountains to the Pacific Ocean. The Santa Ana River enters the Basin at the Riverside Narrows and flows along the southern boundary to the Prado Flood Control Reservoir where it is eventually discharged through the outlet at Prado Dam. Year-round flow occurs along the entire reach of the Santa Ana River due to surface inflows at Riverside Narrows, discharges from municipal water recycling plants to the Santa Ana River, and groundwater.

The IEUA was formed by popular vote of its residents in June 1950 as the Chino Basin Municipal Water District to become a member agency of the Metropolitan Water District of Southern California (MWDSC) for the purpose of importing supplemental State Water Project (SWP) water and augmenting local stream and groundwater supplies. Since its formation, the Agency has significantly expanded its services. These include production of recycled water, distribution of imported and recycled water supplies, sewage treatment, co-composting of manure and municipal bio-solids, desalinization of groundwater supplies, and disposal of non-reclaimable industrial wastewater and brine.

IEUA began serving recycled water to major users in the cities of Chino and Ontario in 1972, and has grown into a major recycled water wholesaler for several water agencies in the region.

In fiscal year 2010/11, IEUA provided over 1600 AFY to the City of Chino Hills. According to its 2010 UWMP, IEUA anticipates ultimate City recycled water deliveries of up to 2500 AFY (2.23 MGD average). However, recent discussions have revised this to be more consistent with current consumption constraints. The City has requested IEUA consider a maximum recycled water ‘take’ of 1850 AFY.

4.1.2 Metropolitan Water District of Southern California

The IEUA is a member of the MWDSC, the wholesale water agency that provides imported water from the State Water Project (SWP) and the Colorado River to 27 member agencies located in portions of Los Angeles, Orange, Riverside, San Bernardino, San Diego and Ventura Counties. As a water wholesaler, MWDSC has no retail customers. It distributes treated and untreated water directly to its member agencies. MWDSC provides approximately half of the municipal, industrial and agricultural water used within MWDSC’s service area. The other half is supplied from local wells and surface water, recycled water, and from the City of Los Angeles’ aqueduct from eastern Sierra Nevada sources.

To address the SWP reliability challenges, MWDSC and its member agencies developed an Integrated Water Resources Plan (IRP) in 1996. The overall objective of the IRP process is the selection and implementation of a Preferred Resource Mix (or strategy) consisting of complementary investments in local water resources, imported supplies and demand-side management that meet the region’s desired reliability goal in a cost-effective and environmentally sound manner. The 1996 IRP was reviewed as part of MWDSC’s strategic plan and rate refinement to guide the development and implementation of revised MWDSC water management programs through the year 2005.

The IRP has since been updated and the most recent update was completed in 2010. MWDSC’s 2010 IRP Update states that a key evolution from the previous (2004) Plan is the identification of contingency actions that MWDSC can take in order to swiftly respond to uncertainties. The IRP is intended as a regional water resource planning document that identifies potential supplies to meet future demands, including contingencies for supply and demand uncertainties. The IRP sets out a general policy framework only and does not constitute approval of any specific actions by MWDSC. The IRP process provides flexible planning direction, subject to annual adjustments and periodic updates. Specific initiatives or individually-listed projects are representative only and subject to full environmental study and board deliberation and reconsideration prior to any future approval. The IRP assists in a technological and programmatic means to accomplish regional reliability goals. The options presented in MWDSC’s IRP 2010 Update are projected to meet future water supply needs of Southern California.

A major part of the IRP is the use of the Chino Groundwater Basin for groundwater storage and recovery activities. The initial target for the cumulative quantity of water held in storage in the

Basin is 500,000 AF, as established by the OBMP (discussed later in this Chapter). A conjunctive use program, also known as Dry Year Yield (DYY), was developed. The DYY program provides for MWDSC to store water in the Chino Basin on a seasonal basis. During periods of drought, when imported water is not in sufficient supply to meet all demands, MWDSC directs Chino Hills and all Chino Basin retail agencies to decrease their imported water use and make-up the supply by producing groundwater from MWDSC's groundwater storage account in the Basin. As of April 30, 2008, MWDSC had delivered and stored approximately 86,000 AF of imported water in the Basin (the program set aside 100,000 AF for this purpose) based on agreements within MWDSC's DYY account.¹ On May 1, 2008, MWDSC called for the parties to begin withdrawing water from the DYY account in the amount of 33,000 AF per 12-month period, which was the first call since the program had begun development in 2002. At the end of the 2008 calendar year, the account balance was 34,493 AF. The DYY Program has now completed a full cycle as the account 'zeroed-out' by April 30, 2011.² During abundant rainfall years, the DYY Program is expected to replenish the Program's 100,000 AF for use during the next State-wide drought and MWDSC's call for its withdrawal. This program is one example of storage programs that have been developed to optimize the Basin's storage and supplies, and reduce demand on imported water supplies.

4.1.3 Water Facilities Authority

The Water Facilities Authority (WFA) is a joint powers agency formed for the specific purpose of funding the construction and operation of the Agua de Lejos Regional Water Treatment Facility, more commonly known as the WFA treatment plant. The facility is located in the City of Upland and treats the raw State Water Project water received through turnout IEUA #12 on MWDSC's Foothill Feeder Rialto Pipeline. WFA member agencies are the Cities of Upland, Ontario, Chino, and Chino Hills, and the Monte Vista Water District. The member agencies are joint owners of the treatment plant. WFA water enters Monte Vista Water District's potable water distribution system through two turnouts and provides WFA water to the City of Chino Hills through a turnout at Ramona Avenue south of Philadelphia Street. The City of Chino Hills owns 12.72 MGD of capacity (a 15.7 percent share) in the WFA treatment plant.

4.1.4 Monte Vista Water District

The Monte Vista Water District (MVWD) provides retail and wholesale water supply services to a population of over 100,000 within a 30-square mile area, including the communities of Montclair, Chino Hills (by contract), portions of the City of Chino, and the unincorporated area lying between the cities of Pomona, Chino Hills, Chino, and Ontario. Along with the City, MVWD is a member agency of IEUA and a member agency of the WFA.

¹ Chino Basin Watermaster, Optimum Basin Management Program, Status Report 2009-1: January to June 2009

² Chino Basin Watermaster 33rd Annual report, Fiscal year 2009-10

MVWD overlies a portion of the Chino Groundwater Basin and has developed extensive well capacity to facilitate conjunctive use of the basin. The City of Chino Hills purchased capacity rights from MVWD for a total of 20.22 million gallons per day (MGD). Water delivered under the acquisition agreement is comprised of a combination of imported water through the WFA treatment plant and groundwater produced by MVWD wells. As part of this arrangement, the 42-inch transmission main in Ramona Avenue was constructed to facilitate delivery of the increased supply to the Chino Hills system. The agreements provide for a needed water supply source for the City, and allow MVWD to expand its demand base for use of its groundwater capacity beyond its own service area. (**Appendix D** includes a copy of the 1998 water supply agreement between the City and MVWD.)

4.1.5 Santa Ana Watershed Project Authority

Formed in 1972, SAWPA is a joint powers agency that coordinates regional planning within the Santa Ana Watershed to address water quality and supply improvements. SAWPA is comprised of five major water supply and wastewater management agencies within the Santa Ana River Watershed: IEUA, Eastern Municipal Water District (EMWD), Orange County Water District (OCWD), San Bernardino Valley Municipal Water District (SBVMWD) and Western Municipal Water District (WMWD).

Since the early 1970's, SAWPA has played a key role in the development and update of the Regional Basin Plan for the Santa Ana Regional Water Quality Control Board (SARWQCB). SAWPA conducts water-related investigations and planning studies, and builds facilities needed for regional water supply, wastewater treatment or water quality remediation. Current studies include the Chino Basin Water Resources Management Study, the Colton-Riverside Conjunctive Use Project, an investigation of water quality in Lake Elsinore and studies on the nitrogen and organic carbon levels in the Prado Basin.

4.1.6 Chino Basin Watermaster

Chino Hills is a member of the Chino Basin Watermaster Board of Directors. The Watermaster was established in 1978, by a judgment entered by the Superior Court of California. The Judgment required that the Watermaster develop a management plan for the Chino Groundwater Basin that meets water quality and water quantity objectives for the region. The management plan, known as the Optimum Basin Management Plan (OBMP) was completed in 1998, which is further described later in this Chapter.

4.1.7 Chino Basin Desalter Authority

The CDA is a joint powers agency formed to achieve sustainable management of water quality in the lower portions of the Chino Basin through the construction of desalter facilities. SAWPA, in cooperation with IEUA, WMWD, and the OCWD, formed SAWPA Project Committee #14,

which initiated the Chino 1 Desalter. The CDA was subsequently formed by agencies subscribing to capacity in the new desalters. The City of Chino Hills is a capacity shareholder in the CDA along with the Cities of Ontario, Chino, and Norco, and the Jurupa Community Services District (JCSD), the San Antonio Water Company (SAWCo), and the Western Municipal Water District. The contract operator is the IEUA, and the administrative entity is the JCSD. With the completion of the Chino II Desalter, the City of Chino Hills is subscribed to 4.0 MGD in the Chino Desalter facilities which could provide over 20 percent of its total water supplies.

Desalination is viewed as a way to develop a local, reliable source of water that assists agencies in reducing their demand on imported water and make unusable groundwater available for municipal uses.

As more water is recharged in the upper alluvial fans of the Basin, groundwater production in the lower portion of the Basin needs to be managed to ensure that groundwater is not lost to the Santa Ana River and that poor quality water in the lower portion of the Basin does not reach downstream basins. The key to the groundwater basin management is achieving 'hydraulic control'. The CDA facilities are an integral part of this hydraulic control, as described in more detail later in this Chapter. The current capacity of the desalter facilities is 27,600 AFY and an expansion is currently underway to increase the capacity to 40,000 AFY. The expansion is expected to be completed in 2012.

4.1.8 Santa Ana Regional Water Quality Control Board

The Santa Ana Regional Water Quality Control Board (SARWQCB) is responsible for the development and enforcement of water quality objectives to meet the requirements of the Federal Clean Water Act, California Porter-Cologne Act, and the National Pollution Discharge Elimination System (NPDES).

In 1975, the SARWQCB completed the Water Quality Control Plan for the Upper portion of the Santa Ana Watershed. This Plan was updated in 1995. The plan outlined specific water quality management actions to address water quality and salt (total dissolved solids) build up within the Chino Basin. These included the construction of a large well field and desalters in the lower part of the Basin to extract and treat poor quality water; the construction of a pipeline to export brines from the upper Basin to the ocean; and the use of large volumes of low total dissolved solids (TDS) water for groundwater recharge.

A brine line (known as the Santa Ana River Interceptor or SARI line) has been in operation since 1975. In addition, two groundwater desalting plants are in place. The Optimum Basin Management Program (OBMP) by the Chino Basin Watermaster has been developed, in part, to meet the requirements of the 1975 Water Quality Control Plan.

4.1.9 Water Supply Capacity Projections

In accordance with the UWMP Act, the City coordinated its water use projections with the Agencies described above. Current and projected water supplies anticipated from each supplier to the City are outlined in **Tables 4-2a and 4-2b**.

Table 4-2a
Past and Current Water Supply [1]

Water Supply Sources	2005-06		2006-07		2007-08		2008-09		2009-10		2010-11		Average
	AFY		AFY		AFY		AFY		AFY		AFY		AFY
Imported Water (WFA)	12,049	70%	10,346	53%	7,958	45%	5,411	30%	1,114	6%	1,512	9%	6,398
MVWD	1,402	8%	3,090	16%	4,494	25%	5,386	30%	9,035	52%	6,697	42%	5,017
Chino Hills Wells	852	5%	2,010	10%	2,490	14%	1,905	10%	1,446	8%	1,986	12%	1,781
CDA (desalted groundwater)	1,954	11%	2,290	12%	1,339	8%	4,295	24%	4,395	25%	4,266	27%	3,090
IEUA (recycled water)	948	6%	1,634	8%	1,480	8%	1,237	7%	1,525	9%	1,614	10%	1,406
Total within City [2]	17,205	100%	19,371	100%	17,761	100%	18,234	100%	17,514	100%	16,075	100%	17,692

[1] Based on production records provided by staff.

[2] Excludes supply for JCSD.

Table 4-2b
Wholesaler Water Supply (AFY)

Water Supply Sources	2010-11 [1]	2014-15	2019-20	2024-25	2029-30	2034-35
Imported Water (WFA)	1,420	17,000	17,000	17,000	17,000	17,000
MVWD	8,032					
Chino Hills Wells	3,083	4,200	4,200	4,200	4,200	4,200
CDA (desalted groundwater)	4,594	4,200	4,200	4,200	4,200	4,200
IEUA (recycled water)	2,099	1,850	1,850	1,850	1,850	1,850
total	19,228	27,250	27,250	27,250	27,250	27,250

[1] 'Current' capacity taken as average recorded production for the years 2005-06 to 2010-11. Future year capacities are based on contractual obligations, with the exception of WFA and MVWD. WFA's committed capacity for Chino Hills is 12.7 MGD (14,200 AFY); MVWD's full contractual obligation to Chino Hills, including WFA's committed capacity, is 22,650 AFY.

The City is supplied imported water from the State Water Project via MWDSC and IEUA. The first two listed water supply sources – WFA and MVWD – are the means by which the City receives its imported water. The MVWD water is conveyed through MVWD's transmission system as it combines with MVWD's local sources. It is estimated that the MVWD sources are roughly 50 percent imported water and 50 percent local sources. The combined percentages of the two imported water sources shown in Table 4-2a indicate a significant decrease in the City's reliance on imported water in recent years. This illustrates the effectiveness of the aggressive

activities toward developing local water resources by the City and all the participating agencies, in conjunction with MWDSC's support to maximize the benefits of Chino Basin storage. Even though, imported water from MVWD and from the WFA treatment plant is expected to continue to be vital to Chino Hills' water supply.

4.2 Groundwater

An important source of water for the City of Chino Hills is the Chino Groundwater Basin, a major aquifer system in the Santa Ana River watershed which provides both local yield and seasonal carry-over storage for water purveyors in the region. The City obtains about half of its water supply from groundwater. The following sections provide more detail about the Chino Basin, water rights, basin management, subsidence issues, and groundwater quality.

4.2.1 Chino Groundwater Basin

The City extracts groundwater from the Chino Groundwater Basin using its own wells located within the City of Chino and conveyed to Chino Hills' lower pressure zone through a system of transmission mains. The City also relies on water purchased from the Monte Vista Water District. The water provided by the MVWD consists of a mix of groundwater extracted from the Chino Groundwater Basin by MVWD wells and imported water from the WFA treatment plant.

Although considered to be a single basin, the Chino Groundwater Basin has been divided into five management zones (based upon similar hydrologic conditions) and into three sub-basins, as defined in the Chino Basin Watermaster Optimum Basin Management Program (OBMP, June 2000) and the 1995 Water Quality Control Plan for the Santa Ana Watershed (Region 8) respectively.

The Basin is one of the largest groundwater basins in Southern California, containing about 5,000,000 acre feet (AF) of water in storage, with an additional unused storage capacity of about 1,000,000 AF. Cities and other water supply entities extract Basin groundwater for all or part of their municipal and industrial supplies. In addition, remaining agricultural users also pump from the Chino Basin.

The average safe yield of the Basin is approximately 145,000 AFY. This water is allocated among three "pools" of users: the Overlying Agriculture Pool (82,800 acre-feet/year), the Overlying Non-Agricultural Pool (7,366 acre-feet/year) and the Appropriative Pool for urban uses (54,834 acre-feet/year). Additional groundwater production (in excess of the safe yield) is allowed by the adjudication provided that the pumped water is replaced with replenishment water. Additional groundwater production (in excess of the safe yield) is permitted under the Judgment provided that the pumped water is replaced with replenishment water. In addition, groundwater is re-allocated to the Appropriative Pool for urban use from the Overlying Agricultural Pool when it is not pumped by the agricultural users. Over time, as agricultural

production declines, the reallocation of groundwater to the Appropriative Pool is expected to increase. Management of the Chino Basin is now guided by the “Peace” and “Peace II” Agreements of the Optimum Basin Management Program (OBMP), which is described in more detail in following sections.

Annual groundwater production in recent years from the City's wells ranges from 852 AFY (2005-06) to over 3,100 AFY, currently contributing 16 percent of the City's total supply.

4.2.2 Chino Hills Production Rights Entitlement

Operation of the Chino Basin is governed by a 1978 court judgment and agreement among producers, whereby each is allotted a "base water right" to a certain percentage of the natural, or “safe”, yield of the basin. Prior to 1978, the Basin was in an overdraft condition. Under the Judgment, entities can pump in excess of their allotted base right, but must pay a per-acre foot pump tax to cover the cost to replenish any overdraft. The water rights, or production allocations, are divided among three interest groups or "pools": 1) overlying agricultural, 2) overlying non-agricultural, and 3) appropriative. The provisions of the Judgment and monitoring, replenishment and other obligations are presided over by the court-appointed Watermaster. A copy of the Judgment is included in **Appendix E**.

Based on provisions of the Judgment, the total water right of the City of Chino Hills to Chino Basin is 4,185 AFY, distributed as shown in **Table 4-3**. The judgment also set aside a large portion of the estimated safe yield for the overlying agricultural pool. As agricultural lands are converted to urban use, a portion of the production right associated with the converted land is transferred to the appropriative pool, and allocated among appropriators in proportion to their initial share.

Table 4-3
City of Chino Hills Water Rights to Chino Basin

Description	Production Year 2010-11 [1] (AFY)
Base Right per Judgment	2,111
Agricultural Conversion (Pool, current)	987
Agricultural Conversion (transfer)	1,087
Total Operating Safe Yield	4,185

[1] Based on Watermaster Assessment Year 2011-12.

4.2.3 Basin Management

4.2.3.1 Optimum Basin Management Plan

Management of the Chino Basin is a cooperative effort involving several agencies. In 1998, the Chino Basin Watermaster developed an integrated set of water management goals and actions,

incorporated in the OBMP, which was updated in 2000. The OBMP encourages the increased use of local supplies to help “drought proof” the Chino Basin.

The OBMP is intended to formulate and implement a groundwater management program that will preserve and enhance the safe yield and the water quality of the Chino Basin. The Watermaster’s goal is to make it possible for all groundwater users to produce water from the basin for beneficial uses at an affordable cost. The OBMP is intended to allow for continued reliance on groundwater for beneficial use within the basin while minimizing demand for imported water, and to encourage beneficial use of the large available storage space in the aquifer system. The OBMP actions are intended to benefit both local and regional water supply programs.

The effort to complete the OBMP for the Chino Basin was divided into two phases. The first phase culminated in the September 1999 submittal of the draft Phase 1 Report to the Court with continuing jurisdiction over the Basin groundwater resources. The second phase, including a programmatic EIR, was completed and adopted in July 2000, as the Implementation Plan.

Phase 1 of the OBMP defined the state of the Chino Groundwater Basin, established the goals and objectives concerning major issues identified by stakeholders, and affirmed a management plan for the achievement of the stated goals and objectives. Phase 2 of the OBMP is the Implementation Plan for the installation and operation of OBMP facilities. The major OBMP facilities include pipelines, groundwater treatment plants, recharge basins, pump stations, production wells, and monitoring devices. The four primary OBMP management goals are to enhance basin water supplies, to protect and enhance water quality, to enhance management of the basin, and to equitably finance the OBMP.

4.2.3.2 Peace Agreement

As a result of the OBMP, the Peace Agreement was prepared and finalized in July 2000 among the users of the Chino Basin, which modified the original 1978 Judgment. The Peace Agreement facilitated the implementation of the OBMP and amended the Judgment in three areas:

- 1) Members of the Overlying Non-Agricultural Pool have the right to transfer or lease their quantified production rights within the same pool or to the Watermaster in conformance with specified procedures.
- 2) Any appropriator who provides water service to overlying agricultural lands may exercise overlying rights to the extent necessary to provide water service to overlying lands.
- 3) For the term of the Peace Agreement, in any year in which sufficient unallocated safe yield from the Overlying Agricultural Pool is available for conversion claims, the Watermaster can allocate each appropriator with a conversion claim, 2.0 AF of unallocated safe yield water for each converted acre approved.

Individual producers do not currently have a limit on how much they can over-produce; however, they are assessed an amount to replenish the Basin for all overproduction. Producers generally develop annual demand projections that assist in making arrangements with other appropriators for pre-purchase of replenishment water through transfers and other agreements. This allows the Watermaster to optimize planning within the OBMP.

The Watermaster is responsible for recharge and replenishment of the Basin. As part of its ongoing efforts to manage the basin so that groundwater producers may pump groundwater in sufficient quantities to meet their needs, the Watermaster is committed per the Peace Agreement to conduct physical recharge of supplemental water of 6,500 AFY in one or more of the areas known as Montclair, Brooks, and Upland spreading facilities (Management Zone 1 – MZ1). The cumulative prescribed recharge total of 32,500 AF has been accomplished.

In addition to outlining recharge and replenishment methods, the Peace Agreement also provides the Watermaster the authority to designate in-lieu use areas for appropriators that may want to use other local water sources, other than their share of the operating safe yield of the Basin groundwater, to serve their overlying customers. The resulting savings in groundwater production is ‘purchased’ by the Watermaster.

Storage and Recovery

Local storage is protected and each party has the right to store its un-produced carry-over water in the Basin. Local storage agreements are approved so long as the total quantity of supplemental water under local storage agreements does not exceed the cumulative total of 50,000 AF. Water held in storage is transferable, but storage capacity is not.

Parties may continue to produce the actual quantity of carry-over water and supplemental water held in its storage account, subject only to the loss provisions. Rate of loss from local storage was zero percent until 2005, at which time it was recalculated based on the best available scientific information. The current 2-percent Carryover Storage Loss is deducted annually from each storage account.

The Watermaster has the general discretion to place reasonable limits on the further accrual of carry-over and supplemental water in local storage. This is necessary to provide priority for the use of storage capacity for Storage and Recovery Programs that provide broad mutual benefits to all parties.

The Dry Year Yield program, as discussed in *Metropolitan Water District of Southern California* (Section 4.1.2) and further discussed in Section 5, is sponsored by the Watermaster, IEUA and MWDSC. The initial target for the cumulative quantity of DYY water held in storage in the Basin is 500,000 AF. The program goals are to reduce summertime peaking on MWDSC; deliver SWP supplies to Chino Basin; minimize MWDSC surface water deliveries during future droughts/emergencies; and to allow MWDSC to export stored water for other member agencies.

According to the *Watermaster OBMP Status Report 2011-1: January to June 2011*, during the recent drought years all previously stored water under the DYY program had been pumped and the storage account returned to zero. As of June 2011, 9,465 AF of that water has been recharged.

As part of the DYY Program, participating agencies constructed specific projects to take advantage of the additional storage capacity. In January 2008, the City of Chino Hills entered into the Joint Dry-Year Yield Project Agreement with MVWD and IEUA. Prior to this, IEUA received Proposition 13 grant funding from the State of California. IEUA used this funding for City and MVWD projects to enhance the use of stored water under the DYY program. In a cooperative effort between the three agencies, the City and MVWD developed groundwater pumping to pump DYY stored water when “called” upon by MWDSC. The resulting project included the development of ASR Well 32 at an existing MVWD well site, sharing of its capacity as well as operation and maintenance, and MVWD acceptance of the City’s capacity reduction obligation of imported water from MWDSC (through IEUA and WFA). This, and the DYY program as a whole, optimizes Basin storage and supplies, and reduces demand on imported water supplies.

Appropriative and Non-Agricultural Pool members are entitled to the compensation paid for a Storage and Recovery Program paid in any form, including money, revenues, credits, proceeds, programs, facilities, or other contributions. Compensation may also be used to offset the cost of operations, to reduce assessments on the members, and to defray the costs of capital projects at the request of the members.

The Watermaster is responsible to conduct best efforts to do the following: 1) complete the short-term conjunctive use project conducted by IEUA, Three Valleys Municipal Water District (TVMWD) and MWDSC; 2) develop a seasonal peaking program for in-Basin use and dry year yield to reduce the Basin’s demand on MWDSC water; 3) develop a dry year export program; and 4) develop a seasonal peaking export program.

Transfers

Transfers must have the approval of the Watermaster. Transfers include the assignment, lease, or sale of a right to produce water to another producer within the Chino Basin or to another person or entity for use outside the Basin whether the transfer is temporary or permanent. Lease of water rights are also permissible to allow producers to make up for the lessee’s over-production.

Overlying Non-Agricultural Pool members have the right to transfer or lease within the pool, and the right to transfer to the Watermaster for the purpose of replenishment for a desalter or for a storage and recovery program.

An “early transfer” means the reallocation of safe yield not produced by the Overlying Agricultural Pool to the Appropriative Pool on an annual basis rather than according to the five-year increment described in the Judgment. The Early Transfer of not less than 32,800 AFY was the expected approximate amount of water not produced by the Agricultural Pool. Early transfer is to be the greater of 32,800 AF or 32,800 AF plus the actual quantity of water not produced in a given year after all the land use conversions are satisfied. Early transfer water is allocated among members of the Appropriative Pool in accordance with their pro-rata share of the initial safe yield.

Land Use Conversion of Water Rights

With the effective date of the Peace Agreement (June 2000), the amount of water rights converted from agricultural land to urban use was changed from 2.6 AF per acre with allocation between initial shares of safe yield and service provider to 2.0 AF per acre, all of which is allocated upon conversion of the land to the Appropriative Pool member service provider. Upon conversion of water rights, the purveyor pledges the amount of water needed for the urban land use, and up to 2.0 AFY per acre of land will be made available.

An Agricultural Pool member has the right to a voluntary agreement with an appropriator, which has a service area contiguous to or inclusive of the agricultural land, to provide the required water to the overlying land on behalf of the Ag Pool member. The appropriator is then entitled to a credit to off-set production to the extent it is serving the overlying land up to the amount of the historical maximum annual quantity previously used on that property. The credit is debited to the Ag Pool’s collective production right.

4.2.3.3 Peace II Agreement

The Peace II Agreement sets measures proposed by the Chino Basin Watermaster and approved by parties to the Chino Basin Judgment to supplement the OBMP Implementation Plan. Focus for the measures is placed on achieving hydraulic control (reduction of groundwater discharge from the Chino North Management Zone to the Santa Ana River). To achieve hydraulic control, re-operation (controlled overdraft) of the groundwater basin is proposed. Groundwater would be withdrawn using existing and/or proposed desalter facilities strategically to benefit the long-term reliability of the basin.

Achieving hydraulic control of the Chino Basin will reduce reliance on imported water supply and loss of stored water from the basin. Once the re-operation is complete a ‘New Yield’ of the basin will be defined. Then a replenishment obligation will be assigned to the various desalters consistent with the obligation for replenishment already directed by the Judgment. A reduction in dependency on imported water for recharge will be the result of the New Yield, as less water will be lost to the Santa Ana River from the reservoir at the Prado Dam. Hydraulic control through re-operation will also help ‘drought-proof’ the basin by allowing for recharge of recycled water to supplement basin storage.

The recommendations set forth in the Peace II Agreement consist of:

- 1) Expanding the desalter program to 40,000 AFY by 2012;
- 2) New well pumping facilities located at the south end of the Basin to best provide hydraulic control and increase basin yield;
- 3) Additional hydraulic controls to allow full use of recycled water as a permanent resource for recharging the Basin;
- 4) Strategic reduction in groundwater storage with a controlled overdraft of up to 400,000 AF from the Basin by desalter pumping, thereby reducing the need to purchase imported water for the next 15 to 20 years;
- 5) Upon full allocation of the controlled overdraft, the Watermaster will assess the members of the Overlying and Appropriative Pools for the resulting replenishment obligations;
- 6) Evaluation by the Watermaster regarding the performance of the hydraulic controls on an annual basis;
- 7) Recalculation of the safe yield of the basin by the Watermaster once overdraft is complete;
- 8) Establishment of a new Recharge Master Plan to optimize hydraulic balance and control and establish long-term operational objectives;
- 9) Operation and maintenance costs to be funded by Inland Empire Utilities Agency and the Watermaster in proportion to recharge contributions; and
- 10) Capital Improvement to be funded through grants as well as IEUA and the Watermaster Parties to the Chino Basin Judgment shall benefit from the Peace II Agreement through the drought-proofing of the basin, recharge of recycled water, and reduction of dependency on imported water (for groundwater recharge) during the re-operation period and beyond.

Status of Implementation Plan

The OBMP consists of nine program elements to meet the water quality and local production objectives in the Chino Groundwater Basin. These elements of the Phase 1 report are collectively designed to meet the stated goals. The scope of implementation of some of the programs have been combined since they overlap and have synergies between them. The program elements and their status are described as follows:

Element 1 – Comprehensive Monitoring Program: The Watermaster has three active groundwater level monitoring programs within the Chino Basin – (1) a basin-wide well monitoring program, (2) a well monitoring program for the Chino Desalter well fields and hydraulic control, and (3) a piezometric monitoring program to measure land subsidence and ground fissuring in MZ1. The measurements depend on the cooperation of others to provide their groundwater level and water quality measurements. The Watermaster enters all measurements into a rational database for general use.

The Watermaster measures the groundwater production from all active agricultural wells, and measures the water quality and quantity of the surface water used for recharging. In addition, imported water quality from MWDSC and recycled water quality from IEUA's reclamation plants are obtained. The Watermaster also monitors the stormwater quality in eight major channels following each major storm event. Combining the measured flow data with the respective water qualities enables the calculation of (1) the blended water quality in each recharge basin, (2) the "new yield" to the Chino Basin, and (3) the necessary dilution of the recycled water.

Element 2 – Comprehensive Recharge Program: The groundwater recharge program is a comprehensive water supply program to enhance water supply reliability and improve the groundwater quality from potable water wells throughout the Chino Basin by increasing the recharge of stormwater, imported water, and recycled water. The program is regulated by the South Coast Regional Water Quality Control Board.

MWDSC imported water was made available for replenishment obligations for the first time since May 2007 due to the abundant precipitation throughout the State since the recent drought. Watermaster intends to recharge up to 50,000 AF of MWDSC water to offset basin overdraft and meet future replenishment obligations. The recharge facilities were constructed under the Chino Basin Facilities Improvement Program (CBFIP), which began operation in January 2006. Since the recent drought ended, it has recharged 7,468 AF of stormwater and 3,768 AF of recycled water, commensurate with the required 2:1 dilution rate.³ The theoretical capacity of the CBFIP facilities is about 14,000 AFY and the supplemental recharge capacity is 99,000 AFY.

The recharge permit between Watermaster and IEUA was recently amended to allow for a reduction in the amount of required dilution water. With this amendment, it is anticipated that no MWDSC imported water will be necessary to meet dilution requirements until year 2020.

Elements 3 and 5 – Regional Supplemental Water Program; and Water Supply Plan for the Impaired Areas of the Basin: The Chino Basin Desalter Authority was formed in the 1990's to plan for the collection and treatment of highly degraded groundwater from the Chino Basin. The initial phase of the Project was completed in 2000, and now includes the Chino I Desalter, the Chino I Desalter expansion, and the Chino II Desalter plants. The Project treats the high VOC, dissolved solids, and salts content of the degraded groundwater to drinking water standards for customers in Chino Hills and other surrounding municipalities and water agencies. It currently has a capacity to supply 27,000 AFY. Construction has begun on an expansion of the Chino II Desalter for another 10,600 AFY of treated water supply. This would include a new Chino Creek wellfield, which has been determined to be needed for hydraulic control (minimize water lost from the Basin).

³ Chino Basin Watermaster, Optimum Basin Management Program, Status Report 2011-1: January to June 2011

Element 4 – Comprehensive Groundwater Management Plan for Management Zone 1: The Summary Report and Guidance Criteria for MZ-1 were completed and adopted by the Watermaster Board in May 2006. Subsequently, the Long-term Management Plan was prepared and adopted in June 2007.

Elements 6 and 7 – Cooperative Programs With the Regional Water Quality Control Board, Santa Ana Region, and Other Agencies to Improve Basin Management; and Salt Management Program: A water quality committee was formed for the purpose of mitigating the spread of three identified plumes. Work plans developed for each plume site to monitor contaminant concentrations have been submitted and approved by the Watermaster and the RWQCB. The work plans included construction of nine sampling wells, which were completed and are now operational.

Elements 8 and 9 – Groundwater Storage Management Program; and Storage and Recovery Programs: The Watermaster/IEUA/MWDSC Dry Year Yield (DYY) program facilities have been completed and are currently being used to extract stored water placed in the basin under the program during past wet years. As of April 2011 all of the water in the DYY storage account was extracted, leaving the account with a zero balance. The DYY Program allows MWDSC to store imported SWP water in the Chino Basin during wet weather months for later use by its member agencies during dry weather months. This proved very effective during the recent drought by minimizing the need for SWP water deliveries during the drought.

4.2.4 Subsidence Issues

Concerns over observed subsidence in the City of Chino resulted in litigation and a resulting Forbearance Agreement whereby the City of Chino Hills volunteered (with a yearly option to continue or discontinue) to restrict pumping from wells in the subsidence area during a recent four-year Subsidence Study. This study, under the direction of the Watermaster, included conducting deep well tests to investigate the elasticity of the aquifer system and to ascertain the impact of certain wells. During the four-year period that Chino Hills groundwater production was restricted, the Watermaster compensated the City for the difference in cost to purchase an equivalent quantity, up to its operational safe yield, of imported water through the WFA treatment plant (about 1,500 AF).

It was concluded that the cause of this subsidence was localized groundwater overdraft and declining groundwater levels, and effects resulting from groundwater production from mostly deep wells in the area.⁴

The Watermaster has developed a ground-level monitoring program that includes multiple tools to evaluate subsidence. The Watermaster's current ground-level monitoring program includes

⁴ City of Chino 2010 Urban Water Management Plan, June 2011.

the monitoring of piezometric levels, aquifer-system deformation, vertical ground-surface deformation, and horizontal ground-surface deformation. It appears that the abatement of land subsidence in the area is related to the recovery of piezometric levels that has resulted from decreased deep zone pumping.

4.2.5 Water Quality Issues

Water quality in much of the Chino Basin is excellent, with all constituents which are required to be monitored being below the maximum contaminant levels (MCLs) for drinking water established by the State of California Department of Public Health (CDPH). However, the City's wells are in Management Zone No.1, which includes the western fringe of the Basin and which has several significant water quality issues.

Nitrate and arsenic levels within specific areas exceed MCL standards. With the arsenic MCL recently lowered to 10 parts per billion (Ppb), several of the City's wells require blending or treatment to meet the standard. Other concerns involve the migration of contaminants due to shifting pumping patterns and gradients, which make it difficult to predict future water quality at a given location. Some constituent concentrations vary with depth. Nitrates generally exist in the shallower formations, while arsenic is found at greater depths.

Based on data from the Watermaster's water quality monitoring program, it appears that groundwater is of better quality in the areas to the east and north of the City's existing wells (east of Euclid and north of SR-60). For this reason, as well as the greater potential for favorable pumping conditions in these areas, the City's *2005 Water Master Plan* recommended that new extraction wells by the City should be placed in these areas, if possible.

4.3 Recycled Water

The City of Chino Hills uses recycled water provided by the IEUA primarily from the Carbon Canyon Wastewater Reclamation Facility (CCWRF) and Regional Plant 5 (RP-5). IEUA provides wholesale recycled water to local water purveyors throughout the Chino Basin. IEUA has developed recycled water supply as part of a comprehensive plan to manage water resources in the Chino Basin. Both the Regional Water Quality Control Board (RWQCB) and the State of California govern recycled water use. Recycled water from all the IEUA reclamation facilities meets Title 22 requirements for non-restricted recreational use (full body contact).

Water recycling is a critical component of IEUA's water resources management strategy for the region and proving to be essential to meeting the service area's growing water demand. Recycled water will provide a more dependable local supply of water, and will reduce the likelihood of water rationing during droughts. IEUA's recycled water is also an integral part of the Chino Basin Peace Agreement with regard to groundwater recharge.

Three recent documents prepared by the IEUA define its current plans for regional recycled water production and distribution -- The 2002 Feasibility Study, 2005 Implementation Plan and the 2007 Recycled Water Three Year Business Plan. These include (1) a market assessment of the potential recycled water customers within the IEUA; (2) a regional recycled water program implementation plan; and (3) a guide for the expansion of the recycled water delivery system. According to IEUA's 2010 UWMP, future recycled water supplies are projected to reach 83,000 AFY in 2035. In conformance with the 1969 Santa Ana River Judgment, a minimum of approximately 17,000 AFY of water will be discharged to the Santa Ana River, leaving approximately 66,000 AFY of recycled water for beneficial reuse for IEUA by 2035.

IEUA's overall goal is to achieve maximum reuse of all available recycled water. In the short term, the primary focus of IEUA's recycled water program will be the connection of remaining candidate industrial and landscape customers and development of facilities to ensure cost-effective delivery of recycled water to groundwater recharge spreading sites. According to IEUA's 2010 UWMP, for the long term, IEUA seeks to construct a "looped" distribution system that will interconnect IEUA water reclamation plants, ensure direct supply reliability to customers, and maximize the flexibility to recharge all surplus recycled water in flood control spreading grounds. Recent discussions with IEUA indicate the looped system connecting its reclamation plants is complete.

Working with the cities and retail water agencies, including Chino Hills, over 2,300 potential customers were identified. This information was used to plan the regional and local recycled water distribution pipelines. Pipeline locations were selected to provide recycled water to the largest customers or groups of customers. Ultimately, the distribution system will have the capacity to serve over 1,900 of the largest customers within its retail water agency service areas, including Chino Hills.

4.3.1 Recycled Water Facilities

The IEUA operates four regional wastewater treatment plants, including (1) Regional Plant No. 1, (2) CCWRF, (3) Regional Plant No. 4, and (4) Regional Plant No. 5. All of IEUA's wastewater treatment plants produce water that meets or exceeds the requirements of the CDPH Title 22 standards for recycled water.

IEUA's regional distribution system is comprised of transmission pipelines for conveyance of product recycled water from IEUA's regional reclamation plants. Recognizing that separate pumping stations, independent pressure zones (800, 930, 1050, 1158, 1299 & 1670), and multiple control interfaces will ultimately lead to overly complex operations, the concept of a single, fully integrated (regional) distribution system was developed. The existing and proposed facilities will provide the ability to deliver recycled water to major industrial and municipal users, as well as deliver recycled water, storm water and imported water to groundwater recharge basins throughout IEUA's service area.

Pursuant to the DWR Guidelines, the UWMP must discuss wastewater flow contribution to the regional agency providing treatment and recycled water service. Wastewater flows from the City of Chino Hills is only a portion of the wastewater flows to IEUA's reclamation facilities

The most direct recycled water sources for the City are the CCWRF and Regional Reclamation Plant No. 5. CCWRF is located on Telephone Avenue in the City of Chino. CCWRF product water delivery system includes over four (4) miles of pipeline for service to the cities of Chino and Chino Hills. The CCWRF has been operational since 1992 with a current Plant capacity of 11.4 MGD for irrigation and agricultural use. Recycled water produced at the CCWRF enters the City's recycled water system from Chino Hills Parkway. Plant No. 5 is located on Kimball Avenue, east of El Prado Avenue in City of Chino, and has a current plant capacity to produce 16.3 MGD recycled water. Plant No. 5 has been operational since 2004 and also provides recycled water to the City of Chino Hills.

The City's existing recycled water system lies in the southeastern portions of the City. The system layout is typical of most recycled water systems - a relatively simple transmission system layout aimed at new development and high water use customers (such as golf courses and regional parks). A system of pump stations, pipelines and reservoirs deliver recycled water from its source at the east delivering water westerly through a series of pressure zones.

4.3.2 Existing and Potential Recycled Water Demand

In 1998, the City has enacted Ordinance 101 as an addition to their Water code Title 15. Shortly thereafter, the City established recycled water usage rates and adopted design and construction standards for the development of its internal transmission and distribution system. Recycled water deliveries to City customers began in September 1999. Approximately 42 AF were supplied that year. The demands have increased since the system's inception reaching 1,614 AFY in 2010-11. Based on City water production records, the City's current average recycled water supply accounts for approximately eight (8) percent of the total water used in the City (Table 2-3).

The recycled water usage is primarily landscape irrigation for golf courses, parks, and landscaped medians. Major recycled water users within the City include the Big League Dreams recreational sports park, the Los Serranos Golf Course and the Vellano Country Club golf course. Potential recycled water conversion sites include an additional golf course (Western Hills Country Club), Ayala High School, and Boys Republic.

As the City's wholesaler of recycled water, IEUA recognizes development of local recycled water facilities by its various retail agencies will be the key to expanding the direct use of recycled water. Direct uses include irrigation for landscaping, industrial process and cooling, and recreational uses. The City and IEUA may consider expansion of local facilities at the north

end of the City. Transmission and storage is in the planning stages that could significantly expand the City's recycled water use beyond what is currently planned for.

The City could potentially expand its southerly system which would require pumping and additional transmission and storage capacity. Its current system serves several major users, including three 18-hole golf courses, in a multi-pressure zone system. **Table 4-4** summarizes past, current and projected recycled water use by the city of Chino Hills for the 2010 UWMP planning horizon.

Table 4-4
Past, Current and Projected Recycled Water Use (AFY)

Recycled Water Usage	2008-09	2009-10	2010-11	2015	2020	2025	2030	2035
Landscaping	1,237	1,525	1,614	1,850	1,850	1,850	1,850	1,850

Note: FY 2008-09 through 2010-11 figures are based on the City's production records. Future projections are based on City's anticipated usage for service to existing and recycled water conversion sites envisioned for the near future.

4.3.3 Optimizing the Use of Recycled Water

The City is working closely with IEUA to expand its use of recycled water. The IEUA has assured the City that adequate recycled water will be available when needed and is actively promoting the use of this resource in the City and elsewhere in its service area.

In February 1998, the City of Chino Hills enacted Ordinance No. 101, adding to Chapter 15.08 *Regulations for the Availability and Use of Reclaimed Water* of the Chino Hills Municipal Code. On May 3, 2000, IEUA adopted Ordinance No. 69. The Ordinance redefines the agency's recycled water program and establishes new wholesale rates. The City's current retail recycled water rate is 70 percent of the City's potable water rate.

IEUA is working closely with its local retail agencies, including Chino Hills, to develop a regional recycled water distribution program to maximize water reuse. Currently, the IEUA is implementing the following measures to encourage recycled water use:

- Requirements for dual plumbing for new developments (working with local agencies to implement by 2015)
- Marketing program for recycled water (working with local agencies to implement)

The following incentives are proposed:

- Shared costs for service connections, water meters, and signage
- Loans to help finance local infrastructure and retrofit projects that contribute to use of recycled water

- Technical assistance with engineering, regulatory, and institutional issues and with the preparation of funding applications
- Guarantee of recycled water supply reliability during droughts

Recycled water use incentives and optimization of use are documented in further detail in IEUA's *2005 Recycled Water Implementation Plan*.

4.4 Transfer and Exchange Opportunities

The City has an agreement with the Monte Vista Water District to receive up to 20.22 MGD. Interconnections with the City of Chino and Pomona may also be considered to improve reliability during a temporary disruption in imported water supply. The Chino Basin may also be a future resource for water transfers because of its storage capacity of up to one million AF.

4.5 Development of Desalinated Water

Desalted groundwater from Chino Groundwater Basin is produced by treatment through the reverse osmosis (RO) treatment facilities of the CDA. The CDA water source is described in Section 4.1.7. No additional desalinated water supply projects are planned.

4.6 Potential Projects to Increase Water Supply

The City's abundant supply sources provide the City with operational redundancy and reliability under emergency supply outages and drought conditions. The City's cornerstone to this strategy has been to maximize its reliance on local groundwater production and maximize its use of recycled water. The City continually monitors its ability to meet maximum month demands under all foreseeable conditions, primarily by local sources. The following recommendations should serve to maintain the City's supply reliability:

- Seek opportunities to further expand its recycled water system and usage
- Market surplus importation capacity
- Increase groundwater capacity and transmission system reliability
- Periodically evaluate maximum month water requirements, and ability to meet this in the event of an extended importation system outage
- Pursue regional solutions, including inter-ties with adjacent entities

Chapter 5

Water Supply Reliability

The City has developed a long range Capital Improvement Program which includes time-phased measures to expand supply opportunities, as documented in the City's Water Master Plan.

5.1 Reliability of Imported Water Supply

MWDSC's primary goal is to provide reliable water supplies to meet the water needs of its service area at the lowest possible cost. In the past, the delivery of water to the MWDSC's member agencies has been nearly 100 percent reliable. However, as existing imported water supplies from the Colorado River and State Water Project face increasing challenges, the assured reliability of deliveries from these sources has diminished.

To address these challenges, MWDSC has expanded its development of water transfers and of water storage and banking projects. Also, working with its member agencies, MWDSC has expanded the development of local and alternative water supplies and the implementation of water conservation programs. MWDSC's measures and plans to provide reliable water supply are documented in its *March 2003 Report on Metropolitan's Water Supplies - A Blueprint for Water Supply Reliability* (MWDSC, 2003). That report projects that in cooperation with its member agencies, MWDSC will be able to meet 100 percent of retail water demands during average, dry, and multiple-dry-year scenarios over the next 20 years. During catastrophic shortages, MWDSC will redirect as necessary the limited imported water to member agencies which are largely dependent on imported water (i.e., those without major groundwater resources).

MWDSC has since prepared its Integrated Water Resources Plan, which was last updated in 2010. The 2010 IWRP identifies changing conditions affecting water resource development. Among other things, the IWRP outlines emerging trends related to climate change, energy use and greenhouse emissions, endangered species protection, and conveyance needs in the Sacramento-San Joaquin River Delta system.

The IEUA, as the imported water supplier to the region, recognizes that supply reliability is a high priority for the region. The agencies of the IEUA experienced significant growth prior to the recent economic recession. Even under conservative growth estimates, the IEUA expects to meet 100 percent of its dry year demand under every scenario. **Table 5-1** presents the supply reliability (percent of normal supply) that IEUA expects to provide to the region.

Table 5-1
IEUA Supply Reliability (% of Normal Supply)

Source	Single Dry Year	Multiple Dry Water Years		
		Year 1	Year 2	Year 3
Imported Water	62%	60%	61%	62%
Groundwater	115%	116%	115%	114%
Recycled Water	100%	100%	105%	110%

Source: IEUA 2010 UWMP, Table 11-1.

Based on IEUA's 2010 *Urban Water Management Plan*, IEUA anticipates that groundwater may be pumped in excess of the safe yield during dry years. Although agricultural use is expected to decline, IEUA projects the overall production of recycled water to gradually increase as other candidate non-potable water customers come on line. During multiple dry years, the overall source scenario for the IEUA service area indicates that even during prolonged droughts the vast quantity of water stored in the Chino Basin will enable local agencies to reduce their imported water demands and increase groundwater production.

5.2 Reliability of Groundwater Supply

In 2002, IEUA, the Watermaster, and MWDSC executed an agreement for the development of the Chino Basin DYY Program (Chapter 4, section 4.1.2) to help reduce demands on imported water while increasing the reliability of groundwater supplies during dry years. The DYY Program is an implementation element of the OBMP Program Element Nos. 8 and 9, which were designed to develop and implement a groundwater storage and conjunction use program.

The DYY Program is the first step in a phased plan to develop and implement a comprehensive conjunctive use program to allow maximum use of imported water available during wet years and stored groundwater in the Chino Basin during dry years. MWDSC will utilize the Chino Basin for dry year storage of up to 500,000 AF of surplus imported water. Imported water deliveries to participants would increase during wet or normal (or “put”) years, and deliveries of imported water would decrease during dry (or “take”) years.

Collectively, the DYY participants, six of which are local retail agencies of IEUA, including the City of Chino Hills, would perform to predetermined levels in order to achieve a maximum 25,000 AFY “put” and a maximum 33,000 AFY “take”. Each of the local retail agencies volunteered to produce excess groundwater during a dry year in-lieu of receiving normal imported water deliveries. In exchange, they received funding for new groundwater treatment and well facilities that would enable additional groundwater production during dry years. (As part of a contractual agreement with MVWD, as discussed in Section 4.2.3.2, has transferred its imported water reduction obligation to MVWD.) IEUA’s overall imported water demands during dry years would decrease by 29,000 AFY, which equals the portion of the 33,000 AFY of the DYY shift obligation for IEUA’s local retail agencies.

CDA Groundwater

It is assumed that the water supplied by the CDA will be a reliable supply, available on a constant flow basis throughout the year, although it is possible that the supply wells or RO membrane treatment facilities could be subject to short-term outages. The CDA allows for 96 percent run-time and 4 percent down-time for filter and maintenance issues.

All City booster pump stations and well pumps incorporate a backup power generator or an alternative power source to ensure water delivery to its customers. In addition, as virtually all

customers are served from an open reservoir floating the various pressure zones of the City, the City's system is pressurized by gravity and brief power outages are not a concern.

5.3 MVWD Imported Water and Groundwater Supply

With over half of the City's ultimate potable water requirements slated to be provided through the MVWD capacity acquisition, it is important that the City have confidence that the MVWD can deliver the contracted supply under normal and adverse circumstances. The City has a substantial investment in MVWD capacity, and, upon completion of the 42-inch Ramona Feeder, has been deemed a firm source in recent CDPH documentation and SB 610/221 Water Supply Assessments and Verifications. The MVWD sources (WFA imported water and Chino Basin groundwater) are subject to the same or similar disruptions as the City's principal sources. In particular, the imported source for both entities has the same origin and relies on common conveyance and treatment facilities.

The MVWD's Capital Improvement Plan (CIP), last updated in its 2008 Water Master Plan, is a comprehensive, prioritized outline of recommended projects that involve the repair and/or replacement of existing domestic water system facilities and improvements for future needs. The CIP lists specific prioritized capital improvement projects over the next 10 years and general improvements and projects envisioned over the next 30 years. The CIP, as amended, includes a variety of potable water system improvements that are necessary to eliminate current deficiencies as well as improvements for the purpose of providing reliable water services through the year 2039. Projects include:

- A comprehensive pipeline replacement/rehabilitation program
- Construction of three new wells and retrofitting an existing well maintain existing groundwater production capacity
- Construction of two new reservoirs for a combined additional storage capacity of 5.5 mg
- Installation of two back-up power generators at key wells for additional supply reliability during emergency conditions
- A booster pump station retrofit and capacity enhancement project
- Seismic and plant improvements to various District facilities

In summary, the MVWD's expanded source capacity, upon completion of the planned improvements, are adequate to meet its own ultimate demands as well as the Chino Hills obligation. However, under reduced allocations of imported water, the MVWD sources are expected to be reduced by a similar margin, as MVWD generally strives to maximize its local production. Regarding local groundwater production, MVWD wells are subject to similar water quality challenges as those met by Chino Hills, as discussed later in this Chapter.

5.4 Recycled Water Reliability

In 2007, IEUA developed the Recycled Water Three Year Business Plan. The Business Plan is intended to guide the expansion of the IEUA recycled water system. Both IEUA and the City are committed to providing safe and reliable recycled water to its customers. Water recycling is a critical component of IEUA's water resources management strategy for the region, because it is recognized as a very reliable water source during times of drought or other water supply shortage condition.

Recycled water receives extensive treatment and testing based on stringent State and Federal regulations. Water quality impacts on reliability are discussed in more detail later in this Chapter.

The City's wastewater collection system serves the higher-density land uses throughout the City, which represents the vast majority of the wastewater generated within the City of Chino Hills. The collection system conveys all City-collected wastewater to Inland Empire Utilities Agency for treatment and reuse or disposal. Projected wastewater flows can be related to water needs. Therefore, it is assumed the City will generate the proportion of wastewater from its water needs. Historically, wastewater production has been approximately 50 percent of the City's internal water needs, and are projected as follows:

Table 5-2
City Projected Wastewater Flows [1]

Type	2005-06	2010-11	2014-15	2019-20	2024-25	2029-30	2034-35
Wastewater Generation (MGD)	7.14	7.90	8.01	8.24	8.61	8.98	9.35
Wastewater Generation (AFY)	8,001	8,846	8,975	9,225	9,640	10,060	10,475

[1] FY 2005-06 figures taken from 'Existing' flows recorded in the October 2005 Master Plan, Table 6-3. All future flows assumed to approximate a similar ratio of wastewater generation to water production – 50% – as indicated by projected demands and flows in the City of Chino Hills' Water and Sewer Master Plans, respectively.

5.5 Water Quality Impacts on Reliability

Water quality of each water supply source must be considered in assessing the reliability of that water source. The following sections discuss the water quality impacts on reliability for each type of Chino Hills' water supply sources - imported water, groundwater, and recycled water.

5.5.1 Imported Water Quality

The imported water supplied by the IEUA is conveyed by the Metropolitan Water District from the northern Sierras via the Bay-Delta (State Water Project). State Water Project water is

relatively low in salinity, but typically contains high levels of bromide and total organic carbon, most likely due to seawater intrusion and agricultural drainage from peat soil islands in the Bay-Delta, the confluence of the San Francisco Bay, Sacramento River, and San Joaquin River. Bromide and total organic carbon combine with chemicals used in the water treatment process to form disinfection by-products that are strictly regulated under the federal Safe Drinking Water Act. Imported water is treated at the WFA treatment plant. Water quality monitoring at the plant and plant upgrades ensure continued water quality. The City does not expect imported water quality to affect supply reliability.

5.5.2 Groundwater Quality

The Chino Basin management efforts emphasize the importance of water quality to ensure long-term groundwater use in the region. In 1989, the Chino Basin Watermaster initiated an extensive, and regular, monitoring program for the Chino Basin to maintain groundwater quality for permanent potable use.

The quality of the groundwater in the northern and central portions of the Chino Basin is generally good and in most areas meets the California Department of Public Health (CDPH) Safe Drinking Water Standards. However, the poor quality of groundwater in the southern portion of the basin due to high TDS and nitrate concentrations is a result of past and continuous agricultural and other activities overlying the southern half of the basin. The City's wells are in Management Zone No.1, which includes the western fringe of the Basin and has similar water quality issues.

Nitrate and arsenic levels within specific areas exceed MCL standards. With the current arsenic MCL now at 10 ppb, several of the City's wells require blending or treatment to meet the new standard. Another concern is the migration of contaminants due to shifting pumping patterns and gradients, making it difficult to predict future water quality at a given location. Some constituent concentrations vary with depth. The City's Capital Improvement Program includes hydrogeologic and site studies to find favorable locations for new wells.

The SARWQCB and the Chino Basin Watermaster have developed water quality standards and management programs that are mitigating water quality issues in the Chino Groundwater Basin. Treatment processes, including the construction of desalters and the removal of agricultural and industrial waste and brine are costly, but an essential part of the overall strategy to ensure maximum use of groundwater supplies.

5.5.3 Recycled Water Quality

Both IEUA and the City are committed to providing safe and reliable recycled water to their customers. Recycled water receives extensive treatment and testing based on stringent State and Federal regulations. Recycled water treatment standards can vary depending on the

application, but for most applications in the State of California, recycled water is treated to Title 22 Standards. Title 22 standards allow humans full body contact with recycled water, but not potable consumption. There is considerable interest in the area of emerging contaminants, water quality testing, and the issues of health, safety and risk regarding all water supplies. For this study, recycled water uses planned are restricted to non-potable uses, such as those allowed under Title 22.

Total Dissolved Solids (TDS) is commonly used as a water quality parameter for recycled water. Based on IEUA's *2010 Urban Water Management Plan*, the TDS of IEUA's recycled water supply to Chino Hills from Regional Plant RP-5 and CCWRF can be expected to remain at approximately 500 milligrams per liter (mg/L). The Chino Basin objective is 550 mg/L; therefore, it is reasonable to presume future supplies will remain at or below that level.

5.6 Current and Projected Normal Year Supply and Demand

Based on the analyses provided in the City's *Master Plan*, there is sufficient water supply to meet projected demands through 2035. **Table 5-3** provides current and projected normal year supply and demand for the City.

Table 5-3
Current and Projected Normal Year Supply and Demand (AFY)

	2005-06	Current [1]	2014-15	2019-20	2024-25	2029-30	2034-35
Demand Total	17,346	17,693	17,950	18,450	19,280	20,120	20,950
Supply							
Imported Water (WFA)	12,049	6,398	17,000	17,000	17,000	17,000	17,000
Monte Vista Water District	1,402	5,017					
Chino Hills Wells	852	1,781	4,200	4,200	4,200	4,200	4,200
Desalted Groundwater (CDA)	2,095	3,090	4,200	4,200	4,200	4,200	4,200
IEUA (Recycled Water)	948	1,406	1,850	1,850	1,850	1,850	1,850
Wholesale to JCSD	-	414	0	0	0	0	0
Supply Total	17,346	17,692	27,250	27,250	27,250	27,250	27,250
Difference (Supply-Demand)	0	0	9,300	8,800	7,970	7,130	6,300

[1] Represents the average annual flows since 2005-06 (Table 2-3). Annual water production needs for the City ranged from 16,075 AF (2010-11) to 19,371 AF (2006-07).

5.7 Dry Year and Multiple Dry Year Supply and Demand

The City benefits from its diversified water supply during a dry year. A cornerstone of the diversification is the DYY Program, as described earlier in this Chapter, which began in 2008 and is a conjunctive use project consisting of infrastructure improvements at water agency facilities throughout the Chino Basin. It is currently designed to enable MWDSC's dry year

storage account to store up to 500,000 AF of surplus imported water in the Chino Basin. The \$28.5 million project includes well treatment facilities, new wells, and conveyance pipeline improvements. With the implementation of the DYY Program, in a dry year MWDSC can request Chino Basin water agencies to pump additional groundwater for up to three years instead of taking full service imported water. The MVWD, on behalf of the City of Chino Hills and pursuant to contractual agreement, will reduce imported water service by an additional 1,448 AFY and supplement with groundwater in a dry year.

Table 5-4a presents a supply and demand comparison for a single dry year and multiple dry years for the 2011 to 2015 period. Demand projection for a single-dry year is assumed to increase due to dry year climatological conditions and population growth. The increased demands are assumed to be met by increased imported water and groundwater.

The multiple dry year analysis assumes demand will increase based on forecasted demand increases, but will also exhibit a significant reduction due to water use restrictions imposed under such conditions. Multiple dry year supplies assume a decrease in imported water availability, as dictated by the reliability percentages from Table 5-1, and an increase in groundwater supplies (CDA and City wells) made available from the DYY Program.

**Table 5-4a
Dry Year and Multiple Dry Year Supply and Demand (2011-2015)**

	Normal Year	Single Dry [2]	Multiple Dry Water Years (AFY) [3]		
			1	2	3
Demand Total	17,693	19,462	19,462	17,693	15,924
Supply					
Imported Water (WFA)	6,398	12,155	11,900	12,028	12,155
MVWD [1]	5,017				
Chino Hills Wells	1,781	2,687	2,912	1,031	0
Desalted Water (CDA)	3,090	2,770	2,800	2,785	1,919
IEUA (Recycled Water)	1,406	1,850	1,850	1,850	1,850
Wholesale to JCSD	414	0	0	0	0
Supply Total	17,692	19,462	19,462	17,693	15,924
Difference (Supply-Demand)	0	0	0	0	0

[1] The water supplied by MVWD is comprised of both imported water and groundwater. Under normal conditions, this assumes the imported water / groundwater mix is 50-50.

[2] The single dry year assumes a 10% increase in demand. Assumes imported portion of WFA and MVWD is 75%; therefore, 75% of these two sources is reduced by IEUA's supply reliability percentage as defined in Table 5-1. This is based on a total MVWD/WFA supply of 17,000 AFY.

[3] Demand for multiple dry years is increased based on increased forecasted demand, but assumes a 10% decrease due to water use restrictions and decreased imported water supplies; therefore, demands would be met by an increase in local groundwater supply.

Tables 5-4b through 5-4e illustrate supply and demand comparisons for a single dry year and multiple dry years for the following five-year periods, respectively. Similar supply and demand assumptions are made.

**Table 5-4b
Dry Year and Multiple Dry Year Supply and Demand (2016-2020)**

	Normal Year	Single Dry [2]	Multiple Dry Water Years (AFY) [3]		
			1	2	3
Demand Total	17,950	19,745	19,745	17,950	16,155
Supply					
Imported Water (WFA)	10,000	12,155	11,900	12,028	12,155
MVWD [1]					
Chino Hills Wells	2,000	2,970	3,195	1,288	0
Desalted Water (CDA)	4,100	2,770	2,800	2,785	2,150
IEUA (Recycled Water)	1,850	1,850	1,850	1,850	1,850
Supply Total	17,950	19,745	19,745	17,950	16,155
Difference (Supply-Demand)	0	0	0	0	0

[1] The water supplied by MVWD is comprised of both imported water and groundwater. Under normal conditions, this assumes the imported water / groundwater mix is 50-50.

[2] The single dry year assumes a 10% increase in demand. Assumes imported portion of WFA and MVWD is 75%; therefore, 75% of these two sources is reduced by IEUA's supply reliability percentage as defined in Table 5-1. This is based on a total MVWD/WFA supply of 17,000 AFY.

[3] Demand for multiple dry years is increased based on increased forecasted demand, but assumes a 10% decrease due to water use restrictions and decreased imported water supplies; therefore, demands would be met by an increase in local groundwater supply.

Table 5-4c
Dry Year and Multiple Dry Year Supply and Demand (2021-2025)

	Normal Year	Single Dry [2]	Multiple Dry Water Years (AFY) [3]		
			1	2	3
Demand Total	18,450	20,295	20,295	18,450	16,605
Supply					
Imported Water (WFA)	10,000	12,155	11,900	12,028	12,155
MVWD [1]					
Chino Hills Wells	2,500	3,520	3,745	1,788	0
Desalted Water (CDA)	4,100	2,770	2,800	2,785	2,600
IEUA (Recycled Water)	1,850	1,850	1,850	1,850	1,850
Supply Total	18,450	20,295	20,295	18,450	16,605
Difference (Supply-Demand)	0	0	0	0	0

Table 5-4d
Dry Year and Multiple Dry Year Supply and Demand (2026-2030)

	Normal Year	Single Dry [2]	Multiple Dry Water Years (AFY) [3]		
			1	2	3
Demand Total	19,280	21,208	21,208	19,280	17,352
Supply					
Imported Water (WFA)	10,000	12,155	11,900	12,028	12,155
MVWD [1]					
Chino Hills Wells	3,230	4,200	4,200	2,618	577
Desalted Water (CDA)	4,200	3,003	3,258	2,785	2,770
IEUA (Recycled Water)	1,850	1,850	1,850	1,850	1,850
Supply Total	19,280	21,208	21,208	19,280	17,352
Difference (Supply-Demand)	0	0	0	0	0

[1] The water supplied by MVWD is comprised of both imported water and groundwater. Under normal conditions, this assumes the imported water / groundwater mix is 50-50.

[2] The single dry year assumes a 10% increase in demand. Assumes imported portion of WFA and MVWD is 75%; therefore, 75% of these two sources is reduced by IEUA's supply reliability percentage as defined in Table 5-1. This is based on a total MVWD/WFA supply of 17,000 AFY.

[3] Demand for multiple dry years is increased based on increased forecasted demand, but assumes a 10% decrease due to water use restrictions and decreased imported water supplies; therefore, demands would be met by an increase in local groundwater supply.

**Table 5-4e
Dry Year and Multiple Dry Year Supply and Demand (2031-2035)**

	Normal Year	Single Dry [2]	Multiple Dry Water Years (AFY) [3]		
			1	2	3
Demand Total	20,120	22,132	22,132	20,120	18,108
Supply					
Imported Water (WFA)	10,000	12,155	11,900	12,028	12,155
MVWD [1]					
Chino Hills Wells	4,070	4,200	4,200	3,458	1,333
Desalted Water (CDA)	4,200	3,927	4,182	2,785	2,770
IEUA (Recycled Water)	1,850	1,850	1,850	1,850	1,850
Supply Total	20,120	22,132	22,132	20,120	18,108
Difference (Supply-Demand)	0	0	0	0	0

[1] The water supplied by MVWD is comprised of both imported water and groundwater. Under normal conditions, this assumes the imported water / groundwater mix is 50-50.

[2] The single dry year assumes a 10% increase in demand. Assumes imported portion of WFA and MVWD is 75%; therefore, 75% of these two sources is reduced by IEUA's supply reliability percentage as defined in Table 5-1. This is based on a total MVWD/WFA supply of 17,000 AFY.

[3] Demand for multiple dry years is increased based on increased forecasted demand, but assumes a 10% decrease due to water use restrictions and decreased imported water supplies; therefore, demands would be met by an increase in local groundwater supply.

Chapter 6

Water Shortage Contingency Plan

Chino Hills recognizes that it is important to publicize a water shortage alert promptly, so that the necessary rationing programs and policies can be implemented and public participation will be maximized, thereby reducing the likelihood of more severe shortage levels later.

6.1 Water Quality Operational Plan

The City has developed procedures to respond to various types of emergencies, including water quality problems or water shortage, as part of its Water Quality Operational Plan. This section presents the main emergency response components of the plan.

6.1.1 Emergency Notification Plan

The City's Public Works Director and/or the designee is responsible for implementing the Emergency Notification Plan upon the request of the State of California, Department of Public Health, Office of Drinking Water.

- a. All necessary personnel are on 24-hour emergency call. Staff has been instructed on a door-to-door notification program. As soon as the emergency is evaluated, notification time will be immediate.
- b. The City on-call list is updated every six months with a change in personnel on a rotating basis. The person on-call will be responsible to notify the designated person for implementation of the plan.
- c. In a magnitude earthquake of 5.0 or greater, the WFA and City together, with all member agencies, are to send an employee in a vehicle with a two-way radio and hand-held two-way radio to the Agua de Lejos Water Treatment Plant following the City's Ramona Pipeline to the Monte Vista Water District system. En route, the City employee is to make a quick damage assessment of the line. On arrival to the plant, he or she is to report findings to the Plant Manager or designated representative and establish radio communications with the City of Chino Hills. He or she is to assist WFA Plant staff until released by the Plant Manager or designated representative.
- d. Only upon request by the CDPH, will the City contact the newspaper, radio stations, and/or television stations in the affected areas. All verbal notifications will be issued in both English and Spanish.

The Water Quality Operational Plan includes guidelines for personnel implementing emergency notification. Guidelines include examples of water quality issues that would require immediate attention by designated staff, and instructions on how to respond to vandalism of a reservoir which exposes the interior.

6.1.2 Vulnerability Assessment

As a result of the Public Health Security and Bioterrorism Response Act of 2002 (Act), the City performed a vulnerability assessment to evaluate the water system's ability to provide a safe and reliable source of drinking water, and the City incorporated the findings into the City's emergency response plan. The vulnerability assessment included evaluations of contamination threats, due diligence procedures to improve security, water quality monitoring, threat management, and public health response/remediation and recovery.

6.2 Water Shortage Contingency Ordinance

In 2008, the City adopted Ordinance No. 214 to conserve water and regulate the use of water under shortage conditions. A copy of this ordinance is included in **Appendix F**. The water use restriction program is based on water shortage stages, and includes financial penalties and the possibility of service interruptions for those customers who exceed their allotment. The water use restrictions to be undertaken in the event of a water shortage include irrigation and washing restrictions, elimination of runoff and leakage, and swimming pool filling restrictions.

6.2.1 Water Shortage and Restriction Stages

Chino Hills developed a four-stage Water Conservation/Rationing Plan to invoke during declared water shortages. **Table 6-1** provides a summary of when each of these water conservation stages is implemented. The restrictions associated with each stage are described below, and a copy of the complete ordinance is included in **Appendix F**.

Table 6-1
Water Shortage and Restriction Stages

Water Shortage Stage	Implementation Condition
I (Voluntary)	Limit use from May 1 to Sept 30
II (Moderate)	Reduction in Chino Hills total water supply reduced by up to 10% and conservation does not achieve desired reduction
III (High)	Reduction in Chino Hills total water supply by 10 to 25%
IV (Severe)	Major earthquake, large scale fire, or other major catastrophe; or reduction in Chino Hills water supply by more than 25% for any duration

I. Voluntary Conservation - Limit water used from May 1 through September 30 each year.

II. Moderate Water Conservation Alert - Prohibitions and restrictions include the following:

- No hose washing
- No operation of fountains circulating potable water (reclaimed only)
- No water leakage permitted (repairs to be completed within 72 hours of notification)
- No sprinkling between 9 am and 6 pm; no excess irrigation watering
- Limited private vehicle or livestock washing use of water from bucket and hand-held hose
- No drinking water served in restaurants unless requested
- No runoff or leaks due to incorrect use of irrigation system
- Use of fire hydrants for fire fighting and construction only

III. High Water Conservation Alert - Prohibitions and restrictions include the following:

- All prohibitions and restrictions applicable in a Moderate Water Conservation Alert
- Limited irrigation by water dependent industries (such as commercial nurseries and golf courses) to every other day and between 6 pm and 6 am
- Limited use of outdoor water for all customers other than water dependent industries
- No water allowed for maintenance of decorative fountains unless recirculated
- Refilling of swimming pools shall not occur without permission from the City Manager

IV. Severe Water Conservation Alert - Prohibitions and restrictions include the following:

- All prohibitions and restrictions applicable in a Moderate and High Water Conservation Alert
- Outdoor water use limited to minimal amount using hand-held hose and shut-off nozzle for all water users, including water-dependent industries
- Water dependent industries are prohibited from outdoor use except with use of hand-held hose and shut-off nozzle
- No non-essential water uses, including filling or filtering swimming pools or fountains

6.2.2 Excessive Use Penalties

Any person violating the water use restriction ordinance (Ordinance No. 214 provided in **Appendix F**) will be guilty of an infraction or misdemeanor, and each day of the violation is considered to be a new and separate offense. As such, the penalty structure is as follows:

- First Offense (Infraction) – written reminder
- Second Offense (Infraction) - \$50 to \$100 fine
- Third Offense (Infraction) - \$100 to \$150 fine
- Fourth Offense (Misdemeanor) - \$500 to \$1000 fine, City will insert flow restrictor and may discontinue water service

In addition, the City may file an action for civil abatement and, at the discretion of the court, be entitled to reimbursement for all necessary costs incurred by the City pertaining to the violation.

6.3 Revenue and Expenditure Impacts

A portion of the surplus revenues that the City collects is used to fund the General Reserves and Other Reserves. Recently, the City has determined revenue impacts during each shortage stage (Moderate, High, and Severe) due to reduced water sales (revenue) and water purchase costs (expenses). General Reserves and Other Reserves for Chino Hills are typically sufficient to cover revenue impacts associated with even “severe” water shortages.

6.4 Mechanisms to Determine Water Use Reduction

Water supply to Chino Hills is metered and accounted at each supply source. During a water shortage, the City Manager will be responsible for confirming that the supply quantities being delivered to the City have been reduced in accordance with the shortage contingency plan.

Individual users or classes of users can be monitored in the City's system, to assess their rates of consumption in comparison with the "normal" unrestricted use rates (based on historical consumption) on a seasonal basis. In the event that supply source records indicate that water use reduction targets are not being met, the City would then review water use records for user categories to determine which are not in compliance. The next step would be review of individual use records to identify specific meters and users who have not achieved the appropriate reduction. These users would be contacted and given the incentive to comply.

Appendix A
Senate Bill No. 7 (Water Conservation Act)

CHAPTER 4

An act to amend and repeal Section 10631.5 of, to add Part 2.55 (commencing with Section 10608) to Division 6 of, and to repeal and add Part 2.8 (commencing with Section 10800) of Division 6 of, the Water Code, relating to water.

[Approved by Governor November 10, 2009. Filed with Secretary of State November 10, 2009.]

LEGISLATIVE COUNSEL'S DIGEST

SB 7, Steinberg. Water conservation.

(1) Existing law requires the Department of Water Resources to convene an independent technical panel to provide information to the department and the Legislature on new demand management measures, technologies, and approaches. "Demand management measures" means those water conservation measures, programs, and incentives that prevent the waste of water and promote the reasonable and efficient use and reuse of available supplies.

This bill would require the state to achieve a 20% reduction in urban per capita water use in California by December 31, 2020. The state would be required to make incremental progress towards this goal by reducing per capita water use by at least 10% on or before December 31, 2015. The bill would require each urban retail water supplier to develop urban water use targets and an interim urban water use target, in accordance with specified requirements. The bill would require agricultural water suppliers to implement efficient water management practices. The bill would require the department, in consultation with other state agencies, to develop a single standardized water use reporting form. The bill, with certain exceptions, would provide that urban retail water suppliers, on and after July 1, 2016, and agricultural water suppliers, on and after July 1, 2013, are not eligible for state water grants or loans unless they comply with the water conservation requirements established by the bill. The bill would repeal, on July 1, 2016, an existing requirement that conditions eligibility for certain water management grants or loans to an urban water supplier on the implementation of certain water demand management measures.

(2) Existing law, until January 1, 1993, and thereafter only as specified, requires certain agricultural water suppliers to prepare and adopt water management plans.

This bill would revise existing law relating to agricultural water management planning to require agricultural water suppliers to prepare and adopt agricultural water management plans with specified components on or before December 31, 2012, and update those plans on or before December

31, 2015, and on or before December 31 every 5 years thereafter. An agricultural water supplier that becomes an agricultural water supplier after December 31, 2012, would be required to prepare and adopt an agricultural water management plan within one year after becoming an agricultural water supplier. The agricultural water supplier would be required to notify each city or county within which the supplier provides water supplies with regard to the preparation or review of the plan. The bill would require the agricultural water supplier to submit copies of the plan to the department and other specified entities. The bill would provide that an agricultural water supplier is not eligible for state water grants or loans unless the supplier complies with the water management planning requirements established by the bill.

(3) The bill would take effect only if SB 1 and SB 6 of the 2009–10 7th Extraordinary Session of the Legislature are enacted and become effective.

The people of the State of California do enact as follows:

SECTION 1. Part 2.55 (commencing with Section 10608) is added to Division 6 of the Water Code, to read:

PART 2.55. SUSTAINABLE WATER USE AND DEMAND REDUCTION

CHAPTER 1. GENERAL DECLARATIONS AND POLICY

10608. The Legislature finds and declares all of the following:

(a) Water is a public resource that the California Constitution protects against waste and unreasonable use.

(b) Growing population, climate change, and the need to protect and grow California's economy while protecting and restoring our fish and wildlife habitats make it essential that the state manage its water resources as efficiently as possible.

(c) Diverse regional water supply portfolios will increase water supply reliability and reduce dependence on the Delta.

(d) Reduced water use through conservation provides significant energy and environmental benefits, and can help protect water quality, improve streamflows, and reduce greenhouse gas emissions.

(e) The success of state and local water conservation programs to increase efficiency of water use is best determined on the basis of measurable outcomes related to water use or efficiency.

(f) Improvements in technology and management practices offer the potential for increasing water efficiency in California over time, providing an essential water management tool to meet the need for water for urban, agricultural, and environmental uses.

(g) The Governor has called for a 20 percent per capita reduction in urban water use statewide by 2020.

(h) The factors used to formulate water use efficiency targets can vary significantly from location to location based on factors including weather, patterns of urban and suburban development, and past efforts to enhance water use efficiency.

(i) Per capita water use is a valid measure of a water provider's efforts to reduce urban water use within its service area. However, per capita water use is less useful for measuring relative water use efficiency between different water providers. Differences in weather, historical patterns of urban and suburban development, and density of housing in a particular location need to be considered when assessing per capita water use as a measure of efficiency.

10608.4. It is the intent of the Legislature, by the enactment of this part, to do all of the following:

(a) Require all water suppliers to increase the efficiency of use of this essential resource.

(b) Establish a framework to meet the state targets for urban water conservation identified in this part and called for by the Governor.

(c) Measure increased efficiency of urban water use on a per capita basis.

(d) Establish a method or methods for urban retail water suppliers to determine targets for achieving increased water use efficiency by the year 2020, in accordance with the Governor's goal of a 20-percent reduction.

(e) Establish consistent water use efficiency planning and implementation standards for urban water suppliers and agricultural water suppliers.

(f) Promote urban water conservation standards that are consistent with the California Urban Water Conservation Council's adopted best management practices and the requirements for demand management in Section 10631.

(g) Establish standards that recognize and provide credit to water suppliers that made substantial capital investments in urban water conservation since the drought of the early 1990s.

(h) Recognize and account for the investment of urban retail water suppliers in providing recycled water for beneficial uses.

(i) Require implementation of specified efficient water management practices for agricultural water suppliers.

(j) Support the economic productivity of California's agricultural, commercial, and industrial sectors.

(k) Advance regional water resources management.

10608.8. (a) (1) Water use efficiency measures adopted and implemented pursuant to this part or Part 2.8 (commencing with Section 10800) are water conservation measures subject to the protections provided under Section 1011.

(2) Because an urban agency is not required to meet its urban water use target until 2020 pursuant to subdivision (b) of Section 10608.24, an urban retail water supplier's failure to meet those targets shall not establish a violation of law for purposes of any state administrative or judicial proceeding prior to January 1, 2021. Nothing in this paragraph limits the use of data reported to the department or the board in litigation or an

administrative proceeding. This paragraph shall become inoperative on January 1, 2021.

(3) To the extent feasible, the department and the board shall provide for the use of water conservation reports required under this part to meet the requirements of Section 1011 for water conservation reporting.

(b) This part does not limit or otherwise affect the application of Chapter 3.5 (commencing with Section 11340), Chapter 4 (commencing with Section 11370), Chapter 4.5 (commencing with Section 11400), and Chapter 5 (commencing with Section 11500) of Part 1 of Division 3 of Title 2 of the Government Code.

(c) This part does not require a reduction in the total water used in the agricultural or urban sectors, because other factors, including, but not limited to, changes in agricultural economics or population growth may have greater effects on water use. This part does not limit the economic productivity of California's agricultural, commercial, or industrial sectors.

(d) The requirements of this part do not apply to an agricultural water supplier that is a party to the Quantification Settlement Agreement, as defined in subdivision (a) of Section 1 of Chapter 617 of the Statutes of 2002, during the period within which the Quantification Settlement Agreement remains in effect. After the expiration of the Quantification Settlement Agreement, to the extent conservation water projects implemented as part of the Quantification Settlement Agreement remain in effect, the conserved water created as part of those projects shall be credited against the obligations of the agricultural water supplier pursuant to this part.

CHAPTER 2. DEFINITIONS

10608.12. Unless the context otherwise requires, the following definitions govern the construction of this part:

(a) "Agricultural water supplier" means a water supplier, either publicly or privately owned, providing water to 10,000 or more irrigated acres, excluding recycled water. "Agricultural water supplier" includes a supplier or contractor for water, regardless of the basis of right, that distributes or sells water for ultimate resale to customers. "Agricultural water supplier" does not include the department.

(b) "Base daily per capita water use" means any of the following:

(1) The urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous 10-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.

(2) For an urban retail water supplier that meets at least 10 percent of its 2008 measured retail water demand through recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier, the urban retail water supplier may extend the calculation described in paragraph (1) up to an additional five years to a maximum of

a continuous 15-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.

(3) For the purposes of Section 10608.22, the urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous five-year period ending no earlier than December 31, 2007, and no later than December 31, 2010.

(c) "Baseline commercial, industrial, and institutional water use" means an urban retail water supplier's base daily per capita water use for commercial, industrial, and institutional users.

(d) "Commercial water user" means a water user that provides or distributes a product or service.

(e) "Compliance daily per capita water use" means the gross water use during the final year of the reporting period, reported in gallons per capita per day.

(f) "Disadvantaged community" means a community with an annual median household income that is less than 80 percent of the statewide annual median household income.

(g) "Gross water use" means the total volume of water, whether treated or untreated, entering the distribution system of an urban retail water supplier, excluding all of the following:

(1) Recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier.

(2) The net volume of water that the urban retail water supplier places into long-term storage.

(3) The volume of water the urban retail water supplier conveys for use by another urban water supplier.

(4) The volume of water delivered for agricultural use, except as otherwise provided in subdivision (f) of Section 10608.24.

(h) "Industrial water user" means a water user that is primarily a manufacturer or processor of materials as defined by the North American Industry Classification System code sectors 31 to 33, inclusive, or an entity that is a water user primarily engaged in research and development.

(i) "Institutional water user" means a water user dedicated to public service. This type of user includes, among other users, higher education institutions, schools, courts, churches, hospitals, government facilities, and nonprofit research institutions.

(j) "Interim urban water use target" means the midpoint between the urban retail water supplier's base daily per capita water use and the urban retail water supplier's urban water use target for 2020.

(k) "Locally cost effective" means that the present value of the local benefits of implementing an agricultural efficiency water management practice is greater than or equal to the present value of the local cost of implementing that measure.

(l) "Process water" means water used for producing a product or product content or water used for research and development, including, but not limited to, continuous manufacturing processes, water used for testing and maintaining equipment used in producing a product or product content, and

water used in combined heat and power facilities used in producing a product or product content. Process water does not mean incidental water uses not related to the production of a product or product content, including, but not limited to, water used for restrooms, landscaping, air conditioning, heating, kitchens, and laundry.

(m) “Recycled water” means recycled water, as defined in subdivision (n) of Section 13050, that is used to offset potable demand, including recycled water supplied for direct use and indirect potable reuse, that meets the following requirements, where applicable:

(1) For groundwater recharge, including recharge through spreading basins, water supplies that are all of the following:

(A) Metered.

(B) Developed through planned investment by the urban water supplier or a wastewater treatment agency.

(C) Treated to a minimum tertiary level.

(D) Delivered within the service area of an urban retail water supplier or its urban wholesale water supplier that helps an urban retail water supplier meet its urban water use target.

(2) For reservoir augmentation, water supplies that meet the criteria of paragraph (1) and are conveyed through a distribution system constructed specifically for recycled water.

(n) “Regional water resources management” means sources of supply resulting from watershed-based planning for sustainable local water reliability or any of the following alternative sources of water:

(1) The capture and reuse of stormwater or rainwater.

(2) The use of recycled water.

(3) The desalination of brackish groundwater.

(4) The conjunctive use of surface water and groundwater in a manner that is consistent with the safe yield of the groundwater basin.

(o) “Reporting period” means the years for which an urban retail water supplier reports compliance with the urban water use targets.

(p) “Urban retail water supplier” means a water supplier, either publicly or privately owned, that directly provides potable municipal water to more than 3,000 end users or that supplies more than 3,000 acre-feet of potable water annually at retail for municipal purposes.

(q) “Urban water use target” means the urban retail water supplier’s targeted future daily per capita water use.

(r) “Urban wholesale water supplier,” means a water supplier, either publicly or privately owned, that provides more than 3,000 acre-feet of water annually at wholesale for potable municipal purposes.

CHAPTER 3. URBAN RETAIL WATER SUPPLIERS

10608.16. (a) The state shall achieve a 20-percent reduction in urban per capita water use in California on or before December 31, 2020.

(b) The state shall make incremental progress towards the state target specified in subdivision (a) by reducing urban per capita water use by at least 10 percent on or before December 31, 2015.

10608.20. (a) (1) Each urban retail water supplier shall develop urban water use targets and an interim urban water use target by July 1, 2011. Urban retail water suppliers may elect to determine and report progress toward achieving these targets on an individual or regional basis, as provided in subdivision (a) of Section 10608.28, and may determine the targets on a fiscal year or calendar year basis.

(2) It is the intent of the Legislature that the urban water use targets described in subdivision (a) cumulatively result in a 20-percent reduction from the baseline daily per capita water use by December 31, 2020.

(b) An urban retail water supplier shall adopt one of the following methods for determining its urban water use target pursuant to subdivision (a):

(1) Eighty percent of the urban retail water supplier’s baseline per capita daily water use.

(2) The per capita daily water use that is estimated using the sum of the following performance standards:

(A) For indoor residential water use, 55 gallons per capita daily water use as a provisional standard. Upon completion of the department’s 2016 report to the Legislature pursuant to Section 10608.42, this standard may be adjusted by the Legislature by statute.

(B) For landscape irrigated through dedicated or residential meters or connections, water efficiency equivalent to the standards of the Model Water Efficient Landscape Ordinance set forth in Chapter 2.7 (commencing with Section 490) of Division 2 of Title 23 of the California Code of Regulations, as in effect the later of the year of the landscape’s installation or 1992. An urban retail water supplier using the approach specified in this subparagraph shall use satellite imagery, site visits, or other best available technology to develop an accurate estimate of landscaped areas.

(C) For commercial, industrial, and institutional uses, a 10-percent reduction in water use from the baseline commercial, industrial, and institutional water use by 2020.

(3) Ninety-five percent of the applicable state hydrologic region target, as set forth in the state’s draft 20x2020 Water Conservation Plan (dated April 30, 2009). If the service area of an urban water supplier includes more than one hydrologic region, the supplier shall apportion its service area to each region based on population or area.

(4) A method that shall be identified and developed by the department, through a public process, and reported to the Legislature no later than December 31, 2010. The method developed by the department shall identify per capita targets that cumulatively result in a statewide 20-percent reduction in urban daily per capita water use by December 31, 2020. In developing urban daily per capita water use targets, the department shall do all of the following:

(A) Consider climatic differences within the state.

(B) Consider population density differences within the state.

(C) Provide flexibility to communities and regions in meeting the targets.

(D) Consider different levels of per capita water use according to plant water needs in different regions.

(E) Consider different levels of commercial, industrial, and institutional water use in different regions of the state.

(F) Avoid placing an undue hardship on communities that have implemented conservation measures or taken actions to keep per capita water use low.

(c) If the department adopts a regulation pursuant to paragraph (4) of subdivision (b) that results in a requirement that an urban retail water supplier achieve a reduction in daily per capita water use that is greater than 20 percent by December 31, 2020, an urban retail water supplier that adopted the method described in paragraph (4) of subdivision (b) may limit its urban water use target to a reduction of not more than 20 percent by December 31, 2020, by adopting the method described in paragraph (1) of subdivision (b).

(d) The department shall update the method described in paragraph (4) of subdivision (b) and report to the Legislature by December 31, 2014. An urban retail water supplier that adopted the method described in paragraph (4) of subdivision (b) may adopt a new urban daily per capita water use target pursuant to this updated method.

(e) An urban retail water supplier shall include in its urban water management plan required pursuant to Part 2.6 (commencing with Section 10610) due in 2010 the baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.

(f) When calculating per capita values for the purposes of this chapter, an urban retail water supplier shall determine population using federal, state, and local population reports and projections.

(g) An urban retail water supplier may update its 2020 urban water use target in its 2015 urban water management plan required pursuant to Part 2.6 (commencing with Section 10610).

(h) (1) The department, through a public process and in consultation with the California Urban Water Conservation Council, shall develop technical methodologies and criteria for the consistent implementation of this part, including, but not limited to, both of the following:

(A) Methodologies for calculating base daily per capita water use, baseline commercial, industrial, and institutional water use, compliance daily per capita water use, gross water use, service area population, indoor residential water use, and landscaped area water use.

(B) Criteria for adjustments pursuant to subdivisions (d) and (e) of Section 10608.24.

(2) The department shall post the methodologies and criteria developed pursuant to this subdivision on its Internet Web site, and make written copies

available, by October 1, 2010. An urban retail water supplier shall use the methods developed by the department in compliance with this part.

(i) (1) The department shall adopt regulations for implementation of the provisions relating to process water in accordance with subdivision (l) of Section 10608.12, subdivision (e) of Section 10608.24, and subdivision (d) of Section 10608.26.

(2) The initial adoption of a regulation authorized by this subdivision is deemed to address an emergency, for purposes of Sections 11346.1 and 11349.6 of the Government Code, and the department is hereby exempted for that purpose from the requirements of subdivision (b) of Section 11346.1 of the Government Code. After the initial adoption of an emergency regulation pursuant to this subdivision, the department shall not request approval from the Office of Administrative Law to readopt the regulation as an emergency regulation pursuant to Section 11346.1 of the Government Code.

(j) An urban retail water supplier shall be granted an extension to July 1, 2011, for adoption of an urban water management plan pursuant to Part 2.6 (commencing with Section 10610) due in 2010 to allow use of technical methodologies developed by the department pursuant to paragraph (4) of subdivision (b) and subdivision (h). An urban retail water supplier that adopts an urban water management plan due in 2010 that does not use the methodologies developed by the department pursuant to subdivision (h) shall amend the plan by July 1, 2011, to comply with this part.

10608.22. Notwithstanding the method adopted by an urban retail water supplier pursuant to Section 10608.20, an urban retail water supplier's per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use as defined in paragraph (3) of subdivision (b) of Section 10608.12. This section does not apply to an urban retail water supplier with a base daily per capita water use at or below 100 gallons per capita per day.

10608.24. (a) Each urban retail water supplier shall meet its interim urban water use target by December 31, 2015.

(b) Each urban retail water supplier shall meet its urban water use target by December 31, 2020.

(c) An urban retail water supplier's compliance daily per capita water use shall be the measure of progress toward achievement of its urban water use target.

(d) (1) When determining compliance daily per capita water use, an urban retail water supplier may consider the following factors:

(A) Differences in evapotranspiration and rainfall in the baseline period compared to the compliance reporting period.

(B) Substantial changes to commercial or industrial water use resulting from increased business output and economic development that have occurred during the reporting period.

(C) Substantial changes to institutional water use resulting from fire suppression services or other extraordinary events, or from new or expanded operations, that have occurred during the reporting period.

(2) If the urban retail water supplier elects to adjust its estimate of compliance daily per capita water use due to one or more of the factors described in paragraph (1), it shall provide the basis for, and data supporting, the adjustment in the report required by Section 10608.40.

(e) When developing the urban water use target pursuant to Section 10608.20, an urban retail water supplier that has a substantial percentage of industrial water use in its service area, may exclude process water from the calculation of gross water use to avoid a disproportionate burden on another customer sector.

(f) (1) An urban retail water supplier that includes agricultural water use in an urban water management plan pursuant to Part 2.6 (commencing with Section 10610) may include the agricultural water use in determining gross water use. An urban retail water supplier that includes agricultural water use in determining gross water use and develops its urban water use target pursuant to paragraph (2) of subdivision (b) of Section 10608.20 shall use a water efficient standard for agricultural irrigation of 100 percent of reference evapotranspiration multiplied by the crop coefficient for irrigated acres.

(2) An urban retail water supplier, that is also an agricultural water supplier, is not subject to the requirements of Chapter 4 (commencing with Section 10608.48), if the agricultural water use is incorporated into its urban water use target pursuant to paragraph (1).

10608.26. (a) In complying with this part, an urban retail water supplier shall conduct at least one public hearing to accomplish all of the following:

(1) Allow community input regarding the urban retail water supplier's implementation plan for complying with this part.

(2) Consider the economic impacts of the urban retail water supplier's implementation plan for complying with this part.

(3) Adopt a method, pursuant to subdivision (b) of Section 10608.20, for determining its urban water use target.

(b) In complying with this part, an urban retail water supplier may meet its urban water use target through efficiency improvements in any combination among its customer sectors. An urban retail water supplier shall avoid placing a disproportionate burden on any customer sector.

(c) For an urban retail water supplier that supplies water to a United States Department of Defense military installation, the urban retail water supplier's implementation plan for complying with this part shall consider the United States Department of Defense military installation's requirements under federal Executive Order 13423.

(d) (1) Any ordinance or resolution adopted by an urban retail water supplier after the effective date of this section shall not require existing customers as of the effective date of this section, to undertake changes in product formulation, operations, or equipment that would reduce process water use, but may provide technical assistance and financial incentives to those customers to implement efficiency measures for process water. This section shall not limit an ordinance or resolution adopted pursuant to a declaration of drought emergency by an urban retail water supplier.

(2) This part shall not be construed or enforced so as to interfere with the requirements of Chapter 4 (commencing with Section 113980) to Chapter 13 (commencing with Section 114380), inclusive, of Part 7 of Division 104 of the Health and Safety Code, or any requirement or standard for the protection of public health, public safety, or worker safety established by federal, state, or local government or recommended by recognized standard setting organizations or trade associations.

10608.28. (a) An urban retail water supplier may meet its urban water use target within its retail service area, or through mutual agreement, by any of the following:

(1) Through an urban wholesale water supplier.

(2) Through a regional agency authorized to plan and implement water conservation, including, but not limited to, an agency established under the Bay Area Water Supply and Conservation Agency Act (Division 31 (commencing with Section 81300)).

(3) Through a regional water management group as defined in Section 10537.

(4) By an integrated regional water management funding area.

(5) By hydrologic region.

(6) Through other appropriate geographic scales for which computation methods have been developed by the department.

(b) A regional water management group, with the written consent of its member agencies, may undertake any or all planning, reporting, and implementation functions under this chapter for the member agencies that consent to those activities. Any data or reports shall provide information both for the regional water management group and separately for each consenting urban retail water supplier and urban wholesale water supplier.

10608.32. All costs incurred pursuant to this part by a water utility regulated by the Public Utilities Commission may be recoverable in rates subject to review and approval by the Public Utilities Commission, and may be recorded in a memorandum account and reviewed for reasonableness by the Public Utilities Commission.

10608.36. Urban wholesale water suppliers shall include in the urban water management plans required pursuant to Part 2.6 (commencing with Section 10610) an assessment of their present and proposed future measures, programs, and policies to help achieve the water use reductions required by this part.

10608.40. Urban water retail suppliers shall report to the department on their progress in meeting their urban water use targets as part of their urban water management plans submitted pursuant to Section 10631. The data shall be reported using a standardized form developed pursuant to Section 10608.52.

10608.42. The department shall review the 2015 urban water management plans and report to the Legislature by December 31, 2016, on progress towards achieving a 20-percent reduction in urban water use by December 31, 2020. The report shall include recommendations on changes to water efficiency standards or urban water use targets in order to achieve

the 20-percent reduction and to reflect updated efficiency information and technology changes.

10608.43. The department, in conjunction with the California Urban Water Conservation Council, by April 1, 2010, shall convene a representative task force consisting of academic experts, urban retail water suppliers, environmental organizations, commercial water users, industrial water users, and institutional water users to develop alternative best management practices for commercial, industrial, and institutional users and an assessment of the potential statewide water use efficiency improvement in the commercial, industrial, and institutional sectors that would result from implementation of these best management practices. The taskforce, in conjunction with the department, shall submit a report to the Legislature by April 1, 2012, that shall include a review of multiple sectors within commercial, industrial, and institutional users and that shall recommend water use efficiency standards for commercial, industrial, and institutional users among various sectors of water use. The report shall include, but not be limited to, the following:

- (a) Appropriate metrics for evaluating commercial, industrial, and institutional water use.
- (b) Evaluation of water demands for manufacturing processes, goods, and cooling.
- (c) Evaluation of public infrastructure necessary for delivery of recycled water to the commercial, industrial, and institutional sectors.
- (d) Evaluation of institutional and economic barriers to increased recycled water use within the commercial, industrial, and institutional sectors.
- (e) Identification of technical feasibility and cost of the best management practices to achieve more efficient water use statewide in the commercial, industrial, and institutional sectors that is consistent with the public interest and reflects past investments in water use efficiency.

10608.44. Each state agency shall reduce water use on facilities it operates to support urban retail water suppliers in meeting the target identified in Section 10608.16.

CHAPTER 4. AGRICULTURAL WATER SUPPLIERS

10608.48. (a) On or before July 31, 2012, an agricultural water supplier shall implement efficient water management practices pursuant to subdivisions (b) and (c).

(b) Agricultural water suppliers shall implement all of the following critical efficient management practices:

- (1) Measure the volume of water delivered to customers with sufficient accuracy to comply with subdivision (a) of Section 531.10 and to implement paragraph (2).
- (2) Adopt a pricing structure for water customers based at least in part on quantity delivered.

(c) Agricultural water suppliers shall implement additional efficient management practices, including, but not limited to, practices to accomplish all of the following, if the measures are locally cost effective and technically feasible:

(1) Facilitate alternative land use for lands with exceptionally high water duties or whose irrigation contributes to significant problems, including drainage.

(2) Facilitate use of available recycled water that otherwise would not be used beneficially, meets all health and safety criteria, and does not harm crops or soils.

(3) Facilitate the financing of capital improvements for on-farm irrigation systems.

(4) Implement an incentive pricing structure that promotes one or more of the following goals:

(A) More efficient water use at the farm level.

(B) Conjunctive use of groundwater.

(C) Appropriate increase of groundwater recharge.

(D) Reduction in problem drainage.

(E) Improved management of environmental resources.

(F) Effective management of all water sources throughout the year by adjusting seasonal pricing structures based on current conditions.

(5) Expand line or pipe distribution systems, and construct regulatory reservoirs to increase distribution system flexibility and capacity, decrease maintenance, and reduce seepage.

(6) Increase flexibility in water ordering by, and delivery to, water customers within operational limits.

(7) Construct and operate supplier spill and tailwater recovery systems.

(8) Increase planned conjunctive use of surface water and groundwater within the supplier service area.

(9) Automate canal control structures.

(10) Facilitate or promote customer pump testing and evaluation.

(11) Designate a water conservation coordinator who will develop and implement the water management plan and prepare progress reports.

(12) Provide for the availability of water management services to water users. These services may include, but are not limited to, all of the following:

(A) On-farm irrigation and drainage system evaluations.

(B) Normal year and real-time irrigation scheduling and crop evapotranspiration information.

(C) Surface water, groundwater, and drainage water quantity and quality data.

(D) Agricultural water management educational programs and materials for farmers, staff, and the public.

(13) Evaluate the policies of agencies that provide the supplier with water to identify the potential for institutional changes to allow more flexible water deliveries and storage.

(14) Evaluate and improve the efficiencies of the supplier's pumps.

(d) Agricultural water suppliers shall include in the agricultural water management plans required pursuant to Part 2.8 (commencing with Section 10800) a report on which efficient water management practices have been implemented and are planned to be implemented, an estimate of the water use efficiency improvements that have occurred since the last report, and an estimate of the water use efficiency improvements estimated to occur five and 10 years in the future. If an agricultural water supplier determines that an efficient water management practice is not locally cost effective or technically feasible, the supplier shall submit information documenting that determination.

(e) The data shall be reported using a standardized form developed pursuant to Section 10608.52.

(f) An agricultural water supplier may meet the requirements of subdivisions (d) and (e) by submitting to the department a water conservation plan submitted to the United States Bureau of Reclamation that meets the requirements described in Section 10828.

(g) On or before December 31, 2013, December 31, 2016, and December 31, 2021, the department, in consultation with the board, shall submit to the Legislature a report on the agricultural efficient water management practices that have been implemented and are planned to be implemented and an assessment of the manner in which the implementation of those efficient water management practices has affected and will affect agricultural operations, including estimated water use efficiency improvements, if any.

(h) The department may update the efficient water management practices required pursuant to subdivision (c), in consultation with the Agricultural Water Management Council, the United States Bureau of Reclamation, and the board. All efficient water management practices for agricultural water use pursuant to this chapter shall be adopted or revised by the department only after the department conducts public hearings to allow participation of the diverse geographical areas and interests of the state.

(i) (1) The department shall adopt regulations that provide for a range of options that agricultural water suppliers may use or implement to comply with the measurement requirement in paragraph (1) of subdivision (b).

(2) The initial adoption of a regulation authorized by this subdivision is deemed to address an emergency, for purposes of Sections 11346.1 and 11349.6 of the Government Code, and the department is hereby exempted for that purpose from the requirements of subdivision (b) of Section 11346.1 of the Government Code. After the initial adoption of an emergency regulation pursuant to this subdivision, the department shall not request approval from the Office of Administrative Law to readopt the regulation as an emergency regulation pursuant to Section 11346.1 of the Government Code.

CHAPTER 5. SUSTAINABLE WATER MANAGEMENT

10608.50. (a) The department, in consultation with the board, shall promote implementation of regional water resources management practices through increased incentives and removal of barriers consistent with state and federal law. Potential changes may include, but are not limited to, all of the following:

(1) Revisions to the requirements for urban and agricultural water management plans.

(2) Revisions to the requirements for integrated regional water management plans.

(3) Revisions to the eligibility for state water management grants and loans.

(4) Revisions to state or local permitting requirements that increase water supply opportunities, but do not weaken water quality protection under state and federal law.

(5) Increased funding for research, feasibility studies, and project construction.

(6) Expanding technical and educational support for local land use and water management agencies.

(b) No later than January 1, 2011, and updated as part of the California Water Plan, the department, in consultation with the board, and with public input, shall propose new statewide targets, or review and update existing statewide targets, for regional water resources management practices, including, but not limited to, recycled water, brackish groundwater desalination, and infiltration and direct use of urban stormwater runoff.

CHAPTER 6. STANDARDIZED DATA COLLECTION

10608.52. (a) The department, in consultation with the board, the California Bay-Delta Authority or its successor agency, the State Department of Public Health, and the Public Utilities Commission, shall develop a single standardized water use reporting form to meet the water use information needs of each agency, including the needs of urban water suppliers that elect to determine and report progress toward achieving targets on a regional basis as provided in subdivision (a) of Section 10608.28.

(b) At a minimum, the form shall be developed to accommodate information sufficient to assess an urban water supplier's compliance with conservation targets pursuant to Section 10608.24 and an agricultural water supplier's compliance with implementation of efficient water management practices pursuant to subdivision (a) of Section 10608.48. The form shall accommodate reporting by urban water suppliers on an individual or regional basis as provided in subdivision (a) of Section 10608.28.

CHAPTER 7. FUNDING PROVISIONS

10608.56. (a) On and after July 1, 2016, an urban retail water supplier is not eligible for a water grant or loan awarded or administered by the state unless the supplier complies with this part.

(b) On and after July 1, 2013, an agricultural water supplier is not eligible for a water grant or loan awarded or administered by the state unless the supplier complies with this part.

(c) Notwithstanding subdivision (a), the department shall determine that an urban retail water supplier is eligible for a water grant or loan even though the supplier has not met the per capita reductions required pursuant to Section 10608.24, if the urban retail water supplier has submitted to the department for approval a schedule, financing plan, and budget, to be included in the grant or loan agreement, for achieving the per capita reductions. The supplier may request grant or loan funds to achieve the per capita reductions to the extent the request is consistent with the eligibility requirements applicable to the water funds.

(d) Notwithstanding subdivision (b), the department shall determine that an agricultural water supplier is eligible for a water grant or loan even though the supplier is not implementing all of the efficient water management practices described in Section 10608.48, if the agricultural water supplier has submitted to the department for approval a schedule, financing plan, and budget, to be included in the grant or loan agreement, for implementation of the efficient water management practices. The supplier may request grant or loan funds to implement the efficient water management practices to the extent the request is consistent with the eligibility requirements applicable to the water funds.

(e) Notwithstanding subdivision (a), the department shall determine that an urban retail water supplier is eligible for a water grant or loan even though the supplier has not met the per capita reductions required pursuant to Section 10608.24, if the urban retail water supplier has submitted to the department for approval documentation demonstrating that its entire service area qualifies as a disadvantaged community.

(f) The department shall not deny eligibility to an urban retail water supplier or agricultural water supplier in compliance with the requirements of this part and Part 2.8 (commencing with Section 10800), that is participating in a multiagency water project, or an integrated regional water management plan, developed pursuant to Section 75026 of the Public Resources Code, solely on the basis that one or more of the agencies participating in the project or plan is not implementing all of the requirements of this part or Part 2.8 (commencing with Section 10800).

10608.60. (a) It is the intent of the Legislature that funds made available by Section 75026 of the Public Resources Code should be expended, consistent with Division 43 (commencing with Section 75001) of the Public Resources Code and upon appropriation by the Legislature, for grants to implement this part. In the allocation of funding, it is the intent of the

Legislature that the department give consideration to disadvantaged communities to assist in implementing the requirements of this part.

(b) It is the intent of the Legislature that funds made available by Section 75041 of the Public Resources Code, should be expended, consistent with Division 43 (commencing with Section 75001) of the Public Resources Code and upon appropriation by the Legislature, for direct expenditures to implement this part.

CHAPTER 8. QUANTIFYING AGRICULTURAL WATER USE EFFICIENCY

10608.64. The department, in consultation with the Agricultural Water Management Council, academic experts, and other stakeholders, shall develop a methodology for quantifying the efficiency of agricultural water use. Alternatives to be assessed shall include, but not be limited to, determination of efficiency levels based on crop type or irrigation system distribution uniformity. On or before December 31, 2011, the department shall report to the Legislature on a proposed methodology and a plan for implementation. The plan shall include the estimated implementation costs and the types of data needed to support the methodology. Nothing in this section authorizes the department to implement a methodology established pursuant to this section.

SEC. 2. Section 10631.5 of the Water Code is amended to read:

10631.5. (a) (1) Beginning January 1, 2009, the terms of, and eligibility for, a water management grant or loan made to an urban water supplier and awarded or administered by the department, state board, or California Bay-Delta Authority or its successor agency shall be conditioned on the implementation of the water demand management measures described in Section 10631, as determined by the department pursuant to subdivision (b).

(2) For the purposes of this section, water management grants and loans include funding for programs and projects for surface water or groundwater storage, recycling, desalination, water conservation, water supply reliability, and water supply augmentation. This section does not apply to water management projects funded by the federal American Recovery and Reinvestment Act of 2009 (Public Law 111-5).

(3) Notwithstanding paragraph (1), the department shall determine that an urban water supplier is eligible for a water management grant or loan even though the supplier is not implementing all of the water demand management measures described in Section 10631, if the urban water supplier has submitted to the department for approval a schedule, financing plan, and budget, to be included in the grant or loan agreement, for implementation of the water demand management measures. The supplier may request grant or loan funds to implement the water demand management measures to the extent the request is consistent with the eligibility requirements applicable to the water management funds.

(4) (A) Notwithstanding paragraph (1), the department shall determine that an urban water supplier is eligible for a water management grant or loan even though the supplier is not implementing all of the water demand management measures described in Section 10631, if an urban water supplier submits to the department for approval documentation demonstrating that a water demand management measure is not locally cost effective. If the department determines that the documentation submitted by the urban water supplier fails to demonstrate that a water demand management measure is not locally cost effective, the department shall notify the urban water supplier and the agency administering the grant or loan program within 120 days that the documentation does not satisfy the requirements for an exemption, and include in that notification a detailed statement to support the determination.

(B) For purposes of this paragraph, “not locally cost effective” means that the present value of the local benefits of implementing a water demand management measure is less than the present value of the local costs of implementing that measure.

(b) (1) The department, in consultation with the state board and the California Bay-Delta Authority or its successor agency, and after soliciting public comment regarding eligibility requirements, shall develop eligibility requirements to implement the requirement of paragraph (1) of subdivision (a). In establishing these eligibility requirements, the department shall do both of the following:

(A) Consider the conservation measures described in the Memorandum of Understanding Regarding Urban Water Conservation in California, and alternative conservation approaches that provide equal or greater water savings.

(B) Recognize the different legal, technical, fiscal, and practical roles and responsibilities of wholesale water suppliers and retail water suppliers.

(2) (A) For the purposes of this section, the department shall determine whether an urban water supplier is implementing all of the water demand management measures described in Section 10631 based on either, or a combination, of the following:

(i) Compliance on an individual basis.

(ii) Compliance on a regional basis. Regional compliance shall require participation in a regional conservation program consisting of two or more urban water suppliers that achieves the level of conservation or water efficiency savings equivalent to the amount of conservation or savings achieved if each of the participating urban water suppliers implemented the water demand management measures. The urban water supplier administering the regional program shall provide participating urban water suppliers and the department with data to demonstrate that the regional program is consistent with this clause. The department shall review the data to determine whether the urban water suppliers in the regional program are meeting the eligibility requirements.

(B) The department may require additional information for any determination pursuant to this section.

(3) The department shall not deny eligibility to an urban water supplier in compliance with the requirements of this section that is participating in a multiagency water project, or an integrated regional water management plan, developed pursuant to Section 75026 of the Public Resources Code, solely on the basis that one or more of the agencies participating in the project or plan is not implementing all of the water demand management measures described in Section 10631.

(c) In establishing guidelines pursuant to the specific funding authorization for any water management grant or loan program subject to this section, the agency administering the grant or loan program shall include in the guidelines the eligibility requirements developed by the department pursuant to subdivision (b).

(d) Upon receipt of a water management grant or loan application by an agency administering a grant and loan program subject to this section, the agency shall request an eligibility determination from the department with respect to the requirements of this section. The department shall respond to the request within 60 days of the request.

(e) The urban water supplier may submit to the department copies of its annual reports and other relevant documents to assist the department in determining whether the urban water supplier is implementing or scheduling the implementation of water demand management activities. In addition, for urban water suppliers that are signatories to the Memorandum of Understanding Regarding Urban Water Conservation in California and submit biennial reports to the California Urban Water Conservation Council in accordance with the memorandum, the department may use these reports to assist in tracking the implementation of water demand management measures.

(f) This section shall remain in effect only until July 1, 2016, and as of that date is repealed, unless a later enacted statute, that is enacted before July 1, 2016, deletes or extends that date.

SEC. 3. Part 2.8 (commencing with Section 10800) of Division 6 of the Water Code is repealed.

SEC. 4. Part 2.8 (commencing with Section 10800) is added to Division 6 of the Water Code, to read:

PART 2.8. AGRICULTURAL WATER MANAGEMENT PLANNING

CHAPTER 1. GENERAL DECLARATIONS AND POLICY

10800. This part shall be known and may be cited as the Agricultural Water Management Planning Act.

10801. The Legislature finds and declares all of the following:

- (a) The waters of the state are a limited and renewable resource.
- (b) The California Constitution requires that water in the state be used in a reasonable and beneficial manner.
- (c) Urban water districts are required to adopt water management plans.

(d) The conservation of agricultural water supplies is of great statewide concern.

(e) There is a great amount of reuse of delivered water, both inside and outside the water service areas.

(f) Significant noncrop beneficial uses are associated with agricultural water use, including streamflows and wildlife habitat.

(g) Significant opportunities exist in some areas, through improved irrigation water management, to conserve water or to reduce the quantity of highly saline or toxic drainage water.

(h) Changes in water management practices should be carefully planned and implemented to minimize adverse effects on other beneficial uses currently being served.

(i) Agricultural water suppliers that receive water from the federal Central Valley Project are required by federal law to prepare and implement water conservation plans.

(j) Agricultural water users applying for a permit to appropriate water from the board are required to prepare and implement water conservation plans.

10802. The Legislature finds and declares that all of the following are the policies of the state:

(a) The conservation of water shall be pursued actively to protect both the people of the state and the state's water resources.

(b) The conservation of agricultural water supplies shall be an important criterion in public decisions with regard to water.

(c) Agricultural water suppliers shall be required to prepare water management plans to achieve conservation of water.

CHAPTER 2. DEFINITIONS

10810. Unless the context otherwise requires, the definitions set forth in this chapter govern the construction of this part.

10811. "Agricultural water management plan" or "plan" means an agricultural water management plan prepared pursuant to this part.

10812. "Agricultural water supplier" has the same meaning as defined in Section 10608.12.

10813. "Customer" means a purchaser of water from a water supplier who uses water for agricultural purposes.

10814. "Person" means any individual, firm, association, organization, partnership, business, trust, corporation, company, public agency, or any agency of that entity.

10815. "Public agency" means any city, county, city and county, special district, or other public entity.

10816. "Urban water supplier" has the same meaning as set forth in Section 10617.

10817. “Water conservation” means the efficient management of water resources for beneficial uses, preventing waste, or accomplishing additional benefits with the same amount of water.

CHAPTER 3. AGRICULTURAL WATER MANAGEMENT PLANS

Article 1. General Provisions

10820. (a) An agricultural water supplier shall prepare and adopt an agricultural water management plan in the manner set forth in this chapter on or before December 31, 2012, and shall update that plan on December 31, 2015, and on or before December 31 every five years thereafter.

(b) Every supplier that becomes an agricultural water supplier after December 31, 2012, shall prepare and adopt an agricultural water management plan within one year after the date it has become an agricultural water supplier.

(c) A water supplier that indirectly provides water to customers for agricultural purposes shall not prepare a plan pursuant to this part without the consent of each agricultural water supplier that directly provides that water to its customers.

10821. (a) An agricultural water supplier required to prepare a plan pursuant to this part shall notify each city or county within which the supplier provides water supplies that the agricultural water supplier will be preparing the plan or reviewing the plan and considering amendments or changes to the plan. The agricultural water supplier may consult with, and obtain comments from, each city or county that receives notice pursuant to this subdivision.

(b) The amendments to, or changes in, the plan shall be adopted and submitted in the manner set forth in Article 3 (commencing with Section 10840).

Article 2. Contents of Plans

10825. (a) It is the intent of the Legislature in enacting this part to allow levels of water management planning commensurate with the numbers of customers served and the volume of water supplied.

(b) This part does not require the implementation of water conservation programs or practices that are not locally cost effective.

10826. An agricultural water management plan shall be adopted in accordance with this chapter. The plan shall do all of the following:

(a) Describe the agricultural water supplier and the service area, including all of the following:

- (1) Size of the service area.
- (2) Location of the service area and its water management facilities.
- (3) Terrain and soils.
- (4) Climate.

- (5) Operating rules and regulations.
- (6) Water delivery measurements or calculations.
- (7) Water rate schedules and billing.
- (8) Water shortage allocation policies.

(b) Describe the quantity and quality of water resources of the agricultural water supplier, including all of the following:

- (1) Surface water supply.
- (2) Groundwater supply.
- (3) Other water supplies.
- (4) Source water quality monitoring practices.
- (5) Water uses within the agricultural water supplier's service area,

including all of the following:

- (A) Agricultural.
- (B) Environmental.
- (C) Recreational.
- (D) Municipal and industrial.
- (E) Groundwater recharge.
- (F) Transfers and exchanges.
- (G) Other water uses.

(6) Drainage from the water supplier's service area.

(7) Water accounting, including all of the following:

(A) Quantifying the water supplier's water supplies.

(B) Tabulating water uses.

(C) Overall water budget.

(8) Water supply reliability.

(c) Include an analysis, based on available information, of the effect of climate change on future water supplies.

(d) Describe previous water management activities.

(e) Include in the plan the water use efficiency information required pursuant to Section 10608.48.

10827. Agricultural water suppliers that are members of the Agricultural Water Management Council, and that submit water management plans to that council in accordance with the "Memorandum of Understanding Regarding Efficient Water Management Practices By Agricultural Water Suppliers In California," dated January 1, 1999, may submit the water management plans identifying water demand management measures currently being implemented, or scheduled for implementation, to satisfy the requirements of Section 10826.

10828. (a) Agricultural water suppliers that are required to submit water conservation plans to the United States Bureau of Reclamation pursuant to either the Central Valley Project Improvement Act (Public Law 102-575) or the Reclamation Reform Act of 1982, or both, may submit those water conservation plans to satisfy the requirements of Section 10826, if both of the following apply:

(1) The agricultural water supplier has adopted and submitted the water conservation plan to the United States Bureau of Reclamation within the previous four years.

(2) The United States Bureau of Reclamation has accepted the water conservation plan as adequate.

(b) This part does not require agricultural water suppliers that are required to submit water conservation plans to the United States Bureau of Reclamation pursuant to either the Central Valley Project Improvement Act (Public Law 102-575) or the Reclamation Reform Act of 1982, or both, to prepare and adopt water conservation plans according to a schedule that is different from that required by the United States Bureau of Reclamation.

10829. An agricultural water supplier may satisfy the requirements of this part by adopting an urban water management plan pursuant to Part 2.6 (commencing with Section 10610) or by participation in areawide, regional, watershed, or basinwide water management planning if those plans meet or exceed the requirements of this part.

Article 3. Adoption and Implementation of Plans

10840. Every agricultural water supplier shall prepare its plan pursuant to Article 2 (commencing with Section 10825).

10841. Prior to adopting a plan, the agricultural water supplier shall make the proposed plan available for public inspection, and shall hold a public hearing on the plan. Prior to the hearing, notice of the time and place of hearing shall be published within the jurisdiction of the publicly owned agricultural water supplier pursuant to Section 6066 of the Government Code. A privately owned agricultural water supplier shall provide an equivalent notice within its service area and shall provide a reasonably equivalent opportunity that would otherwise be afforded through a public hearing process for interested parties to provide input on the plan. After the hearing, the plan shall be adopted as prepared or as modified during or after the hearing.

10842. An agricultural water supplier shall implement the plan adopted pursuant to this chapter in accordance with the schedule set forth in its plan, as determined by the governing body of the agricultural water supplier.

10843. (a) An agricultural water supplier shall submit to the entities identified in subdivision (b) a copy of its plan no later than 30 days after the adoption of the plan. Copies of amendments or changes to the plans shall be submitted to the entities identified in subdivision (b) within 30 days after the adoption of the amendments or changes.

(b) An agricultural water supplier shall submit a copy of its plan and amendments or changes to the plan to each of the following entities:

(1) The department.

(2) Any city, county, or city and county within which the agricultural water supplier provides water supplies.

(3) Any groundwater management entity within which jurisdiction the agricultural water supplier extracts or provides water supplies.

(4) Any urban water supplier within which jurisdiction the agricultural water supplier provides water supplies.

(5) Any city or county library within which jurisdiction the agricultural water supplier provides water supplies.

(6) The California State Library.

(7) Any local agency formation commission serving a county within which the agricultural water supplier provides water supplies.

10844. (a) Not later than 30 days after the date of adopting its plan, the agricultural water supplier shall make the plan available for public review on the agricultural water supplier's Internet Web site.

(b) An agricultural water supplier that does not have an Internet Web site shall submit to the department, not later than 30 days after the date of adopting its plan, a copy of the adopted plan in an electronic format. The department shall make the plan available for public review on the department's Internet Web site.

10845. (a) The department shall prepare and submit to the Legislature, on or before December 31, 2013, and thereafter in the years ending in six and years ending in one, a report summarizing the status of the plans adopted pursuant to this part.

(b) The report prepared by the department shall identify the outstanding elements of any plan adopted pursuant to this part. The report shall include an evaluation of the effectiveness of this part in promoting efficient agricultural water management practices and recommendations relating to proposed changes to this part, as appropriate.

(c) The department shall provide a copy of the report to each agricultural water supplier that has submitted its plan to the department. The department shall also prepare reports and provide data for any legislative hearing designed to consider the effectiveness of plans submitted pursuant to this part.

(d) This section does not authorize the department, in preparing the report, to approve, disapprove, or critique individual plans submitted pursuant to this part.

CHAPTER 4. MISCELLANEOUS PROVISIONS

10850. (a) Any action or proceeding to attack, review, set aside, void, or annul the acts or decisions of an agricultural water supplier on the grounds of noncompliance with this part shall be commenced as follows:

(1) An action or proceeding alleging failure to adopt a plan shall be commenced within 18 months after that adoption is required by this part.

(2) Any action or proceeding alleging that a plan, or action taken pursuant to the plan, does not comply with this part shall be commenced within 120 days after submitting the plan or amendments to the plan to entities in accordance with Section 10844 or the taking of that action.

(b) In an action or proceeding to attack, review, set aside, void, or annul a plan, or an action taken pursuant to the plan by an agricultural water supplier, on the grounds of noncompliance with this part, the inquiry shall extend only to whether there was a prejudicial abuse of discretion. Abuse

of discretion is established if the agricultural water supplier has not proceeded in a manner required by law, or if the action by the agricultural water supplier is not supported by substantial evidence.

10851. The California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) does not apply to the preparation and adoption of plans pursuant to this part. This part does not exempt projects for implementation of the plan or for expanded or additional water supplies from the California Environmental Quality Act.

10852. An agricultural water supplier is not eligible for a water grant or loan awarded or administered by the state unless the supplier complies with this part.

10853. No agricultural water supplier that provides water to less than 25,000 irrigated acres, excluding recycled water, shall be required to implement the requirements of this part or Part 2.55 (commencing with Section 10608) unless sufficient funding has specifically been provided to that water supplier for these purposes.

SEC. 5. This act shall take effect only if Senate Bill 1 and Senate Bill 6 of the 2009–10 Seventh Extraordinary Session of the Legislature are enacted and become effective.

Appendix B
Urban Water Management Plan Checklist

Table I-2 Urban Water Management Plan checklist, organized by subject

No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
CONTINGENCY ^b				
35	Provide an urban water shortage contingency analysis that specifies stages of action, including up to a 50-percent water supply reduction, and an outline of specific water supply conditions at each stage	10632(a)		<i>Section 6.2.1, pg 6-2</i>
36	Provide an estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency's water supply.	10632(b)		<i>Section 5.7, pg 5-8</i>
37	Identify actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster.	10632(c)		<i>Section 6.2.1, pg 6-2</i>
38	Identify additional, mandatory prohibitions against specific water use practices during water shortages, including, but not limited to, prohibiting the use of potable water for street cleaning.	10632(d)		<i>Section 6.2.1, pg 6-3</i>
39	Specify consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.	10632(e)		<i>Section 6.4, pg 6-3</i>
40	Indicated penalties or charges for excessive use, where applicable.	10632(f)		<i>Section 6.2.2, pg 6-4</i>
41	Provide an analysis of the impacts of each of the actions and conditions described in subdivisions (a) to (f), inclusive, on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments.	10632(g)		<i>Section 6.3, pg 6-4</i>
42	Provide a draft water shortage contingency resolution or ordinance.	10632(h)		<i>Ordinance 214 (App. F)</i>
43	Indicate a mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.	10632(i)		<i>Section 6.4, pg 6-4</i>
DMMs				
26	Describe how each water demand management measure is being implemented or scheduled for implementation. Use the list provided.	10631(f)(1)	Discuss each DMM, even if it is not currently or planned for implementation. Provide any appropriate schedules.	<i>Section 3.2, pg 3-1</i>
27	Describe the methods the supplier uses to evaluate the effectiveness of DMMs implemented or described in the UWMP.	10631(f)(3)		<i>N/A</i>

No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
28	Provide an estimate, if available, of existing conservation savings on water use within the supplier's service area, and the effect of the savings on the ability to further reduce demand.	10631(f)(4)		N/A
29	Evaluate each water demand management measure that is not currently being implemented or scheduled for implementation. The evaluation should include economic and non-economic factors, cost-benefit analysis, available funding, and the water suppliers' legal authority to implement the work.	10631(g)	See 10631(g) for additional wording.	N/A
32	Include the annual reports submitted to meet the Section 6.2 requirements, if a member of the CUWCC and signer of the December 10, 2008 MOU.	10631(j)	Signers of the MOU that submit the biannual reports are deemed compliant with Items 28 and 29.	<i>Appendix C</i>
EXTERNAL COORDINATION AND OUTREACH				
4	Coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	10620(d)(2)		<i>Section 1.4, pg 1-4</i>
6	Notify, at least 60 days prior to the public hearing on the plan required by Section 10642, any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. Any city or county receiving the notice may be consulted and provide comments.	10621(b)		<i>Section 1.8, pg 1-6</i>
7	Provide supporting documentation that the UWMP or any amendments to, or changes in, have been adopted as described in Section 10640 et seq.	10621(c)		<i>Section 1.8, pg 1-6</i>
54	Provide supporting documentation that the urban water management plan has been or will be provided to any city or county within which it provides water, no later than 60 days after the submission of this urban water management plan.	10635(b)		<i>Section 1.8, pg 1-6</i>
55	Provide supporting documentation that the water supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan.	10642		<i>Section 1.7, pg 1-6</i>
56	Provide supporting documentation that the urban water supplier made the plan available for public inspection and held a public hearing about the plan. For public agencies, the hearing notice is to be provided pursuant to Section 6066 of the Government Code. The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water. Privately-owned water suppliers shall provide an equivalent notice within its service area.	10642		<i>Section 1.7, pg 1-6</i>
57	Provide supporting documentation that the plan has been adopted as prepared or modified.	10642		<i>Section 1.8, pg 1-6</i>
59	Provide supporting documentation that the urban water supplier has submitted this UWMP to DWR, the State Library, and any city or county within which the supplier provides water supplies no later than 30 days after adoption. This also includes amendments or changes.	10644(a)		<i>Section 1.8, pg 1-6</i>

No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
60	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the urban water supplier has or will make the plan available for public review during normal business hours	10645		<i>Section 1.8, pg 1-6</i>
RECYCLED WATER				
44	Provide information on recycled water and its potential for use as a water source in the service area of the urban water supplier. Coordinate with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area.	10633		<i>Section 4.3, pg 4-18</i>
45	Describe the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.	10633(a)		<i>Section 5.4, pg 5-4</i>
46	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	10633(b)		<i>Section 5.5.3, pg 5-6</i>
47	Describe the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.	10633(c)		<i>Section 4.3.2, pg 4-20</i>
48	Describe and quantify the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, indirect potable reuse, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.	10633(d)		<i>Section 4.3.2, pg 4-20</i>
49	The projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected.	10633(e)		<i>Section 5.6, pg 5-7, Section 4.3.2, pg 4-20</i>
50	Describe the actions, including financial incentives, which may be taken to encourage the use of recycled water, and the projected results of these actions in terms of acre-feet of recycled water used per year.	10633(f)		<i>Section 4.3.2, pg 4-21</i>
51	Provide a plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.	10633(g)		<i>Section 4.3.2, pg 4-21</i>
RELIABILITY				
22	Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage and provide data for (A) an average water year, (B) a single dry water year, and (C) multiple dry water years.	10631(c)(1)		<i>Section 5.1, pg 5-1, Section 5.6, pg 5-7</i>
23	For any water source that may not be available at a consistent level of use - given specific legal, environmental, water quality, or climatic factors - describe plans to supplement or replace that source with alternative sources or water demand management measures, to the extent practicable.	10631(c)(2)		<i>Section 5.6, pg 5-7</i>

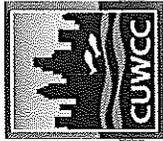
No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
53	Assess the water supply reliability during normal, dry, and multiple dry water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years. Base the assessment on the information compiled under Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.	10635(a)		<i>Section 5.7, pg 5-7</i>
SERVICE AREA				
8	Describe the water supplier service area.	10631(a)		<i>Section 1.2, pg 1-2</i>
9	Describe the climate and other demographic factors of the service area of the supplier	10631(a)		<i>Section 1.6, pg 1-5</i>
10	Indicate the current population of the service area	10631(a)	Provide the most recent population data possible. Use the method described in "Baseline Daily Per Capita Water Use". See Section M.	<i>Section 1.5, pg 1-5</i>
11	Provide population projections for 2015, 2020, 2025, and 2030, based on data from State, regional, or local service area population projections.	10631(a)	2035 and 2040 can also be provided to support consistency with Water Supply Assessments and Written Verification of Water Supply documents.	<i>Section 1.5, pg 1-5</i>
12	Describe other demographic factors affecting the supplier's water management planning.	10631(a)		<i>Section 1.5, pg 1-4</i>
WATER CONSERVATION				
1	Provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.	10608.20(e)		<i>Section 2.5, pg 2-9</i>
2	Include an assessment of present and proposed future measures, programs, and policies to help achieve the water use reductions.	10608.36		<i>Section 3.2, pg 3-1</i>
3	Report progress in meeting urban water use targets using the standardized form.	10608.40		N/A
WATER DEMANDS				
25	Quantify past, current, and projected water use, identifying the uses among water use sectors, for the following: (A) single-family residential, (B) multifamily, (C) commercial, (D) industrial, (E) institutional and governmental, (F) landscape, (G) sales to other agencies, (H) saline water intrusion barriers, groundwater recharge, conjunctive use, and (I) agriculture.	10631(e)(1)	Consider 'past' to be 2005, present to be 2010, and projected to be 2015, 2020, 2025, and 2030. Provide numbers for each category for each of these years.	<i>Section 2.2, pg 2-3, Section 2.4, pg 2-6</i>

No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
34	Include projected water use for single-family and multifamily residential housing needed for lower income households, as identified in the housing element of any city, county, or city and county in the service area of the supplier.	10631.1(a)		<i>Section 2.2.1, pg 2-3</i>
WATER SUPPLY				
5	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	10620(f)		<i>Section 4.2.3.1, pg 4-10</i>
13	Identify and quantify the existing and planned sources of water available for 2015, 2020, 2025, and 2030.	10631(b)	The 'existing' water sources should be for the same year as the "current population" in line 10. 2035 and 2040 can also be provided.	<i>Section 4.1.9, pg 4-8</i>
14	Indicate whether groundwater is an existing or planned source of water available to the supplier. If yes, then complete 15 through 21 of the UWMP Checklist. If no, then indicate "not applicable" in lines 15 through 21 under the UWMP location column.	10631(b)	Source classifications are: surface water, groundwater, recycled water, storm water, desalinated sea water, desalinated brackish groundwater, and other.	<i>Section 4.2, pg 4-8</i>
15	Indicate whether a groundwater management plan has been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	10631(b)(1)		<i>Section 4.2, pg 4-8, Section 4.2.3, pg 4-10</i>
16	Describe the groundwater basin.	10631(b)(2)		<i>Section 4.2.1, pg 4-9</i>
17	Indicate whether the groundwater basin is adjudicated. Include a copy of the court order or decree.	10631(b)(2)		<i>Section 4.1.6, pg 4-6, Appendix E</i>
18	Describe the amount of groundwater the urban water supplier has the legal right to pump under the order or decree. If the basin is not adjudicated, indicate "not applicable" in the UWMP location column.	10631(b)(2)		<i>Section 4.2.2, pg 4-10</i>
19	For groundwater basins that are not adjudicated, provide information as to whether DWR has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to eliminate the long-term overdraft condition. If the basin is adjudicated, indicate "not applicable" in the UWMP location column.	10631(b)(2)		<i>N/A</i>
20	Provide a detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years	10631(b)(3)		<i>Section 2.3, pg 2-5</i>
21	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	10631(b)(4)	Provide projections for 2015, 2020, 2025, and 2030.	<i>Section 2.4, pg 2-6, Sections 5.6, 5.7, pg 5-6</i>
24	Describe the opportunities for exchanges or transfers of water on a short term or long-term basis.	10631(d)		<i>Section 4.2.3.2, pg 4-13</i>
30	Include a detailed description of all water supply projects and programs that may be undertaken by the water supplier to address water supply	10631(h)		<i>Sections 5.6, 5.7, pg 5-6</i>

No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
	reliability in average, single-dry, and multiple-dry years, excluding demand management programs addressed in (f)(1). Include specific projects, describe water supply impacts, and provide a timeline for each project.			
31	Describe desalinated water project opportunities for long-term supply, including, but not limited to, ocean water, brackish water, and groundwater.	10631(i)		<i>Section 4.1.7, pg 4-6, Section 5.2, pg 5-2</i>
33	Provide documentation that either the retail agency provided the wholesale agency with water use projections for at least 20 years, if the UWMP agency is a retail agency, OR, if a wholesale agency, it provided its urban retail customers with future planned and existing water source available to it from the wholesale agency during the required water-year types	10631(k)	Average year, single dry year, multiple dry years for 2015, 2020, 2025, and 2030.	<i>N/A</i>
52	Provide information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments, and the manner in which water quality affects water management strategies and supply reliability	10634	For years 2010, 2015, 2020, 2025, and 2030	<i>Section 5.5, pg 5.5</i>

- a The UWMP Requirement descriptions are general summaries of what is provided in the legislation. Urban water suppliers should review the exact legislative wording prior to submitting its UWMP.
- b The Subject classification is provided for clarification only. A water supplier is free to address the UWMP Requirement anywhere with its UWMP, but is urged to provide clarification to DWR to facilitate review for completeness.

Appendix C
Chino Hills 2009-10 Annual BMP Reports



CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

Foundation Best Management Practices for Urban Water Efficiency

Adequacy of Volumetric Rates) for Agencies with No Unmetered Accounts

Customer Class	2009 Rate Type	2009 Volumetric Revenues \$1000s	2010 Rate Type	2010 Volumetric Revenues \$1000s	Agency Choices for rates:
Single-Family	Increasing Block	\$ 6,936	Single-Family	\$ 7,110	A) Agencies signing MOU prior to 13 June2007, implementation starts 1 July2007; On Track if $(V / (V + M)) \geq 70\% \times .8 = 56\%$ for 2009 and $70\% \times 0.90 = 63\%$ for 2010; Not on track if $(V / (V + M)) < 70\%$; B) Use Canadian model. Agencies signing MOU after 13 June2007, implementation starts July 1 of year following signing.
Multi-Family	Increasing Block	\$ 497	Multi-Family	\$ 546	
Commercial	Uniform	\$ 1,277	Commercial	\$ 923	
Institutional	Uniform	\$ 64	Institutional	\$ 115	
Fire Lines	Uniform	\$ 2	Fire Lines	\$ 0	
Agricultural Dedicated Irrigation	Uniform	\$ 1,186		\$ 2,149	
Total Revenue Commodity Charges (V); Total Revenue Fixed Charges (M); Calculate: $V / (V + M)$:		\$ 9,981		\$ 10,856	
		\$ 5,665		\$ 5,956	
		On Track		65%	
				On Track	

Canadian Water & Wastewater Rate Design Model
Used and Provided to CUWCC
If Canadian Model is used, was 1 year or 3 year period applied?

No

Wastewater Rates

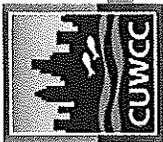
Does Agency Provide Sewer Service?

2009 If 'No', then wastewater rate info not required.

2010 Yes

Customer Class	2009 Rate Type	Conserving Rate?	Customer Class	2010 Rate Type	Conserving Rate?
Single-Family	Uniform	Yes	Single-Family	Uniform	Yes
Multi-Family	Uniform	Yes	Multi-Family	Uniform	Yes
Commercial	Uniform	Yes	Institutional	Uniform	Yes
Institutional	Uniform	Yes	Commercial	Uniform	Yes
	Uniform	Yes		Uniform	Yes
		On Track			On Track

On Track if: 'Increasing Block', 'Uniform', 'based on long term marginal cost' or 'next unit of capacity'



CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

Foundation Best Management Practices for Urban Water Efficiency

Agency: **City of Chino Hills** District Name: **City of Chino Hills** CUWCC Unit #: **6994**
 Retail Coverage Report Date: **June 9, 2011**
 Primary Contact: **Kelly Sandel** Email: **KSandel@chinohills.org**

1.4 Retail Conservation Pricing On Track if: Increasing Block, Uniform, Allocation, Standby Service; Not on Track if otherwise
 Metered Water Rate Structure Date 2009 data received **July 5, 2011**
 Date 2010 data received **July 5, 2011**

Customer Class	2009 Rate Type	Conserving Rate?	Customer Class	2010 Rate Type	Conserving Rate?
Single-Family	Increasing Block	Yes	Single-Family	Increasing Block	Yes
Multi-Family	Increasing Block	Yes	Multi-Family	Increasing Block	Yes
Commercial	Uniform	Yes	Commercial	Uniform	Yes
Institutional	Uniform	Yes	Institutional	Uniform	Yes
Fire Lines	Uniform	Yes	Fire Lines	Uniform	Yes
On Track			On Track		

Year Volumetric Rates began for Agencies with some Unmetered Accounts Info only
 Agencies with Partially Metered Service Areas: If signed MOU prior to 31 Dec. 1997, implementation starts no later than 1 July 2010. If signed MOU after 31 Dec. 1997, implementation starts no later than 1 July 2013, or within seven years of signing the MOU.



CUWCC BMP RETAIL COVERAGE REPORT 2009-2010 Foundation Best Management Practices for Urban Water Efficiency

2.2 School Education Programs Implemented and Reported to CUWCC

Does a wholesale agency implement School Education Programs for this utility's benefit?
Name of Wholesale Supplier?

1) Curriculum materials developed and/or provided by agency

2) Materials meet state education framework requirements and are grade-level appropriate?

3) Materials Distributed to K-6? Describe K-6 Materials

Materials distributed to 7-12 students?
4) Annual budget for school education program.

5) Description of all other water supplier education programs

	2009	2010	Yes/ No
	<p>Yes</p> <p>Inland Empire Utility Agency</p> <p>Brochure National Theater for Children, K-3 and 4-6 activity workbooks and Garden in Every School Program Workbooks that contain classroom activities that align with the CA State Education Standards.</p>	<p>Yes</p> <p>Inland Empire Utility Agency</p> <p>Brochure National Theater for Children, K-3 and 4-6 activity workbooks and Garden in Every School Program Workbooks that contain classroom activities that align with the CA State Education Standards.</p>	
	<p>Yes</p> <p>Yes</p> <p>Brochure</p>	<p>Yes</p> <p>Yes</p> <p>Brochure</p>	<p>All 5 actions types implemented and reported to CUWCC to be</p> <p>Describe materials to meet minimum requirements</p>
	<p>Yes</p> <p>\$ 12,952</p> <p>National Theater for Children, Garden in Every School</p>	<p>Yes</p> <p>\$ 6,844</p> <p>National Theater For Children, Garden in Every School</p>	Info Only
	<p>See Wholesale Report 0 On Track</p>	<p>See Wholesale Report 0 On Track</p>	



CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

Foundation Best Management Practices for Urban Water Efficiency

BMP 2. EDUCATION PROGRAMS

BMP 2.1 Public Outreach Actions Implemented and Reported to CUWCC

Does a wholesale agency implement Public Outreach Programs for this utility's benefit?
Names of Wholesale Agencies

	2009	2010	Yes/No
Inland Empire Utilities Agency	Yes	Yes	
Inland Empire Utilities Agency			
1) Contacts with the public (minimum = 4 times per year)	50	50	
2) Water supplier contacts with media (minimum = 4 times per year, i.e., at least quarterly).	45	45	
3) An actively maintained website that is updated regularly (minimum = 4 times per year, i.e., at least quarterly).	Yes	Yes	
4) Description of materials used to meet minimum requirement.	Newsletter articles on conservation Newsletter articles on conservation Website	Newsletter articles on conservation Newsletter articles on conservation Website	All 6 action types implemented and reported to CUWCC to be 'On Track'
5) Annual budget for public outreach program.	\$ 18,250	\$ 12,000	
6) Description of all other outreach programs	Catch those Drops. Don't Let them Get Away!	Catch those Drops. Don't Let them Get Away!	
	On Track for 6 Actions	On Track for 6 Actions	



CUWCC BMP RETAIL COVERAGE REPORT 2009-2010
Foundation Best Management Practices for Urban Water Efficiency

1.3 METERING WITH COMMODITY RATES FOR ALL NEW CONNECTIONS AND RETROFIT OF EXISTING CONNECTIONS

	2008	2010
Exemption or "at least as Effective As" accepted by CUWCC	0	0
Numbered Unmetered Accounts	0	0
Metered Accounts billed by volume of use	0	0
Number of CII accounts with Metered Use meters	0	0
Completed a feasibility study to assess merits of a program to provide incentives to switch metered-use accounts to dedicated "recoupage meters"	0	0
Feasibility Study provided to CUWCC?	0	0
Completed a written plan, policy or program to track, repair and replace meters	0	0

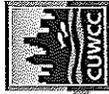
If signed MOU prior to 31 Dec 1987, On Track if all connections metered; If signed after 31 Dec 1987, complete meter installations by 1 July 2012 or within 6 yrs of signing and 20% biannual reduction of unmetered connections.

On Track if no unmetered accounts

Volume billing required for all connections on same info only

Info only until 2012

On Track if Yes, Not on Track if No
 On Track if Yes, Not on Track if No



CUWCC BMP RETAIL COVERAGE REPORT 2009-2010
Foundation Best Management Practices for Urban Water Efficiency

BMP 1.2 Water Loss Control	2009	2010	2011	2012
Complete a prescreening Audit	18,115	On Track		On Track if Yes
Water Cuts	0			
Water Cuts - Other Uses	18,809			
Total Supply	0.00	On Track		On Track if → .89, Not on Track if No
(Metered Sales + System users)	Yes	On Track		On Track if Yes
Total supply > 0.86	Yes	On Track		On Track if Yes
If ratio is less than 0.9, complete a full scale Audit in 2009?	Yes	On Track		On Track if Yes, Not on Track if No
Verify Data with Records on File?	Yes	On Track		On Track if Yes, Not on Track if No
Operate a system Leak Detection Program?	Yes	On Track		On Track if Yes, Not on Track if No
Compile Standard Water Audit using AWWA Software?	Yes	On Track		Info only until 2012
AWWA file provided to CUWCC?	Yes	On Track		Info only until 2012
AWWA Water Audit Validity Score? Method?	97			Info only until 2012
Completed Training in AWWA Audit Analysis Process?	Yes			Info only until 2012
Completed Training in Component Analysis Process?	No			On Track if Yes, Not on Track if No
Complete Component Analysis?	No			On Track if Yes, Not on Track if No
Repaired all leaks and breaks to the extent cost effective?	Yes			Info only until 2012
Locate and repair unreported leaks to the extent cost effective.	No			Info only until 2012
Maintain a record-keeping system for the repair of reported leaks, including time of report, leak location, type of leaking pipe segment or fitting, and leak running time from report to repair.				
Provided 7 types of Water Loss Control Info				
Leak Value Repaired	\$	Miles Surveyed	0	
Value Real Losses	\$	Cost of Interventions	\$	
Value Apparent Losses	\$	Water Saved	0	



CUWCC BMP RETAIL COVERAGE REPORT 2009-2010
Foundation Best Management Practices for Urban Water Efficiency

Agency: **City of Chicago** District Name: **City of Chicago** CUWCC Unit #: **6894**

Primary Contact: **Kelly Sasse** Telephone: **(800) 354-2894** Email: **KSasse@chicago.org**

Compliance Option Chosen by Reporting Agency:
 (Traditional, Flex, Track or GPCD)
 GPCD # used:

GPCD in 2010: **174**
 GPCD Target for 2010: **150**

Year	Report	Target	% Base	GPCD	% Base	GPCD
2010	1	150	100%	150	100%	150
2012	2	143	95%	143	95%	143
2014	3	136	91%	136	91%	136
2016	4	130	87%	130	87%	130
2018	5	125	83%	125	83%	125

Not on Track if 2010 GPCD is greater than target

GPCD in 2010: **174**
 Highest Acceptable GPCD for 2010: **150**

On Track



CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

Foundation Best Management Practices for Urban Water Efficiency

Foundational BMPs BMP 1.1 Operational Practices

Year	Name	Title	Email	Conservation Coordinator provided with necessary resources to implement BMPs?
2009	Kelly Sandel	Utility Conservation Specialist		On Track
2010	Kelly Sandel	Utility Conservation Specialist		On Track

1. Conservation Coordinator provided with necessary resources to implement BMPs?

2. Water waste prevention documentation

Descriptive File 2010

URL

URL 2010

Describe Ordinances Terms

Describe Ordinances Terms 2010

On Track if any one of the 6 ordinance actions above, plus documentation or links provided

City ordinance

Appendix D

Contractual Agreements with Water Suppliers

- CDA Water Purchase Agreement (January 2002)
 - MVWD Lease Agreement (March 1996)
 - MVWD Lease Agreement (July 1998)

WATER PURCHASE AGREEMENT

Dated as of January 15, 2002

By and Between

CHINO BASIN DESALTER AUTHORITY

and

THE CITY OF CHINO HILLS

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6

WATER PURCHASE AGREEMENT

This Agreement, dated as of January 15, 2002, by and between the Chino Basin Desalter Authority (the "Authority"), a joint exercise of powers agency duly organized and existing pursuant to Article 1, Chapter 5, Division 7, Title 1 of the Government Code (the "Joint Powers Act"), commencing with Section 6500, and the City of Chino Hills, California (the "Purchaser").

WITNESSETH:

WHEREAS, the Purchaser and certain other water purveyors in the Chino Basin have entered into the Integrated Chino-Arlington Desalters System Term Sheet (the "Term Sheet") pursuant to which such water purveyors have made a contractual commitment to purchase desalted water from certain desalting facilities (capitalized terms used herein and not otherwise defined shall have the meanings set forth below);

WHEREAS, in order for the Purchaser to receive desalter water, certain facilities described in the Term Sheet and comprising the Project must be acquired and constructed by the Authority;

WHEREAS, the Authority and the Purchaser now wish to enter into this Agreement to provide for the acquisition, construction, operation and financing of the Project, for the sale by the Authority to the Purchaser of the Purchaser's Project Allotment and certain other matters;

NOW THEREFORE, the parties hereto do agree as follows:

Section 1. Definitions.

The following terms shall, for all purposes of this Agreement have the following meanings:

"Authority" shall have the meaning assigned thereto in the preamble hereto.

"Authority Bonds" means bonds, notes or other evidences of indebtedness issued by or on behalf of the Authority to finance or refinance the Project.

"Authority Fiscal Year" means the twelve month period commencing on July 1 of each calendar year and ending on the following June 30 or such other twelve month period which may be designated by the Authority as its fiscal year.

"Bonds" mean all bonds, notes or similar obligations (but not including Contracts) of the Purchaser authorized and issued by the Purchaser under and pursuant to applicable laws of the State of California after the date of execution of this Agreement, the principal of and interest on which are an operation and maintenance expense of the Purchaser Water System determined in accordance with generally accepted accounting principles and which are secured by a pledge or a lien on Purchaser Net Water System Revenues and which are on a parity with the obligations of the Purchaser under this Agreement.

"Bond Resolution" means the resolution or resolutions providing for the issuance of Authority Bonds and the terms thereof, and any indenture or trust agreement related thereto.

“Contract Payments” means:

- (1) the interest payable during such Purchaser Fiscal Year on all outstanding Bonds, assuming that all outstanding term Bonds are redeemed or paid from sinking fund payments as scheduled (except to the extent that such interest is to be paid from the proceeds of the sale of any Bonds);
- (2) that portion of the principal amount of all outstanding serial Bonds maturing during such Purchaser Fiscal Year;
- (3) that portion of the principal amount of all outstanding term Bonds required to be redeemed or paid during such Purchaser Fiscal Year; and
- (4) that portion of payments under Contracts (other than under this Agreement) constituting principal and interest required to be made at the times provided in the Contracts.

“Contracts” means this Agreement and all contracts of the Purchaser authorized and executed by the Purchaser under and pursuant to the applicable laws of the State of California after the date of execution of this Agreement, the payments under which are an operation and maintenance expense of the Purchaser Water System determined in accordance with generally accepted accounting principles and which are secured by a pledge of or lien on the Purchaser Net Water System Revenues and which are on a parity with the obligations of the Purchaser under this Agreement.

“Debt Service” means, as of the date of calculation and with respect to Authority Bonds, an amount equal to the sum of (i) interest payable during such Authority Fiscal Year on Authority Bonds, except to the extent that such interest is to be paid from capitalized interest, (ii) that portion of principal of Authority Bonds payable during such Authority Fiscal Year, (iii) amounts necessary to replenish the Reserve Fund created pursuant to the Bond Resolution, and (iv) all letters of credit and other financing costs payable on a periodic basis. Such interest, principal installments and financing costs for such series shall be calculated on the assumption that no Authority Bonds outstanding at the date of calculation will cease to be outstanding except by reason of the payment of principal on the due date thereof;

provided further that, as to any such Authority Bonds bearing or comprising interest at other than a fixed rate, the rate of interest used to calculate Debt Service shall be one hundred ten percent (110%) of the greater of (a) the daily average interest rate on such Authority Bonds during the twelve (12) calendar months preceding the date of calculation (or the portion of the then current Authority Fiscal Year that such Authority Bonds have borne interest) or (b) the most recent effective interest rate on such Authority Bonds prior to the date of calculation; and

provided further that, as to any such Authority Bonds or portions thereof bearing no interest but which are sold at a discount and which discount accretes with respect to such Authority Bonds or portions thereof, such accreted discount shall be treated as interest in the calculation of Debt Service; and

provided further that the amount on deposit in a debt service reserve fund on any date of calculation of Debt Service shall be deducted from the amount of principal due at the final maturity of the Authority Bonds for which such debt service reserve fund was established and in each preceding Authority Fiscal Year until such amount is exhausted.

“Facilities Acquisition Agreement” means the Facilities Acquisition Agreement, dated as of January 15, 2002, by and between SAWPA and the Authority, as such Facilities Acquisition Agreement may be amended or supplemented from time-to-time.

“Fixed Project Costs” means capital costs, including Debt Service, and reserves for repair and replacement and improvement to the Project and for payment of Debt Service of the Project, and all other amounts paid by the Authority other than Variable O&M Costs and Fixed O&M Costs.

“Fixed O&M Costs” means operation, maintenance, power, replacement and other costs, including Project Operation and Maintenance Expenses and a reasonable reserve for contingencies, in each case incurred by the Authority with respect to the Project, irrespective of the amount of water delivered to the Project Participants, including but not limited to amounts required to be deposited in the Membrane Replacement Fund, and amounts payable to Jurupa Community Services District under the Agreement By And Between The Chino Basin Desalter Authority, Jurupa Community Services District, The City Of Ontario, The City Of Norco And Santa Ana River Water Company Providing For The Transportation Of Chino II Desalter Water.

“Independent Certified Public Accountant” means any firm of certified public accountants appointed by the Purchaser, or the Authority, as the case may be, and each of whom is independent pursuant to the Statement on Auditing Standards No. 1 of the American Institute of Certified Public Accountants.

“Joint Powers Agreement” means the Joint Exercise of Powers Agreement creating the Chino Basin Desalter Authority, as such agreement may be amended or supplemented from time to time.

“Project” means certain facilities necessary to deliver desalted water to the Project Participants, including the following: (i) the Chino I Desalter, (ii) the Chino I Expansion facilities, (iii) Chino II Desalter; and (iv) water pipelines, electric generators and associated facilities. The Authority and the Purchaser acknowledge that portions of the Project are currently being designed and that the definition of the Project may be revised from time-to-time prior to commencement of construction as provided in Section 4 hereof without amendment to this Agreement.

“Project Allotment” means 4,200 acre-feet of desalted water per year.

“Project Operation and Maintenance Expenses” means the actual costs spent or incurred by the Authority for maintaining and operating the Project, calculated in accordance with generally accepted accounting principles and Section 9 hereof, including (among other things) the expenses of management and repair and other expenses necessary to maintain and preserve the Project, in good repair and working order, and including administrative costs of the Authority, overhead, insurance, taxes (if any), fees of auditors, accountants, attorneys or engineers and insurance premiums, and including all other reasonable and necessary costs of the Authority, or charges required to be paid by it to comply with the terms of the Authority Bonds or of this Agreement, but excluding in all cases (i) depreciation, replacement and obsolescence charges or reserves therefor, (ii) amortization of intangibles or other bookkeeping entries of a similar nature, (iii) costs of capital additions, replacements, betterments, extensions or improvements to the Project, which under generally accepted accounting principles are chargeable to a capital account or to a reserve for depreciation and (iv) Debt Service.

“Project Participant” mean the Purchaser and each entity listed in Exhibit A hereto executing Water Purchase Agreements with the Authority.

“Purchaser” shall have the meaning assigned thereto in the preamble hereto.

“Purchaser Fiscal Year” means the twelve month period commencing on July 1 of each year and ending on the following June 30 or such other twelve month period which may be designated by the Purchaser as its fiscal year.

“Purchaser Net Water System Revenues” means, for any Purchaser Fiscal Year, the Purchaser Water System Revenues for such Purchaser Fiscal Year less the Purchaser Operation and Maintenance Expenses for such Purchaser Fiscal Year.

“Purchaser Operation and Maintenance Expenses” means the costs spent or incurred by the Purchaser for maintaining and operating the Purchaser Water System, calculated in accordance with generally accepted accounting principles, including (among other things) the expenses of management and repair and other expenses necessary to maintain and preserve the Purchaser Water System, in good repair and working order, and including administrative costs of the Purchaser, salaries and wages of employees, payments to the Public Employees Retirement System, overhead, insurance, taxes (if any), fees of auditors, accountants, attorneys or engineers and insurance premiums, and all other reasonable and necessary costs of the Purchaser, but excluding in all cases (i) depreciation, replacement and obsolescence charges or reserves therefor, (ii) amortization of intangibles or other bookkeeping entries of a similar nature, and (iii) charges for the payment of principal and interest on Bonds or Contracts.

“Purchaser Share” means the Purchaser’s Project Allotment divided by the sum of all Project Participants’ Project Allotments, all as set forth as Exhibit A hereto.

“Purchaser Water System” means properties and assets, real and personal, tangible and intangible, of the Purchaser now or hereafter existing, used or pertaining to the acquisition, treatment, reclamation, transmission, distribution and sale of water, including all additions, extensions, expansions, improvements and betterments thereto and equipment relating thereto; provided, however, that to the extent the Purchaser is not the sole owner of an asset or property or to the extent that an asset or property is used in part for the above described water purposes, only the Purchaser’s ownership interest in such asset or property or only the part of the asset or property so used for water purposes shall be considered to be part of the Purchaser Water System.

“Purchaser Water System Revenues” means the income, rents, rates, fees, charges, and other moneys derived by the Purchaser from the ownership or operation of Purchaser Water System including, without limiting the generality of the foregoing, (i) all income, rents, rates, fees, charges or other moneys derived from the sale, furnishing, and supplying of water and other services, facilities, and commodities sold, furnished, or supplied through the facilities of Purchaser Water System, including standby and availability charges, capital water facilities fees for design, construction and reconstruction expenses, development fees and other fees allocable to the Purchaser Water System, (ii) taxes or assessments as may be imposed if the levy thereof and payment hereunder is permitted by law, and (iii) the earnings on and income derived from amounts set forth in clauses (i) and (ii) above, and shall not include (y) customers’ deposits or any other deposits subject to refund until such deposits have become the property of the Purchaser and (z) proceeds of any taxes or assessments except taxes or assessments described in clause (ii) above.

“SAWPA” means the Santa Ana Watershed Project Authority, a joint exercise powers agency, including the successors and assigns thereof.

“Term Sheet” shall have the meaning assigned thereto in the preamble hereto.

“Trustee” means the entity or entities designated by the Authority pursuant to any Bond Resolution to administer any funds or accounts required by such Bond Resolution or otherwise.

“Variable O&M Costs” means the operation, maintenance, power, replacement and other costs, including Project Operation and Maintenance Expenses incurred by the Authority in connection with the Project in an amount which is dependent upon and varies with the amount of water delivered to the Project Participants.

“Water Purchase Agreement” means this Agreement and each Water Purchase Agreement by and between the Authority and a Project Participant, as the same may be amended or supplemented from time to time.

Section 2. Purpose.

The purpose of this Agreement is for the Authority to sell Project Allotment to the Purchaser, to deliver Project Allotment to the Purchaser available from the Project, to provide the terms and conditions of such delivery and sale and to provide for the acquisition, construction and financing of the Project. The parties hereto confirm that this Agreement constitutes a contractual right to purchase desalted water and that no water right is being transferred by the Authority to any Project Participant under this Agreement.

Section 3. Financing, Construction and Operation.

The Authority will use its best efforts to cause or accomplish the acquisition, construction, operation and financing of the Project, the obtaining of all necessary authority and rights, consents and approvals, and the performance of all things necessary and convenient therefor, subject to compliance with all necessary federal and state laws, including but not limited to the California Environmental Quality Act (“CEQA”), the terms and conditions of the Authority’s permits and licenses and all other agreements relating thereto.

Section 4. Delivery of Water.

(a) Request by Purchaser. Pursuant to the terms of this Agreement, the Authority shall provide to the Purchaser, and the Purchaser shall take, or cause to be taken, in each Authority Fiscal Year an amount of water equal to the Purchaser’s Project Allotment unless the Purchaser notifies the Authority, pursuant to procedures to be developed by the Authority, that the Purchaser requires an amount of water less than the Purchaser’s Project Allotment. Subject to the Project Participant’s payment obligations hereunder, the Authority agrees to use its best efforts to deliver desalted water pursuant to this Agreement meeting the water quality standards set forth in Section 5.3 of the Joint Powers Agreement and all applicable local, state and federal water quality standards as such standards may be in effect from time to time.

(b) Points of Delivery; Flow Rate. The Authority will deliver or cause to be delivered to or for the account of the Purchaser the amount of water specified in each request at a flow rate and through delivery structures at a point along the Project to be agreed upon by the Authority and the

Purchaser. The Authority will remain available to make or cause to be made all necessary and possible arrangements for transmission and delivery of such water in accordance with this Agreement.

(c) Delivery of Water Not Delivered in Accordance with Schedule. If in any Authority Fiscal Year the Authority, as a result of causes beyond its control, is unable to deliver any portion of the Purchaser's Project Allotment for such Authority Fiscal Year as provided for in the delivery schedule established for that Authority Fiscal Year, the Purchaser may elect to receive the amount of water which otherwise would have been delivered to it during such period at other times during the Authority Fiscal Year or subsequent to such Authority Fiscal Year, to the extent that such water is then available and such election is consistent with the Authority's overall delivery ability, considering the then current delivery schedules of all Project Participants and the Authority.

(d) SARWC Request. Pursuant to the Joint Powers Agreement, if Santa Ana River Water Company cannot receive the full 1,200 acre feet of water allocated thereto as provided in the Term Sheet, then Jurupa Community Services District and the City of Ontario will abate their deliveries of water from the Project on a pro-rata basis to ensure that Santa Ana River Water Company can receive the full 1,200 acre feet of water from the Authority for such year. Notwithstanding the foregoing, Jurupa Community Services District and the City of Ontario shall only have such obligation if Santa Ana River Water Company's demand for water is constant or at a "steady-rate" of 744 gpm.

Section 5. Curtailment of Delivery for Maintenance Purposes.

(a) Authority May Curtail Deliveries. The Authority may temporarily discontinue or reduce the delivery of water to the Purchaser hereunder for the purposes of necessary investigation, inspection, maintenance, repair, or replacement of any of the Project facilities necessary for the delivery of water to the Purchaser. The Authority shall notify the Purchaser as far in advance as possible of any such discontinuance or reduction, except in cases of emergency, in which case notice shall be given as soon thereafter as possible.

(b) Purchaser May Receive Later Delivery of Water Not Delivered. In the event of any discontinuance or reduction of delivery of water pursuant to subsection (a) of this Section, the Purchaser may elect to receive the amount of water which otherwise would have been delivered to it during such period under the water delivery schedule for that Authority Fiscal Year at other times during the Authority Fiscal Year or subsequent to such Authority Fiscal Year to the extent that such water is then available and such election is consistent with the Authority's overall delivery ability, considering the then current delivery schedules of all Project Participants and the Authority.

Section 6. Shortage in Water Supply.

In any Authority Fiscal Year in which there may occur a shortage or interruption in the supply of water available for delivery to the Project Participants, including but not limited to shortages or interruptions caused by changes in laws, regulations or rulings relating to or affecting the Authority's permits and licenses, with the result that such supply is less than the total of the annual Project Allotments of all Project Participants for that Authority Fiscal Year, the Authority shall reduce the delivery of water to the Purchaser in accordance with the Joint Powers Agreement.

Section 7. Measurement of Water Delivered.

The Authority shall measure, or cause to be measured, all water delivered to the Purchaser and shall keep and maintain accurate and complete records thereof. For this purpose and in accordance with Section 4 hereof, the Authority shall install, operate, and maintain, or cause to be installed, operated and maintained, at all delivery structures for delivery of water to the Purchaser at the point of delivery determined in accordance with Section 4(b) such measuring devices and equipment as are satisfactory and acceptable to both parties. Said devices and equipment shall be examined, tested, and serviced by the Authority regularly to insure their accuracy. At any time or times, the Purchaser may inspect such measuring devices and equipment, and the measurements and records taken therefrom.

Section 8. Responsibility for Delivery and Distribution of Water.

(a) Neither the Authority nor any of its officers or agents shall be liable for the control, carriage, handling, use, disposal, or distribution of water supplied to the Purchaser after such water has passed the points of delivery established in accordance with Section 4(b) hereof; nor for claim of damage of any nature whatsoever, including but not limited to property damage, personal injury or death, arising out of or connected with the control, carriage, handling, use, disposal or distribution of such water beyond said points of delivery and including attorneys fees and other costs of defense in connection therewith; the Purchaser shall indemnify and hold harmless the Authority and its officers, agents, and employees from any such damages or claims of damages.

(b) Neither the Purchaser nor any of its officers, agents, or employees shall be liable for the control, carriage, handling, use, disposal, or distribution of water supplied to the Purchaser until such water has passed the points of delivery established in accordance with Section 4(b) hereof; nor for claim of damage of any nature whatsoever, including but not limited to property damage, personal injury or death, arising out of or connected with the control, carriage, handling, use, disposal or distribution of such water prior to such water passing said points of delivery and including attorneys fees and other costs of defense in connection therewith; the Authority shall indemnify and hold harmless the Purchaser and its officers, agents, and employees from any such damages or claims of damages.

Section 9. Rates and Charges.

(a) Establishment of Rates and Charges. The Authority shall fix charges to the Purchaser under this Agreement to produce revenues to the Authority from the Project equal to the amounts anticipated to be needed by the Authority to pay the actual cost of producing the Purchaser's Project Allotment, which shall include the following costs of the Authority to deliver the Purchaser's Project Allotment through the Project: (i) Fixed Project Costs, (ii) Fixed O&M Costs and (iii) Variable O&M Costs.

(b) Insufficiency of Funds. If Fixed Project Costs, Fixed O&M Costs and Variable O&M Costs collected by the Authority are insufficient to operate and maintain the Project as contemplated under the Joint Powers Agreement, the Authority shall notify the Purchaser of such insufficiency and the Purchaser shall pay to the Authority an amount of such insufficiency equal to such insufficiency multiplied by the Purchaser Share. The obligation of the Purchaser to pay Fixed Project Costs and Fixed O&M Costs shall commence and continue to exist and be honored by the Purchaser whether or not water is furnished to it from the Project at all times or at all (which

provision may be characterized as an obligation to pay all costs on a take-or-pay basis whether or not water is delivered or provided and whether or not the Project is completed or is operable).

(c) Source of Payments. The obligation of the Purchaser to make payments under this Agreement is a limited obligation of the Purchaser and not a general obligation thereof. The Purchaser shall make payments under this Agreement solely from Purchaser Water System Revenues as a Purchaser Operation and Maintenance Expense. The Purchaser shall make such payments on a parity with other Purchaser Operation and Maintenance Expenses and prior to any other payments other than Bonds or Contracts. Nothing herein shall be construed as prohibiting (i) the Purchaser from using any other funds and revenues for purposes of satisfying any provisions of this Agreement or (ii) from incurring obligations payable on a parity with the obligations under this Agreement so long as the Purchaser complies with Section 13(a) hereof.

(d) Obligation Is Not Subject To Reduction. The Purchaser shall make payments of Fixed Project Costs and Fixed O&M Costs under this Agreement whether or not the Project is completed, operable, operated or retired and notwithstanding the suspension, interruption, interference, reduction or curtailment of operation of the Project or of water contracted for in whole or in part for any reason whatsoever. Such payments are not subject to any reduction, whether offset or otherwise, and are not conditioned upon performance by the Authority or any other Project Participant under this Agreement or any other agreement.

(e) Several Obligation. The Purchaser shall not be liable under this Agreement for the obligations of any other Project Participant. The Purchaser shall be solely responsible and liable for performance of its obligations under this Agreement. The obligation of the Purchaser to make payments under this Agreement is a several obligation and not a joint obligation with those of the other Project Participants.

(f) Allocation of Costs and Expenses.

The Authority shall not allocate costs and expenses in any way which discriminates among Project Participants.

(i) Method of Computation of Fixed Project Costs and Fixed O&M Costs. The Fixed Project Costs shall be sufficient to return to the Authority those capital costs of the Authority necessary to deliver water to the Purchaser. The Fixed O&M Costs shall be sufficient to return to the Authority Project Operation and Maintenance Expenses and a reasonable reserve for contingencies, in each case incurred by the Authority with respect to the Project, irrespective of the amount of water delivered to the Project Participants. The total amount of Fixed Project Costs shall be allocated to the Purchaser by multiplying the Purchaser Share times all Fixed Project Costs. The total amount of Fixed O&M Costs shall be allocated to the Purchaser by multiplying the Purchaser Share times all Fixed O&M Costs.

(ii) Method of Computation of Variable O&M Costs. The Variable O&M Costs shall return to the Authority those costs of the Project which constitute Variable O&M Costs. There shall be computed for the Project a charge per acre-foot of water which will return to the Authority the total projected Variable O&M Costs of the Project for each Authority Fiscal Year. The parties confirm that if the Purchaser complies with the notice requirement of Section 4(a), no Variable O&M Costs will be allocated to the Purchaser for the portion of Project Allotment not produced by the Authority for the Purchaser.

(iii) Adjustments. The Authority shall update the values and amounts of Fixed Project Costs, Fixed O&M Costs and Variable O&M Costs on a quarterly basis, including year-to-date comparisons to the approved Project budget in order that the costs and expenses to the Purchaser may accurately reflect increases or decreases from Authority Fiscal Year to Authority Fiscal Year in Fixed Project Costs, Fixed O&M Costs and Variable O&M Costs. In addition, each such determination shall include an adjustment to be paid or received by the Purchaser for succeeding Authority Fiscal Years which shall account for the differences, if any, between projections of Fixed Project Costs, Fixed O&M Costs and Variable O&M Costs used by the Authority in determining the amounts of said Fixed Project Costs, Fixed O&M Costs and Variable O&M Costs for all preceding Authority Fiscal Years and actual Fixed Project Costs, Fixed O&M Costs and Variable O&M Costs incurred by the Authority for water delivered to the Purchaser during such Authority Fiscal Years.

(iv) Interest Earnings. Interest earnings on all amounts paid by the Purchaser to the Authority shall be credited to the Purchaser through the budgeting process.

(g) Time and Method of Payment.

(i) Fixed Project Costs and Fixed O&M Costs. The Purchaser shall pay to the Authority, on or before June 30 of each Authority Fiscal Year, 100% of the charge to the Purchaser for the next succeeding Authority Fiscal Year of the Fixed Project Costs and Fixed O&M Costs; provided that the Purchaser shall not be obligated to pay Fixed Project Costs or Fixed O&M Costs for any Authority Fiscal Year prior to Authority Fiscal Year [insert date].

(ii) Variable O&M Costs. The Purchaser shall pay to the Authority the charges to the Purchaser for the Variable O&M Costs on the date the Chino 1 Desalter is acquired by the Authority and thereafter for the three-month period commencing on the next succeeding January 1, April 1, July 1 or October 1 so that the Authority receives quarterly payments of Variable O&M Costs three months in advance of the time when such Variable O&M Costs will begin to be incurred by the Authority.

(iii) Statement of Charges. The Authority shall furnish the Purchaser with a written statement of the estimated Fixed Project Costs for the next succeeding Authority Fiscal Year, taking into account applicable credits received by the Authority and estimated investment earnings on moneys related to the Project held by the Authority. The Authority shall, on or before March 15, June 15, September 15 and December 15 of each Authority Fiscal Year, commencing on the date the Chino 1 Desalter is acquired by the Authority, furnish the Purchaser with a statement of the charges to the Purchaser for the Variable O&M Costs for the three-month period commencing on the July 1, October 1, January 1 or April 1, commencing three and one-half months subsequent to such date.

(iv) Contest of Accuracy of Charges. If the Purchaser questions or disputes the correctness of any billing statement by the Authority, it shall pay the Authority the amount claimed when due and shall, within thirty (30) days of the completion and delivery of the Authority's annual audit, request an explanation from the Authority. If the bill is determined to be incorrect, the Authority will adjust the bill to the Purchaser in the next Authority Fiscal Year, including an adjustment equal to the interest actually earned by the Authority on its general reserves during such period. If the Authority and the Purchaser fail to agree on the correctness of a bill within thirty (30) days after the Purchaser has requested an explanation,

the parties shall promptly submit the dispute to arbitration under Section 1280 et seq. of the Code of Civil Procedure.

Section 10. Annual Budget and Billing Statement.

The Authority will prepare and approve a budget for the period from the date of acquisition of the Chino 1 Desalter through June 30, 2002 on or prior to acquisition of the Chino 1 Desalter. Such initial budget shall include all Variable O&M Costs, Fixed O&M Costs and Fixed Project Costs. Thereafter, the Authority will prepare a preliminary annual budget for each applicable Authority Fiscal Year for credits, costs and expenses relating to the Project, including Variable O&M Costs and Fixed Project Costs. The Authority shall submit a draft of such budget to the Purchaser on or prior to each April 1 for review and comment. Authority staff shall use its best efforts to resolve any questions or concerns caused by a Project Participant during such review. The Board of Directors of the Authority will adopt a final annual budget for the applicable Authority Fiscal Year on or before June 1 of each Authority Fiscal Year after at least one public hearing on the budget and shall allow any Project Participant which may object to any provision of the budget to present such objection during such hearing. The Authority shall supply a copy of said final annual budget to the Purchaser on or before June 15 of each Authority Fiscal Year. Any amendment to the budget shall be submitted to the Purchaser for review and comment at least 30 days prior to action thereon by the Authority Board of Directors. Any such amendment shall be subject to the same hearing requirements applicable to the budget set forth above.

Section 11. Obligation in the Event of Default.

(a) Written Demand. Upon failure of the Purchaser to (i) make any payment in full when due under this Agreement or (ii) to perform any other obligation hereunder, the Authority shall make written demand upon the Purchaser. If a failure described in clause (i) above is not remedied within thirty (30) days from the date of such demand or, if Authority Bonds are outstanding, for such additional time as is reasonably required, in the sole discretion of the Trustee, to correct the same, such failure shall constitute a default at the expiration of such period. If a failure described in clause (ii) cannot be remedied within thirty (30) days from the date of such demand but the Purchaser commences remedial action within such thirty (30) day period, such failure shall not constitute a default hereunder. Notice of any such demand shall be provided to each other Project Participant by the Authority. Upon failure of the Authority to perform any obligation of the Authority hereunder, the Purchaser shall make written demand upon the Authority, and if said failure is not remedied within thirty (30) days from the date of such demand or, if Authority Bonds are outstanding, for such additional time as is reasonably required, in the sole discretion of the Trustee, to correct the same, such failure shall constitute a default at the expiration of such period. Notice of such demand shall be provided to each Project Participant by the Purchaser making such written demand.

In addition to any default resulting from breach by the Authority or the Purchaser of any agreement, condition, covenant or term hereof, if the Authority or the Purchaser shall file any petition or institute any proceedings under any act or acts, state or federal, dealing with or relating to the subject of bankruptcy or insolvency or under any amendment of such act or acts, either as a bankrupt or as an insolvent or as a debtor or in any similar capacity, wherein or whereby the Authority or the Purchaser asks or seeks or prays to be adjudicated a bankrupt, or is to be discharged from any or all of its debts or obligations, or offers to its creditors to effect a composition or extension of time to pay its debts, or asks, seeks or prays for a reorganization or to effect a plan of reorganization or for a readjustment of its debts or for any other similar relief, or if the Authority or

the Purchaser shall make a general or any assignment for the benefit of its creditors, then in each and every such case the Authority or the Purchaser, as the case may be, shall be deemed to be in default hereunder.

(b) Transfer for Defaulting Purchaser's Account. Upon the failure of the Purchaser to make any payment which failure constitutes a default under this Agreement, the Authority shall use its best efforts to transfer for the Purchaser's account all or a portion of the Purchaser's Project Allotment for all or a portion of the remainder of the term of this Agreement. Notwithstanding that all or any portion of the Purchaser's Project Allotment is so transferred, the Purchaser shall remain liable to the Authority to pay the full amount of its share of costs hereunder as if such sale or transfer has not been made, except that such liability shall be discharged to the extent that the Authority shall receive payment from the transferee thereof.

(c) Termination of Entitlement to Project Allotment; Continuing Obligations. Upon the failure of the Purchaser to make any payment which failure constitutes a default under this Agreement and causes the Authority to be in default under any Bond Resolution, the Authority may (in addition to the remedy provided by subsection (b) of this Section) give notice of termination of the provisions of this Agreement insofar as the same entitle the Purchaser to its Project Allotment which notice shall be effective within 30 days thereof unless such termination shall be enjoined, stayed or otherwise delayed by judicial action. Irrespective of such termination, the Purchaser shall remain liable to the Authority to pay the full amount of costs hereunder.

(d) Enforcement of Remedies. In addition to the remedies set forth in this Section, upon the occurrence of an Event of Default as defined herein, the Authority or the Purchaser, as the case may be, shall be entitled to proceed to protect and enforce the rights vested in such party by this Agreement by such appropriate judicial proceeding as such party shall deem most effectual, either by suit in equity or by action at law, whether for the specific performance of any covenant or agreement contained herein or to enforce any other legal or equitable right vested in such party by this Agreement or by law. The provisions of this Agreement and the duties of each party hereof, their respective boards, officers or employees shall be enforceable by the other party hereto by mandamus or other appropriate suit, action or proceeding in any court of competent jurisdiction, with the losing party paying all costs and attorney fees.

(e) Trustee is Third Party Beneficiary. Any Trustee for Authority Bonds shall have the right, as a third party beneficiary, to initiate and maintain suit to enforce this Agreement to the extent provided in any Bond Resolution.

Section 12. Transfers, Sales and Assignments of Project Allotment or Purchaser Water System.

(a) Transfer of Project Allotment. The Purchaser has rights to make transfers, sales, assignments and exchanges (collectively "transfers") of its Project Allotment or its rights or obligations with respect thereto only as expressly provided in this Section. In no event shall any sale or other disposition of all or any portion of the Purchaser's Project Allotment relieve the Purchaser of any of its obligations hereunder. The Purchaser shall give notice to the Authority in accordance with rules and regulations approved by the Authority from time to time.

(b) Sale or Other Disposition of Project Allotment. If in any Fiscal Year the Purchaser determines in accordance with 4(a) not to receive all of the Project Allotment, the Authority shall

offer such portion of the Project Allotment to the State of California at a price to be determined by the Authority. If the State of California declines to purchase such Project Allotment, the Purchaser shall have the right to sell such portion of the Project Allotment to another Project Participant or an entity which is not a Project Participant. No such sale of the Project Allotment shall relieve the Purchaser of any of its obligations hereunder.

Section 13. Covenants of the Purchaser.

The Authority and the Purchaser agree that the covenants contained in this Section shall only be enforced by the Authority to the extent necessary to enforce the payment provisions contained herein.

(a) Amount of Rates and Charges. The Purchaser will fix, prescribe and collect rates and charges for the Purchaser Water System which will be at least sufficient to yield during each Purchaser Fiscal Year Purchaser Net Water System Revenues (excluding Contract Payments, Fixed Project Costs, Fixed O&M Costs and Variable O&M Costs) equal to one hundred twenty-five percent (125%) of the Contract Payments, Fixed Project Costs, Fixed O&M Costs and Variable O&M Costs for such Purchaser Fiscal Year. The Purchaser may make adjustments from time to time in such rates and charges and may make such classification thereof as it deems necessary, but shall not reduce the rates and charges then in effect unless the Purchaser Net Water System Revenues from such reduced rates and charges will at all times be sufficient to meet the requirements of this section.

(b) Against Sale or Other Disposition of Property. Subject to Section 13(j), the Purchaser will not sell, lease or otherwise dispose of the Purchaser Water System or any part thereof unless the governing board of the Purchaser determines in writing that such sale, lease or other disposition will not materially adversely affect the Purchaser's ability to comply with subsection (a) of this Section and, in the case of a sale or other disposition, the entity acquiring the Purchaser Water System or such part thereof shall assume all obligations of the Purchaser under this Agreement. The Purchaser will not enter into any agreement or lease which impairs the operation of the Purchaser Water System or any part thereof necessary to secure adequate Purchaser Net Water System Revenues for the payment of the obligations imposed under this Agreement or which would otherwise impair the rights of the Authority with respect to the Purchaser Water System Revenues or the operation of the Purchaser Water System.

(c) Against Competitive Facilities. To the extent permitted by existing law and within the scope of its powers but only to the extent necessary to protect the rights of the owners of Authority Bonds, the Purchaser will not acquire, construct, maintain or operate and will use its best efforts not to permit any other public or private agency, corporation, district or political subdivision or any person whomsoever to acquire, construct, maintain or operate within the boundaries of the Purchaser any water system competitive with the Purchaser Water System which might have the effect of materially adversely affecting the Purchaser's ability to pay Fixed Project Costs, Fixed O&M Costs and Variable O&M Costs.

(d) Maintenance and Operation of the Purchaser Water System; Budgets. The Purchaser will maintain and preserve the Purchaser Water System in good repair and working order at all times and will operate the Purchaser Water System in an efficient and economical manner and will pay all Purchaser Operation and Maintenance Expenses as they become due and payable. On or before the first day of each Purchaser Fiscal Year thereafter, the Purchaser will adopt and file with the Authority a budget approved by the legislative body of the Purchaser, including therein in the estimated

Variable O&M Costs and Fixed Project Costs payable to the Authority. Any budget may be amended at any time during any Purchaser Fiscal Year and such amended budget shall be filed by the Purchaser with the Authority.

(e) Insurance. The Purchaser shall procure and maintain or cause to be procured and maintained insurance on the Purchaser Water System with responsible insurers so long as such insurance is available from reputable insurance companies, or, alternatively, shall establish a program of self-insurance, or participate in a joint powers agency providing insurance or other pooled insurance program, in such amounts and against such risks (including accident to or destruction of the Purchaser Water System) as are usually covered in connection with water systems similar to the Purchaser Water System.

(f) Accounting Records and Financial Statements.

(i) The Purchaser will keep appropriate accounting records in which complete and correct entries shall be made of all transactions relating to the Purchaser Water System, which records shall be available for inspection by the Authority and the Trustee at reasonable hours and under reasonable conditions.

(ii) The Purchaser will prepare and file with the Authority annually within two hundred ten (210) days after the close of each Purchaser Fiscal Year (commencing with the Purchaser Fiscal Year ending June 30, 2002) financial statements of the Purchaser for the preceding Purchaser Fiscal Year prepared in accordance with generally accepted accounting principles, together with a report of an Independent Certified Public Accountant thereon. The Purchaser will promptly furnish a copy of such report to the Authority and to the Trustee.

(g) Protection of Security and Rights of the Authority. The Purchaser will preserve and protect the rights of the Authority and the Trustee to the obligations of the Purchaser hereunder and will warrant and defend such rights against all claims and demands of all persons.

(h) Payment of Taxes and Compliance with Governmental Regulations. The Purchaser will pay and discharge all taxes, assessments and other governmental charges which may hereafter be lawfully imposed upon the Purchaser Water System or any part thereof or upon the Purchaser Water System Revenues when the same shall become due. The Purchaser will duly observe and conform with all valid regulations and requirements of any governmental authority relative to the operation of the Purchaser Water System or any part thereof, but the Purchaser shall not be required to comply with any regulations or requirements so long as the validity or application thereof shall be contested in good faith.

(i) Further Assurances. The Purchaser will adopt, deliver, execute and make any and all further assurances, instruments and resolutions as may be reasonably necessary or proper to effect the financing and refinancing of the Project and to allow the Authority to comply with reporting obligations, to assure the Authority of the Purchaser's intention to perform hereunder and for the better assuring and confirming unto the Authority and the Trustee of the rights and benefits provided to them herein.

(j) Maintenance of Tax-Exempt Status of Authority Bonds. Notwithstanding any other provision of this Agreement, the Purchaser shall not take any action or omit to take any action,

directly or indirectly, in any manner, which would result in any of the Authority Bonds being treated as an obligation not described in Section 103(a) of the Internal Revenue Code of 1986, as amended, by reason of classification of such Authority Bond as a "private activity bond" within the meaning of Section 141 of said Code or for any other reason.

Section 14. Covenants of the Authority.

(a) Insurance. The Authority shall procure and maintain or cause to be procured and maintained insurance on the Project with responsible insurers so long as such insurance is available from reputable insurance companies, or, alternatively, shall establish a program of self-insurance, or participate in a joint powers agency providing insurance or other pooled insurance program, covering such risks, in such amounts and with such deductibles as shall be determined by the Authority and as may be required under the Authority Bonds. The Authority shall indemnify and hold harmless the Purchaser from any liability for personal injury or property damage resulting from any accident or occurrence arising out of or in any way related to the construction or operation of the Project.

(b) Accounting Records and Financial Statements.

(i) The Authority will keep appropriate accounting records in which complete and correct entries shall be made of all Authority transactions relating to the Project, which records shall be available for inspection, copying and audit by the Purchaser and its accountants, attorneys and agents at reasonable hours and under reasonable conditions.

(ii) The Authority will prepare annually within two hundred ten (210) days after the close of each Authority Fiscal Year (commencing with the Authority Fiscal Year ending June 30, 2002) financial statements of the Authority for the preceding Authority Fiscal Year prepared in accordance with generally accepted accounting principles, together with a report of an Independent Certified Public Accountant thereof. The Authority will promptly furnish a copy of such report to the Purchaser and to the Trustee.

(c) Compliance with Law. The Authority shall comply with all local, state and federal laws applicable to the Project.

(d) Against Sale or Other Disposition of Project. The Authority will not sell, lease or otherwise dispose of the Project or any part thereof unless the Board of Directors of the Authority determines that such sale, lease or other disposition will not materially adversely affect the Authority's ability to comply with its obligations hereunder and under the Authority Bonds.

(e) Maintenance and Operation of the Project. Subject to the payment obligations of the Project Participants hereunder, the Authority will maintain and preserve the Project in good repair and working order at all times and will operate the Project in an efficient and economical manner consistent with the Joint Powers Agreement. Notwithstanding the foregoing, no material portion of the Project shall be abandoned by the Authority without the consent of all Project Participants.

Section 15. Term.

(a) No provision of this Agreement shall take effect until (i) it and Water Purchase Agreements with all Project Participants have been duly executed and delivered to the Authority together with an opinion for each Project Participant of an attorney or firm of attorneys in

substantially the form attached hereto as Exhibit B and an opinion for the Authority of Stradling Yocca Carlson & Rauth, a Professional Corporation, Special Counsel, in substantially the form attached hereto as Exhibit C, and (ii) the Authority delivers a written certificate to the Purchaser stating that the Authority has acquired the portion of the Project known as the Chino 1 Desalter.

(b) Notwithstanding the delay in effective date of this Agreement until all Project Participants have complied with subsection (a) of this Section, it is agreed by the Purchaser that in consideration for the Authority's signature hereto, and for its commitment to use its best efforts to obtain the commitment of all Project Participants, the Purchaser upon its execution and delivery of this Agreement to the Authority along with the required opinion and any required evidence of compliance as required by subsection (a) of this Section shall be immediately bound not to withdraw its respective offer herein made to enter into this Agreement as executed and/or supplemented or to decrease or terminate its Project Allotment before March 31, 2002.

(c) The term of this Agreement shall continue until the later of January 15, 2031 or the final maturity of Authority Bonds. The parties hereto agree to negotiate in good faith to amend this Agreement on or prior to such date to extend the term hereof and to include terms and conditions as are mutually agreeable to the parties, provided that the price to be paid with respect to the Project Allotment in such amendment shall reflect the payment of capital costs to such date.

Section 16. Assignment.

The Authority may pledge and assign to any Trustee for Authority Bonds, all or any portion of the payments received under this Agreement from the Purchaser and the Authority's other rights and interests under this Agreement. Such pledge and assignment by the Authority shall be made effective for such time as the Authority shall determine and provide that the Trustee shall have the power to enforce this Agreement in the event of a default by the Authority under a Bond Resolution. The Purchaser may assign its rights or obligations under this Agreement only in accordance with Section 15 hereof.

Section 17. Amendments.

Except as otherwise provided in this Agreement, on and after the date Authority Bonds are issued and so long as any Authority Bonds are outstanding in accordance with the applicable Bond Resolution, Section 9, 11, 12, 13, 14 and 16 and this Section of this Agreement shall not be amended, modified or otherwise changed or rescinded by agreement of the parties without the consent of each Trustee for Authority Bonds whose consent is required under the applicable Bond Resolution. This Agreement may only be otherwise amended, modified, changed or rescinded in writing by each of the parties hereto.

The Authority agrees not to grant to the owners of Authority Bonds as individuals any rights relating to the amendment, modification or change of this Agreement.

Notwithstanding the foregoing, the sections of this Agreement set forth in the prior paragraph of this Section may be amended without the consent of each Trustee for Authority Bonds for any of the following purposes:

(a) to add to the agreements, conditions, covenants and terms contained herein required to be observed or performed by the Authority or the Purchaser other agreements, conditions,

covenants and terms hereafter to be observed or performed by the Authority or the Purchaser, or to surrender any right reserved herein to or conferred herein on the Authority or the Purchaser, and which in either case shall not adversely affect the interests of the owners of any Authority Bonds;

(b) to make such provisions for the purpose of curing any ambiguity or of correcting, curing or supplementing any defective provision contained herein or in regard to questions arising hereunder which the Authority or the Purchaser may deem desirable or necessary and not inconsistent herewith, and which shall not materially adversely affect the interests of the owners of any Authority Bonds;

(c) to make any modifications or changes necessary or appropriate in the opinion of a firm of nationally recognized standing in the field of law relating to municipal bonds to preserve or protect the exclusion from gross income of interest on the Authority Bonds for federal income tax purposes;

(d) to make any modifications or changes to this Agreement in order to enable the execution and delivery of Authority Bonds on a parity with any Authority Bonds previously issued and to make any modifications or changes necessary or appropriate in connection with the execution and delivery of Authority Bonds;

(e) to make any other modification or change to the provisions of this Agreement which does not materially adversely affect the interests of the owners of any Authority Bonds;

(f) to make changes to the definition of "Project."

Section 18. Miscellaneous.

(a) Headings. The headings of the sections hereof are inserted for convenience only and shall not be deemed a part of this Agreement.

(b) Partial Invalidity. If any one or more of the covenants or agreements provided in this Agreement to be performed should be determined to be invalid or contrary to law, such covenant or agreement shall be deemed and construed to be severable from the remaining covenants and agreements herein contained and shall in no way affect the validity of the remaining provisions of this Agreement.

(c) Counterparts. This Agreement may be executed in several counterparts, all or any of which shall be regarded for all purposes as one original and shall constitute and be but one and the same instrument.

(d) Governing Law. THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF CALIFORNIA.

(e) Notices. Any notices required or permitted to be given hereunder shall be given in writing and shall be delivered (a) in person, (b) by certified mail, postage prepaid, return receipt requested, (c) by Federal Express or another reputable commercial overnight courier that guarantees next day delivery and provides a receipt, or (d) by telefacsimile or telecopy, and such notices shall be addressed as follows:

If to Purchaser: City of Chino Hills
2001 Grand Avenue
Chino Hills, CA 91709-4869
Attn: Water and Sewer Manager

With a copy to: Burke Williams & Sorenson
3403 Tenth Street, Suite 300
Riverside, CA 92501
Attn: Geralyn Skapik

If to Authority: Chino Basin Desalter Authority
c/o Jurupa Community Services District
8621 Jurupa Road
Riverside, California 92509

With a copy to: Stradling Yocca Carlson & Rauth
660 Newport Center Drive
Newport Beach, CA 92660
Attention: Douglas Brown

or to such other address as either party may from time to time specify in writing to the other party. Any notice shall be deemed delivered when actually delivered, if such delivery is in person, upon deposit with the U.S. Postal Service, if such delivery is by certified mail, upon deposit with the overnight courier service, if such delivery is by an overnight courier service, and upon transmission, if such delivery is by telefacsimile or telecopy.

(f) Merger of Prior Agreements. This Agreement and the exhibits hereto constitute the entire agreement between the parties and supersede all prior agreements and understandings between the parties relating to the subject matter hereof. This Agreement is intended to implement, and should be interpreted consistent with, the Joint Powers Agreement.

(g) Time of the Essence. Time is of the essence in the performance of this Agreement.

(h) Transportation Agreement. This Agreement constitutes the transportation agreement required to be entered into by the Authority and the Purchaser pursuant to Section 12.1 of the Joint Powers Agreement.

(i) Termination. The Purchaser hereby acknowledges that Agreement Number AEB 96001 for Desalter Water Sale and Purchase by and between the City of Chino Hills and Chino Basin Municipal Water District dated March 12, 1996 (the "Existing Water Purchase Agreement") has been terminated.

(j) IN WITNESS WHEREOF the Purchaser has executed this Agreement with the approval of its governing body, and caused its official seal to be affixed and the Authority has executed this Agreement in accordance with the authorization of its Board of Directors, and caused its official seal to be affixed.

CHINO BASIN DESALTER AUTHORITY

By: _____
Chairperson

[SEAL]

Attest:

By: _____
Secretary

CITY OF CHINO HILLS

By: _____
Mayor

[SEAL]

Attest:

By: _____
Secretary

EXHIBIT A

<u>Project Participant</u>	<u>Project Allotment (acre-feet)</u>
City of Chino	5,000
City of Chino Hills	4,200
City of Norco	1,000
City of Ontario	5,000
Jurupa Community Services District	8,200
Santa Ana River Water Company	<u>1,200</u>
	24,600

* Eliminates 400 acre feet of other per Exhibit A to the Term Sheet.

EXHIBIT B

[This opinion shall be delivered upon execution of the Water Purchase Agreement]

January __, 2002

Chino Basin Desalter Authority

City of Chino Hills
2001 Grand Avenue
Chino Hills, CA 91709-4869

Ladies and Gentlemen:

We are acting as general counsel to the City of Chino Hills (the "Purchaser") under the Water Purchase Agreement, dated as of January 15, 2002 (the "Agreement"), between the Chino Basin Desalter Authority (the "Authority") and the Purchaser, and have acted as general counsel to the Purchaser in connection with the matters referred to herein. As such counsel we have examined and are familiar with (i) documents relating to the existence, organization and operation of the Purchaser provided to us by the Purchaser, (ii) certifications by officers of the Purchaser, (iii) all necessary documentation of the Purchaser relating to the authorization, execution and delivery of the Agreement, and (iv) an executed counterpart of the Agreement. Terms used herein and not otherwise defined have the respective meanings set forth in the Agreement.

Based upon the foregoing and such examination of law and such other information, papers and documents as we deem necessary or advisable to enable us to render this opinion, including the Constitution and laws of the State of California, together with the resolutions, ordinances and public proceedings of the Purchaser, we are of the opinion that:

1. The Purchaser is a general law city, duly created, organized and existing under the laws of the State of California and duly qualified to furnish water service within its boundaries.
2. The Purchaser has legal right, power and authority to enter into the Agreement and to carry out and consummate all transactions reasonably contemplated thereby, and the Purchaser has complied with the provisions of applicable law relating to such transactions.
3. The Agreement has been duly authorized, executed and delivered by the Purchaser, is in full force and effect as to the Purchaser in accordance with its terms and, subject to the qualifications set forth in the second to the last paragraph hereof, and assuming that the Authority has all requisite power and authority, and has taken all necessary action, to authorize, execute and deliver such Agreement, the Agreement constitutes the valid and binding obligation of the Purchaser .
4. The obligations of the Purchaser to make payments under the Agreement from the Revenues of its Purchaser Water System or other lawfully available funds as provided in Section 10 of the Agreement is a valid, legal and binding obligation of the Purchaser enforceable in accordance with its terms.

5. No approval, consent or authorization of any governmental or public agency, authority or person is required for the execution and delivery by the Purchaser of the Agreement.

6. The authorization, execution and delivery of the Agreement and compliance with the provisions thereof will not conflict with or constitute a breach of, or default under, any instrument relating to the organization, existence or operation of the Purchaser, any commitment, agreement or other instrument to which the Purchaser is a party or by which it or its property is bound or affected, or any ruling, regulation, ordinance, judgment, order or decree to which the Purchaser (or any of its officers in their respective capacities as such) is subject or any provision of the laws of the State of California relating to the Purchaser and its affairs.

7. There is no action, suit, proceeding, inquiry or investigation at law or in equity, or before any court, public board or body, pending or, to our knowledge, threatened against or affecting the Purchaser or any entity affiliated with the Purchaser or any of its officers in their respective capacities as such, which questions the powers of the Purchaser referred to in paragraph 2 above or the validity of the proceedings taken by the Purchaser in connection with the authorization, execution or delivery of the Agreement, or wherein any unfavorable decision, ruling or finding would materially adversely affect the transactions contemplated by the Agreement, or which would adversely affect the validity or enforceability of the Agreement.

The opinion expressed in paragraphs 3 and 4 above are qualified to the extent that the enforceability of the Agreement may be limited by any applicable bankruptcy, insolvency, reorganization, arrangement, moratorium, or other laws affecting creditors' rights, to the application of equitable principles and to the exercise of judicial discretion in appropriate cases and to the limitations on legal remedies against public agencies in the State of California and provided that no opinion is expressed with respect to any indemnification or contribution provisions contained therein.

This opinion is rendered only with respect to the laws of the State of California and the United States of America and is addressed only to the Chino Basin Desalter Authority and the Purchaser . No other person is entitled to rely on this opinion, nor may you rely on it in connection with any transactions other than those described herein.

Very truly yours,

EXHIBIT C

[This opinion shall be delivered upon execution of the Water Purchase Agreement]

January __, 2002

Chino Basin Desalter Authority

The Project Participants Listed on
Exhibit A attached hereto

Ladies and Gentlemen:

We are special counsel to the Chino Basin Desalter Authority (the "Authority") and are familiar with those certain Water Purchase Agreements, dated as of January 15, 2002 (each, an "Agreement"), between the Authority and each of the water contractors identified on Exhibit A attached hereto (each, a "City") in connection with the matters referred to herein. As special counsel we have examined and are familiar with (i) documents relating to the existence, organization and operation of the Authority provided to us by the Authority, (ii) certifications by officers of the Authority, (iii) all necessary documentation of the Authority relating to the authorization, execution and delivery of the Agreement, and (iv) an executed counterpart of the Agreement. Terms used herein and not otherwise defined have the respective meanings set forth in the Agreement.

Based upon the foregoing and such examination of law and such other information, papers and documents as we deem necessary or advisable to enable us to render this opinion, including the Constitution and laws of the State of California, together with the resolutions, ordinances and public proceedings of the Authority, we are of the opinion that:

1. The Authority is a joint exercise of powers agency duly created, organized and existing under the laws of the State of California.
2. The Authority has legal right, power and authority to enter into the Agreement and to carry out and consummate all transactions reasonably contemplated thereby, and the Authority has complied with the provisions of applicable law relating to such transactions.
3. The Agreement has been duly authorized, executed and delivered by the Authority, is in full force and effect as to the Authority in accordance with its terms and, subject to the qualifications set forth in the second to the last paragraph hereof, and assuming that each City has all requisite power and authority, and has taken all necessary action, to authorize, execute and deliver such Agreement, the Agreement constitutes the valid and binding obligation of the Authority.
4. No approval, consent or authorization of any governmental or public agency, authority or person is required for the execution and delivery by the Authority of the Agreement.
5. The authorization, execution and delivery of the Agreement and compliance with the provisions thereof will not conflict with or constitute a breach of, or default under, any instrument relating to the organization, existence or operation of the Authority, any commitment, agreement or

other instrument to which the Authority is a party or by which it or its property is bound or affected, or, to the best of our knowledge, any ruling, regulation, ordinance, judgment, order or decree to which the Authority (or any of its officers in their respective capacities as such) is subject or any provision of the laws of the State of California relating to the Authority and its affairs.

6. There is no action, suit, proceeding, inquiry or investigation at law or in equity, or before any court, public board or body, pending or, to our knowledge, threatened against or affecting the Authority or any of its officers in their respective capacities as such, which questions the powers of the Authority referred to in paragraph 2 above or the validity of the proceedings taken by the Authority in connection with the authorization, execution or delivery of the Agreement, or wherein any unfavorable decision, ruling or finding would materially adversely affect the transactions contemplated by the Agreement, or which, in any way, would adversely affect the validity or enforceability of the Agreement.

The opinion expressed in paragraph 3 above is qualified to the extent that the enforceability of the Agreement may be limited by any applicable bankruptcy, insolvency, reorganization, arrangement, moratorium, or other laws affecting creditors' rights, to the application of equitable principles and to the exercise of judicial discretion in appropriate cases and to the limitations on legal remedies against public agencies in the State of California and provided that no opinion is expressed with respect to any indemnification or contribution provisions contained therein.

This opinion is rendered only with respect to the laws of the State of California and the United States of America and is addressed only to the Authority and the Project Participants. No other person is entitled to rely on this opinion, nor may you rely on it in connection with any transactions other than those described herein.

Respectfully submitted,

APPENDIX B

INFORMATION CONCERNING CHINO HILLS

The information set forth below has been provided by the City of Chino Hills ("Chino Hills"). The Chino Basin Desalter Authority (the "Authority") makes no representations or warranties as to the accuracy or completeness of any of the information set forth below. Capitalized terms not otherwise defined herein shall have the respective meanings ascribed to them in the Water Purchase Agreement, dated as of January 15, 2002, between the Authority and Chino Hills (the "Water Purchase Agreement").

THE CHINO HILLS WATER SYSTEM

History and Service Area

The predecessor to Chino Hills' water system (as further described below, the "Chino Hills Water System") was the San Bernardino County Waterworks District No. 8, (the "District"). The District was originally formed in the early 1920s to service an area in western San Bernardino County (the "County") commonly known as Sleepy Hollow, with approximately 100 service connections. In August, 1983, the territory served by the District was expanded to a size including the present service area with the acquisition and consolidation of five separate water companies. On October 15, 1989 the District sold approximately 25% of the District's service area (including the related distribution pipelines) to the Monte Vista Water District and the City of Chino. The service area sold is located east of Highway 71, outside of what is now Chino Hills city limits.

Nearly all of the District's retained service area was incorporated as the City of Chino Hills on December 1, 1991. At the same time, the County Board of Supervisors dissolved the District and the District's water system was transferred to Chino Hills. The Chino Hills Water System is owned, operated and accounted for by Chino Hills as a department of Chino Hills on an enterprise basis.

Chino Hills Water System currently serves a population of approximately 67,000.

Water Supply

General. Chino Hills receives an allocation of 10.68 million gallons per day ("mgd") of water through Chino Hills' participation in the Water Facilities Authority (the "Water Facilities Authority") all as further described under the caption "Water Facilities Authority."

Chino Hills pumps approximately 8.7 mgd from the Chino Basin groundwater basin. Chino Hills groundwater facilities include eight active wells. See the caption "Chino Basin Adjudication" below.

In July 1998, Chino Hills entered into an agreement with Monte Vista Water District ("Monte Vista") (the "Monte Vista Agreement") to purchase water from Monte Vista, also a member of the Water Facilities Authority. The Monte Vista Agreement replaces the lease agreement between Chino Hills and Monte Vista (the "Monte Vista Lease"). Under the terms of the Monte Vista Agreement, Monte Vista will provide Chino Hills up to 20.22 mgd of water. Chino Hills is obligated to purchase 10 mgd for \$10,160,000. The Monte Vista Agreement further obligates Chino Hills to purchase an additional 6.22 mgd for \$675,000 plus interest until paid. Chino Hills has an option for five years from the effective date of the Monte Vista Agreement to purchase an additional 4 mgd of

water supply for \$561,000 per mgd, subject to annual adjustment. Upon payment of such option price, Chino Hills may draw upon the 4 mgd of water supply within one year. The Monte Vista Agreement renews automatically each year. Chino Hills also purchases 650 acre feet per year of recycled water from Inland Empire Utilities Agency ("IEUA").

The average Chino Hills Water System water demand between November 2000 and October 2001 was 14.78 mgd; maximum demand was 24.14 mgd. The Chino Hills Water System can deliver between .5 mgd to 30.47 mgd depending upon well production and amount of water available through IEUA. As of November 30, 2001 Chino Hills had 19,706 water service connections.

Water Facilities Authority. In 1983, to accommodate future water quality and volume needs, Chino Hills joined the Water Facilities Authority, a joint powers authority, to facilitate financing and construction of a regional water treatment facility for State Water Project water purchased from Metropolitan Water District of Southern California ("MWD") (the "Agua de Lejos Facility"). The Agua de Lejos Facility was completed and operational by October, 1989, and was designed to meet the requirements of the Federal Safe Drinking Water Act and State water quality standards. The Agua de Lejos Facility treats MWD water purchased from IEUA.

Chino Basin Adjudication. Chino Hills' water rights to pump from the Chino Basin have primarily been established by a court decision, being the Chino Basin Municipal Water District ("CBMWD") versus the City of Chino et al, San Bernardino Superior Court Number 164327 (the "Chino Basin Judgment"), dated January 27, 1978. This decision adjudicated all groundwater rights in Chino Basin and contains a physical solution to meet the requirements of water users having rights in or dependent upon the Chino Basin. The Chino Basin Judgment declared that the safe yield of the Chino Basin is 140,000 acre feet per year, which is allocated among three classes of water users (or "pools"): (i) overlying agricultural- 82,800 acre feet per year, (ii) overlying non-agricultural (industries)- 7,366 acre feet per year, and (iii) appropriative (municipal)- 49,834 acre feet per year. A fundamental premise of the physical solution is that all Chino Basin water users, including Chino Hills, will be allowed to pump sufficient water from the Chino Basin to meet such users requirements. To the extent that pumping by such users exceeds the share of the safe yield assigned to the overlying pools (or the operating safe yield in the case of the appropriative pool) each pool will provide funds to the Chino Basin Watermaster to replace the overproduction with supplemental water which is primarily water imported into the Chino Basin.

Pursuant to the Chino Basin Adjudication, Chino Hills has been allocated a safe yield of 2,111 acre feet per year. Chino Hills is able to augment its safe yield by transfers of the unused safe yield allocations from the agricultural pool to the appropriative pool when and if available. During the last five years, this transfer has averaged 1,263 acre feet. Since Chino Hills produces groundwater from the Chino Basin in excess of the operating safe yield assigned Chino Hills under the Chino Basin Judgment, Chino Hills pays a replenishment assessment to the Watermaster for purchase of imported water for replenishment.

The Water Purchase Agreement

Chino Hills and the Authority have entered into the Water Purchase Agreement. Pursuant to the Water Purchase Agreement, the Authority will provide Chino Hills, and Chino Hills has agreed to purchase, 4,200 acre feet of desalter water (the "Chino Hills Project Allotment") each fiscal year. The Authority will charge Chino Hills under the Water Purchase Agreement an amount sufficient to

cover Chino Hills' share of the Project's (i) Fixed Project Costs, (ii) Fixed O&M Costs and (iii) Variable O&M Costs, each as defined in the Water Purchase Agreement. See the caption "SECURITY FOR THE BONDS — The Water Purchase Agreements" for additional information concerning the Water Purchase Agreement. Chino Hills expects to use the Chino Hills Project Allotment to reduce pumping from the Chino Basin and to serve new demand.

Existing Facilities

Chino Hills presently has two connections to a 30 inch pipeline, the "Ramona Feeder", from the Agua de Lejos Facility. Other major facilities contained in the Chino Hills Water System include eight active supply wells, each with a chlorination station, transmission mains, supply connections, distribution pipeline, 16 storage reservoirs, 9 active pumping facilities, two major pressure reducing facilities and 380 back flow devices. The 16 storage reservoirs range in capacity from two hundred fifty thousand gallons to five million gallons, with the total storage capacity of 34.83 million gallons. The Chino Hills Water System is operated over four major water pressure zones. The Chino Hills Water System includes water lines and mains varying in size from two inches to thirty inches.

Future Capital Improvements

At present, Chino Hills anticipates issuing approximately \$9 to \$10 million of Chino Hills Water System indebtedness in 2002 (the "2002 Installment Purchase Agreement"). Proceeds of the 2002 Installment Purchase Agreement are proposed to be used for certain capital improvements to the Chino Hills Water System, and may include the financing of a 42-inch pipeline connecting to Monte Vista, installation of a telemetry system, construction of a 3 million gallon reservoir for the Chino Hills' recycled water system and construction of a pump station for the recycled water system. The 2002 Installment Purchase Agreement is anticipated to be paid from net revenues of the Chino Hills Water System.

As residential and commercial development continue within Chino Hills, additions to the Chino Hills Water System will be made, which expected to be principally financed through fees paid by developers ("Developers Fees").

Chino Hills plans approximately \$37,485,000 in upgrades to the existing Chino Hills Water System, including an additional well, to be funded on a pay-as-you-go basis from user rates and reserves. Chino Hills does not anticipate using any debt to finance such capital improvements.

Water Users

The ten largest water users accounted for 21.64% of the annual water consumption in the Fiscal Year ending June 30, 2001. The largest private user, Los Serranos Golf Course, accounted for 3.69% of the total usage in Fiscal Year 2001.

CHINO HILLS WATER SYSTEM
Ten Largest Water Users
Fiscal Year Ending June 30, 2001

<u>Customers</u>	<u>12 Month Consumption (100 cubic Feet)</u>	<u>Percentage of Total</u>
City of Chino Hills	559,327	8.52
Los Serranos Golf Course	218,156	3.32
Chino Valley Unified School District	123,540	1.88
Western Hills Golf Course Association	92,250	1.41
Don McCoy Corporation	53,923	0.82
Boys Republic	48,412	0.74
Rancho Monte Vista Mobile Home Park	41,903	0.64
Lake Los Serranos Mobile Home Park	36,837	0.56
CTF-8 Village Oaks LLC	35,771	0.54
Eagle Canyon	<u>35,557</u>	<u>0.54</u>
Total	1,210,118	10.43

Source: Chino Hills.

Water Rates and Charges

General. Water rates are determined by the City Council of Chino Hills. Water rates are not subject to regulation by the California Public Utilities Commission or by any other state agency. Monthly water rates within Chino Hills boundaries are two-tiered, composed of both an availability charge and a commodity rate. The former is a flat rate assessed according to a meter size; the commodity rate is assessed per hundred cubic feet ("hcf"). In addition, Chino Hills has set installation charges for water capital connection, meter installation, and inspection fees.

Meter Installation Charge. The schedule of regular service meter installation charges is as follows:

<u>Meter & Service Size</u>	<u>Service Line and Curb Cock Already Installed</u>	<u>No Service Line Installed</u>
3/4 inch	\$300.00	\$ 750.00
1 inch	330.00	875.00
1 1/2 inch	400.00	1,000.00
2 inch	500.00	1,300.00

All meter installation charges for meter sizes 3 inches or larger are made at cost, plus, ten percent (10%). Only duly authorized employees or agents of Chino Hills are authorized to install service connections.

The following table compares the typical monthly residential water costs to customers of the Chino Hills Water System and of eleven neighboring water utilities.

**CHINO HILLS WATER SYSTEM
COMPARISON OF TYPICAL MONTHLY RESIDENTIAL WATER BILL
Monthly Cost for 22 ccf ⁽¹⁾
December 31, 2000**

<u>Utility</u>	<u>Cost</u>
City of Chino Hills	\$36.15
City of Chino	32.65
City of Ontario	31.80
City of Norco	29.25
Jurupa Community Services District ⁽²⁾	28.99
Santa Ana River Water Company ⁽³⁾	20.75

⁽¹⁾ Average water usage for a family of four per month.

⁽²⁾ Based on a 3/4 inch meter.

⁽³⁾ Based on a 1 inch meter.

Source: The cities of Chino, Chino Hills, Norco, Ontario, and Jurupa Community Services District and Santa Ana River Water Company are each the source of their respective typical monthly residential water bill.

Water Capital Connection Charge. The schedule of water capital connection charges are shown below. Water capital connection charges are Developers Fees.

<u>Meter Size</u>	<u>Capital Connection Fee</u>	<u>Meter Size</u>	<u>Capital Connection Fee</u>
3/4 inch	\$ 5,358.00	4 inch	\$ 89,318.00
1 inch	5,538.00	6 inch	178,582.00
1 1/2 inch	17,842.00	8 inch	285,742.00
2 inch	28,558.00	10 inch	430,408.00
3 inch	53,580.00	12 inch	582,254.00

Monthly Service Charge. Chino Hills has a monthly service charge based on meter size ranging from \$10.06 per month for a 5/8" meter to \$1,635.85 per month for an 12" meter.

<u>Meter Size</u>	<u>Rates</u>	<u>Meter Size</u>	<u>Rates</u>
5/8 inch	\$ 10.06	4 inch	\$ 250.90
3/4 inch	15.06	6 inch	501.75
1 inch	25.10	8 inch	802.80
1 1/2 inch	50.20	10 inch	1,209.23
2 inch	80.30	12 inch	1,635.85
3 inch	150.50		

Source: Chino Hills.

Commodity Charge. Effective January 1, 2002, domestic water rates are \$.99 per hcf in the low zone, \$1.19 per hcf in the intermediate zone, and \$1.22 per hcf in the high zone. Agricultural water rates are \$.68 per hcf. Water used for construction purposes is \$1.34 per hcf.

Recycled Water. Commodity Charge. Effective January 1, 2002, recycled water rates are \$.79 per hcf in the low zone, \$.95 per hcf in the intermediate zone, and \$.98 per hcf in the high zone.

Agricultural water rates for recycled water are \$.55 per hcf. Recycled water used for construction purposes is \$1.08 per hcf.

Collection Procedures. Chino Hills is on a monthly billing cycle. Payment is due by 21 days after the billing date. If payment is not received, a delinquency notice is sent on the 22nd day after the billing date. A 10% late payment penalty is charged after a bill is delinquent for 42 days. Currently 7% of the accounts, which accounts for approximately 0.8% of Chino Hills' monthly water system revenues are delinquent. All accounts not paid in full within 44 days of the delinquent billing date will be discontinued until full payment is made, including late payment penalties and a \$50.00 reconnection fee.

Water Consumption, Services and Collections

The following table sets forth water consumption by acre feet during the past five Fiscal Years.

**CHINO HILLS WATER SYSTEM
Water Consumption
Fiscal Years Ending June 30**

	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>
Number of Water Connections ⁽¹⁾	17,017	17,709	18,541	18,769	19,452
Total Water Consumption ⁽²⁾	14,868	12,955	14,627	15,860	15,058
Billings ⁽³⁾	\$9,834,713	\$9,210,231	\$10,109,095	\$10,876,346	\$10,639,353

⁽¹⁾ Includes Chino Hills owned landscaping water meters.

⁽²⁾ In acre-feet.

⁽³⁾ Billings amount is for water sales only; amount excludes other operating and non-operating revenue collections from revenues such as meter connection fee, interest income and lease payments.

Source: Chino Hills.

Employee Relations

Currently, there are 18 employees of Chino Hills assigned to the Chino Hills Water System. The employees are represented by the San Bernardino Public Employees Association ("SBPEA"). The current memorandum of understanding between SBPEA and Chino Hills covering wages and conditions of employment expires on February 28, 2002.

Insurance

Chino Hills is a member of the California Joint Powers Insurance Authority (the "Insurance Authority"). The Insurance Authority arranges and administers programs for the pooling of self-insured losses, to purchase excess insurance or reinsurance, and to arrange for group-purchased insurance for property and other coverage. As a member of the Insurance Authority, Chino Hills is covered for general liability in the amount of \$50,000,000 for each occurrence, with a \$50,000,000 annual aggregate. Chino Hills' deductible with respect to such coverage is \$20,000. Chino Hills is also covered by the Insurance Authority for workers' compensation liability in the amount of \$500,000 annual aggregate, with excess insurance providing coverage to statutory limits. Chino Hills' deductible with respect to workers' compensation liability insurance is \$50,000 for each occurrence.

FINANCIAL RESULTS OF THE WATER SYSTEM

Audited Financial Statements

A copy of the most recent general purpose financial statements audited by Lance Soll and Lunghard LLP, Brea, California (the "Auditor") are included as Appendix A hereto (the "Financial Statements"). The Financial Statements include a statement that the Auditor conducted an audit of the Financial Statements in accordance with generally accepted auditing standards and Government Auditing Standards issued by the Comptroller General of the United States. The Auditor opines that the Financial Statements present fairly, in all material aspects, the financial position of Chino Hills at June 30, 2001 and the results of Chino Hills' operations and cash flows of Chino Hills' proprietary funds for the year then ended in conformity with generally accepted accounting principles. The reports include certain notes to the financial statements which may not be fully described below under the subheading "Significant Accounting Policies" or in the footnotes to the Tables. Such notes constitute an integral part of the audited financial statements.

Significant Accounting Policies

Governmental accounting systems are organized and operated on a fund basis. A fund is defined as an independent fiscal and accounting entity with a self-balancing set of accounts recording cash and other financial resources, together with all related liabilities and residual equities or balances, and changes therein. Funds are segregated for the purpose of carrying on specific activities or attaining certain objectives in accordance with special regulations restrictions or limitations.

The Chino Hills Water System is accounted for as an Enterprise Fund. Enterprise Funds account for operations in a manner similar to private business enterprises where the intent is that the costs (expenses, including depreciation) of providing goods or services to the general public on a continuing basis is to be financed or recovered primarily through user charges.

Chino Hills uses the modified accrual method of accounting for government funds and the full accrual method for the Chino Hills Water System. Under the modified accrual basis, revenues are recognized when they become measurable and available as net current assets. Revenues considered susceptible to accrual in those funds wherein revenue is recognized on a modified accrual basis is as follows: property and sales taxes, revenue from the use of money and property, interfund transfers, unbilled service receivables and intergovernmental revenue are all considered measurable and are recognized as revenue on a modified accrual basis; licenses, permits, fines and forfeitures and similar items are, for the most part, not susceptible to accrual and consequently are not recorded until received.

Expenditures are generally recognized under the modified accrual basis of accounting when the related fund liability is incurred; principal and interest on general long-term debt is recognized when due.

Chino Hills uses a system for allocating certain chargeable costs provided by one Chino Hills department or fund for the benefit of another.

Description of Indebtedness

The 1996 Installment Sales Agreement. Chino Hills and Chino Hills Capital Improvement Corporation are parties to a certain Installment Sales Agreement dated as of May 1, 1996, with an original aggregate principal amount of \$21,645,000 (the "1996 Installment Sales Agreement"). The Installment Sales Agreement currently has an outstanding principal amount of \$18,790,000, matures in 2015, and has an average annual payment of \$1,738,089. As set forth in the 1996 Installment Sales Agreement, the 1996 Installment Sales Agreement is repayable solely from Net Revenues after payment of maintenance and operation costs. Fixed Project Costs, Fixed O&M Costs and Variable O&M Costs payable by Chino Hills under the Water Sales Agreement are operation and maintenance expenses of the Chino Hills Water System. As a result, the 1996 Installment Sales Agreement is payable from Chino Hills Water System revenues subordinate to amounts payable under the Water Sales Agreement.

Prior Water Facilities Authority Debt. In October, 1997, the Water Facilities Authority issued \$24,455,000 Refunding Certificates of Participation Series A (the "1997 Certificates"), pursuant to which each of the WFA Participants, including Chino Hills, entered into installment purchase agreements. Pursuant to the installment purchase agreement between Chino Hills and the Water Facilities Authority dated as of October 1, 1997 (the "1997 Installment Purchase Agreement"), Chino Hills agreed to repay 24.29% of the Water Facilities Authority's debt under the 1997 Certificates. In 1996, Chino Hills prepaid in full Chino Hills' portion of the 1997 Certificates out of funds from the 1996 Installment Sales Agreement.

Historic Operating Results and Debt Service Coverage

The following table is a summary of historic operating results and debt service coverage of the Chino Hills Water System for the past five fiscal years. These results have been derived from Chino Hills' financial statements, but exclude certain non-cash items and include certain other adjustments. The table has not been audited by Chino Hills' auditor. The following table includes revenue and expenses of the Chino Hills Water System's development impact fee program.

CHINO HILLS WATER SYSTEM Historic Operating Results and Debt Service Coverage For Fiscal Years Ended June 30

	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>
Revenues:					
Charges for Service	\$ 9,842,768	\$ 9,212,022	\$10,267,649	\$10,997,882	\$10,843,216
Permit and Inspection Fees	103,455	79,819	78,822	45,115	80,409
Meter And Installation Fees	291,697	328,383	190,492	182,641	196,690
Interest Earnings	743,234	876,318	726,057	768,290	895,646
Other	<u>236,220</u>	<u>324,887</u>	<u>1,776,600</u>	<u>1,869,198</u>	<u>2,870,979</u>
Total Revenues	\$11,217,374	\$10,821,429	\$13,039,620	\$13,863,126	\$14,826,940
Expenses:					
Purchased Water	\$ 5,008,313	\$ 4,364,873	\$ 4,867,731	\$ 5,427,119	\$ 5,083,345
Utilities	475,502	524,202	521,920	639,488	594,812
Salaries and Benefits	802,950	867,505	806,318	807,766	838,713
Contractual Services	675,806	697,651	474,057	374,894	412,783
Repairs and Maintenance	487,678	536,168	312,807	793,412	284,118
Services and Supplies	131,514	113,708	120,721	176,705	115,678
Other General and Administrative	<u>1,056,986</u>	<u>2,259,307</u>	<u>2,352,258</u>	<u>1,458,064</u>	<u>1,485,713</u>
Total Expenses	\$ 8,638,749	\$ 9,363,414	\$ 9,455,812	\$ 9,677,448	\$ 8,815,162
Net Revenues	\$ 2,578,625	\$ 1,458,015	\$ 3,583,808	\$ 4,185,678	\$ 6,011,778
1996 Installment Sales Agreement	\$ 1,739,505	\$ 1,735,605	\$ 1,740,455	\$ 1,739,155	\$ 1,736,630
Debt Service Coverage	1.48	.84	2.06	2.41	3.46

Source: Chino Hills.

Projected Operating Results and Debt Service Coverage

Chino Hills' estimated projected operating results for the Chino Hills Water System for the current and next four fiscal years are set forth below, reflecting certain significant assumptions concerning future events and circumstances. The financial forecast represents Chino Hills' estimate of the projected financial results of the Chino Hills Water System based upon Chino Hills judgment of the most probable occurrence of certain important future events. While the preceding historic table includes revenue and expenses of the Chino Hills Water System's development impact fee program, the following projections table does not include revenue and expenses of the Chino Hills Water System's development impact fee program. The assumptions set forth in the footnotes to the chart below are material in the development of financial projections for the Chino Hills Water System, and

variations in the assumptions may produce substantially different financial results. Actual operating results achieved during the projection period may vary from those presented in the forecast and such variations may be material.

CHINO HILLS WATER SYSTEM
Projected Operating Results and Debt Service Coverage
For Fiscal Years Ended June 30

	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>
Revenues:					
Water Sales ⁽¹⁾	\$ 12,102,000	\$ 13,558,900	\$ 14,327,500	\$ 14,995,300	\$ 15,485,500
Other Revenues ⁽²⁾	<u>815,400</u>	<u>688,700</u>	<u>739,500</u>	<u>753,400</u>	<u>794,700</u>
Total Revenues	\$ 12,917,400	\$ 14,247,600	\$ 15,067,000	\$ 15,748,700	\$ 16,280,200
Expenses:					
Purchased Water ⁽³⁾	\$ 5,952,500	\$ 6,232,633	\$ 6,063,360	\$ 6,286,348	\$ 6,909,107
Utilities ⁽⁴⁾	323,800	337,918	358,050	383,996	415,052
Salaries and Benefits ⁽⁴⁾	1,057,100	1,103,193	1,168,926	1,253,644	1,355,047
Contractual Services ⁽⁴⁾	512,800	535,160	567,047	608,143	657,334
Repairs and Maintenance ⁽⁴⁾	303,100	316,316	335,164	359,455	388,530
Services and Supplies ⁽⁴⁾	140,000	146,104	154,810	166,030	179,459
Other General and Administrative ⁽⁴⁾	1,187,500	1,239,279	1,313,120	1,408,289	1,522,201
Water Purchase Agreement ⁽⁵⁾	<u>750,000</u>	<u>768,000</u>	<u>1,365,604</u>	<u>1,696,800</u>	<u>1,738,800</u>
Total Expenses	\$ 10,226,800	\$ 10,678,603	\$ 11,326,079	\$ 12,162,704	\$ 13,165,530
Net Revenues	\$ 2,690,600	\$ 3,568,997	\$ 3,740,921	\$ 3,585,996	\$ 3,114,670
Water Purchase Agreement Coverage⁽⁶⁾	4.59	5.65	3.74	3.11	2.79
Debt Service					
1996 Installment Sales Agreement	\$ 1,745,475	\$ 1,751,395	\$ 1,749,645	\$ 1,755,395	\$ 1,748,065
2002 Installment Purchase Agreement ⁽⁷⁾	<u>376,000</u>	<u>751,900</u>	<u>751,900</u>	<u>751,900</u>	<u>751,900</u>
Total Debt Service	\$ 2,121,475	\$ 2,503,295	\$ 2,501,545	\$ 2,507,295	\$ 2,499,965
Debt Service Coverage⁽⁸⁾	1.27	1.43	1.50	1.43	1.25

(1) Assumes completion of 617, 517, 550, 450 and 390 new single-family residential units in fiscal years 2002 through 2006, respectively, and Water Sales per new unit of \$555. Also assumes water rate increases of 9.50%, 4.50%, 3.50%, 2.75% and 1.75% in fiscal years 2002 through 2006, respectively, as approved by the Chino Hills City Council in November 2001.

(2) Includes Permit and Inspection Fees, Meter Installation Fees, Interest Earnings and Other Operating and Non-Operating Revenues.

(3) Cost of purchased water per acre-foot projected to increase at 2.5% per annum from fiscal year budgeted amounts due to inflation.

(4) Projected to increase at 2.5% per annum from fiscal year 2001 budgeted amounts due to inflation plus additional costs related to projected completion of new single family units as described in (1) above.

(5) Desalter water purchases from the Authority are estimated to be 2,000 acre-feet in 2002 and 2003; 3,466 acre-feet in 2004; and 4,200 acre-feet thereafter at an estimated cost of \$375 per acre-foot in 2002 increasing 2.5% each year thereafter.

(6) Net Revenues plus Water Purchase Agreement expense, divided by Water Purchase Agreement expense.

(7) Assumes an installment purchase agreement in the principal amount of \$9,000,000 is entered into in fiscal year 2002 at an assumed interest rate of 6%.

(8) Net Revenues divided by Total Debt Service.

Source: Chino Hills.

LEASE AGREEMENT

This Lease Agreement and Option (Agreement) is entered into as of this 25TH day of March, 1996 by and between Monte Vista Water District, a California Water District (Lessor), and the City of Chino Hills, a municipal corporation (Lessee).

WHEREAS, Lessor and Lessee are both members of the Water Facilities Authority, a joint powers authority (WFA); and,

WHEREAS, Lessor has the right to draw a maximum of approximately 16,320,000 gallons of water per day from the WFA when such amount is available under rules and regulations of the WFA; and,

WHEREAS, Lessor has the right to sell and dispose of surplus water to municipalities and public agencies located outside the Lessor's district boundaries under the provisions of Section 31023 of the California Water Code; and

WHEREAS, Lessee desires to lease from Lessor the right to draw from Lessor's WFA capacity, 10 million gallons of water per day (10 mgd). Lessor desires to lease to Lessee 10 mgd of its capacity in the WFA Treatment Plant. Lessor has projected its water demand during the term of this Lease and has determined such Lease will not adversely affect the normal supply of water by Lessor to its customers for such periods; and

WHEREAS, pursuant to the terms of the Joint Powers Agreement creating the WFA, Lessor has the obligation to pay a certain portion of the debt service incurred by the WFA in connection with the Upland site project as set forth in WFA Resolutions No. 88-10-1 and 93-06-03 (Lessor's Debt Service); and,

WHEREAS, Lessor and Lessee share the use of the water line known as the Ramona Feeder,

NOW THEREFORE, the parties agree as follows:

1. Lease. Lessor hereby leases for the water year commencing July 1, 1996 and ending June 30, 1997, the right to draw 10 mgd from Lessor's water capacity in the WFA treatment plant.

2. Consideration. As consideration for the lease of the 10 mgd of capacity, Lessee shall pay to the Lessor on a quarterly basis in advance the following total annual amounts:

<u>Fiscal Year</u>	<u>Annual Amount</u>
1996/97	\$ 349,000
1997/98	349,700
1998/99	350,500
1999/00	350,800
2000/01	351,600
2001/02	352,500

Lessee shall also pay to Lessor the general and administrative costs that are allocated by WFA in the proportion the 10 mgd capacity to be leased is to the total mgd capacity that Lessor has in the Treatment Plant - currently estimated at \$4,400 per mgd. However, in the event the WFA causes these costs to be included in the purchase price of water, Lessee shall have no obligation to pay Lessor for such costs. Lessor and Lessee understand and agree that the costs set forth herein are for capacity only and that Lessee shall pay the WFA directly for all water taken. Lessee shall pay for the capacity it leases from Lessor irrespective of the amount of water it actually takes from the WFA treatment plant.

3. Annual Renewals. The lease of the 10 mgd from Lessor to Lessee shall automatically renew each year on the same terms and conditions for the water years commencing July 1, 1997 through and including the year commencing July 1, 2001. Notwithstanding the above, Lessee shall have the right upon one year's written notice prior to July 1, of each option year to decline to lease any water capacity from Lessor for the upcoming year and no consideration shall be due or owing to Lessor for any such year. The exercise of any option of Lessee's decision to decline any option hereunder shall terminate Lessee's right to lease capacity for any subsequent year.

4. Ramona Feeder. For each year in which Lessee leases capacity to take water from Lessor's WFA capacity rights, Lessee shall retain all of its rights in the Ramona Feeder and Lessee shall have the exclusive use of the Lessor's rights in Ramona Feeder line for delivery of up to 10 additional mgd.

5. Sublease. Lessee shall have the right to sublease any and all water capacity rights acquired hereunder from Lessor.

6. Representations and Warranties. Lessor hereby represents and warrants to Lessee that Lessor has the right to draw a minimum of 10 mgd from the WFA, and has not otherwise assigned, subordinated or alienated its right to receive at least 10 mgd from the WFA, nor its rights in the Ramona Feeder.

7. It is understood and agreed to between Lessor and Lessee that the lease of Water Treatment Plant capacity to Lessee under the terms of this Agreement shall under no circumstances create a vested right in Lessee to further lease periods or to Lessor's water beyond the term of this Agreement. The parties further expressly agree that the lease of water hereunder shall not in any manner create a detrimental reliance by Lessee on Lessor for the supply of water beyond the term of this Agreement. Lessee agrees that it shall not at any time use this Agreement in any type of legal action as a basis to compel Lessor to renew this Lease, except as provided in this Agreement or to provide water to Lessee beyond the time period specified in this

Agreement unless Lessor so consents in writing.

8. This Agreement constitutes the entire Agreement between the parties with respect to the leasing of WFA water capacity and Lessor's rights in the Ramona Feeder and supersedes all prior discussions, negotiations, and agreements whether written or oral with respect thereto.

9. Notices. Any notices or filings required to be given or made under this Lease shall be served or made in the following manner: Upon Lessee by serving the City Clerk personally or by Registered Mail addressed to the City Clerk, City of Chino Hills, California, 2001 Grand Avenue, Chino Hills, California, 91709-4869, or such other place as may hereafter be designated in writing by Lessee; and, upon Lessor by serving the Secretary of the Board of Directors personally or at 10575 Central Avenue, Montclair, California, 91763, or at such place as Lessor shall hereafter designate in writing.

10. Section Headings. Severability: The paragraph headings contained herein are for convenience and reference and are not intended to define or limit the scope of any provision of this Lease. If any section, subsection, sentence, clause or phrase of this Lease, or the application thereof to either party or any other person or circumstance, is for any reason held invalid, it shall be deemed severable and the validity of the remainder of the Lease for the application of such provision to the other party or to any person or circumstance shall not be affected thereby.

11. Attorney's Fees. Should either party hereto commence an action to enforce the provisions of this Lease, then such party that prevails in that action shall be entitled to reasonable attorney's fees, costs, expert witness fees, consulting fees, and testing fees.

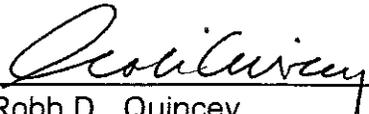
12. Upon full execution of this Agreement, Lessor agrees to promptly notify WFA of the water rights assignment and option contained in this Agreement.

13. This Agreement may be executed in counterparts.

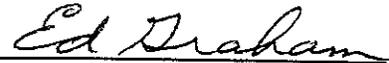
14. This Lease shall terminate forever at the conclusion of the term of this Lease as provided herein. Any payment by Lessee to Lessor after the term hereof (which includes the option years) shall under no circumstances create any holdover rights to Lessor's capacity in the WFA treatment plant. Any lease of capacity from Lessor to Lessee after the expiration of the term of this Lease must be negotiated by the Lessor and Lessee as a new Lease.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first set forth herein.

LESSOR
Monte Vista Water District

By 
Robb D. Quincey,
President, Board of Directors

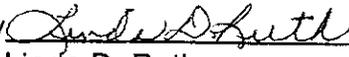
LESSEE
City of Chino Hills

By 
Ed Graham, Mayor

ATTEST

By 
P. Joseph Grindstaff
Secretary/General Manager

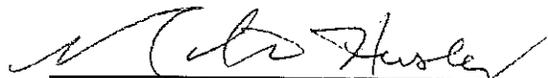
ATTEST

By 
Linda D. Ruth
City Clerk

APPROVED AS TO FORM:
MONTE VISTA WATER DISTRICT


Bruce J. Lance, Jr., Attorney

APPROVED AS TO FORM
CITY OF CHINO HILLS


Mark D. Hensley, City Attorney

AGREEMENT TO SUPPLY WATER

1. IDENTIFICATION

THIS AGREEMENT is made, entered into and effective this 14th day of July, 1998, by and between MONTE VISTA WATER DISTRICT, a county water district (District), and THE CITY OF CHINO HILLS, a municipal corporation (City).

2. RECITALS

2.1 District is a county water district located in San Bernardino County, California, and provides water service to the City of Montclair, as well as parts of the unincorporated area of San Bernardino County and the City of Chino.

2.2 District obtains its water supply from its wells within the District, as well as from State Water Project water obtained through the Water Facilities Authority (WFA) Agua de Lejos Water Treatment Plant.

2.3 District has determined that its sources of water, including new wells to be placed in service in the future, are more than sufficient to meet the reasonable anticipated needs of the District's residential and commercial customers at the present time, as well as at such time as undeveloped areas of the District are completely developed and water demand maximized. District has determined it has surplus water and

capacity in its system to provide to City.

2.4 District overlies a portion of the Chino Groundwater Basin (Chino Basin) and has the ability to drill new wells for production of water as District, may, from time to time, deem necessary and prudent. New wells which produce water with a nitrate level in excess of applicable regulatory standards can be blended with water from the WFA Treatment Plant or provided with well head treatment for delivery of water that meets applicable drinking water standards.

*Blending
Plant
Approved DWS*

2.5 City is a California Municipal Corporation in San Bernardino County and is located to the south and west of District. City is generally dependent upon sources of water outside of City to meet its present and future needs.

2.6 District is geographically situated at an elevation which would make delivery of water to City economically feasible.

2.7 City has a large area of undeveloped land, the owners of which presently and in the future will desire to develop into residential, commercial and industrial uses. Additional sources and supplies of water will be required for such development.

2.8 City desires to enter into a long term agreement with District for District to provide water at wholesale rates to City. District desires to enter into a long term contract with City to become a wholesale water provider to the City. Such an

agreement will be beneficial to District's customers in that it will provide additional revenue to District which will allow additional development of facilities and will assist in stabilizing the water rates District will be required to charge its customers.

2.9 District presently leases 10 million gallons per day (MGD) of water capacity to City. That lease is due to expire on June 30, 2002 ("Lease").

3. AGREEMENTS

In consideration of the mutual covenants, promises and conditions contained herein, the parties agree as follows:

3.1 Water Capacity. District shall provide City water capacity in its system for the following specified charges:

OK
\$10,016,000 —————

a. A capacity charge of \$1,016,000 per MGD for the first 10 MGD. The City shall have 30 days from the effective date of this Agreement to pay the District \$6,000,000 and an additional 60 days thereafter to pay the remaining balance of \$4,160,000 for such capacity. Upon delivery by City of such capacity charge to District, the Lease shall be terminated and City shall have the right to such capacity immediately.

CFM
4,198,500
BMWWD

b. A capacity charge of \$675,000 per MGD for the next 6.22 MGD plus simple interest from the date of

execution of this Agreement at the Local Agency Investment Fund investment return rate as it may fluctuate from time to time. Upon payment therefor, the City shall have one year from the effective date of this Agreement to pay District for such capacity. City shall have the right to such capacity within one year of execution of this Agreement.

c. A capacity charge of \$561,000 adjusted annually for the ENR rate as hereinafter defined, per MGD for the next 4 MGD. The City shall have five years from the effective date of this Agreement to exercise its option to pay the District to acquire such capacity. Upon delivery by City of such capacity charge to District, the City shall have the right to draw on the capacity within one year.

In addition, District and City may agree in the future that District will provide City with additional water capacity if the circumstances at such time warrant it. The terms and conditions for such additional capacity will depend on future negotiations between the parties hereto.

3.2 Ownership of System and Facilities. Payment of the above-described capacity charges will provide City with a corresponding demand on District's system and facilities for delivery of the indicated quantity of water per day subject to the restrictions and qualifications set forth herein. District

will, except in emergency situations, maintain capacity to meet the City's demand for up to 20.22 MGD. The City shall not take more than 20.22 MGD at any time without the District's prior written approval. The charge for any amounts taken over 20.22 MGD will be decided by the parties at the time of the District's written approval. Payment of the capacity charge shall not entitle City to an ownership interest in District's system and facilities. At all times District shall remain the sole owner of its system and facilities.

3.3 Water Delivery Limitations. District cannot guarantee City that in the event of an "emergency" it will be able to deliver the quantity of water that is equivalent to the capacity charges paid by City. An emergency shall be deemed to exist when a natural or other disaster, drought or regulatory decision makes it impossible for the District to provide the quantity of water demanded by City within the amount provided by this agreement. If an emergency arises District will reduce the City's water supply by no more than the least proportionate reduction imposed by the District on any wholesale or retail customer of the District. In the event of an emergency District and City promise and agree to implement reasonable and appropriate restrictions, limitations and regulations on water use by their retail customers to accordingly reduce their demand for water from District. District shall use reasonable judgment

in determining whether an emergency exists which necessitates water delivery to City be curtailed. District shall provide City with written notice of such curtailment and upon receipt of such notice City shall implement the above-referenced reasonable and appropriate procedures within City to limit the demand of District for water.

3.4 **Source and Quality of Water.** District, in its sole discretion, shall determine whether well water, treatment plant water or a combination of both shall be delivered to City pursuant to this Agreement. District represents and warrants that such water will be potable, that District will use its best management practices to deliver water containing an acceptable low level of nitrates by utilizing a blend of groundwater and WFA water. District will provide City with water of no lesser quality than it serves to any retail or wholesale customer of the District. Such water shall meet or exceed all applicable health and regulatory standards. Nothing herein shall be construed to create a responsibility and/or liability for District for water quality problems that are caused by the WFA Treatment Plant Facilities or City's facilities. District will use its best efforts to monitor the quality of water received from the WFA facilities and to immediately notify City of any deficiencies in quality. City shall take all necessary and reasonable steps to maintain an acceptable quality of water in

its system that is delivered by District pursuant to this agreement. For example, City, at appropriate intervals, shall flush its storage tanks to avoid trihalomethanes in its system. District pledges its best efforts to assist City in maintaining the quality and integrity of the water delivered by District to City.

3.5 **Location of Water Delivery.** District shall deliver the first 10 MGD of water to City pursuant to this Agreement, at the present connection to the Ramona Feeder near the intersection of Philadelphia and Ramona Avenue in the City of Chino. For delivery of capacity in excess of 10 MGD from District City will be required to construct a pipeline of sufficient size to accommodate the anticipated additional delivery of water by District to City. Such pipeline shall parallel, and may replace, the Ramona Feeder or such other route as is determined by City to a point that allows for connection to District's facilities near the intersection of State Street and Ramona Avenue in the unincorporated area of San Bernardino County. The District will construct all necessary system improvements and metering facilities to convey production water to said intersection, including connection to proposed Ramona Feeder parallel pipeline.

3.6 **Capacity Maintenance Charge.** City shall pay a sum to District to maintain the facilities and system proportionate

to the capacity City acquired from District. Said sum shall be equivalent to 1/50 of the initial capacity charge per year and the funds received by District shall be used for the maintenance of City's proportionate capacity interest in the District's facilities and system. Such sum shall be adjusted on an annual basis by the percent change reflected in the publication "Engineering News Record" (EN/20 City Construction Cost Index currently at 5895.11). District shall bill City on a quarterly basis for such additional capacity maintenance charges and shall maintain a separate interest bearing account for such funds and provide an accounting for such funds to City within 30 days of each anniversary of this Agreement. City shall pay District within 25 days of receipt of such bill. Funds in this account in excess of those needed for maintenance or replacement shall be returned annually (within 30 days following the anniversary date of this Agreement) to the City to the extent they exceed 25% of the initial capacity charge as adjusted for inflation per ENR as set forth above. In the event that insufficient funds are available for the City's proportionate share of the cost of replacing infrastructure, the City shall pay to District its proportionate shortfall amount within 30 days of District's billing therefor.

3.7 **Supplemental Pipeline.** City and District have had some preliminary discussion relative to construction of the new

pipeline described in Section 3.5 to connect to District's facilities. District shall participate in a proportionate ownership interest in the pipeline to the extent of 10 MGD capacity in the pipeline. District shall pay a proportionate share of the expense for construction, installation and maintenance of the pipeline. In addition, City may determine that it is in its best interest to have District supervise the engineering, planning and construction of the pipeline. In the event that District undertakes the supervision of the construction of such pipeline City and District shall, by separate agreement, determine and provide for the fair compensation for District for its services. District will have an ownership interest in the pipeline commensurate to its capacity interest therein.

3.8 **Water Rate.** Through and including June 30, 2003, City shall pay to District a fee for water delivered by District pursuant to this agreement that is equivalent to 98% of the WFA rate per acre foot for water it delivers to its constituents as determined from time to time. Beginning July 1, 2003 the following formula will be used annually to determine the fee for the water delivered by District to City:

Cost of Production

Percentage of Source

WFA Treated (Imported Rate) x	49%
Average Groundwater Production And Treatment x	31%
Average Groundwater Production And Treatment x	20%
Total Combined Water Rate:	100%

Water costs explicitly include a prorata share of associated labor, management, and administrative costs such as insurance, PERS, etc. On an annual basis, the District will prepare and submit to the City an analysis of production costs, including treatment and associated costs as described above. The analysis will include an accounting of allocation of appropriate costs for delivery of water to the City pursuant to this Agreement in proportion to the costs for water sold to District customers. District shall bill City monthly for delivery of water and City shall pay such within 25 days.

3.9 **Term of Agreement.** The term of this Agreement shall be from year to year and shall automatically renew each succeeding year on the anniversary of this Agreement, without limitation, unless otherwise terminated upon 60 days prior written notice by City or as otherwise provided in this Agreement.

3.10 **New Demand Charges.** In the event that Metropolitan Water District (MWD) imposes a new demand charge, or other charge, based upon increased water usage by District resulting from the additional water provided to City over and above District's base years, such additional new demand charges shall be passed through by District to City for payment. The term "base years" shall have the same meaning as is used by the Metropolitan Water District in its rules and regulations for the assessment of such charges.

3.11 **Privatization, Right of First Refusal.** In the event that City subsequently determines that it desires to privatize its water facilities and system it shall give District the right of first refusal to operate and manage its water facilities at the cost and terms equal to or better than competitive privatization proposals received by City.

3.12 **Possible Merger/Consolidation.** After City and District have operated for a period of three years under the terms and provisions of this Agreement, they shall discuss and study the possible merger and consolidation of City's water system with District's facilities. This provision does not require that any such merger occur.

3.13 **CEQA Compliance.** In the event that it is determined that any activity contemplate herein is required to comply with the California Environment Quality Act, as amended, either

party, as is determined between them, will undertake the roll of lead agency in connection with all actions, applications, and proceedings necessary to comply with such act as they may determine between them.

3.14 **Damage From Disaster.** District will maintain insurance on all of its facilities to the extent that such facilities are presently insured. In the event of damage to District's facilities from a natural disaster City can either (1) pay a proportionate share of the repair costs that exceed the applicable insurance coverage and the amount of reserves in the Capacity Maintenance Charge set forth in Section 3.6 or (2) terminate the Agreement and any liability or obligation for such repairs. The proportionate share shall be determined by the ratio of City's capacity interest over District's total system capacity. District shall promptly provide City with all appropriate documentation to support the City's proportionate share. City shall pay its proportionate share within 90 days of the date notice of the amount of repairs is presented to City.

3.15 **Section Headings, Severability.** The paragraph headings contained herein are for convenience and reference and are not intended to define or limit the scope of any provision of this Agreement.

3.16 **Default or Breach.** In the event of a default or breach by either party to this Agreement which is not cured

within sixty (60) days following written notice thereof from the other party, the nondefaulting party may give written notice to the other party of the intention to terminate the Agreement. If the defaulting party is the City, the City may accept the notice of termination or elect to submit the alleged default to mandatory arbitration and, if applicable, pay under protest any amount demanded by District pursuant to this Agreement. If the City does not notify the District in writing of its election to submit to mandatory arbitration within 30 days, the Agreement shall be terminated upon the expiration of such 30 day period. The purpose of this arbitration election for the City is to allow the City to cure any default which the arbitrator deems to exist and allow the City to continue to draw upon its capacity granted herein.

3.17 Termination. This Agreement may also be terminated by City in the event of the insolvency of District. In the event of its dissolution, consolidation or merger, the surviving entity or successor shall be bound by all of the terms and conditions of this agreement. In the event of termination of this Agreement, except termination arising from a breach by District, City shall pay to District all fees for water previously delivered to City as of the date of termination of this agreement. In the event of termination of this Agreement, except arising from a breach by City or a termination by City of

be in writing and signed by the party against whom the waiver is asserted. Any such waiver of a breach of or default under this Agreement shall not operate as or be construed to be a waiver of any other breach of or default under this Agreement. The failure of any party to insist on strict adherence to any term of this Agreement on one or more occasions shall not be construed as or deemed to be a waiver of any provision or of any breach of any provision of this Agreement, or deprive that party of the right thereafter to insist upon strict adherence to that term or provision of or any other term or provision of this Agreement. Any delay, failure or omission on the part of either party in exercising any right under this Agreement shall not constitute a waiver of any such right or of any other right under this Agreement.

3.20 Governing Law. This Agreement is governed by, and is construed and interpreted in accordance with, the laws of the State of California.

3.21 Severability. If any provision of this Agreement is invalid, illegal or unenforceable, such provision shall be deemed to be severed and deleted from this Agreement, and the balance of the Agreement shall remain in full force and effect notwithstanding such invalidity, illegality or unenforceability.

3.22 Enforcement Rights. Except for assignments permitted under this Agreement, or by law, and except as provided under

the Agreement without cause, District shall return to City all unencumbered funds received by District pursuant to Section 3.6 and a pro-rata share of the funds paid pursuant to Section 3.1 based upon a fifty year period.

3.18 Mandatory Arbitration. In the event of any conflict or dispute between the parties in connection with the performance of either party of an obligation or duty imposed upon it by this Agreement, or if there is a conflict or dispute between the parties with respect to the interpretation or construction of any term or condition of this Agreement, it is agreed that the parties shall submit such conflicts or disputes to binding arbitration by the Judicial Arbitration and Mediation Service (JAMS) in accordance with its rules and procedures. Either party may give notice of submission of conflict or dispute to arbitration. If JAMS is no longer in existence or declines to arbitrate a dispute the parties shall select another similar arbitration service.

3.19 Amendment, Modification & Waiver.

a. No provision of this Agreement may be waived, modified or amended except by a writing signed by the party against whom enforcement of the waiver, modification or amendment is sought.

b. Any waiver of any provision or waiver of a default under or breach of any provision of this Agreement, must

paragraph 3.17 above, this Agreement does not create rights enforceable by any person or organization or any kind that is not a party to this Agreement.

3.23 Notices. For purposes of all notices and payments applicable under the provisions of this Agreement, certified mail shall be sent to City of Chino Hills, 2001 Grand Avenue, Chino Hills, California, 91709, attention City Clerk, and to Monte Vista Water District, P.O. Box 71, Montclair, California, 91763-0071, attention General Manager.

Any notice or other communication required or permitted to be given in connection with this Agreement shall be in writing. The notice shall be personally served, or sent by facsimile or telegram, or sent prepaid by registered or certified mail with return receipt requested, or sent by a reputable courier or delivery service. Notice shall be deemed given and complete: (a) If personally served, upon delivery to the party to whom the notice is addressed; (b) If given by facsimile or telegram, when sent; (c) If given by prepaid or certified mail with return receipt requested, on the date of the execution of the return receipt; and (d) If sent by reputable delivery service or courier, when received. Notices addressed to the parties shall be given at the parties' address set forth above or at such address as such party shall hereafter otherwise direct in writing to the other party.

3.24 **Attorneys Fees.** Should any party commence proceeding for arbitration to enforce the provisions of or claims or actions arising out of this Agreement, then such party that prevails in that arbitration proceeding shall be entitled to recover reasonable attorneys' fees, costs, expert witness fees, consultants' fees and testing fees in connection therewith, including such fees for prosecuting, defending any appeal, or incurred in any supplemental proceeding as may be fixed by the arbitrator.

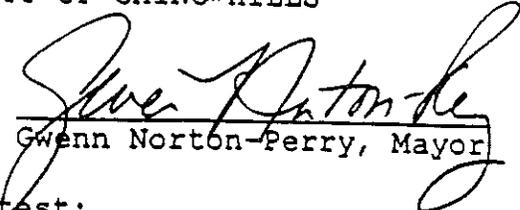
3.25 **Execution of Duplicate Originals.** This Agreement shall be executed by all parties in duplicate, each of which shall be considered an original agreement. The agreements with each of the other parties shall be the same as this Agreement, and each agreement may not be altered or changed without the consent of all of the remaining parties.

3.26 **Refund to District.** City agrees to refund to District the amount of overpaid interest that resulted from the Revised Lease Payment Schedule to the Lease Purchase Agreement between Monte Vista Water District and San Bernardino County Waterworks No. 8, effective October 16, 1989, for the acquisition of District Annexation No. 21. City further agrees to accept the Revised Lease Payment schedule for lease payments after December 1, 1997. District agrees to revise the amount due from City for lease payments for the Water Facilities Authority Treatment

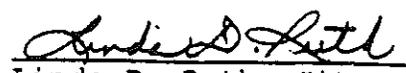
Plant Capacity to recognize District's decrease in debt service payments to the Water Facilities Authority.

Dated: 7/20/98

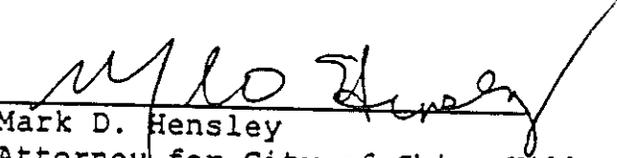
CITY OF CHINO HILLS

By 
Glenn Norton-Perry, Mayor

Attest:

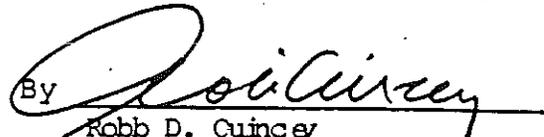
By 
Linda D. Ruth, City Clerk

Approved as to Form:

By 
Mark D. Hensley
Attorney for City of Chino Hills

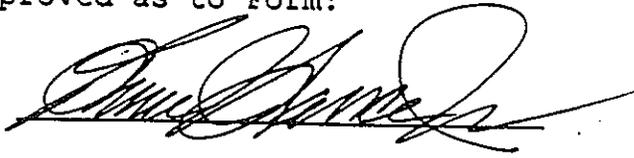
Dated: 7-20-98

MONTE VISTA WATER DISTRICT

By 
Robb D. Quincey
Its President, Board of Directors

By 
Calvin W. Good, Jr.
Its Acting General Manager

Approved as to Form:

By 
Attorney for Monte Vista Water District

Appendix E
1978 Chino Basin Judgment

*Exec. J. Stark
Jan 27, 1978
td*

FILED

JAN 30 AM 11 41

1 DONALD D. STARK
2 A Professional Corporation
3 Suite 201 Airport Plaza
4 2061 Business Center Drive
5 Irvine, California 92715
6 Telephone: (714) 752-8971

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8 601 South Main Street
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10 Telephone: (714) 737-1910

11 Attorneys for Plaintiff

FILED - West District
San Bernardino County Clerk

OCT 25 1989

Caru Gemino

SUPERIOR COURT OF THE STATE OF CALIFORNIA

FOR THE COUNTY OF SAN BERNARDINO

MICROFILMED

12 CHINO BASIN MUNICIPAL WATER)
13 DISTRICT,)
14 Plaintiff,)
15 v.)
16 CITY OF CHINO, et al.)
17 Defendants.)

No. 164327

REN 51010

JUDGMENT

Routing
Note
Index
Asst. Co. Clerk
Supervisor
Secretary/Other
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9 SUPERIOR COURT OF THE STATE OF CALIFORNIA

10 FOR THE COUNTY OF SAN BERNARDINO
11

12 CHINO BASIN MUNICIPAL WATER)
DISTRICT,)
13)
Plaintiff,)
14)
v.)
15)
CITY OF CHINO, et al.)
16)
Defendants.)
17)

No. 164327

JUDGMENT

18
19 I. INTRODUCTION

20 1. Pleadings, Parties and Jurisdiction. The complaint here-
21 in was filed on January 2, 1975, seeking an adjudication of water
22 rights, injunctive relief and the imposition of a physical solu-
23 tion. A first amended complaint was filed on July 16, 1976. The
24 defaults of certain defendants have been entered, and certain
25 other defendants dismissed. Other than defendants who have been
26 dismissed or whose defaults have been entered, all defendants have
27 appeared herein. By answers and order of this Court, the issues
28 have been made those of a full inter se adjudication between the

1 parties. This Court has jurisdiction of the subject matter of
2 this action and of the parties herein.

3 2. Stipulation For Judgment. Stipulation for entry of
4 judgment has been filed by and on behalf of a majority of the
5 parties, representing a majority of the quantitative rights herein
6 adjudicated.

7 3. Trial; Findings and Conclusions. Trial was commenced on
8 December 16, 1977, as to the non-stipulating parties, and findings
9 of fact and conclusions of law have been entered disposing of the
10 issues in the case.

11 4. Definitions. As used in this Judgment, the following
12 terms shall have the meanings herein set forth:

13 (a) Active Parties. All parties other than those who
14 have filed with Watermaster a written waiver of service of
15 notices, pursuant to Paragraph 58.

16 (b) Annual or Year -- A fiscal year, July 1 through
17 June 30, following, unless the context shall clearly indicate
18 a contrary meaning.

19 (c) Appropriative Right -- The annual production right
20 of a producer from the Chino Basin other than pursuant to an
21 overlying right.

22 (d) Basin Water -- Ground water within Chino Basin which
23 is part of the Safe Yield, Operating Safe Yield, or replen-
24 ishment water in the Basin as a result of operations under the
25 Physical Solution decreed herein. Said term does not include
26 Stored Water.

27 (e) CBMWD -- Plaintiff Chino Basin Municipal Water
28 District.

1 (f) Chino Basin or Basin -- The ground water basin
2 underlying the area shown as such on Exhibit "B" and within
3 the boundaries described in Exhibit "K".

4 (g) Chino Basin Watershed -- The surface drainage area
5 tributary to and overlying Chino Basin.

6 (h) Ground Water -- Water beneath the surface of the
7 ground and within the zone of saturation, i.e., below the
8 existing water table.

9 (i) Ground Water Basin -- An area underlain by one or
10 more permeable formations capable of furnishing substantial
11 water storage.

12 (j) Minimal Producer -- Any producer whose production
13 does not exceed five acre-feet per year.

14 (k) MWD -- The Metropolitan Water District of Southern
15 California.

16 (l) Operating Safe Yield -- The annual amount of ground
17 water which Watermaster shall determine, pursuant to criteria
18 specified in Exhibit "I", can be produced from Chino Basin by
19 the Appropriative Pool parties free of replenishment obliga-
20 tion under the Physical Solution herein.

21 (m) Overdraft -- A condition wherein the total annual
22 production from the Basin exceeds the Safe Yield thereof.

23 (n) Overlying Right -- The appurtenant right of an owner
24 of lands overlying Chino Basin to produce water from the Basin
25 for overlying beneficial use on such lands.

26 (o) Person. Any individual, partnership, association,
27 corporation, governmental entity or agency, or other organ-
28 ization.

1 (p) PVMWD -- Defendant Pomona Valley Municipal Water
2 District.

3 (q) Produce or Produced -- To pump or extract ground
4 water from Chino Basin.

5 (r) Producer -- Any person who produces water from Chino
6 Basin.

7 (s) Production -- Annual quantity, stated in acre feet,
8 of water produced.

9 (t) Public Hearing -- A hearing after notice to all
10 parties and to any other person legally entitled to notice.

11 (u) Reclaimed Water -- Water which, as a result of
12 processing of waste water, is suitable for a controlled use.

13 (v) Replenishment Water -- Supplemental water used to
14 recharge the Basin pursuant to the Physical Solution, either
15 directly by percolating the water into the Basin or indirectly
16 by delivering the water for use in lieu of production and use
17 of safe yield or Operating Safe Yield.

18 (w) Responsible Party -- The owner, co-owner, lessee or
19 other person designated by multiple parties interested in a
20 well as the person responsible for purposes of filing reports
21 hereunder.

22 (x) Safe Yield -- The long-term average annual quantity
23 of ground water (excluding replenishment or stored water but
24 including return flow to the Basin from use of replenishment
25 or stored water) which can be produced from the Basin under
26 cultural conditions of a particular year without causing an
27 undesirable result.

28 (y) SBVMWD -- San Bernardino Valley Municipal Water

1 District.

2 (z) State Water -- Supplemental Water imported through
3 the State Water Resources Development System, pursuant to
4 Chapter 8, Division 6, Part 6 of the Water Code.

5 (aa) Stored Water -- Supplemental water held in storage,
6 as a result of direct spreading, in lieu delivery, or other-
7 wise, for subsequent withdrawal and use pursuant to agreement
8 with Watermaster.

9 (bb) Supplemental Water -- Includes both water imported
10 to Chino Basin from outside Chino Basin Watershed, and re-
11 claimed water.

12 (cc) WMWD -- Defendant Western Municipal Water District
13 of Riverside County.

14 5. List of Exhibits. The following exhibits are attached to
15 this Judgment and made a part hereof:

16 "A" -- "Location Map of Chino Basin" showing boundaries
17 of Chino Basin Municipal Water District, and other geographic
18 and political features.

19 "B" -- "Hydrologic Map of Chino Basin" showing hydrologic
20 features of Chino Basin.

21 "C" -- Table Showing Parties in Overlying (Agricultural)
22 Pool.

23 "D" -- Table Showing Parties in Overlying (Non-
24 agricultural Pool and Their Rights.

25 "E" -- Table Showing Appropriators and Their Rights.

26 "F" -- Overlying (Agricultural) Pool Pooling Plan.

27 "G" -- Overlying (Non-agricultural) Pool Pooling Plan.

28 "H" -- Appropriative Pool Pooling Plan.

1 "I" -- Engineering Appendix.

2 "J" -- Map of In Lieu Area No. 1.

3 "K" -- Legal Description of Chino Basin.

4
5 II. DECLARATION OF RIGHTS

6 A. HYDROLOGY

7 6. Safe Yield. The Safe Yield of Chino Basin is 140,000 acre
8 feet per year.

9 7. Overdraft and Prescriptive Circumstances. In each year
10 for a period in excess of five years prior to filing of the First
11 Amended Complaint herein, the Safe Yield of the Basin has been
12 exceeded by the annual production therefrom, and Chino Basin is and
13 has been for more than five years in a continuous state of over-
14 draft. The production constituting said overdraft has been open,
15 notorious, continuous, adverse, hostile and under claim of right.
16 The circumstances of said overdraft have given notice to all
17 parties of the adverse nature of such aggregate over-production.

18 B. WATER RIGHTS IN SAFE YIELD

19 8. Overlying Rights. The parties listed in Exhibits "C" and
20 "D" are the owners or in possession of lands which overlie Chino
21 Basin. As such, said parties have exercised overlying water
22 rights in Chino Basin. All overlying rights owned or exercised by
23 parties listed in Exhibits "C" and "D" have, in the aggregate, been
24 limited by prescription except to the extent such rights have been
25 preserved by self-help by said parties. Aggregate preserved
26 overlying rights in the Safe Yield for agricultural pool use,
27 including the rights of the State of California, total 82,800 acre
28 feet per year. Overlying rights for non-agricultural pool use

1 total 7,366 acre feet per year and are individually decreed for
2 each affected party in Exhibit "D". No portion of the Safe Yield
3 of Chino Basin exists to satisfy unexercised overlying rights, and
4 such rights have all been lost by prescription. However, uses may
5 be made of Basin Water on overlying lands which have no preserved
6 overlying rights pursuant to the Physical Solution herein. All
7 overlying rights are appurtenant to the land and cannot be assigned
8 or conveyed separate or apart therefrom.

9 9. Appropriative Rights. The parties listed in Exhibit "E"
10 are the owners of appropriative rights, including rights by pres-
11 cription, in the unadjusted amounts therein set forth, and by
12 reason thereof are entitled under the Physical Solution to share in
13 the remaining Safe Yield, after satisfaction of overlying rights
14 and rights of the State of California, and in the Operating Safe
15 Yield in Chino Basin, in the annual shares set forth in Exhibit
16 "E".

17 (a) Loss of Priorities. By reason of the long continued
18 overdraft in Chino Basin, and in light of the complexity of
19 determining appropriative priorities and the need for con-
20 serving and making maximum beneficial use of the water re-
21 sources of the State, each and all of the parties listed in
22 Exhibit "E" are estopped and barred from asserting special
23 priorities or preferences, inter se. All of said appropri-
24 ative rights are accordingly deemed and considered of equal
25 priority.

26 (b) Nature and Quantity. All rights listed in Exhibit
27 "E" are appropriative and prescriptive in nature. By reason
28 of the status of the parties, and the provisions of Section

1 1007 of the Civil Code, said rights are immune from reduction
2 or limitation by prescription.

3 10. Rights of the State of California. The State of
4 California, by and through its Department of Corrections, Youth
5 Authority and Department of Fish and Game, is a significant pro-
6 ducer of ground water from and the State is the largest owner of
7 land overlying Chino Basin. The precise nature and scope of the
8 claims and rights of the State need not be, and are not, defined
9 herein. The State, through said departments, has accepted the
10 Physical Solution herein decreed, in the interests of implementing
11 the mandate of Section 2 of Article X of the California Constitu-
12 tion. For all purposes of this Judgment, all future production by
13 the State or its departments or agencies for overlying use on
14 State-owned lands shall be considered as agricultural pool use.

15 C. RIGHTS TO AVAILABLE GROUND WATER STORAGE CAPACITY

16 11. Available Ground Water Storage Capacity. There exists in
17 Chino Basin a substantial amount of available ground water storage
18 capacity which is not utilized for storage or regulation of Basin
19 Waters. Said reservoir capacity can appropriately be utilized for
20 storage and conjunctive use of supplemental water with Basin
21 Waters. It is essential that said reservoir capacity utilization
22 for storage and conjunctive use of supplemental water be undertaken
23 only under Watermaster control and regulation, in order to protect
24 the integrity of both such Stored Water and Basin Water in storage
25 and the Safe Yield of Chino Basin.

26 12. Utilization of Available Ground Water Capacity. Any
27 person or public entity, whether a party to this action or not, may
28 make reasonable beneficial use of the available ground water

1 storage capacity of Chino Basin for storage of supplemental water;
2 provided that no such use shall be made except pursuant to written
3 agreement with Watermaster, as authorized by Paragraph 28. In the
4 allocation of such storage capacity, the needs and requirements of
5 lands overlying Chino Basin and the owners of rights in the Safe
6 Yield or Operating Safe Yield of the Basin shall have priority and
7 preference over storage for export.

8
9 III. INJUNCTION

10 13. Injunction Against Unauthorized Production of Basin
11 Water. Each party in each of the respective pools is enjoined, as
12 follows:

13 (a) Overlying (Agricultural) Pool. Each party in the
14 Overlying (Agricultural) Pool, its officers, agents, employees,
15 successors and assigns, is and they each are ENJOINED AND
16 RESTRAINED from producing ground water from Chino Basin in any
17 year hereafter in excess of such party's correlative share of
18 the aggregate of 82,800 acre feet allocated to said Pool,
19 except pursuant to the Physical Solution or a storage water
20 agreement.

21 (b) Overlying (Non-Agricultural) Pool. Each party in
22 the Overlying (Non-agricultural) Pool, its officers, agents,
23 employees, successors and assigns, is and they each are
24 ENJOINED AND RESTRAINED from producing ground water of Chino
25 Basin in any year hereafter in excess of such party's decreed
26 rights in the Safe Yield, except pursuant to the provisions of
27 the Physical Solution or a storage water agreement.

28 (c) Appropriative Pool. Each party in the

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1 (c) The determination of specific quantitative rights
2 and shares in the declared Safe Yield or Operating Safe Yield
3 herein declared in Exhibits "D" and "E"; and

4 (d) The amendment or modification of Paragraphs 7(a) and
5 (b) of Exhibit "H", during the first ten (10) years of oper-
6 ation of the Physical Solution, and thereafter only upon
7 affirmative recommendation of at least 67% of the voting power
8 (determined pursuant to the formula described in Paragraph 3
9 of Exhibit "H"), but not less than one-third of the members
10 of the Appropriative Pool Committee representatives of parties
11 who produce water within CBMWD or WMWD; after said tenth year
12 the formula set forth in said Paragraph 7(a) and 7(b) of
13 Exhibit "H" for payment of the costs of replenishment water
14 may be changed to 100% gross or net, or any percentage split
15 thereof, but only in response to recommendation to the Court
16 by affirmative vote of at least 67% of said voting power of
17 the Appropriative Pool representatives of parties who produce
18 ground water within CBMWD or WMWD, but not less than one-third
19 of their number. In such event, the Court shall act in con-
20 formance with such recommendation unless there are compelling
21 reasons to the contrary; and provided, further, that the fact
22 that the allocation of Safe Yield or Operating Safe Yield
23 shares may be rendered moot by a recommended change in the
24 formula for replenishment assessments shall not be deemed to
25 be such a "compelling reason."

26 Said continuing jurisdiction is provided for the purpose of en-
27 abling the Court, upon application of any party, the Watermaster,
28 the Advisory Committee or any Pool Committee, by motion and, upon

1 at least 30 days' notice thereof, and after hearing thereon, to
2 make such further or supplemental orders or directions as may be
3 necessary or appropriate for interpretation, enforcement or carry-
4 ing out of this Judgment, and to modify, amend or amplify any of
5 the provisions of this Judgment.

6
7 V. WATERMASTER

8 A. APPOINTMENT

9 16. Watermaster Appointment. CBMWD, acting by and through a
10 majority of its board of directors, is hereby appointed Water-
11 master, to administer and enforce the provisions of this Judgment
12 and any subsequent instructions or orders of the Court hereunder.
13 The term of appointment of Watermaster shall be for five (5) years.
14 The Court will by subsequent orders provide for successive terms or
15 for a successor Watermaster. Watermaster may be changed at any
16 time by subsequent order of the Court, on its own motion, or on the
17 motion of any party after notice and hearing. Unless there are
18 compelling reasons to the contrary, the Court shall act in con-
19 formance with a motion requesting the Watermaster be changed if
20 such motion is supported by a majority of the voting power of the
21 Advisory Committee.

22 B. POWERS AND DUTIES

23 17. Powers and Duties. Subject to the continuing supervision
24 and control of the Court, Watermaster shall have and may exercise
25 the express powers, and shall perform the duties, as provided in
26 this Judgment or hereafter ordered or authorized by the Court in
27 the exercise of the Court's continuing jurisdiction.

28 18. Rules and Regulations. Upon recommendation by the

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1 Advisory Committee, Watermaster shall make and adopt, after public
2 hearing, appropriate rules and regulations for conduct of Water-
3 master affairs, including meeting schedules and procedures, and
4 compensation of members of Watermaster at not to exceed \$25 per
5 member per meeting, or \$300 per member per year, whichever is less,
6 plus reasonable expenses related to activities within the Basin.
7 Thereafter, Watermaster may amend said rules from time to time upon
8 recommendation, or with approval of the Advisory Committee after
9 hearing noticed to all active parties. A copy of said rules and
10 regulations, and of any amendments thereof, shall be mailed to each
11 active party.

12 19. Acquisition of Facilities. Watermaster may purchase,
13 lease, acquire and hold all necessary facilities and equipment;
14 provided, that it is not the intent of the Court that Watermaster
15 acquire any interest in real property or substantial capital
16 assets.

17 20. Employment of Experts and Agents. Watermaster may
18 employ or retain such administrative, engineering, geologic,
19 accounting, legal or other specialized personnel and consultants as
20 may be deemed appropriate in the carrying out of its powers and
21 shall require appropriate bonds from all officers and employees
22 handling Watermaster funds. Watermaster shall maintain records for
23 purposes of allocation of costs of such services as well as of all
24 other expenses of Watermaster administration as between the several
25 pools established by the Physical Solution.

26 21. Measuring Devices. Watermaster shall cause parties,
27 pursuant to uniform rules, to install and maintain in good opera-
28 ting condition, at the cost of each party, such necessary measuring

1 devices or meters as Watermaster may deem appropriate. Such
2 measuring devices shall be inspected and tested as deemed necessary
3 by Watermaster, and the cost thereof shall constitute an expense of
4 Watermaster.

5 22. Assessments. Watermaster is empowered to levy and
6 collect all assessments provided for in the pooling plans and
7 Physical Solution.

8 23. Investment of Funds. Watermaster may hold and invest any
9 and all Watermaster funds in investments authorized from time to
10 time for public agencies of the State of California.

11 24. Borrowing. Watermaster may borrow from time to time
12 amounts not exceeding the annual anticipated receipts of Water-
13 master during such year.

14 25. Contracts. Watermaster may enter into contracts for the
15 performance of any powers herein granted; provided, however, that
16 Watermaster may not contract with or purchase materials, supplies
17 or services from CBMWD, except upon the prior recommendation and
18 approval of the Advisory Committee and pursuant to written order of
19 the Court.

20 26. Cooperation With Other Agencies. Subject to prior
21 recommendation or approval of the Advisory Committee, Watermaster
22 may act jointly or cooperate with agencies of the United States and
23 the State of California or any political subdivisions, munici-
24 palities or districts or any person to the end that the purpose of
25 the Physical Solution may be fully and economically carried out.

26 27. Studies. Watermaster may, with concurrence of the
27 Advisory Committee or affected Pool Committee and in accordance
28 with Paragraph 54(b), undertake relevant studies of hydrologic

1 conditions, both quantitative and qualitative, and operating
2 aspects of implementation of the management program for Chino
3 Basin.

4 28. Ground Water Storage Agreements. Watermaster shall
5 adopt, with the approval of the Advisory Committee, uniformly
6 applicable rules and a standard form of agreement for storage of
7 supplemental water, pursuant to criteria therefor set forth in
8 Exhibit "I". Upon appropriate application by any person, Water-
9 master shall enter into such a storage agreement; provided that all
10 such storage agreements shall first be approved by written order of
11 the Court, and shall by their terms preclude operations which will
12 have a substantial adverse impact on other producers.

13 29. Accounting for Stored Water. Watermaster shall calculate
14 additions, extractions and losses and maintain an annual account of
15 all Stored Water in Chino Basin, and any losses of water supplies
16 or Safe Yield of Chino Basin resulting from such Stored Water.

17 30. Annual Administrative Budget. Watermaster shall submit
18 to Advisory Committee an administrative budget and recommendation
19 for each fiscal year on or before March 1. The Advisory Committee
20 shall review and submit said budget and their recommendations to
21 Watermaster on or before April 1, following. Watermaster shall
22 hold a public hearing on said budget at its April quarterly meeting
23 and adopt the annual administrative budget which shall include the
24 administrative items for each pool committee. The administrative
25 budget shall set forth budgeted items in sufficient detail as
26 necessary to make a proper allocation of the expense among the
27 several pools, together with Watermaster's proposed allocation.
28 The budget shall contain such additional comparative information

1 or explanation as the Advisory Committee may recommend from time
2 to time. Expenditures within budgeted items may thereafter be
3 made by Watermaster in the exercise of powers herein granted, as a
4 matter of course. Any budget transfer in excess of 20% of a
5 budget category during any budget year or modification of such
6 administrative budget during any year shall be first submitted to
7 the Advisory Committee for review and recommendation.

8 31. Review Procedures. All actions, decisions or rules of
9 Watermaster shall be subject to review by the Court on its own
10 motion or on timely motion by any party, the Watermaster (in the
11 case of a mandated action), the Advisory Committee, or any Pool
12 Committee, as follows:

13 (a) Effective Date of Watermaster Action. Any action,
14 decision or rule of Watermaster shall be deemed to have
15 occurred or been enacted on the date on which written
16 notice thereof is mailed. Mailing of copies of approved
17 Watermaster minutes to the active parties shall constitute
18 such notice to all parties.

19 (b) Noticed Motion. Any party, the Watermaster (as
20 to any mandated action), the Advisory Committee, or any
21 Pool Committee may, by a regularly noticed motion, apply
22 to the Court for review of any Watermaster's action,
23 decision or rule. Notice of such motion shall be served
24 personally or mailed to Watermaster and to all active
25 parties. Unless otherwise ordered by the Court, such
26 motion shall not operate to stay the effect of such
27 Watermaster action, decision or rule.
28

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1 (c) Time for Motion. Notice of motion to review any
2 Watermaster action, decision or rule shall be served and filed
3 within ninety (90) days after such Watermaster action, de-
4 cision or rule, except for budget actions, in which event said
5 notice period shall be sixty (60) days.

6 (d) De Novo Nature of Proceedings. Upon the filing of
7 any such motion, the Court shall require the moving party to
8 notify the active parties, the Watermaster, the Advisory
9 Committee and each Pool Committee, of a date for taking
10 evidence and argument, and on the date so designated shall
11 review de novo the question at issue. Watermaster's findings
12 or decision, if any, may be received in evidence at said
13 hearing, but shall not constitute presumptive or prima facie
14 proof of any fact in issue.

15 (e) Decision. The decision of the Court in such proceed-
16 ing shall be an appealable supplemental order in this case.
17 When the same is final, it shall be binding upon the Water-
18 master and all parties.

19 C. ADVISORY AND POOL COMMITTEES

20 32. Authorization. Watermaster is authorized and directed to
21 cause committees of producer representatives to be organized to
22 act as Pool Committees for each of the several pools created under
23 the Physical Solution. Said Pool Committees shall, in turn,
24 jointly form an Advisory Committee to assist Watermaster in per-
25 formance of its functions under this judgment. Pool Committees
26 shall be composed as specified in the respective pooling plans, and
27 the Advisory Committee shall be composed of not to exceed ten (10)
28 voting representatives from each pool, as designated by the

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1 respective Pool Committee. WMWD, PVMWD and SBVMWD shall each be
2 entitled to one non-voting representative on said Advisory Com-
3 mittee.

4 33. Term and Vacancies. Members of any Pool Committee, shall
5 serve for the term, and vacancies shall be filled, as specified in
6 the respective pooling plan. Members of the Advisory Committee
7 shall serve at the will of their respective Pool Committee.

8 34. Voting Power. The voting power on each Pool Committee
9 shall be allocated as provided in the respective pooling plan. The
10 voting power on the Advisory Committee shall be one hundred (100)
11 votes allocated among the three pools in proportion to the total
12 assessments paid to Watermaster during the preceding year; pro-
13 vided, that the minimum voting power of each pool shall be

- 14 (a) Overlying (Agricultural) Pool 20,
15 (b) Overlying (Non-agricultural) Pool 5, and
16 (c) Appropriative Pool 20.

17 In the event any pool is reduced to its said minimum vote, the re-
18 maining votes shall be allocated between the remaining pools on
19 said basis of assessments paid to Watermaster by each such remain-
20 ing pool during the preceding year. The method of exercise of
21 each pool's voting power on the Advisory Committee shall be as
22 determined by the respective pool committees.

23 35. Quorum. A majority of the voting power of the Advisory
24 Committee or any Pool Committee shall constitute a quorum for the
25 transaction of affairs of such Advisory or Pool Committee; pro-
26 vided, that at least one representative of each Pool Committee
27 shall be required to constitute a quorum of the Advisory Committee.
28 No Pool Committee representative may purposely absent himself or

1 herself, without good cause, from an Advisory Committee meeting to
2 deprive it of a quorum. Action by affirmative vote of a majority
3 of the entire voting power of any Pool Committee or the Advisory
4 Committee shall constitute action by such committee. Any action or
5 recommendation of a Pool Committee or the Advisory Committee shall
6 be transmitted to Watermaster in writing, together with a report of
7 any dissenting vote or opinion.

8 36. Compensation. Pool or Advisory Committee members may
9 receive compensation, to be established by the respective pooling
10 plan, but not to exceed twenty-five dollars (\$25.00) for each
11 meeting of such Pool or Advisory Committee attended, and provided
12 that no member of a Pool or Advisory Committee shall receive
13 compensation of more than three hundred (\$300.00) dollars for
14 service on any such committee during any one year. All such com-
15 pensation shall be a part of Watermaster administrative expense.
16 No member of any Pool or Advisory Committee shall be employed by
17 Watermaster or compensated by Watermaster for professional or other
18 services rendered to such Pool or Advisory Committee or to Water-
19 master, other than the fee for attendance at meetings herein
20 provided, plus reimbursement of reasonable expenses related to
21 activities within the Basin.

22 37. Organization.

23 (a) Organizational Meeting. At its first meeting in
24 each year, each Pool Committee and the Advisory Committee
25 shall elect a chairperson and a vice chairperson from its
26 membership. It shall also select a secretary, a treasurer
27 and such assistant secretaries and treasurers as may be
28 appropriate, any of whom may, but need not, be members of

1 such Pool or Advisory Committee.

2 (b) Regular Meetings. All Pool Committees and the
3 Advisory Committee shall hold regular meetings at a place and
4 time to be specified in the rules to be adopted by each Pool
5 and Advisory Committee. Notice of regular meetings of any
6 Pool or Advisory Committee, and of any change in time or
7 place thereof, shall be mailed to all active parties in said
8 pool or pools.

9 (c) Special Meetings. Special meetings of any Pool or
10 Advisory Committee may be called at any time by the Chair-
11 person or by any three (3) members of such Pool or Advisory
12 Committee by delivering notice personally or by mail to each
13 member of such Pool or Advisory Committee and to each active
14 party at least 24 hours before the time of each such meeting
15 in the case of personal delivery, and 96 hours in the case of
16 mail. The calling notice shall specify the time and place of
17 the special meeting and the business to be transacted. No
18 other business shall be considered at such meeting.

19 (d) Minutes. Minutes of all Pool Committee, Advisory
20 Committee and Watermaster meetings shall be kept at Water-
21 master's offices. Copies thereof shall be mailed or otherwise
22 furnished to all active parties in the pool or pools con-
23 cerned. Said copies of minutes shall constitute notice of any
24 Pool or Advisory Committee action therein reported, and shall
25 be available for inspection by any party.

26 (e) Adjournments. Any meeting of any Pool or Advisory
27 Committee may be adjourned to a time and place specified in
28 the order of adjournment. Less than a quorum may so adjourn

1 from time to time. A copy of the order or notice of adjourn-
2 ment shall be conspicuously posted forthwith on or near the
3 door of the place where the meeting was held.

4 38. Powers and Functions. The powers and functions of the
5 respective Pool Committees and the Advisory Committee shall be as
6 follows:

7 (a) Pool Committees. Each Pool Committee shall have the
8 power and responsibility for developing policy recommendations
9 for administration of its particular pool, as created under
10 the Physical Solution. All actions and recommendations of any
11 Pool Committee which require Watermaster implementation shall
12 first be noticed to the other two pools. If no objection is
13 received in writing within thirty (30) days, such action or
14 recommendation shall be transmitted directly to Watermaster
15 for action. If any such objection is received, such action or
16 recommendation shall be reported to the Advisory Committee
17 before being transmitted to Watermaster.

18 (b) Advisory Committee. The Advisory Committee shall
19 have the duty to study, and the power to recommend, review
20 and act upon all discretionary determinations made or to be
21 made hereunder by Watermaster.

22 [1] Committee Initiative. When any recommendation
23 or advice of the Advisory Committee is received by
24 Watermaster, action consistent therewith may be taken by
25 Watermaster; provided, that any recommendation approved
26 by 80 votes or more in the Advisory Committee shall
27 constitute a mandate for action by Watermaster consistent
28 therewith. If Watermaster is unwilling or unable to act

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1 pursuant to recommendation or advice from the Advisory
2 Committee (other than such mandatory recommendations),
3 Watermaster shall hold a public hearing, which shall be
4 followed by written findings and decision. Thereafter,
5 Watermaster may act in accordance with said decision,
6 whether consistent with or contrary to said Advisory
7 Committee recommendation. Such action shall be subject
8 to review by the Court, as in the case of all other
9 Watermaster determinations.

10 [2] Committee Review. In the event Watermaster
11 proposes to take any discretionary action, other than
12 approval or disapproval of a Pool Committee action or
13 recommendation properly transmitted, or execute any
14 agreement not theretofore within the scope of an Advisory
15 Committee recommendation, notice of such intended action
16 shall be served on the Advisory Committee and its members
17 at least thirty (30) days before the Watermaster meeting
18 at which such action is finally authorized.

19 (c) Review of Watermaster Actions. Watermaster (as to
20 mandated action), the Advisory Committee or any Pool Committee
21 shall be entitled to employ counsel and expert assistance in
22 the event Watermaster or such Pool or Advisory Committee seeks
23 Court review of any Watermaster action or failure to act. The
24 cost of such counsel and expert assistance shall be Water-
25 master expense to be allocated to the affected pool or pools.

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1 VI. PHYSICAL SOLUTION

2 A. GENERAL

3 39. Purpose and Objective. Pursuant to the mandate of
4 Section 2 of Article X of the California Constitution, the Court
5 hereby adopts and orders the parties to comply with a Physical
6 Solution. The purpose of these provisions is to establish a legal
7 and practical means for making the maximum reasonable beneficial
8 use of the waters of Chino Basin by providing the optimum economic,
9 long-term, conjunctive utilization of surface waters, ground waters
10 and supplemental water, to meet the requirements of water users
11 having rights in or dependent upon Chino Basin.

12 40. Need for Flexibility. It is essential that this Physical
13 Solution provide maximum flexibility and adaptability in order that
14 Watermaster and the Court may be free to use existing and future
15 technological, social, institutional and economic options, in order
16 to maximize beneficial use of the waters of Chino Basin. To that
17 end, the Court's retained jurisdiction will be utilized, where
18 appropriate, to supplement the discretion herein granted to the
19 Wastermaster.

20 41. Watermaster Control. Watermaster, with the advice of the
21 Advisory and Pool Committees, is granted discretionary powers in
22 order to develop an optimum basin management program for Chino
23 Basin, including both water quantity and quality considerations.
24 Withdrawals and supplemental water replenishment of Basin Water,
25 and the full utilization of the water resources of Chino Basin,
26 must be subject to procedures established by and administered
27 through Watermaster with the advice and assistance of the Advisory
28 and Pool Committees composed of the affected producers. Both the

1 quantity and quality of said water resources may thereby be pre-
2 served and the beneficial utilization of the Basin maximized.

3 42. General Pattern of Operations. It is contemplated that
4 the rights herein decreed will be divided into three (3) operating
5 pools for purposes of Watermaster administration. A fundamental
6 premise of the Physical Solution is that all water users dependent
7 upon Chino Basin will be allowed to pump sufficient waters from the
8 Basin to meet their requirements. To the extent that pumping
9 exceeds the share of the Safe Yield assigned to the Overlying
10 Pools, or the Operating Safe Yield in the case of the Appropriative
11 Pool, each pool will provide funds to enable Watermaster to replace
12 such overproduction. The method of assessment in each pool shall
13 be as set forth in the applicable pooling plan.

14 B. POOLING

15 43. Multiple Pools Established. There are hereby established
16 three (3) pools for Watermaster administration of, and for the
17 allocation of responsibility for, and payment of, costs of re-
18 plenishment water and other aspects of this Physical Solution.

19 (a) Overlying (Agricultural) Pool. The first pool shall
20 consist of the State of California and all overlying producers
21 who produce water for other than industrial or commercial
22 purposes. The initial members of the pool are listed in
23 Exhibit "C".

24 (b) Overlying (Non-agricultural) Pool. The second pool
25 shall consist of overlying producers who produce water for
26 industrial or commercial purposes. The initial members of
27 this pool are listed in Exhibit "D".

28 (c) Appropriative Pool. A third and separate pool shall

1 consist of owners of appropriative rights. The initial
2 members of the pool are listed in Exhibit "E".

3 Any party who changes the character of his use may, by sub-
4 sequent order of the Court, be reassigned to the proper pool; but
5 the allocation of Safe Yield under Paragraph 44 hereof shall not be
6 changed. Any non-party producer or any person who may hereafter
7 commence production of water from Chino Basin, and who may become a
8 party to this physical solution by intervention, shall be assigned
9 to the proper pool by the order of the Court authorizing such
10 intervention.

11 44. Determination and Allocation of Rights to Safe Yield of
12 Chino Basin. The declared Safe Yield of Chino Basin is hereby
13 allocated as follows:

14	<u>Pool</u>	<u>Allocation</u>
15	Overlying (Agricultural) Pool	414,000 acre feet in any five (5) consecutive years.
16	Overlying (Non-agricultural) 17 Pool.	7,366 acre feet per year.
18	Appropriative Pool	49,834 acre feet per year.

19 The foregoing acre foot allocations to the overlying pools are
20 fixed. Any subsequent change in the Safe Yield shall be debited or
21 credited to the Appropriative Pool. Basin Water available to the
22 Appropriative Pool without replenishment obligation may vary from
23 year to year as the Operating Safe Yield is determined by Water-
24 master pursuant to the criteria set forth in Exhibit "I".

25 45. Annual Replenishment. Watermaster shall levy and collect
26 assessments in each year, pursuant to the respective pooling plans,
27 in amounts sufficient to purchase replenishment water to replace
28 production by any pool during the preceding year which exceeds that

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1 pool's allocated share of Safe Yield in the case of the overlying
2 pools, or Operating Safe Yield in the case of the Appropriative
3 Pool. It is anticipated that supplemental water for replenishment
4 of Chino Basin may be available at different rates to the various
5 pools to meet their replenishment obligations. If such is the
6 case, each pool will be assessed only that amount necessary for the
7 cost of replenishment water to that pool, at the rate available to
8 the pool, to meet its replenishment obligation.

9 46. Initial Pooling Plans. The initial pooling plans, which
10 are hereby adopted, are set forth in Exhibits "F", "G" and "H",
11 respectively. Unless and until modified by amendment of the
12 judgment pursuant to the Court's continuing jurisdiction, each
13 such plan shall control operation of the subject pool.

14 C. REPORTS AND ACCOUNTING

15 47. Production Reports. Each party or responsible party
16 shall file periodically with Watermaster, pursuant to Watermaster
17 rules, a report on a form to be prescribed by Watermaster showing
18 the total production of such party during the preceding reportage
19 period, and such additional information as Watermaster may require,
20 including any information specified by the affected Pool Com-
21 mittee.

22 48. Watermaster Reports and Accounting. Watermaster's
23 annual report, which shall be filed on or before November 15 of
24 each year and shall apply to the preceding year's operation, shall
25 contain details as to operation of each of the pools and a certi-
26 fied audit of all assessments and expenditures pursuant to this
27 Physical Solution and a review of Watermaster activities.

28 - - - - -

D. REPLENISHMENT

1
2 49. Sources of Supplemental Water. Supplemental water may be
3 obtained by Watermaster from any available source. Watermaster
4 shall seek to obtain the best available quality of supplemental
5 water at the most reasonable cost for recharge in the Basin. To
6 the extent that costs of replenishment water may vary between
7 pools, each pool shall be liable only for the costs attributable to
8 its required replenishment. Available sources may include, but are
9 not limited to:

10 (a) Reclaimed Water. There exist a series of agreements
11 generally denominated the Regional Waste Water Agreements
12 between CBMWD and owners of the major municipal sewer systems
13 within the basin. Under those agreements, which are recog-
14 nized hereby but shall be unaffected and unimpaired by this
15 judgment, substantial quantities of reclaimed water may be
16 made available for replenishment purposes. There are addi-
17 tional sources of reclaimed water which are, or may become,
18 available to Watermaster for said purposes. Maximum benefi-
19 cial use of reclaimed water shall be given high priority by
20 Watermaster.

21 (b) State Water. State water constitutes a major
22 available supply of supplemental water. In the case of State
23 Water, Watermaster purchases shall comply with the water
24 service provisions of the State's water service contracts.
25 More specifically, Watermaster shall purchase State Water from
26 MWD for replenishment of excess production within CBMWD, WMWD
27 and PVMWD, and from SBVMWD to replenish excess production
28 within SBVMWD's boundaries in Chino Basin, except to the

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1 extent that MWD and SBVMWD give their consent as required by
2 such State water service contracts.

3 (c) Local Import. There exist facilities and methods
4 for importation of surface and ground water supplies from
5 adjacent basins and watersheds.

6 (d) Colorado River Supplies. MWD has water supplies
7 available from its Colorado River Aqueduct.

8 50. Methods of Replenishment. Watermaster may accomplish
9 replenishment of overproduction from the Basin by any reasonable
10 method, including:

11 (a) Spreading and percolation or Injection of water in
12 existing or new facilities, subject to the provisions of
13 Paragraphs 19, 25 and 26 hereof.

14 (b) In Lieu Procedures. Watermaster may make, or cause
15 to be made, deliveries of water for direct surface use, in
16 lieu of ground water production.

17 E. REVENUES

18 51. Production Assessment. Production assessments, on what-
19 ever basis, may be levied by Watermaster pursuant to the pooling
20 plan adopted for the applicable pool.

21 52. Minimal Producers. Minimal Producers shall be exempted
22 from payment of production assessments, upon filing of production
23 reports as provided in Paragraph 47 of this Judgment, and payment
24 of an annual five dollar (\$5.00) administrative fee as specified by
25 Watermaster rules.

26 53. Assessment Proceeds -- Purposes. Watermaster shall have
27 the power to levy assessments against the parties (other than
28 minimal pumpers) based upon production during the preceding period

1 of assessable production, whether quarterly, semi-annually or
2 annually, as may be determined most practical by Watermaster or the
3 affected Pool Committee.

4 54. Administrative Expenses. The expenses of administration
5 of this Physical Solution shall be categorized as either (a) gen-
6 eral Watermaster administrative expense, or (b) special project
7 expense.

8 (a) General Watermaster Administrative Expense shall
9 include office rental, general personnel expense, supplies and
10 office equipment, and related incidental expense and general
11 overhead.

12 (b) Special Project Expense shall consist of special
13 engineering, economic or other studies, litigation expense,
14 meter testing or other major operating expenses. Each such
15 project shall be assigned a Task Order number and shall be
16 separately budgeted and accounted for.

17 General Watermaster administrative expense shall be allocated
18 and assessed against the respective pools based upon allocations
19 made by the Watermaster, who shall make such allocations based upon
20 generally accepted cost accounting methods. Special Project
21 Expense shall be allocated to a specific pool, or any portion there-
22 of, only upon the basis of prior express assent and finding of
23 benefit by the Pool Committee, or pursuant to written order of the
24 Court.

25 55. Assessments -- Procedure. Assessments herein provided
26 for shall be levied and collected as follows:

27 (a) Notice of Assessment. Watermaster shall give
28 written notice of all applicable assessments to each party on

1 or before ninety (90) days after the end of the production
2 period to which such assessment is applicable.

3 (b) Payment. Each assessment shall be payable on or
4 before thirty (30) days after notice, and shall be the ob-
5 ligation of the party or successor owning the water production
6 facility at the time written notice of assessment is given,
7 unless prior arrangement for payment by others has been made
8 in writing and filed with Watermaster.

9 (c) Delinquency. Any delinquent assessment shall bear
10 interest at 10% per annum (or such greater rate as shall equal
11 the average current cost of borrowed funds to the Watermaster)
12 from the due date thereof. Such delinquent assessment and
13 interest may be collected in a show-cause proceeding herein
14 instituted by the Watermaster, in which case the Court may
15 allow Watermaster its reasonable costs of collection, includ-
16 ing attorney's fees.

17 56. Accumulation of Replenishment Water Assessment Proceeds.

18 In order to minimize fluctuation in assessment and to give Water-
19 master flexibility in purchase and spreading of replenishment
20 water, Watermaster may make reasonable accumulations of replen-
21 ishment water assessment proceeds. Interest earned on such re-
22 tained funds shall be added to the account of the pool from which
23 the funds were collected and shall be applied only to the purchase
24 of replenishment water.

25 57. Effective Date. The effective date for accounting and
26 operation under this Physical Solution shall be July 1, 1977, and
27 the first production assessments hereunder shall be due after July
28 1, 1978. Watermaster shall, however, require installation of

1 meters or measuring devices and establish operating procedures
2 immediately, and the costs of such Watermaster activity (not
3 including the cost of such meters and measuring devices) may be
4 recovered in the first administrative assessment in 1978.

5
6 VII. MISCELLANEOUS PROVISIONS

7 58. Designation of Address for Notice and Service. Each
8 party shall designate the name and address to be used for purposes
9 of all subsequent notices and service herein, either by its en-
10 dorsement on the Stipulation for Judgment or by a separate desig-
11 nation to be filed within thirty (30) days after Judgment has been
12 served. Said designation may be changed from time to time by
13 filing a written notice of such change with the Watermaster. Any
14 party desiring to be relieved of receiving notices of Watermaster
15 or committee activity may file a waiver of notice on a form to be
16 provided by Watermaster. Thereafter such party shall be removed
17 from the Active Party list. Watermaster shall maintain at all
18 times a current list of active parties and their addresses for
19 purposes of service. Watermaster shall also maintain a full
20 current list of names and addresses of all parties or their suc-
21 cessors, as filed herein. Copies of such lists shall be available,
22 without cost, to any party, the Advisory Committee or any Pool
23 Committee upon written request therefor.

24 59. Service of Documents. Delivery to or service upon any
25 party or active party by the Watermaster, by any other party, or by
26 the Court, of any item required to be served upon or delivered to
27 such party or active party under or pursuant to the Judgment shall
28 be made personally or by deposit in the United States mail, first

1 class, postage prepaid, addressed to the designee and at the
2 address in the latest designation filed by such party or active
3 party.

4 60. Intervention After Judgment. Any non-party assignee of
5 the adjudicated appropriative rights of any appropriator, or any
6 other person newly proposing to produce water from Chino Basin, may
7 become a party to this judgment upon filing a petition in inter-
8 vention. Said intervention must be confirmed by order of this
9 Court. Such intervenor shall thereafter be a party bound by this
10 judgment and entitled to the rights and privileges accorded under
11 the Physical Solution herein, through the pool to which the Court
12 shall assign such intervenor.

13 61. Loss of Rights. Loss, whether by abandonment, forfeiture
14 or otherwise, of any right herein adjudicated shall be accomplished
15 only (1) by a written election by the owner of the right filed with
16 Watermaster, or (2) by order of the Court upon noticed motion and
17 after hearing.

18 62. Scope of Judgment. Nothing in this Judgment shall be
19 deemed to preclude or limit any party in the assertion against a
20 neighboring party of any cause of action now existing or hereafter
21 arising based upon injury, damage or depletion of water supply
22 available to such party, proximately caused by nearby pumping which
23 constitutes an unreasonable interference with such complaining
24 party's ability to extract ground water.

25 63. Judgment Binding on Successors. This Judgment and all
26 provisions thereof are applicable to and binding upon not only the
27 parties to this action, but also upon their respective heirs,
28 executors, administrators, successors, assigns, lessees and

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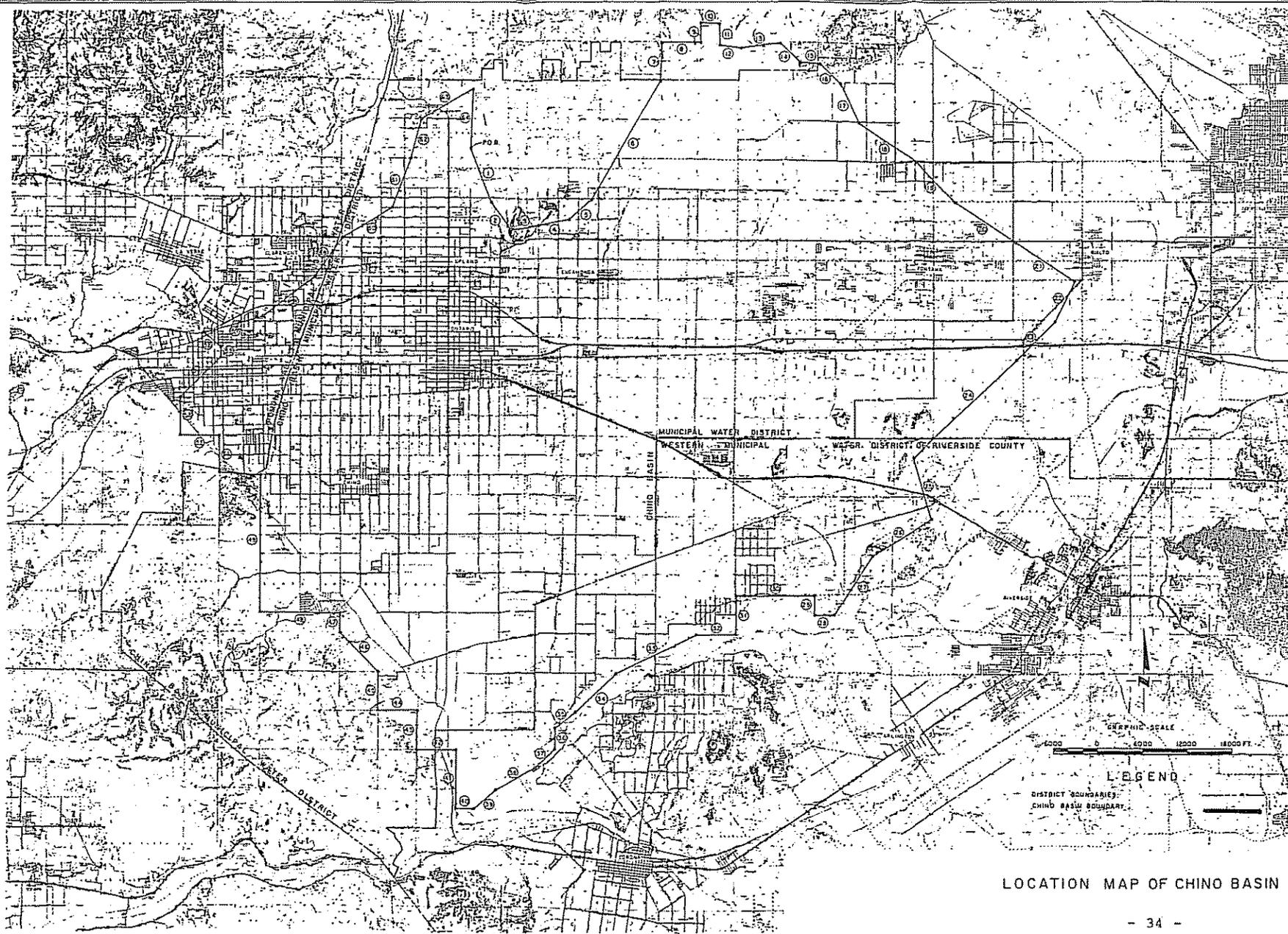
licensees and upon the agents, employees and attorneys in fact of all such persons.

64. Costs. No party shall recover any costs in this proceeding from any other party.

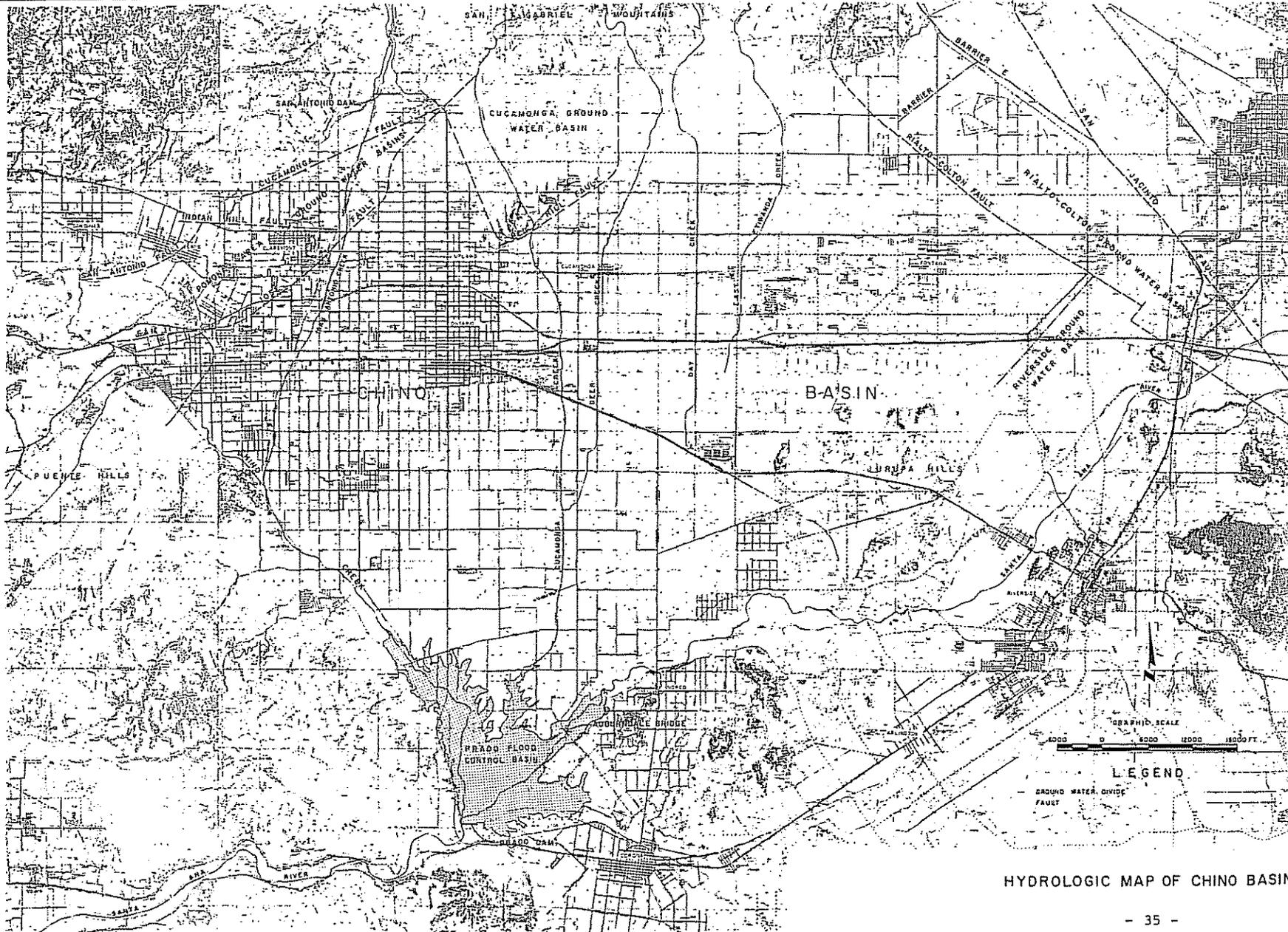
Dated: JAN 27 1978.

Arnold B. Weiss

Judge



LOCATION MAP OF CHINO BASIN



HYDROLOGIC MAP OF CHINO BASIN

STIPULATING OVERLYING AGRICULTURAL PRODUCERS

1	STATE OF CALIFORNIA	Aphessetche, Xavier
2	COUNTY OF SAN BERNARDINO	Arena Mutual Water Assn.
3	Abacherli Dairy, Inc.	Armstrong Nurseries, Inc.
4	Abacherli, Frank	Arretche, Frank
5	Abacherli, Shirley	Arretche, Jean Pierre
6	Abbona, Anna	Arvidson, Clarence F.
7	Abbona, James	Arvidson, Florence
8	Abbona, Jim	Ashley, George W.
9	Abbona, Mary	Ashley, Pearl E.
10	Agliani, Amelia H.	Atlas Farms
11	Agman, Inc.	Atlas Ornamental Iron Works, Inc.
12	Aguerre, Louis B.	Aukeman, Carol
13	Ahmanson Trust Co.	Aukeman, Lewis
14	Akiyama, Shizuye	Ayers, Kenneth C., aka
15	Akiyama, Tomoo	Kelley Ayers
16	Akkerman, Dave	Bachoc, Raymond
17	Albers, J. N.	Baldwin, Edgar A.
18	Albers, Nellie	Baldwin, Lester
19	Alewyn, Jake J.	Banbury, Carolyn
20	Alewyn, Normalee	Bangma Dairy
21	Alger, Mary D.	Bangma, Arthur
22	Alger, Raymond	Bangma, Ida
23	Allen, Ben F.	Bangma, Martin
24	Allen, Jane F.	Bangma, Sam
25	Alta-Dena Dairy	Barba, Anthony B.
26	Anderson Farms	Barba, Frank
27	Anguiano, Sarah L. S.	Barcellos, Joseph
28	Anker, Gus	Barnhill, Maurine W.

EXHIBIT "C"

1	Barnhill, Paul	Boersma, Angie
2	Bartel, Dale	Boersma, Berdina
3	Bartel, Ursula	Boersma, Frank
4	Bartel, Willard	Boersma, Harry
5	Barthelemy, Henry	Boersma, Paul
6	Barthelemy, Roland	Boersma, Sam
7	Bassler, Donald V., M.D.	Boersma, William L.
8	Bates, Lowell R.	Bohlender & Holmes, Inc.
9	Bates, Mildred L.	Bokma, Peter
10	Beahm, James W.	Bollema, Jacob
11	Beahm, Joan M.	Boonstoo, Edward
12	Bekendam, Hank	Bootsma, Jim
13	Bekendam, Pete	Borba, Dolene
14	Bello, Eugene	Borba, Dolores
15	Bello, Olga	Borba, Emily
16	Beltman, Evelyn	Borba, George
17	Beltman, Tony	Borba, John
18	Bergquist Properties, Inc.	Borba, John & Sons
19	Bevacqua, Joel A.	Borba, John Jr.
20	Bevacqua, Marie B.	Borba, Joseph A.
21	Bidart, Bernard	Borba, Karen E.
22	Bidart, Michael J.	Borba, Karen M.
23	Binnell, Wesley	Borba, Pete, Estate of
24	Black, Patricia E.	Borba, Ricci
25	Black, Victor	Borba, Steve
26	Bodger, John & Sons Co.	Borba, Tom
27	Boer, Adrian	Bordisso, Alleck
28	Boersma and Wind Dairy	Borges, Angelica M.

1	Borges, Bernadette	Bothof, Roger W.
2	Borges, John O.	Bouma, Cornie
3	Borges, Linda L.	Bouma, Emma
4	Borges, Manual Jr.	Bouma, Henry P.
5	Borges, Tony	Bouma, Martin
6	Bos, Aleid	Bouma, Peter G. & Sons Dairy
7	Bos, Gerrit	Bouma, Ted
8	Bos, John	Bouman, Helen
9	Bos, John	Bouman, Sam
10	Bos, Margaret	Bower, Mabel E.
11	Bos, Mary	Boys Republic
12	Bos, Mary Beth	Breedyk, Arie
13	Bos, Tony	Breedyk, Jessie
14	Bosch, Henrietta	Briano Brothers
15	Bosch, Peter T.	Briano, Albert
16	Boschma, Betty	Briano, Albert Trustee for
17	Boschma, Frank	Briano, Albert Frank
18	Boschma, Greta	Briano, Lena
19	Boschma, Henry	Brink, Russell N.
20	Bosma, Dick	Brinkerhoff, Margaret
21	Bosma, Florence G.	Brinkerhoff, Robert L.
22	Bosma, Gerrit	Britschgi, Florence
23	Bosma, Jacob J.	Britschgi, Magdalena Garetto
24	Bosma, Jeanette Thea	Britschgi, Walter P.
25	Bosman, Frank	Brommer, Marvin
26	Bosman, Nellie	Brookside Enterprizes, dba
27	Bosnyak, Goldie M.	Brookside Vineyard Co.
28	Bosnyak, Martin	Brothers Three Dairy

1	Brown, Eugene	Chino Corona Investment
2	Brun, Martha M.	Chino Water Co.
3	Brun, Peter Robert	Christensen, Leslie
4	Buma, Duke	Christensen, Richard G.
5	Buma, Martha	Christian, Ada R.
6	Bunse, Nancy	Christian, Harold F.
7	Bunse, Ronnie L.	Christy, Ella J.
8	Caballero, Bonnie L.	Christy, Ronald S.
9	Caballero, Richard F.	Cihigoyenette, Jean
10	Cable Airport Inc.	Cihigoyenette, Leona
11	Cadlani, Donald	Cihigoyenette, Martin
12	Cadlani, Jesse R.	Clarke, Arthur B.
13	Cadlani, Marie Edna	Clarke, Nancy L.
14	Cambio, Anna	Clarke, Phyllis J.
15	Cambio, Charles, Estate of	Coelho, Isabel
16	Cambio, William V.	Coelho, Joe A. Jr.
17	Cardoza, Florence	Collins, Howard E.
18	Cardoza, Olivi	Collins, Judith F.
19	Cardoza, Tony	Collinsworth, Ester L.
20	Carnesi, Tom	Collinsworth, John E.
21	Carver, Robt M., Trustee	Collinsworth, Shelby
22	Cauffman, John R.	Cone Estate (05-2-00648/649)
23	Chacon Bros.	Consolidated Freightways Corp.
24	Chacon, Elvera P.	of Delaware
25	Chacon, Joe M.	Corona Farms Co.
26	Chacon, Robert M.	Corra, Rose
27	Chacon, Virginia L.	Costa, Dimas S.
28	Chez, Joseph C.	Costa, Laura

1	Costa, Myrtle	De Boer, L. H.
2	Costamagna, Antonio	De Boer, Sidney
3	Costamagna, Joseph	De Bos, Andrew
4	Cousyn, Claus B.	De Graaf, Anna Mae
5	Cramer, Carole F.	De Graaf, Gerrit
6	Cramer, William R.	De Groot, Dick
7	Crossroads Auto Dismantlers, Inc.	De Groot, Dorothy
8	Crouse, Beatrice I.	De Groot, Ernest
9	Crouse, Roger	De Groot, Henrietta
10	Crowley, Juanita C.	De Groot, Jake
11	Crowley, Ralph	De Groot, Pete Jr.
12	Cucamonga Vintners	De Haan, Bernadena
13	D'Astici, Teresa	De Haan, Henry
14	Da Costa, Cecilia B.	De Hoog, Adriana
15	Da Costa, Joaquim F.	De Hoog, Joe
16	Daloisio, Norman	De Hoog, Martin
17	De Berard Bros.	De Hoog, Martin L.
18	De Berard, Arthur, Trustee	De Hoog, Mitch
19	De Berard, Charles	De Hoog, Tryntje
20	De Berard, Chas., Trustee	De Jager, Cobi
21	De Berard, Helan J.	De Jager, Edward D.
22	De Berard, Robert	De Jong Brothers Dairy
23	De Berard, Robert, Trustee	De Jong, Cornelis
24	De Bie, Adrian	De Jong, Cornelius
25	De Bie, Henry	De Jong, Grace
26	De Bie, Margaret M.	De Jong, Jake
27	De Bie, Marvin	De Jong, Lena
28	De Boer, Fred	De Leeuw, Alice

1	De Leeuw, Sam	Dirkse, Catherine
2	De Soete, Agnes	Dirkse, Charles C.
3	De Soete, Andre	Dixon, Charles E.
4	De Vries, Abraham	Dixon, Geraldine A.
5	De Vries, Case	Doesberg, Hendrica
6	De Vries, Dick	Doesburg, Theodorus P.
7	De Vries, Evelyn	Dolan, Marion
8	De Vries, Henry, Estate of	Dolan, Michael H.
9	De Vries, Hermina	Dominguez, Helen
10	De Vries, Jack H.	Dominguez, Manual
11	De Vries, Jane	Donkers, Henry A.
12	De Vries, Janice	Donkers, Nellie G.
13	De Vries, John	Dotta Bros.
14	De Vries, John J.	Douma Brothers Dairy
15	De Vries, Neil	Douma, Betty A.
16	De Vries, Ruth	Douma, Fred A.
17	De Vries, Theresa	Douma, Hendrika
18	De Wit, Gladys	Douma, Herman G.
19	De Wit, Peter S.	Douma, Narleen J.
20	De Wyn, Evert	Douma, Phillip M.
21	De Zoete, Hattie V.	Dow Chemical Co.
22	De Zoete, Leo A.	Dragt, Rheta
23	Decker, Hallie	Dragt, William
24	Decker, Henry A.	Driftwood Dairy Farm
25	Demmer, Ernest	Droogh, Case
26	Di Carlo, Marie	Duhalde, Marian
27	Di Carlo, Victor	Duhalde, Lauren
28	Di Tommaso, Frank	Duits, Henrietta

1	Duits, John	Excelsior Farms F.D.I.C.
2	Dunlap, Edna Kraemer,	Fagundes, Frank M.
3	Estate of	Fagundes, Mary
4	Durrington, Glen	Fernandes, Joseph Jr.
5	Durrington, William F.	Fernandes, Velma C.
6	Dusi, John, Sr.	Ferraro, Ann
7	Dykstra, Dick	Ferreira, Frank J.
8	Dykstra, John	Ferreira, Joe C. Jr.
9	Dykstra, John & Sons	Ferreira, Narcie
10	Dykstra, Wilma	Filippi, J. Vintage Co.
11	Dyt, Cor	Filippi, Joseph
12	Dyt, Johanna	Filippi, Joseph A.
13	E and S Grape Growers	Filippi, Mary E.
14	Eaton, Thomas, Estate of	Fitzgerald, John R.
15	Echeverria, Juan	Flameling Dairy Inc.
16	Echeverria, Carlos	Flamingo Dairy
17	Echeverria, Pablo	Foss, Douglas E.
18	Eilers, E. Myrle	Foss, Gerald R.
19	Eilers, Henry W.	Foss, Russel
20	El Prado Golf Course	Fred & John Troost No. 1 Inc.
21	Ellsworth, Rex C.	Fred & Maynard Troost No. 2 Inc.
22	Engelsma, Jake	Freitas, Beatriz
23	Engelsma, Susan	Freitas, Tony T.
24	Escojeda, Henry	Gakle, Louis L.
25	Etiwanda Grape Products Co.	Galleano Winery, Inc.
26	Euclid Ave. Investment One	Galleano, Bernard D.
27	Euclid Ave. Investment Four	Galleano, D.
28	Euclid Ave. Three Investment	Galleano, Mary M.

1	Garcia, Pete	Hansen, Raymond F.
2	Gardner, Leland V.	Hanson, Ardeth W.
3	Gardner, Lola M.	Harada, James T.
4	Garrett, Leonard E.	Harada, Violet A.
5	Garrett, Patricia T.	Haringa, Earl and Sons
6	Gastelluberry, Catherine	Haringa, Herman
7	Gastelluberry, Jean	Haringa, Rudy
8	Gilstrap, Glen E.	Haringa, William
9	Gilstrap, Marjorie J.	Harper, Cecilia de Mille
10	Godinho, John	Harrington, Winona
11	Godinho, June	Harrison, Jacqueline A.
12	Gonsalves, Evelyn	Hatanaka, Kenichi
13	Gonsalves, John	Heida, Annie
14	Gorzeman, Geraldine	Heida, Don
15	Gorzeman, Henry A.	Heida, Jim
16	Gorzeman, Joe	Heida, Sam
17	Govea, Julia	Helms, Addison D.
18	Goyenette, Albert	Helms, Irma A.
19	Grace, Caroline E.	Hermans, Alma I.
20	Grace, David J.	Hermans, Harry
21	Gravatt, Glenn W.	Hettinga, Arthur
22	Gravatt, Sally Mae	Hettinga, Ida
23	Greydanus Dairy, Inc.	Hettinga, Judy
24	Greydanus, Rena	Hettinga, Mary
25	Griffin Development Co.	Hettinga, Wilbur
26	Haagsma, Dave	Heublein, Inc., Grocery Products
27	Haagsma, John	Group
28	Hansen, Mary D.	Hibma, Catherine M.

1	Hibma, Sidney	Hohberg, Harold C.
2	Hicks, Kenneth I.	Hohberg, Harold W.
3	Hicks, Minnie M.	Holder, Arthur B.
4	Higgins Brick Co.	Holder, Dorothy F.
5	Highstreet, Alfred V.	Holmes, A. Lee
6	Highstreet, Evada V.	Holmes, Frances P.
7	Hilarides, Bertha as Trustee	Hoogeboom, Gertrude
8	Hilarides, Frank	Hoogeboom, Pete
9	Hilarides, John as Trustee	Hoogendam, John
10	Hindelang, Tillie	Hoogendam, Tena
11	Hindelang, William	Houssels, J. K. Thoroughbred Farm
12	Hobbs, Bonnie C.	
13	Hobbs, Charles W.	Hunt Industries
14	Hobbs, Hazel I.	Idsinga, Ann
15	Hobbs, Orlo M.	Idsinga, William W.
16	Hoekstra, Edward	Imbach Ranch, Inc.
17	Hoekstra, George	Imbach, Kenneth E.
18	Hoekstra, Grace	Imbach, Leonard K.
19	Hoekstra, Louie	Imbach, Oscar K.
20	Hofer, Paul B.	Imbach, Ruth M.
21	Hofer, Phillip F.	Indaburu, Jean
22	Hofstra, Marie	Indaburu, Marceline
23	Hogeboom, Jo Ann M.	Iseli, Kurt H.
24	Hogeboom, Maurice D.	Ito, Kow
25	Hogg, David V.	J & B Dairy Inc.
26	Hogg, Gene P.	Jaques, Johnny C. Jr.
27	Hogg, Warren G.	Jaques, Mary
28	Hohberg, Edith J.	Jaques, Mary Lou

1	Jay Em Bee Farms	Knevelbaard, John
2	Johnson Bro's Egg Ranches, Inc.	Knudsen, Ejnar
3	Johnston, Ellwood W.	Knudsen, Karen M.
4	Johnston, George F. Co.	Knudsen, Kenneth
5	Johnston, Judith H.	Knudson, Robert
6	Jones, Leonard P.	Knudson, Darlene
7	Jongsma & Sons Dairy	Koel, Helen S.
8	Jongsma, Diana A.	Koetsier, Gerard
9	Jongsma, Dorothy	Koetsier, Gerrit J.
10	Jongsma, George	Koetsier, Jake
11	Jongsma, Harold	Koning, Fred W.
12	Jongsma, Henry	Koning, Gloria
13	Jongsma, John	Koning, J. W. Estate
14	Jongsma, Nadine	Koning, James A.
15	Jongsma, Tillie	Koning, Jane
16	Jordan, Marjorie G.	Koning, Jane C.
17	Jordan, Troy O.	Koning, Jennie
18	Jorritsma, Dorothy	Koning, John
19	Juliano, Albert	Koning, Victor A.
20	Kamper, Cornelis	Kooi Holstein Corporation
21	Kamstra, Wilbert	Koolhaas, Kenneth E.
22	Kaplan, Lawrence J.	Koolhaas, Simon
23	Kasbergen, Martha	Koolhaas, Sophie Grace
24	Kasbergen, Neil	Koopal, Grace
25	Kazian, Angelen Estate of	Koopal, Silas
26	Kingsway Const. Corp.	Koopman, Eka
27	Klapps Market	Koopman, Gene T.
28	Kline, James K.	Koopman, Henry G.

1	Koopman, Ted	Leck, Arthur A.
2	Koopman, Tena	Leck, Evelyn M.
3	Koot, Nick	Lee, Harold E.
4	Koster, Aart	Lee, Helen J.
5	Koster, Frances	Lee, Henrietta C.
6	Koster, Henry B.	Lee, R. T. Construction Co.
7	Koster, Nellie	Lekkerkerk, Adriana
8	Kroes, Jake R.	Lekkerkerk, L. M.
9	Kroeze, Bros	Lekkerkerker, Nellie
10	Kroeze, Calvin E.	Lekkerkerker, Walt
11	Kroeze, John	Lewis Homes of California
12	Kroeze, Wesley	Livingston, Dorothy M.
13	Kruckenber, Naomi	Livingston, Rex E.
14	Kruckenber, Perry	Lokey, Rosemary Kraemer
15	L. D. S. Welfare Ranch	Lopes, Candida A.
16	Labrucherie, Mary Jane	Lopes, Antonio S.
17	Labrucherie, Raymond F.	Lopez, Joe D.
18	Lako, Samuel	Lourenco, Carlos, Jr.
19	Landman Corp.	Lourenco, Carmelina P.
20	Lanting, Broer	Lourenco, Jack C.
21	Lanting, Myer	Lourenco, Manual H.
22	Lass, Jack	Lourenco, Mary
23	Lass, Sandra L.	Lourenco, Mary
24	Lawrence, Cecelia, Estate of	Luiten, Jack
25	Lawrence, Joe H., Estate of	Luiz, John M.
26	Leal, Bradley W.	Luna, Christine I.
27	Leal, John C.	Luna, Ruben T.
28	Leal, John Craig	Lusk, John D. and Son a California corporation

1	Lyon, Gregory E.	Mickel, Louise
2	Lyon, Paula E.	Miersma, Dorothy
3	M & W Co. #2	Meirsma, Harry C.
4	Madole, Betty M.	Minaberry, Arnaud
5	Madole, Larry B.	Minaberry, Marie
6	Marquez, Arthur	Mistretta, Frank J.
7	Marquine, Jean	Mocho and Plaa Inc.
8	Martin, Lelon O.	Mocho, Jean
9	Martin, Leon O.	Mocho, Noeline
10	Martin, Maria D.	Modica, Josephine
11	Martin, Tony J.	Montes, Elizabeth
12	Martins, Frank	Montes, Joe
13	Mathias, Antonio	Moons, Beatrice
14	Mc Cune, Robert M.	Moons, Jack
15	Mc Masters, Gertrude	Moramarco, John A. Enterprises
16	Mc Neill, J. A.	Moreno, Louis W.
17	Mc Neill, May F.	Moss, John R.
18	Mees, Leon	Motion Pictures Associates, Inc.
19	Mello and Silva Dairy	Moynier, Joe
20	Mello and Sousa Dairy	Murphy, Frances V.
21	Mello, Emilia	Murphy, Myrl L.
22	Mello, Enos C.	Murphy, Naomi
23	Mello, Mercedes	Nanne, Martin Estate of
24	Mendiondo, Catherine	Nederend, Betty
25	Mendiondo, Dominique	Nederend, Hans
26	Meth. Hosp. - Sacramento	Norfolk, James
27	Metzger, R. S.	Norfolk, Martha
28	Metzger, Winifred	Notrica, Louis

1	Nyberg, Lillian M.	Ormonde, Viva
2	Nyenhuis, Annie	Ortega, Adeline B.
3	Nyenhuis, Jim	Ortega, Bernard Dino
4	Occidental Land Research	Osterkamp, Joseph S.
5	Okumura, Marion	Osterkamp, Margaret A.
6	Okumura, Yuiche	P I E Water Co.
7	Oldengarm, Effie	Palmer, Eva E.
8	Oldengarm, Egbert	Palmer, Walter E.
9	Oldengarm, Henry	Parente, Luis S.
10	Oliviera, Manuel L.	Parente, Mary Borba .
11	Oliviera, Mary M.	Parks, Jack B.
12	Olson, Albert	Parks, Laura M.
13	Oltmans Construction Co.	Patterson, Lawrence E. Estate of
14	Omlin, Anton	Payne, Clyde H.
15	Omlin, Elsie L.	Payne, Margo
16	Ontario Christian School Assn.	Pearson, Athelia K.
17	Oord, John	Pearson, William C.
18	Oostdam, Jacoba	Pearson, William G.
19	Oostdam, Pete	Pene, Robert
20	Oosten, Agnes	Perian, Miller
21	Oosten, Anthonia	Perian, Ona E.
22	Oosten, Caroline	Petrissans, Deanna
23	Oosten, John	Petrissans, George
24	Oosten, Marinus	Petrissans, Jean P.
25	Oosten, Ralph	Petrissans, Marie T.
26	Orange County Water District	Pickering, Dora M.
27	Ormonde, Manuel	(Mrs. A. L. Pickering)
28	Ormonde, Pete, Jr.	Pierce, John

1	Pierce, Sadie	Righetti, A. T.
2	Pietszak, Sally	Riley, George A.
3	Pine, Joe	Riley, Helen C.
4	Pine, Virginia	Robbins, Jack K.
5	Pires, Frank	Rocha, John M.
6	Pires, Marie	Rocha, Jose C.
7	Plaa, Jeanne	Rodrigues, John
8	Plaa, Michel	Rodrigues, Manuel
9	Plantenga, Agnes	Rodrigues, Manuel, Jr.
10	Plantenga, George	Rodrigues, Mary L.
11	Poe, Arlo D.	Rodriquez, Daniel
12	Pomona Cemetery Assn.	Rogers, Jack D.
13	Porte, Cecelia, Estate of	Rohrer, John A.
14	Porte, Garritt, Estate of	Rohrer, Theresa D.
15	Portsmouth, Vera McCarty	Rohrs, Elizabeth H.
16	Ramella, Mary M.	Rossetti, M. S.
17	Ramirez, Concha	Roukema, Angeline
18	Rearick, Hildegard H.	Roukema, Ed.
19	Rearick, Richard R.	Roukema, Nancy
20	Reinalda, Clarence	Roukema, Siebren
21	Reitsma, Greta	Ruderian, Max J.
22	Reitsma, Louis	Russell, Fred J.
23	Rice, Bernice	Rusticus, Ann
24	Rice, Charlie E.	Rusticus, Charles
25	Richards, Karin	Rynsburger, Arie
26	(Mrs. Ronnie Richards)	Rynsburger, Berdena, Trust
27	Richards, Ronald L.	Rynsburger, Joan Adele
28	Ridder, Jennie Wassenaar	Rynsburger, Thomas

1	S. P. Annex, Inc.	Scott, Frances M.
2	Salisbury, Elinor J.	Scott, Linda F.
3	Sanchez, Edmundo	Scott, Stanley A.
4	Sanchez, Margarita O.	Scritsmier, Lester J.
5	Santana, Joe Sr.	Serl, Charles A.
6	Santana, Palmira	Serl, Rosalie P.
7	Satragni, John B. Jr.	Shady Grove Dairy, Inc.
8	Scaramella, George P.	Shamel, Burt A.
9	Schaafsma Bros.	Shelby, Harold E.
10	Schaafsma, Jennie	Shelby, John A.
11	Schaafsma, Peter	Shelby, Velma M.
12	Schaafsma, Tom	Shelton, Alice A.
13	Schaap, Andy	Sherwood, Robert W.
14	Schaap, Ids	Sherwood, Sheila J.
15	Schaap, Maria	Shue, Eva
16	Schacht, Sharon C.	Shue, Gilbert
17	Schakel, Audrey	Sieperda, Anne
18	Schakel, Fred	Sieperda, James
19	Schmid, Olga	Sigrist, Hans
20	Schmidt, Madeleine	Sigrist, Rita
21	Schoneveld, Evert	Silveira, Arline L.
22	Schoneveld, Henrietta	Silveira, Frank
23	Schoneveld, John	Silveira, Jack
24	Schoneveld, John Allen	Silveira, Jack P. Jr.
25	Schug, Donald E.	Simas, Dolores
26	Schug, Shirley A.	Simas, Joe
27	Schuh, Bernatta M.	Singleton, Dean
28	Schuh, Harold H.	Singleton, Elsie R.

1	Sinnott, Jim	Staal, John
2	Sinnott, Mildred B.	Stahl, Zippora P.
3	Slegers, Dorothy	Stampfl, Berta
4	Slegers, Hubert J.	Stampfl, William
5	Slegers, Jake	Stanley, Robert E.
6	Slegers, Jim	Stark, Everett
7	Slegers, Lenwood M.	Stellingwerf, Andrew
8	Slegers, Martha	Stellingwerf, Henry
9	Slegers, Tesse J.	Stellingwerf, Jenette
10	Smith, Edward S.	Stellingwerf, Shana
11	Smith, Helen D.	Stellingwerf, Stan
12	Smith, James E.	Stelzer, Mike C.
13	Smith, Keith J.	Sterk, Henry
14	Smith, Lester W.	Stiefel, Winifred
15	Smith, Lois Maxine	Stiefel, Jack D.
16	Smith, Marjorie W.	Stigall, Richard L.
17	Soares, Eva	Stigall, Vita
18	Sogioka, Mitsuyoshi	Stockman's Inn
19	Sogioka, Yoshimato	Stouder, Charlotte A.
20	Sousa, Sam	Stouder, William C.
21	Southern Pacific Land Co.	Struikmans, Barbara
22	Southfield, Eddie	Struikmans, Gertie
23	Souza, Frank M.	Struikmans, Henry Jr.
24	Souza, Mary T.	Struikmans, Henry Sr.
25	Spickerman, Alberta	Struikmans, Nellie
26	Spickerman, Florence	Swager, Edward
27	Spickerman, Rudolph	Swager, Gerben
28	Spyksma, John	Swager, Johanna

1	Swager, Marion	Terpstra, Theodore G.
2	Swierstra, Donald	Teune, Tony
3	Swierstra, Fanny	Teunissen, Bernard
4	Sybrandy, Ida	Teunissen, Jane
5	Sybrandy, Simon	Thomas, Ethel M.
6	Sytsma, Albert	Thommen, Alice
7	Sytsma, Edith	Thommen, Fritz
8	Sytsma, Jennie	Tillema, Allie
9	Sytsma, Louie	Tillema, Harold
10	Te Velde, Agnes	Tillema, Klaas D.
11	Te Velde, Bay	Timmons, William R.
12	Te Velde, Bernard A.	Tollerup, Barbara
13	Te Velde, Bonnie	Tollerup, Harold
14	Te Velde, Bonnie G.	Trapani, Louis A.
15	Te Velde, George	Trimlett, Arlene R.
16	Te Velde, George, Jr.	Trimlett, George E.
17	Te Velde, Harm	Tristant, Pierre
18	Te Velde, Harriet	Tuinhout, Ale
19	Te Velde, Henry J.	Tuinhout, Harry
20	Te Velde, Jay	Tuinhout, Hilda
21	Te Velde, Johanna	Tuls, Elizabeth
22	Te Velde, John H.	Tuls, Jack S.
23	Te Velde, Ralph A.	Tuls, Jake
24	Te Velde, Zwaantina, Trustee	Union Oil Company of California
25	Ter Maaten, Case	United Dairyman's Co-op.
26	Ter Maaten, Cleone	Urquhart, James G.
27	Ter Maaten, Steve	Usle, Cathryn
28	Terpstra, Carol	Usle, Faustino

1	V & Y Properties	Van Hofwegen, Clara
2	Vaile, Beryl M.	Van Hofwegen, Jessie
3	Valley Hay Co.	Van Klaveren, A.
4	Van Beek Dairy Inc.	Van Klaveren, Arie
5	Van Canneyt Dairy	Van Klaveren, Wilhelmina
6	Van Canneyt, Maurice	Van Klaveren, William
7	Van Canneyt, Wilmer	Van Leeuwen, Arie C.
8	Van Dam, Bas	Van Leeuwen, Arie C.
9	Van Dam, Isabelle	Van Leeuwen, Arlan
10	Van Dam, Nellie	Van Leeuwen, Clara G.
11	Van Den Berg, Gertrude	Van Leeuwen, Cornelia L.
12	Van Den Berg, Joyce	Van Leeuwen, Harriet
13	Van Den Berg, Marinus	Van Leeuwen, Jack
14	Van Den Berg, Marvin	Van Leeuwen, John
15	Van Der Linden, Ardith	Van Leeuwen, Letie
16	Van Der Linden, John	Van Leeuwen, Margie
17	Van Der Linden, Stanley	Van Leeuwen, Paul
18	Van Der Veen, Kenneth	Van Leeuwen, William A.
19	Van Diest, Anna T.	Van Ravenswaay, Donald
20	Van Diest, Cornelius	Van Ryn Dairy
21	Van Diest, Ernest	Van Ryn, Dick
22	Van Diest, Rena	Van Surksum, Anthonetta
23	Van Dyk, Bart	Van Surksum, John
24	Van Dyk, Jeanette	Van Veen, John
25	Van Foeken, Martha	Van Vliet, Effie
26	Van Foeken, William	Van Vliet, Hendrika
27	Van Hofwegan, Steve	Van Vliet, Hugo
28	Van Hofwegen, Adrian A.	Van Vliet, Klaas

1	Vande Witte, George	Vander Laan, Katie
2	Vanden Berge, Gertie	Vander Laan, Martin Jr.
3	Vanden Berge, Gertie	Vander Laan, Tillie
4	Vanden Berge, Jack	Vander Leest, Anna
5	Vanden Berge, Jake	Vander Leest, Ann
6	Vanden Brink, Stanley	Vander Meer, Alice
7	Vander Dussen, Agnes	Vander Meer, Dick
8	Vander Dussen, Cor	Vander Poel, Hank
9	Vander Dussen, Cornelius	Vander Poel, Pete
10	Vander Dussen, Edward	Vander Pol, Irene
11	Vander Dussen, Geraldine Marie	Vander Pol, Margie
12	Vander Dussen, James	Vander Pol, Marines
13	Vander Dussen, John	Vander Pol, William P.
14	Vander Dussen, Nelvina	Vander Schaaf, Earl
15	Vander Dussen, Rene	Vander Schaaf, Elizabeth
16	Vander Dussen, Sybrand Jr.	Vander Schaaf, Henrietta
17	Vander Dussen, Sybrand Sr.	Vander Schaaf, John
18	Vander Dussen Trustees	Vander Schaaf, Ted
19	Vander Eyk, Case Jr.	Vander Stelt, Catherine
20	Vander Eyk, Case Sr.	Vander Stelt, Clarence
21	Vander Feer, Peter	Vander Tuig, Arlene
22	Vander Feer, Rieka	Vander Tuig, Sylvester
23	Vander Laan, Ann	Vander Veen, Joe A.
24	Vander Laan, Ben	Vandervlag, Robert
25	Vander Laan, Bill	Vander Zwan, Peter
26	Vander Laan, Corrie	Vanderford, Betty W.
27	Vander Laan, Henry	Vanderford, Claud R.
28	Vander Laan, James	Vanderham, Adrian

1	Vanderham, Cornelius	Vestal, J. Howard
2	Vanderham, Cornelius P.	Visser, Gerrit
3	Vanderham, Cory	Visser, Grace
4	Vanderham, E. Jane	Visser, Henry
5	Vanderham, Marian	Visser, Jess
6	Vanderham, Martin	Visser, Louie
7	Vanderham, Pete C.	Visser, Neil
8	Vanderham, Wilma	Visser, Sam
9	Vasquez, Eleanor	Visser, Stanley
10	Veenendaal, Evert	Visser, Tony D.
11	Veenendaal, John H.	Visser, Walter G.
12	Veiga, Dominick Sr.	Von Der Ahe, Fredric T.
13	Verbree, Jack	Von Euw, George
14	Verbree, Tillie	Von Euw, Marjorie
15	Verger, Bert	Von Lusk, a limited partnership
16	Verger, Betty	Voortman, Anna Marie
17	Verhoeven, Leona	Voortman, Edward
18	Verhoeven, Martin	Voortman, Edwin J.
19	Verhoeven, Wesley	Voortman, Gertrude Dena
20	Vermeer, Dick	Wagner, Richard H.
21	Vermeer, Jantina	Walker, Carole R.
22	Vernola Ranch	Walker, Donald E.
23	Vernola, Anthonietta	Walker, Wallace W.
24	Vernola, Anthony	Wardle, Donald M.
25	Vernola, Frank	Warner, Dillon B.
26	Vernola, Mary Ann	Warner, Minnie
27	Vernola, Pat F.	Wassenaar, Peter W.
28	Vestal, Frances Lorraine	Waters, Michael

1	Weeda, Adriana	Wiersma, Jake
2	Weeda, Daniel	Wiersma, Otto
3	Weeks, O. L.	Wiersma, Pete
4	Weeks, Verona E.	Winchell, Verne H., Trustee
5	Weidman, Maurice	Wind, Frank
6	Weidman, Virginia	Wind, Fred
7	Weiland, Adaline I.	Wind, Hilda
8	Weiland, Peter J.	Wind, Johanna
9	Wesselink, Jules	Woo, Frank
10	West, Katharine R.	Woo, Sem Gee
11	West, Russel	Wybenga, Clarence
12	West, Sharon Ann	Wybenga, Gus
13	Western Horse Property	Wybenga, Gus K.
14	Westra, Alice	Wybenga, Sylvia
15	Westra, Henry	Wynja, Andy
16	Westra, Hilda	Wynja, Iona F.
17	Westra, Jake J.	Yellis, Mildred
18	Weststeyn, Freida	Yellis, Thomas E.
19	Weststeyn, Pete	Ykema-Harmsen Dairy
20	Whitehurst, Louis G.	Ykema, Floris
21	Whitehurst, Pearl L.	Ykema, Harriet
22	Whitmore, David L.	Yokley, Betty Jo
23	Whitmore, Mary A.	Yokley, Darrell A.
24	Whitney, Adolph M.	Zak, Zan
25	Wiersema, Harm	Zivelonghi, George
26	Wiersema, Harry	Zivelonghi, Margaret
27	Wiersma, Ellen H.	Zwaagstra, Jake
		Zwaagstra, Jessie M.
28	Wiersma, Gladys J.	Zwart, Case

NON-PRODUCER WATER DISTRICTS

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- Chino Basin Municipal Water District
- Chino Basin Water Conservation District
- Pomona Valley Municipal Water District
- Western Municipal Water District of Riverside County

LAW OFFICES
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A PROFESSIONAL CORPORATION
SUITE 201
2061 BUSINESS CENTER DRIVE
IRVINE, CALIFORNIA 92715
(714) 752-8971

DEFAULTING OVERLYING AGRICULTURAL PRODUCERS

1		
2	Cheryl L. Bain	Roy W. Lantis
3	Warren Bain	Sharon I. Lantis
4	John M. Barcelona	Frank Lorenz
5	Letty Bassler	Dagney H. MacDonald
6	John Brazil	Frank E. Martin
7	John S. Briano	Ruth C. Martin
8	Lupe Briano	Connie S. Mello
9	Paul A. Briano	Naldiro J. Mello
10	Tillie Briano	Felice Miller
11	Arnie B. Carlson	Ted Miller
12	John Henry Fikse	Masao Nerio
13	Phyllis S. Fikse	Tom K. Nerio
14	Lewellyn Flory	Toyo Nerio
15	Mary I. Flory	Yuriko Nerio
16	L. H. Glazer	Harold L. Rees
17	Dorothy Goodman	Alden G. Rose
18	Sidney D. Goodman	Claude Rouleau, Jr.
19	Frank Grossi	Patricia M. Rouleau
20	Harada Brothers	Schultz Enterprises
21	Ellen Hettinga	Albert Shaw
22	Hein Hettinga	Lila Shaw
23	Dick Hofstra, Jr.	Cathy M. Stewart
24	Benjamin M. Hughey	Marvin C. Stewart
25	Frieda L. Hughey	Betty Ann Stone
26	Guillaume Indart	John B. Stone
27	Ellwood B. Johnston, Trustee	Vantoll Cattle Co., Inc.
28	Perry Kruckenberg, Jr.	Catherine Verburg

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- 1 Martin Verburg
- 2 Donna Vincent
- 3 Larry Vincent
- 4 Cliff Wolfe & Associates
- 5 Ada M. Woll
- 6 Zarubica Co.
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EXHIBIT "D"

OVERLYING NON-AGRICULTURAL RIGHTS

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<u>Party</u>	<u>Total Overlying Non-Agricultural Rights (Acre Feet)</u>	<u>Share of Safe Yield (Acre Feet)</u>
Ameron Steel Producers, Inc.	125	97.858
County of San Bernardino	171	133.870
Conrock Company	406	317.844
Kaiser Steel Corporation	3,743	2,930.274
Red Star Fertilizer	20	15.657
Southern California Edison Co.	1,255	982.499
Space Center, Mira Loma	133	104.121
Southern Service Co., dba		
Blue Seal Linen	24	18.789
Sunkist, Orange Products Division	2,393	1,873.402
Carlsberg Mobile Home Properties,		
Ltd. '73	593	464.240
Union Carbide Corporation	546	427.446
Quaker Chemical Co.	<u>0</u>	<u>0</u>
Totals	9,409	7,366.000

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EXHIBIT "E"
APPROPRIATIVE RIGHTS

<u>Party</u>	<u>Appropriative Right (Acre Feet)</u>	<u>Share of Initial Operating Safe Yield (Acre Feet)</u>	<u>Share of Operating Safe Yield (Percent)</u>
City of Chino	5,271.7	3,670.067	6.693
City of Norco	289.5	201.545	0.368
City of Ontario	16,337.4	11,373.816	20.742
City of Pomona	16,110.5	11,215.852	20.454
City of Upland	4,097.2	2,852.401	5.202
Cucamonga County Water District	4,431.0	3,084.786	5.626
Jurupa Community Ser- vices District	1,104.1	768.655	1.402
Monte Vista County Water District	5,958.7	4,148.344	7.565
West San Bernardino County Water District	925.5	644.317	1.175
Etiwanda Water Company	768.0	534.668	0.975
Felspar Gardens Mutual Water Company	68.3	47.549	0.087
Fontana Union Water Co.	9,188.3	6,396.736	11.666
Marygold Mutual Water Co.	941.3	655.317	1.195
Mira Loma Water Co.	1,116.0	776.940	1.417
Monta Vista Irr. Co.	972.1	676.759	1.234
Mutual Water Company of Glen Avon Heights	672.2	467.974	0.853
Park Water Company	236.1	164.369	0.300
Pomona Valley Water Co.	3,106.3	2,162.553	3.944
San Antonio Water Co.	2,164.5	1,506.888	2.748
Santa Ana River Water Company	1,869.3	1,301.374	2.373
Southern California Water Company	1,774.5	1,235.376	2.253
West End Consolidated Water Company	<u>1,361.3</u>	<u>947.714</u>	<u>1.728</u>
TOTAL	78,763.8	54,834.000	100.000

EXHIBIT "F"
OVERLYING (AGRICULTURAL) POOL
POOLING PLAN

1
2
3 1. Membership in Pool. The State of California and all pro-
4 ducers listed in Exhibit "C" shall be the initial members of this
5 pool, which shall include all producers of water for overlying
6 uses other than industrial or commercial purposes.

7 2. Pool Meetings. The members of the pool shall meet
8 annually, in person or by proxy, at a place and time to be desig-
9 nated by Watermaster for purposes of electing members of the Pool
10 Committee and conducting any other business of the pool. Special
11 meetings of the membership of the pool may be called and held as
12 provided in the rules of the pool.

13 3. Voting. All voting at meetings of pool members shall be
14 on the basis of one vote for each 100 acre feet or any portion
15 thereof of production from Chino Basin during the preceding year,
16 as shown by the records of Watermaster.

17 4. Pool Committee. The Pool Committee for this pool shall
18 consist of not less than nine (9) representatives selected at
19 large by members of the pool. The exact number of members of the
20 Pool Committee in any year shall be as determined by majority vote
21 of the voting power of members of the pool in attendance at the
22 annual pool meeting. Each member of the Pool Committee shall have
23 one vote and shall serve for a two-year term. The members first
24 elected shall classify themselves by lot so that approximately
25 one-half serve an initial one-year term. Vacancies during any
26 term shall be filled by a majority of the remaining members of the
27 Pool Committee.

28 5. Advisory Committee Representatives. The number of

1 representatives of the Pool Committee on the Advisory Committee
2 shall be as provided in the rules of the pool from time to time
3 but not exceeding ten (10). The voting power of the pool on the
4 Advisory Committee shall be apportioned and exercised as deter-
5 mined from time to time by the Pool Committee.

6 6. Replenishment Obligation. The pool shall provide funds
7 for replenishment of any production by persons other than members
8 of the Overlying (Non-agricultural) Pool or Appropriator Pool, in
9 excess of the pool's share of Safe Yield. During the first five
10 (5) years of operations of the Physical Solution, reasonable
11 efforts shall be made by the Pool Committee to equalize annual
12 assessments.

13 7. Assessments. All assessments in this pool (whether for
14 replenishment water cost or for pool administration or the allo-
15 cated share of Watermaster administration) shall be in an amount
16 uniformly applicable to all production in the pool during the
17 preceding year or calendar quarter. Provided, however, that the
18 Agricultural Pool Committee, may recommend to the Court modifica-
19 tion of the method of assessing pool members, inter se, if the
20 same is necessary to attain legitimate basin management objectives,
21 including water conservation and avoidance of undesirable socio-
22 economic consequences. Any such modification shall be initiated
23 and ratified by one of the following methods:

24 (a) Excess Production. In the event total pool
25 production exceeds 100,000 acre feet in any year, the Pool
26 Committee shall call and hold a meeting, after notice to all
27 pool members, to consider remedial modification of the
28 assessment formula.

LAW OFFICES
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SUITE 201
2061 BUSINESS CENTER DRIVE
IRVINE, CALIFORNIA 92715
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(b) Producer Petition. At any time after the fifth full year of operation under the Physical Solution, a petition by ten percent (10%) of the voting power or membership of the Pool shall compel the holding of a noticed meeting to consider revision of said formula of assessment for replenishment water.

In either event, a majority action of the voting power in attendance at such pool members' meeting shall be binding on the Pool Committee.

8. Rules. The Pool Committee shall adopt rules for conducting meetings and affairs of the committee and for administering its program and in amplification of the provisions, but not inconsistent with, this pooling plan.

EXHIBIT "G"
OVERLYING (NON-AGRICULTURAL) POOL
POOLING PLAN

1
2
3 1. Membership in Pool. The initial members of the pool,
4 together with the decreed share of the Safe Yield of each, are
5 listed in Exhibit "D". Said pool includes producers of water for
6 overlying industrial or commercial (non-agricultural) purposes, or
7 such producers within the Pool who may hereafter take water pur-
8 suant to Paragraph 8 hereof.

9 2. Pool Committee. The Pool Committee for this pool shall
10 consist of one representative designated by each member of the
11 pool. Voting on the committee shall be on the basis of one vote
12 for each member, unless a volume vote is demanded, in which case
13 votes shall be allocated as follows:

14 The volume voting power on the Pool Committee shall
15 be 1,484 votes. Of these, 742 votes shall be allocated on
16 the basis of one vote for each ten (10) acre feet or fraction
17 thereof of decreed shares in Safe Yield. (See Exhibit "D".)
18 The remaining 742 votes shall be allocated proportionally
19 on the basis of assessments paid to Watermaster during the
20 preceding year.*

21 3. Advisory Committee Representatives. At least three (3)
22 members of the Pool Committee shall be designated by said committee
23 to serve on the Advisory Committee. The exact number of such
24 representatives at any time shall be as determined by the Pool
25 Committee. The voting power of the pool shall be exercised in the
26

27 *Or production assessments paid under Water Code Section
28 72140 et seq., as to years prior to the second year of operation
under the Physical Solution hereunder.

1 Advisory Committee as a unit, based upon the vote of a majority of
2 said representatives.

3 4. Replenishment Obligation. The pool shall provide funds
4 for replenishment of any production in excess of the pool's share
5 of Safe Yield in the preceding year.

6 5. Assessment. Each member of this pool shall pay an assess-
7 ment equal to the cost of replenishment water times the number of
8 acre feet of production by such producer during the preceding year
9 in excess of (a) his decreed share of the Safe Yield, plus (b) any
10 carry-over credit under Paragraph 7 hereof. In addition, the cost
11 of the allocated share of Watermaster administration expense shall
12 be recovered on an equal assessment against each acre foot of
13 production in the pool during such preceding fiscal year or calen-
14 dar quarter; and in the case of Pool members who take substitute
15 ground water as set forth in Paragraph 8 hereof, such producer
16 shall be liable for its share of administration assessment, as if
17 the water so taken were produced, up to the limit of its decreed
18 share of Safe Yield.

19 6. Assignment. Rights herein decreed are appurtenant to the
20 land and are only assignable with the land for overlying use
21 thereon; provided, however, that any appropriator who may, directly
22 or indirectly, undertake to provide water service to such overlying
23 lands may, by an appropriate agency agreement on a form approved by
24 Watermaster, exercise said overlying right to the extent, but only
25 to the extent necessary to provide water service to said overlying
26 lands.

27 7. Carry-over. Any member of the pool who produces less than
28 its assigned water share of Safe Yield may carry such unexercised

1 right forward for exercise in subsequent years. The first water
2 produced during any such subsequent year shall be deemed to be an
3 exercise of such carry-over right. In the event the aggregate
4 carry-over by any pool member exceeds its share of Safe Yield, such
5 member shall, as a condition of preserving such surplus carry-over,
6 execute a storage agreement with Watermaster.

7 8. Substitute Supplies. To the extent that any Pool member,
8 at the request of Watermaster and with the consent of the Advisory
9 Committee, takes substitute surface water in lieu of producing
10 ground water otherwise subject to production as an allocated share
11 of Safe Yield, said party shall nonetheless remain a member of this
12 Pool.

13 9. Rules. The Pool Committee shall adopt rules for adminis-
14 tering its program and in amplification of the provisions, but not
15 inconsistent with, this pooling plan.
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EXHIBIT "H"
APPROPRIATIVE POOL
POOLING PLAN

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3 1. Qualification for Pool. Any city, district or other
4 public entity and public utility -- either regulated under Public
5 Utilities Commission jurisdiction, or exempt therefrom as a non-
6 profit mutual water company (other than those assigned to the
7 Overlying [Agricultural] Pool) -- shall be a member of this pool.
8 All initial members of the pool are listed in Exhibit "E", together
9 with their respective appropriative rights and acre foot allocation
10 and percentage shares of the initial and subsequent Operating Safe
11 Yield.

12 2. Pool Committee. The Pool Committee shall consist of one
13 (1) representative appointed by each member of the Pool.

14 3. Voting. The total voting power on the Pool Committee
15 shall be 1,000 votes. Of these, 500 votes shall be allocated in
16 proportion to decreed percentage shares in Operating Safe Yield.
17 The remaining 500 votes shall be allocated proportionally on the
18 basis of assessments paid to Watermaster during the preceding
19 year.* Routine business of the Pool Committee may be conducted on
20 the basis of one vote per member, but upon demand of any member a
21 weighted vote shall be taken. Affirmative action of the Committee
22 shall require a majority of the voting power of members in attend-
23 ance, provided that it includes concurrence by at least one-third
24 of its total members.

25 4. Advisory Committee Representatives. Ten (10) members of
26

27 *Or production assessments paid under Water Code Section 72140
28 et seq., as to years prior to the second year of operation under
the Physical Solution hereunder.

1 the Pool Committee shall be designated to represent this pool on
2 the Advisory Committee. Each major appropriator, i.e., the owner
3 of an adjudicated appropriative right in excess of 3,000 acre feet,
4 shall be entitled to one representative. The remaining members
5 representing the Appropriative Pool on the Advisory Committee shall
6 be elected at large by the remaining members of the pool. The
7 voting power of the Appropriative Pool on the Advisory Committee
8 shall be apportioned between the major appropriator representatives
9 in proportion to their respective voting power in the Pool Com-
10 mittee. The remaining two representatives shall exercise equally
11 the voting power proportional to the Pool Committee voting power
12 of all remaining appropriators; provided, however, that if any
13 representative fails to attend an Advisory Committee meeting, the
14 voting power of that representative shall be allocated among the
15 representatives of the Appropriator Pool in attendance in the same
16 proportion as their own respective voting powers.

17 5. Replenishment Obligation. The pool shall provide funds
18 for purchase of replenishment water to replace any production by
19 the pool in excess of Operating Safe Yield during the preceding
20 year.

21 6. Administrative Assessment. Costs of administration of
22 this pool and its share of general Watermaster expense shall be
23 recovered by a uniform assessment applicable to all production
24 during the preceding year.

25 7. Replenishment Assessment. The cost of replenishment water
26 required to replace production from Chino Basin in excess of
27 Operating Safe Yield in the preceding year shall be allocated and
28 recovered as follows:

1 (a) For production, other than for increased export,
2 within CBMWD or WMWD:

3 (1) Gross Assessment. 15% of such replenishment
4 water costs shall be recovered by a uniform assessment
5 against all production of each appropriator producing in
6 said area during the preceding year.

7 (2) Net Assessment. The remaining 85% of said
8 costs shall be recovered by a uniform assessment on each
9 acre foot of production from said area by each such
10 appropriator in excess of his allocated share of Oper-
11 ating Safe Yield during said preceding year.

12 (b) For production which is exported for use outside
13 Chino Basin in excess of maximum export in any year through
14 1976, such increased export production shall be assessed
15 against the exporting appropriator in an amount sufficient to
16 purchase replenishment water from CBMWD or WMWD in the amount
17 of such excess.

18 (c) For production within SBVMWD or PVMWD:

19 By an assessment on all production in excess of
20 an appropriator's share of Operating Safe Yield in an
21 amount sufficient to purchase replenishment water through
22 SBVMWD or MWD in the amount of such excess.

23 8. Socio-Economic Impact Review. The parties have conducted
24 certain preliminary socio-economic impact studies. Further and
25 more detailed socio-economic impact studies of the assessment
26 formula and its possible modification shall be undertaken for the
27 Appropriator Pool by Watermaster no later than ten (10) years from
28 the effective date of this Physical Solution, or whenever total

1 production by this pool has increased by 30% or more over the
2 decreed appropriative rights, whichever is first.

3 9. Facilities Equity Assessment. Watermaster may, upon
4 recommendation of the Pool Committee, institute proceedings for
5 levy and collection of a Facilities Equity Assessment for the
6 purposes and in accordance with the procedures which follow:

7 (a) Implementing Circumstances. There exist several
8 sources of supplemental water available to Chino Basin, each
9 of which has a differential cost and quantity available. The
10 optimum management of the entire Chino Basin water resource
11 favors the maximum use of the lowest cost supplemental water
12 to balance the supplies of the Basin, in accordance with the
13 Physical Solution. The varying sources of supplemental water
14 include importations from MWD and SBVMWD, importation of
15 surface and ground water supplies from other basins in the
16 immediate vicinity of Chino Basin, and utilization of re-
17 claimed water. In order to fully utilize any of such alter-
18 nate sources of supply, it will be essential for particular
19 appropriators having access to one or more of such supplies to
20 have invested, or in the future to invest, directly or in-
21 directly, substantial funds in facilities to obtain and
22 deliver such water to an appropriate point of use. To the
23 extent that the use of less expensive alternate sources of
24 supplemental water can be maximized by the inducement of a
25 Facilities Equity Assessment, as herein provided, it is to the
26 long-term benefit of the entire basin that such assessment be
27 authorized and levied by Watermaster.

28 (b) Study and Report. At the request of the Pool

1 Committee, Watermaster shall undertake a survey study of the
2 utilization of alternate supplemental supplies by members of
3 the Appropriative Pool which would not otherwise be utilized
4 and shall prepare a report setting forth the amount of such
5 alternative supplies being currently utilized, the amount of
6 such supplies which could be generated by activity within the
7 pool, and the level of cost required to increase such uses and
8 to optimize the total supplies available to the basin. Said
9 report shall contain an analysis and recommendation for the
10 levy of a necessary Facilities Equity Assessment to accomplish
11 said purpose.

12 (c) Hearing. If the said report by Watermaster contains
13 a recommendation for imposition of a Facilities Equity Assess-
14 ment, and the Pool Committee so requests, Watermaster shall
15 notice and hold a hearing not less than 60 days after dis-
16 tribution of a copy of said report to each member of the pool,
17 together with a notice of the hearing date. At such hearing,
18 evidence shall be taken with regard to the necessity and
19 propriety of the levy of a Facilities Equity Assessment and
20 full findings and decision shall be issued by Watermaster.

21 (d) Operation of Assessment. If Watermaster determines
22 that it is appropriate that a Facilities Equity Assessment be
23 levied in a particular year, the amount of additional supple-
24 mental supplies which should be generated by such assessment
25 shall be estimated. The cost of obtaining such supplies,
26 taking into consideration the investment in necessary
27 facilities shall then be determined and spread equitably among
28 the producers within the pool in a manner so that those

1 producers not providing such additional lower cost supple-
2 mental water, and to whom a financial benefit will result, may
3 bear a proportionate share of said costs, not exceeding said
4 benefit; provided that any producer furnishing such supple-
5 mental water shall not thereby have its average cost of water
6 in such year reduced below such producer's average cost of
7 pumping from the Basin. In so doing, Watermaster shall
8 establish a percentage of the total production by each party
9 which may be produced without imposition of a Facilities
10 Equity Assessment. Any member of the pool producing more
11 water than said percentage shall pay such Facilities Equity
12 Assessment on any such excess production. Watermaster is
13 authorized to transmit and pay the proceeds of such Facilities
14 Equity Assessment to those producers who take less than their
15 share of Basin water by reason of furnishing a higher per-
16 centage of their requirements through use of supplemental
17 water.

18 10. Unallocated Safe Yield Water. To the extent that, in any
19 five years, any portion of the share of Safe Yield allocated to
20 the Overlying (Agricultural) Pool is not produced, such water shall
21 be available for reallocation to members of the Appropriative Pool,
22 as follows:

23 (a) Priorities. Such allocation shall be made in the
24 following sequence:

25 (1) to supplement, in the particular year, water
26 available from Operating Safe Yield to compensate for any
27 reduction in the Safe Yield by reason of recalculation
28 thereof after the tenth year of operation hereunder.

1 (2) pursuant to conversion claims as defined in
2 Subparagraph (b) hereof.

3 (3) as a supplement to Operating Safe Yield,
4 without regard to reductions in Safe Yield.

5 (b) Conversion Claims. The following procedures may be
6 utilized by any appropriator:

7 (1) Record of Land Use Conversion. Any appro-
8 priator who undertakes, directly or indirectly, dur-
9 ing any year, to permanently provide water service to
10 lands which during the immediate preceding five (5)
11 consecutive years was devoted to irrigated agriculture
12 may report such change in land use or water service to
13 Watermaster. Watermaster shall thereupon verify such
14 change in water service and shall maintain a record and
15 account for each appropriator of the total acreage
16 involved and the average annual water use during said
17 five-year period.

18 (2) Establishment of Allocation Percentage. In
19 any year in which unallocated Safe Yield water from
20 the Overlying (Agricultural) Pool is available for such
21 conversion claims, Watermaster shall establish allocable
22 percentages for each appropriator based upon the total
23 of such converted acreage recorded to each such appro-
24 priator's account.

25 (3) Allocation and Notice. Watermaster shall
26 thereafter apply the allocated percentage to the total
27 unallocated Safe Yield water available for special
28 allocation to derive the amount thereof allocable to

1 each appropriator; provided that in no event shall the
2 allocation to any appropriator as a result of such
3 conversion claim exceed 50% of the average annual amount
4 of water actually applied to the areas converted by such
5 appropriator prior to such conversion. Any excess water
6 by reason of such limitation on any appropriator's right
7 shall be added to Operating Safe Yield. Notice of such
8 special allocation shall be given to each appropriator
9 and shall be treated for purposes of this Physical
10 Solution as an addition to such appropriator's share of
11 the Operating Safe Yield for the particular year only.

12 (4) Administrative Costs. Any costs of Water-
13 master attributable to administration of such special
14 allocations and conversion claims shall be assessed
15 against appropriators participating in such reporting.

16 11. In Lieu Procedures. There are, or may develop, certain
17 areas within Chino Basin where good management practices dictate
18 that recharge of the basin be accomplished, to the extent prac-
19 tical, by taking surface supplies of supplemental water in lieu of
20 ground water otherwise subject to production as an allocated share
21 of Operating Safe Yield.

22 (a) Method of Operation. Any appropriator producing
23 water within such designated in lieu area who is willing to
24 abstain for any reason from producing any portion of such
25 producer's share of Operating Safe Yield in any year may
26 offer such unpumped water to Watermaster. In such event,
27 Watermaster shall purchase said water in place, in lieu of
28 spreading replenishment water, which is otherwise required to

1 make up for over production. The purchase price for in lieu
2 water shall be the lesser of:

3 (1) Watermaster's current cost of replenishment
4 water, whether or not replenishment water is currently
5 then obtainable, plus the cost of spreading; or

6 (2) The cost of supplemental surface supplies to
7 the appropriator, less

8 a. said appropriator's average cost of
9 ground water production, and

10 b. the applicable production assessment
11 were the water produced.

12 Where supplemental surface supplies consist of MWD or
13 SBVMWD supplies, the cost of treated, filtered State
14 water from such source shall be deemed the cost of
15 supplemental surface supplies to the appropriator for
16 purposes of such calculation.

17 In any given year in which payments may be made pursuant to
18 a Facilities Equity Assessment, as to any given quantity of
19 water the party will be entitled to payment under this
20 section or pursuant to the Facilities Equity Assessment, as
21 the party elects, but not under both.

22 (b) Designation of In Lieu Areas. The first in lieu
23 area is designated as the "In Lieu Area No. 1" and consists
24 of an area wherein nitrate levels in the ground water gen-
25 erally exceed 45 mg/l, and is shown on Exhibit "J" hereto.
26 Other in lieu areas may be designated by subsequent order of
27 Watermaster upon recommendation or approval by Advisory
28 Committee. Said in lieu areas may be enlarged, reduced or

1 eliminated by subsequent orders; provided, however, that
2 designation of In Lieu Areas shall be for a minimum fixed
3 term sufficient to justify necessary capital investment. In
4 Lieu Area No. 1 may be enlarged, reduced or eliminated in
5 the same manner, except that any reduction of its original
6 size or elimination thereof shall require the prior order of
7 Court.

8 12. Carry-over. Any appropriator who produces less than his
9 assigned share of Operating Safe Yield may carry such unexercised
10 right forward for exercise in subsequent years. The first water
11 produced during any such subsequent year shall be deemed to be an
12 exercise of such carry-over right. In the event the aggregate
13 carry-over by any appropriator exceeds its share of Operating Safe
14 Yield, such appropriator shall, as a condition of preserving such
15 surplus carry-over, execute a storage agreement with Watermaster.
16 Such appropriator shall have the option to pay the gross assess-
17 ment applicable to such carry-over in the year in which it accrued.

18 13. Assignment, Transfer and Lease. Appropriative rights,
19 and corresponding shares of Operating Safe Yield, may be assigned
20 or may be leased or licensed to another appropriator for exercise
21 in a given year. Any transfer, lease or license shall be ineffec-
22 tive until written notice thereof is furnished to and approved as
23 to form by Watermaster, in compliance with applicable Watermaster
24 rules. Watermaster shall not approve transfer, lease or license of
25 a right for exercise in an area or under conditions where such
26 production would be contrary to sound basin management or detri-
27 mental to the rights or operations of other producers.

28 14. Rules. The Pool Committee shall adopt rules for

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1 administering its program and in amplification of the provisions,
2 but not inconsistent with, this pooling plan.

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EXHIBIT "I"

ENGINEERING APPENDIX

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3 1. Basin Management Parameters. In the process of imple-
4 menting the physical solution for Chino Basin, Watermaster shall
5 consider the following parameters:

6 (a) Pumping Patterns. Chino Basin is a common supply
7 for all persons and agencies utilizing its waters. It is an
8 objective in management of the Basin's waters that no pro-
9 ducer be deprived of access to said waters by reason of
10 unreasonable pumping patterns, nor by regional or localized
11 recharge of replenishment water, insofar as such result may
12 be practically avoided.

13 (b) Water Quality. Maintenance and improvement of
14 water quality is a prime consideration and function of
15 management decisions by Watermaster.

16 (c) Economic Considerations. Financial feasibility,
17 economic impact and the cost and optimum utilization of the
18 Basin's resources and the physical facilities of the parties
19 are objectives and concerns equal in importance to water
20 quantity and quality parameters.

21 2. Operating Safe Yield. Operating Safe Yield in any year
22 shall consist of the Appropriative Pool's share of Safe Yield of
23 the Basin, plus any controlled overdraft of the Basin which
24 Watermaster may authorize. In adopting the Operating Safe Yield
25 for any year, Watermaster shall be limited as follows:

26 (a) Accumulated Overdraft. During the operation of
27 this Judgment and Physical Solution, the overdraft accumu-
28 lated from and after the effective date of the Physical

1 Solution and resulting from an excess of Operating Safe Yield
2 over Safe Yield shall not exceed 200,000 acre feet.

3 (b) Quantitative Limits. In no event shall Operating
4 Safe Yield in any year be less than the Appropriative Pool's
5 share of Safe Yield, nor shall it exceed such share of Safe
6 Yield by more than 10,000 acre feet. The initial Operating
7 Safe Yield is hereby set at 54,834 acre feet per year.

8 Operating Safe Yield shall not be changed upon less than five
9 (5) years' notice by Watermaster.

10 Nothing contained in this paragraph shall be deemed to authorize,
11 directly or indirectly, any modification of the allocation of
12 shares in Safe Yield to the overlying pools, as set forth in
13 Paragraph 44 of the Judgment.

14 3. Ground Water Storage Agreements. Any agreements author-
15 ized by Watermaster for storage of supplemental water in the
16 available ground water storage capacity of Chino Basin shall
17 include, but not be limited to:

18 (a) The quantities and term of the storage right.

19 (b) A statement of the priority or relation of said
20 right, as against overlying or Safe Yield uses, and other
21 storage rights.

22 (c) The procedure for establishing delivery rates,
23 schedules and procedures which may include

24 [1] spreading or injection, or

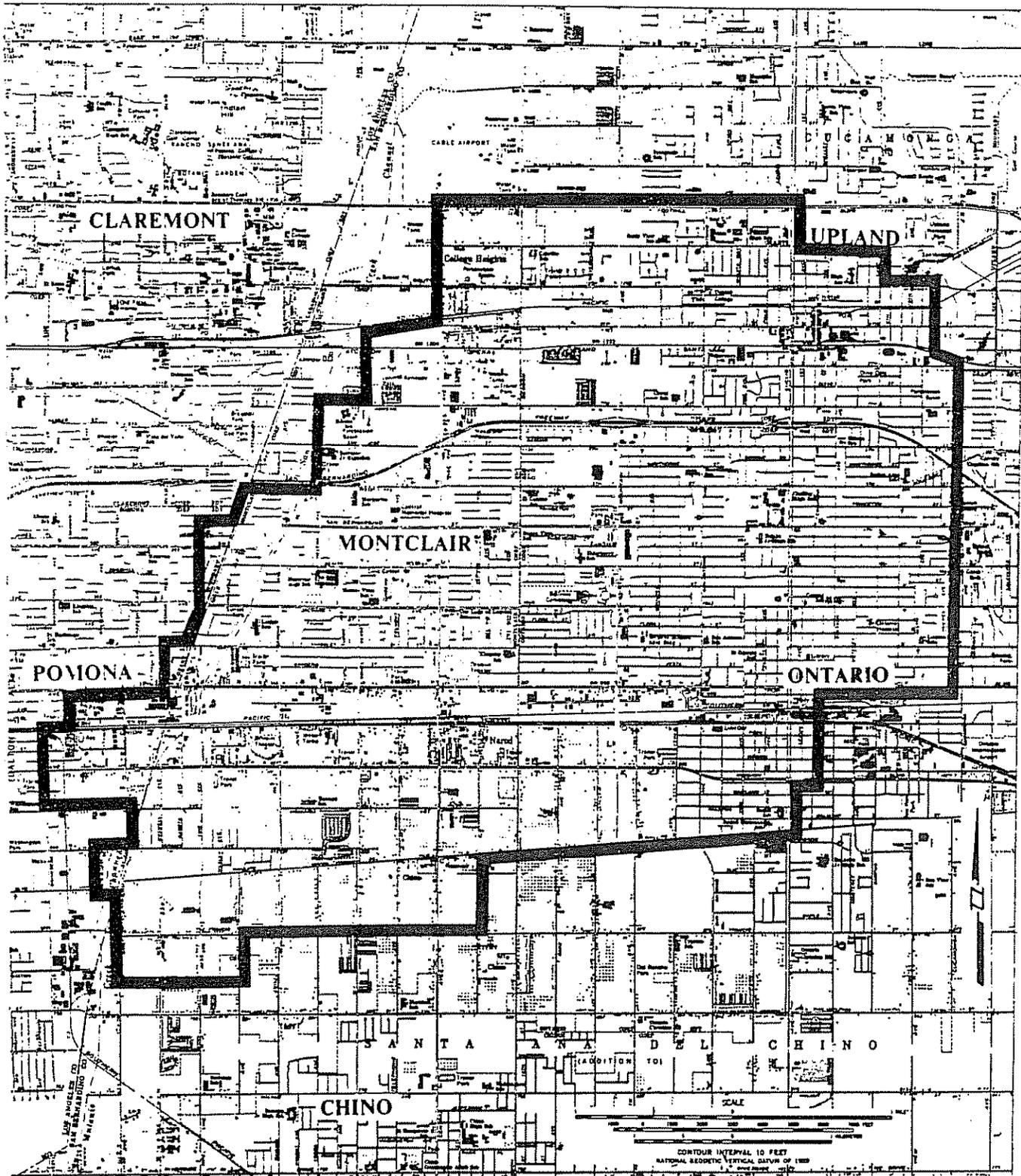
25 [2] in lieu deliveries of supplemental water for
26 direct use.

27 (d) The procedures for calculation of losses and annual
28 accounting for water in storage by Watermaster.

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(e) The procedures for establishment and adminis-
tration of withdrawal schedules, locations and methods.



**CHINO BASIN
IN LIEU AREA NO. 1**

LEGAL DESCRIPTION

OF CHINO BASIN

Preamble

All of the townships and ranges referred to in the following legal description are the San Bernardino Base and Meridian. Certain designated sections are implied as the System of Government Surveys may be extended where not established. Said sections are identified as follows:

Section 20, T1N, R8W is extended across Rancho Cucamonga;

Section 36, T1N, R8W is extended across the City of Upland;

Sections 2, 3, and 4, T1S, R7W are extended across Rancho Cucamonga;

Section 10, T1S, R8W is extended across the City of Claremont;

Sections 19, 20, 21, 30, 31 and 32, T1S, R8W are extended across the City of Pomona;

Sections 4, 5, and 28, T2S, R8W are extended across Rancho Santa Ana Del Chino;

Sections 15 and 16, T3S, R7W are extended across Rancho La Sierra; and

Sections 17 and 20, T3S, R7W are extended across Rancho El Rincon.

Description

Chino Basin is included within portions of the Counties of San Bernardino, Riverside and Los Angeles, State of California, bounded by a continuous line described as follows:

BEGINNING at the Southwest corner of Lot 241 as shown on Map of Ontario Colony Lands, recorded in Map Book 11, page 6, Office of the County Recorder of San Bernardino County, said corner being the Point of Beginning;

1. Thence Southeasterly to the Southeast corner

of Lot 419 of said Ontario Colony Lands;

2. Thence Southeasterly to a point 1300 feet North of the South line and 1300 feet East of the West line of Section 4, T1S, R7W;

3. Thence Easterly to a point on the East line of Section 4, 1800 feet North of the Southeast corner of said Section 4;

4. Thence Easterly to the Southeast corner of the Southwest quarter of the Northeast quarter of Section 3, T1S, R7W;

5. Thence Northeasterly to a point on the North line of Section 2, T1S, R7W, 1400 feet East of the West line of said Section 2;

6. Thence Northeasterly to the Southwest corner of Section 18, T1N, R6W;

7. Thence Northerly to the Northwest corner of said Section 18;

8. Thence Easterly to the Northeast corner of said Section 18;

9. Thence Northerly to the Northwest corner of the Southwest quarter of Section 8, T1N, R6W;

10. Thence Easterly to the Northeast corner of said Southwest quarter of said Section 8;

11. Thence Southerly to the Southeast corner of said Southwest quarter of said Section 8;

12. Thence Easterly to the Northeast corner of Section 17, T1N, R6W;

13. Thence Easterly to the Northeast corner of Section 16, T1N, R6W;

14. Thence Southeasterly to the Northwest corner of the Southeast quarter of Section 15, T1N, R6W;

15. Thence Easterly to the Northeast corner of said Southeast quarter of said Section 15;

16. Thence Southeasterly to the Northwest corner of the Northeast quarter of Section 23, T1N, R6W;

17. Thence Southeasterly to the Northwest corner

of Section 25, T1N, R6W;

18. Thence Southeasterly to the Northwest corner of the Northeast quarter of Section 31, T1N, R5W;

19. Thence Southeasterly to the Northeast corner of the Northwest quarter of Section 5, T1S, R5W;

20. Thence Southeasterly to the Southeast corner of Section 4, T1S, R5W;

21. Thence Southeasterly to the Southeast corner of the Southwest quarter of Section 11, T1S, R5W;

22. Thence Southwesterly to the Southwest corner of Section 14, T1S, R5W;

23. Thence Southwest to the Southwest corner of Section 22, T1S, R5W;

24. Thence Southwesterly to the Southwest corner of the Northeast quarter of Section 6, T2S, R5W;

25. Thence Southeasterly to the Northeast corner of Section 18 T2S, R5W;

26. Thence Southwesterly to the Southwest corner of the Southeast quarter of Section 13, T2S, R6W;

27. Thence Southwesterly to the Southwest corner of the Northeast quarter of Section 26, T2S, R6W;

28. Thence Westerly to the Southwest corner of the Northwest quarter of said Section 26;

29. Thence Northerly to the Northwest corner of said Section 26;

30. Thence Westerly to the Southwest corner of Section 21, T2S, R6W;

31. Thence Southerly to the Southeast corner of Section 29, T2S, R6W;

32. Thence Westerly to the Southeast corner of Section 30, T2S, R6W;

33. Thence Southwesterly to the Southwest corner of Section 36, T 2 S, R 7 W;

34. Thence Southwesterly to the Southeast corner

of Section 3, T3S, R7W;

35. Thence Southwesterly to the Southwest corner of the Northeast quarter of Section 10, T3S, R7W;

36. Thence Southerly to the Northeast corner of the Northwest quarter of Section 15, T3S, R7W;

37. Thence Southwesterly to the Southeast corner of the Northeast quarter of Section 16, T3S, R7W;

38. Thence Southwesterly to the Southwest corner of said Section 16;

39. Thence Southwesterly to the Southwest corner of the Northeast quarter of Section 20, T3S, R7W;

40. Thence Westerly to the Southwest corner of the Northwest quarter of said Section 20;

41. Thence Northerly to the Northwest corner of Section 17, T3S, R7W;

42. Thence Westerly to the Southwest corner of Section 7, T3S, R7W;

43. Thence Northerly to the Southwest corner of Section 6, T3S, R7W;

44. Thence Westerly to the Southwest corner of Section 1, T3S, R8W;

45. Thence Northerly to the Southeast corner of Section 35, T2S, R8W;

46. Thence Northwesterly to the Northwest corner of said Section 35;

47. Thence Northerly to the Southeast corner of Lot 33, as shown on Map of Tract 3193, recorded in Map Book 43, pages 46 and 47, Office of the County Recorder of San Bernardino County;

48. Thence Westerly to the Northwest corner of the Southwest quarter of Section 28, T2S, R8W;

49. Thence Northerly to the Southwest corner of Section 4, T2S, R8W;

50. Thence Westerly to the Southwest corner of Section 5, T2S, R8W;

51. Thence Northerly to the Southwest corner of Section 32, T1S, R8W;

52. Thence Westerly to the Southwest corner of Section 31, T1S, R8W;

53. Thence Northerly to the Southwest corner of Section 30, T1S, R8W;

54. Thence Northeasterly to the Southwest corner of Section 20, T1S, R8W;

55. Thence Northerly to the Northwest corner of the Southwest quarter of the Southwest quarter of said Section 20;

56. Thence Northwesterly to the Northeast corner of the Southeast quarter of the Southeast quarter of the Northwest quarter of Section 19, T1S, R8W;

57. Thence Easterly to the Northwest corner of Section 21, T1S, R8W;

58. Thence Northeasterly to the Southeast corner of the Southwest quarter of the Southwest quarter of Section 10, T1S, R8W;

59. Thence Northeasterly to the Southwest corner of Section 2, T1S, R8W;

60. Thence Northeasterly to the Southeast corner of the Northwest quarter of the Northwest quarter of Section 1, T1S, R8W;

61. Thence Northerly to the Northeast corner of the Northwest quarter of the Northeast quarter of Section 36, T1N, R8W;

62. Thence Northerly to the Southeast corner of Section 24, T1N, R8W;

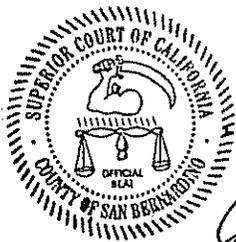
63. Thence Northeasterly to the Southeast corner of the Northwest quarter of the Northwest quarter of Section 20, T1N, R7W; and

64. Thence Southerly to the Point of Beginning.

Sections Included

Said perimeter description includes all or portions of the following Townships, Ranges and Sections of San Bernardino Base and Meridian:

- T1N, R5W - Sections: 30, 31 and 32
- T1N, R6W - Sections: 8, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35 and 36
- T1N, R7W - Sections: 19, 20, 24, 25, 26, 29, 30, 31, 32, 35 and 36
- T1N, R8W - Sections: 25 and 36
- T1S, R5W - Sections: 4, 5, 6, 7, 8, 9, 10, 11, 14, 15, 16, 17, 18, 19, 20, 21, 22, 28, 29, 30, 31 and 32.
- T1S, R6W - Sections: 1 through 36, inclusive
- T1S, R7W - Sections: 1 through 36, inclusive
- T1S, R8W - Sections: 1, 2, 10, 11, 12, 13, 14, 15, 16, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35 and 36
- T2S, R5W - Sections: 6, 7 and 18
- T2S, R6W - Sections: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 26, 29, 30 and 31
- T2S, R7W - Sections: 1 through 36, inclusive
- T2S, R8W - Sections: 1, 2, 3, 4, 5, 9, 10, 11, 12, 13, 14, 15, 16, 21, 22, 23, 24, 25, 26, 27, 28, 35 and 36
- T3S, R7W - Sections: 2, 3, 4, 5, 6, 7, 8, 9, 10, 15, 16, 17 and 20
- T3S, R8W - Section: 1.



THE DOCUMENT TO WHICH THIS CERTIFICATION IS ATTACHED IS A FULL, TRUE AND CORRECT COPY OF THE ORIGINAL ON FILE AND OF RECORD IN MY OFFICE.

OCT 29 2002

ATTEST
Clerk of the Superior Court of the State of California, in and for the County of San Bernardino

Terry Wittenborn
Deputy

Terry Wittenborn

92 pages

Appendix F City Ordinances

- Water Conservation, Water Shortage Contingency Ordinance No. 214 (13.08)
 - Water Rates Ordinance No. 245
 - Recycled Water Rates Ordinance No. 247

ORDINANCE NO. 245

AN ORDINANCE OF THE CITY COUNCIL OF THE
CITY OF CHINO HILLS, CALIFORNIA, SETTING THE
AMOUNT OF WATER RATES AND CHARGES
PURSUANT TO HEALTH AND SAFETY CODE § 5471

The City Council of the City of Chino Hills does ordain as follows:

SECTION 1. The City Council finds and declares as follows:

- A. The City of Chino Hills requires a reliable supply of water meeting current and anticipated water quality standards to protect the public general welfare, health and safety.
- B. The purpose of water rates and charges is to pay for protecting the public health, safety and general welfare by providing a reliable and adequate supply of water meeting current and anticipated water quality standards for the residents of the City of Chino Hills and to pay for the cost of providing such service.
- C. The City followed Proposition 218 (Article XIII D of the California Constitution) majority protest procedures and considered all protests against the proposed water service charge.
- D. A written majority protest of record parcel owners within the City was not received.
- E. There is a reasonable relationship between the amount of the water service rates and charges set forth in this Ordinance and the cost of the commodity (water) and the services and facilities necessary to deliver water to the residents and non-residential development of the City.
- F. The City has conducted a duly noticed public hearing and considered all written and oral evidence and testimony provided, including but not limited to the staff reports and the water rate study prepared by Glenn M. Reiter & Associates and this Ordinance is adopted in accordance with Proposition 218 (Article XIII D of the California Constitution), and Health and Safety Code § 5471; to establish the City's current water rates.

SECTION 2. AMOUNT OF FEES AND CHARGES. The City Council hereby establishes the fees and charges for water services as set forth in attached Exhibit "A", which is incorporated by reference ("Water Charges").

SECTION 3. COST ESTIMATES. The City Manager, or designee, is directed to periodically review the Water Charges to determine whether revenues from such charges are meeting actual cost of services and facilities needed to deliver water

service to the residents and non-residential developments within the City. If the City Manager determines that revenues do not adequately meet costs, the City Manager will recommend to the City Council a revised rate and charge schedule to be adopted by this City Council by ordinance.

SECTION 4. To the extent that any other resolutions or any other ordinances purporting to establish water rates incorporated into this Ordinance, they are superseded and rendered moot.

SECTION 5. This Ordinance is exempt from review under the California Environmental Quality Act (Cal. Pub. Res. Code §§ 21000, *et seq.*; "CEQA") and CEQA regulations (Cal. Code Regs. tit. 14, §§ 15000, *et seq.*) because it establishes, modifies, structures, restructures, and approves rates and charges for meeting operating expenses; purchasing supplies, equipment, and materials; meeting financial requirements; and obtaining funds for capital projects needed to maintain service within existing service areas. This Ordinance, therefore, is categorically exempt from further CEQA review under Cal. Code Regs. tit. 14, § 15273.

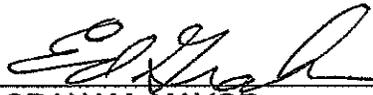
SECTION 6. Repeal of any provision of the Chino Hills Municipal Code, or any other City resolution or ordinance herein will not affect any penalty, forfeiture, or liability incurred before, or preclude prosecution and imposition of penalties for any violation occurring before, this Ordinance's effective date. Any such repealed part will remain in full force and effect for sustaining action or prosecuting violations occurring before the effective date of this Ordinance.

SECTION 7. If any part of this Ordinance or its application is deemed invalid by a court of competent jurisdiction, the City Council intends that such invalidity will not affect the effectiveness of the remaining provisions or applications and, to this end, the provisions of this Ordinance are severable.

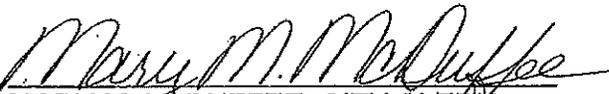
SECTION 8. The City Clerk is directed to certify the passage and adoption of this Ordinance; cause it to be entered into the City of Chino Hills's book of original ordinances; make a note of the passage and adoption in the records of this meeting; and, within fifteen (15) days after the passage and adoption of this Ordinance, cause it to be published or posted in accordance with California law.

SECTION 9. This Ordinance will become effective on the thirty-first (31st) day following its passage and adoption.

PASSED, APPROVED, AND ADOPTED this 24th day of May 2011.


ED GRAHAM, MAYOR

ATTEST: :


MARY M. MCDUFFEE, CITY CLERK

APPROVED AS TO FORM:


for MARK D. HENSLEY, CITY ATTORNEY

STATE OF CALIFORNIA)
COUNTY OF SAN BERNARDINO) ss
CITY OF CHINO HILLS)

I, MARY M. McDUFFEE, City Clerk of the City of Chino Hills, DO
HEREBY CERTIFY that Ordinance No. 245 was duly introduced at a regular
meeting held May 10, 2011, and adopted at a regular meeting of the City Council
held on the 24th day of May, 2011 by the following roll call vote, to wit:

AYES: COUNCIL MEMBERS: GRAHAM, BENNETT, KRUGER,
NORTON-PERRY AND ROGERS

NOES: COUNCIL MEMBERS: NONE

ABSENT: COUNCIL MEMBERS: NONE


MARY M. McDUFFEE, CITY CLERK

(SEAL)

I hereby certify that the foregoing is the original of Ordinance No. 245 duly
passed and adopted by the Chino Hills City Council at their regular meeting held
on May 24, 2011, and that Summaries of the Ordinance were published on May
14, 2011 and May 28, 2011 in the Chino Hills Champion newspaper.


MARY M. McDUFFEE, CITY CLERK

(SEAL)

ORDINANCE NO. 247

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF CHINO HILLS,
CALIFORNIA, REDUCING THE AMOUNT OF RECYCLED WATER RATES
AND CHARGES PURSUANT TO HEALTH AND SAFETY CODE § 5471

The City Council of the City of Chino Hills does ordain as follows:

SECTION 1. The City Council finds and declares as follows:

- A. The City of Chino Hills requires a reliable supply of water meeting current and anticipated water quality standards to protect the public general welfare, health and safety.
- B. The purpose of water rates and charges is to pay for protecting the public health, safety and general welfare by providing a reliable and adequate supply of water meeting current and anticipated water quality standards for the residents of the City of Chino Hills and to pay for the cost of providing such service.

SECTION 2. AMOUNT OF FEES AND CHARGES. The City Council hereby amends the fees and charges for water services as set forth in attached Exhibit "A", which is incorporated by reference ("Water Charges") to decrease the recycled water rates and charges only. All other fees and charges remain the same.

SECTION 3. COST ESTIMATES. The City Manager, or designee, is directed to periodically review the Water Charges to determine whether revenues from such charges are meeting actual cost of services and facilities needed to deliver water service to the residents and non-residential developments within the City. If the City Manager determines that revenues do not adequately meet costs, the City Manager will recommend to the City Council a revised rate and charge schedule to be adopted by this City Council by ordinance.

SECTION 4. This Ordinance is exempt from review under the California Environmental Quality Act (Cal. Pub. Res. Code §§ 21000, et. Seq.; "CEQA") and CEQA regulations (Cal. Code Regs. tit. 14, §§15000, et seq.) because it establishes, modifies, structures, restructures, and approves rates and charges for meeting operating expenses; purchasing supplies, equipment, and materials; meeting financial requirements; and obtaining funds for capital projects needed to maintain service within existing service areas. This Ordinance, therefore, is categorically exempt from further CEQA review under Cal. Code Regs. tit. 14, § 15273.

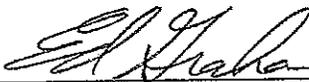
SECTION 5. Repeal of any provision of the Chino Hills Municipal Code, or any other City resolution or ordinance herein will not affect any penalty, forfeiture, or liability incurred before, or preclude prosecution and imposition of penalties for any violation occurring before this Ordinance's effective date. Any such repealed part will remain in full force and effect for sustaining action or prosecuting violations occurring before the effective date of this Ordinance.

SECTION 6. If any part of this Ordinance or its application is deemed invalid by a court of competent jurisdiction, the City Council intends that such invalidity will not affect the effectiveness of the remaining provisions or applications and, to this end, the provisions of this Ordinance are severable.

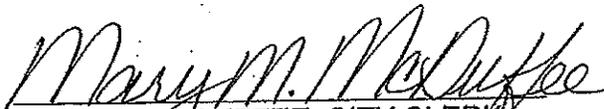
SECTION 7. The City Clerk is directed to certify the passage and adoption of this Ordinance; cause it to be entered into the City of Chino Hills' book of original ordinances; make a note of the passage and adoption in the records of this meeting; and, within fifteen (15) days after the passage and adoption of this Ordinance, cause it to be published or posted in accordance with California law.

SECTION 8. This Ordinance will become effective on the thirty-first (31st) day following its passage and adoption.

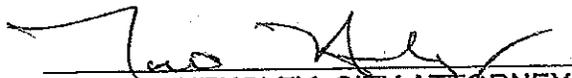
PASSED, APPROVED, AND ADOPTED this 26th day of July 2011.


ED M. GRAHAM, MAYOR

ATTEST:


MARY M. McDUFFEE, CITY CLERK

APPROVED AS TO FORM:


MARK D. HENSLEY, CITY ATTORNEY

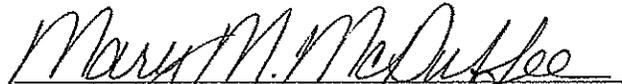
STATE OF CALIFORNIA)
COUNTY OF SAN BERNARDINO) ss
CITY OF CHINO HILLS)

I, MARY M. McDUFFEE, City Clerk of the City of Chino Hills, DO
HEREBY CERTIFY that Ordinance No. 247 was duly introduced at a regular
meeting held July 12, 2011, and adopted at a regular meeting of the City Council
held on the 26th day of July, 2011 by the following roll call vote, to wit:

AYES: COUNCIL MEMBERS: GRAHAM, BENNETT, KRUGER,
NORTON-PERRY AND ROGERS

NOES: COUNCIL MEMBERS: NONE

ABSENT: COUNCIL MEMBERS: NONE


MARY M. McDUFFEE, CITY CLERK

(SEAL)

I hereby certify that the foregoing is the original of Ordinance No. 247 duly
passed and adopted by the Chino Hills City Council at their regular meeting held
on July 26, 2011, and that Summaries of the Ordinance were published on July
16, 2011 and July 30, 2011 in the Chino Hills Champion newspaper.


MARY M. McDUFFEE, CITY CLERK

(SEAL)

EXHIBIT A

Water Rates

The following rate increases, which consist of both the cost for water and a monthly service charge depending on the meter size, are:

Commodity Charge			Current Rates	Effective				
				July 1, 2011	July 1, 2012	July 1, 2013	July 1, 2014	July 1, 2015
<u>Residential</u>	SFR	MFR	\$/ccf	\$/ccf	\$/ccf	\$/ccf	\$/ccf	\$/ccf
Low Zone	0-12 ccf	0-7 ccf	1.40	1.56	1.72	1.89	2.08	2.28
	13-30 ccf	8-20 ccf	1.62	1.78	1.96	2.15	2.37	2.60
	31+ ccf	21+ ccf	2.00	2.49	2.74	3.01	3.31	3.64
Intermediate Zone	0-12 ccf	0-7 ccf	1.72	1.69	1.86	2.04	2.25	2.47
	13-30 ccf	8-20 ccf	1.92	1.91	2.10	2.31	2.54	2.79
	31+ ccf	21+ ccf	2.31	2.62	2.88	3.17	3.48	3.83
High Zone	0-12 ccf	0-7 ccf	1.75	1.89	2.08	2.29	2.51	2.76
	13-30 ccf	8-20 ccf	1.99	2.11	2.32	2.55	2.81	3.09
	31+ ccf	21+ ccf	2.34	2.82	3.10	3.41	3.75	4.12
<u>Non-Residential</u>								
Low Zone			1.52	1.87	2.05	2.26	2.48	2.73
Intermediate Zone			1.84	2.00	2.20	2.42	2.66	2.92
High Zone			1.87	2.20	2.42	2.66	2.92	3.21
Temporary (Construction Meter)			2.06	2.26	2.48	2.73	3.00	3.30
Agricultural			1.04	1.49	1.75	2.03	2.36	2.73
<u>Institutional</u>								
Low Zone			1.52	1.87	2.05	2.26	2.48	2.73
Intermediate Zone			1.84	2.00	2.20	2.42	2.66	2.92
High Zone			1.87	2.20	2.42	2.66	2.92	3.21
<u>Recycled Water</u>								
Low Zone			1.22	1.31	1.44	1.58	1.74	1.91
Intermediate Zone			1.46	1.40	1.54	1.69	1.86	2.04
High Zone			1.51	1.54	1.69	1.86	2.04	2.25
Temporary (Construction Meter)			1.66	1.58	1.73	1.91	2.10	2.31
Agricultural			0.85					
<u>Private Fire Protection</u>								
Private Fire Protection			1.40	2.82	3.10	3.41	3.75	4.12

Standard Rates - Monthly Service Charge

Meter Size	Current Rates	Effective				
		July 1, 2011	July 1, 2012	July 1, 2013	July 1, 2014	July 1, 2015
5/8"	13.60	14.89	16.37	18.00	19.79	21.76
3/4"	20.36	22.23	24.44	26.87	29.54	32.47
1"	34.00	37.05	40.73	44.78	49.23	54.12
1 1/2"	67.99	74.10	81.46	89.56	98.46	108.25
2"	108.79	118.56	130.34	143.30	157.54	173.20
3"	206.59	259.34	285.12	313.46	344.62	378.87
4"	345.19	435.69	479.00	526.61	578.96	636.51
6"	692.99	900.83	990.37	1,088.82	1,197.05	1,316.03
8"	1,142.94	1,187.04	1,305.03	1,434.76	1,577.37	1,734.16
10"	1,714.41	1,933.95	2,126.18	2,337.52	2,569.87	2,825.32

Standard Rates - Monthly Service Charge – Fire Meters

Meter Size	Current Rates	Effective				
		July 1, 2011	July 1, 2012	July 1, 2013	July 1, 2014	July 1, 2015
4"		74.07	81.43	89.52	98.42	108.21
6"		153.14	168.36	185.10	203.50	223.73
8"		201.80	221.86	243.91	268.15	294.81
10"		328.77	361.45	397.38	436.88	480.30

The rates and increases set forth above are estimates based upon projected cost and charges increases but will be subject to adjustment from time to time to reflect changes, increases or decreases, in costs and charges imposed by the Metropolitan Water District, the Inland Empire Utilities Agency, the Monte Vista Water District, the Water Facilities Authority, the Chino Basin Watermaster, and the Chino Basin Desalter Authority. The City purchases water from all of these agencies and will be passing through the actual costs based upon the fees and charges imposed by these agencies. The City will also adjust the above estimated charges to reflect changes, increases or decreases, in electricity costs based upon charges and fees imposed by Southern California Edison. The City purchases electricity from Southern California Edison for purposes of transporting water from the various sources to each of the City's customers.

Amended: July 12, 2011

City of Chino Hills

Ordinance 13.08 – Water Conservation

13.08.020 - Water customer.

Water customer, for the purposes of this chapter, shall mean any person, partnership, business, corporation, or association or legal entity to whom the city of Chino Hills (City) supplies water or user of water supplied by the city.

(Ord. 214 § 2 (part), 2008)

13.08.030 - Application.

This chapter shall be applicable to all water customers.

(Ord. 214 § 2 (part), 2008)

13.08.040 - Exceptions and exemptions.

A.

Exceptions. The City Manager or his or her designee shall grant an exception from the requirements of this chapter for any of the following reasons:

1.

Water use is necessary to public health and safety or for essential government services; or

2.

Recycled water is being used; or

3.

Water use is necessary due to the medical needs of the water customer.

B.

Exemptions. The Public Works Commission may grant an exemption to the requirements of this chapter, with or without conditions, if it determines that a water customer would otherwise experience extreme financial hardship that cannot be mitigated. The Public Works Commission shall review any requests for an exemption from compliance with this chapter. A written request for an exemption must be submitted to the Public Facilities and Operations Department a minimum of two weeks prior to the Commission meeting at which the exemption is to be considered. If appropriate, the Public Works Commission may require the customer granted an exemption to reduce water use by other appropriate alternative methods. Notwithstanding any other provision of this code, there shall be no right to further administrative review or appeal of the determination of exemption of the Public Works Commission. The City Council may establish an "exemption processing fee."

(Ord. 214 § 2 (part), 2008)

13.08.050 - Authorization.

The City Council may declare the conservation stage based on a determination by Metropolitan Water District or the Inland Empire Utilities Agency, or based upon any interruption in water supply or delivery that the City Council determines in its sole discretion necessitates water conservation pursuant to this chapter. As declared, the City Council shall see to the enforcement of all prohibitions and restrictions as outlined in the four stages:

- A.
Stage 1 Voluntary Conservation Alert;
- B.
Stage 2 Moderate Conservation Alert;
- C.
Stage 3 High Conservation Alert; and
- D.
Stage 4 Severe Conservation Alert.

13.08.060 - Stage I voluntary conservation alert.

Chino Hills water customers are requested to voluntarily limit the amount of water used from May 1st through September 30th of each year to the amount absolutely necessary for health, business, and irrigation. During Stage 1, all elements of the prohibitions and restrictions for moderate, high and severe conservation alerts shall apply on a voluntary basis.

(Ord. 214 § 2 (part), 2008)

13.08.070 - Stage II prohibitions and restrictions—Moderate conservation alert.

The following restrictions shall be applicable during a moderate water conservation alert as declared by the City Council whenever the city's water supply is anticipated to be reduced by up to ten (10) percent, and voluntary conservation does not achieve the desired reduction:

- A.
There shall be no hose washing of sidewalks, walkways, driveways, parking areas, patios, porches or verandas.
- B.
No water shall be used to clean, fill, operate or maintain levels in non-residential decorative fountains unless such water is part of a recirculating system. Fountains on residential properties are exempt at this stage only.
- C.
No water customer shall permit water to leak on his or her premises. Such leak shall be repaired in a timely manner after notification by the city, but in no case after notification in excess of seventy-two (72) hours.

1. D.

No water customer shall sprinkle, water, or irrigate any shrubbery, trees, lawns, grass, groundcovers, plants, vines, gardens, vegetables, flowers, or any other landscaped or vegetated areas between the hours of 9:00 a.m. and 6:00 p.m. This provision shall not apply to equestrian and livestock businesses, dairies, nurseries, golf courses, or other water dependent industries.

2.

The use of a hand held hose with a shut-off valve shall be permitted at any time.

E.

No water customer shall permit noncommercial washing of privately owned livestock, vehicles, trailers, buses or boats, except from a bucket using a hand-held hose equipped with a shut-off nozzle used for a quick rinse.

F.

No restaurants or other public place which serves food shall serve drinking water to any customer unless expressly requested by the customer.

G.

No water customer shall cause or allow water to run off or leak from landscaped areas to adjoining streets, sidewalks, or other paved areas due to incorrectly directed or maintained sprinklers or excessive watering.

H.

The use of water from fire hydrants shall be limited to fire fighting and related activities necessary to maintain the public health, safety, and welfare. An exception may be made for construction use through a proper city-designated meter where recycled water is not available.

(Ord. 214 § 2 (part), 2008)

13.08.080 - Stage III prohibitions and restrictions—High water conservation alert.

The following restrictions shall be applicable during a high water conservation alert as declared by the City Council whenever the city's water supply is anticipated to be reduced by more than ten (10%) percent but less than twenty-five (25%) percent:

A.

All prohibitions and restrictions in Section [13.08.070](#) shall be in effect.

B.

Commercial nurseries, golf courses, and other water dependent industries shall be prohibited from watering lawn, landscape, or other turf areas more than every other

day. Irrigation shall occur between the hours of 6:00 p.m. and 6:00 a.m. only, with the exception of usage of recycled water.

C.

All water customers other than commercial nurseries, golf courses, and other water dependent industries shall be limited in the outdoor use of water for sprinkling, watering, or irrigating any shrubbery, trees, lawns, grass, groundcovers, plants, vines, gardens, vegetables, flowers, or any other landscaped or vegetated areas to a two day per week schedule based on street address. Designated days of irrigation: Residential addresses ending in an even number may use water on Monday and Thursday. Residential addresses ending in an odd number may use water on Tuesday and Friday. Non-residential addresses may water on Wednesday and Saturday, irrespective of address.

D.

No water shall be used to clean, fill, operate or maintain levels in decorative fountains unless such water is part of a recirculating system.

E.

Swimming pool refilling or new construction swimming pool filling shall not occur without permission from the City Manager or his or her designee. The replenishment of swimming pools shall be limited to the same days as set forth in subsection C above for outdoor use of water.

F.

The use of a hand-held hose with shut-off valve shall be permitted at any time.

(Ord. 214 § 2 (part), 2008)

13.08.090 - Stage IV prohibitions and restrictions—Severe water conservation alert.

In the event of a major earthquake, large-scale fire, or other so called "Act of Nature" which could have serious impacts on the city's total available water storage capacity, whether storage capacities have been reduced or not, or in the case of a reduction in city water supply anticipated to be more than twenty-five (25%) percent, a severe water conservation alert shall be declared by the City Council.

A.

All previous restrictions noted in Sections [13.08.070](#) and [13.08.080](#) shall be in effect.

B.

There shall be no outdoor use of water at any time except the minimal amount by hand-held hose equipped with a shut-off nozzle.

C.

Commercial nurseries, golf courses, and other water dependent industries shall be prohibited from the outdoor use of water except by a hand-held hose equipped with a shut-off nozzle.

D.

All nonessential uses of water shall be prohibited including the filling, or refilling of swimming pools, spas, jacuzzis, or other like devices beyond what is necessary for maintenance.

(Ord. 214 § 2 (part), 2008)

13.08.100 - Penalties.

A.

No water customer of the city shall knowingly use, or permit the use of, water in a manner contrary to any provisions of this chapter, or in an amount in excess of that use permitted by the provisions of this chapter.

B.

Unless otherwise provided, any water customer violating any provision of this chapter shall be guilty of an infraction or misdemeanor as specified in this section, and each day or portion thereof such violation is in existence shall be a new and separate offense.

Any water customer determined to be guilty of a first time violation shall be given a written reminder for compliance. Second and subsequent violations shall be punishable as follows:

1.

For a second violation during any period of declared water conservation alert: as an infraction, punishable by a fine of not less than fifty dollars (\$50.00), and not exceeding one hundred dollars (\$100.00).

2.

For a third violation during any period of declared water conservation alert: as an infraction, punishable by a fine not less than one hundred dollars (\$100.00), and not exceeding one hundred fifty dollars (\$150.00).

3.

For a fourth violation during any period of declared water conservation alert: as a misdemeanor, punishable by a fine not less than five hundred dollars (\$500.00), and not exceeding one thousand dollars (\$1,000.00), and placement of a flow restrictor. In addition, the city may discontinue water services.

D.

Notwithstanding the above, the City Attorney or Deputy District Attorney may charge and prosecute second and subsequent offenses as misdemeanors at the city's sole discretion pursuant to California Water Code § 377. In addition to the above penalties, the city may file an action for civil abatement and, at the discretion of the court, be entitled to reimbursement for all necessary costs and attorneys fees incurred through investigation, discovery, analysis, inspection, abatement and other actual costs incurred by the city or its agents pertaining to the violation.

E.

The court shall fix the amount of any such reimbursements upon submission of proof of such costs by the city. Payment of any penalty provided in this section shall not relieve a person, firm or corporation, or other entity from the responsibility of correcting the condition resulting from the violation.

F.

In addition to the above remedies, the City Manager or his or her designee is empowered, to enforce any or all of the following penalties:

1.

Place a flow restricting device upon the water service;

2.

Lock off of a water meter;

3.

Remove a water meter; and

4.

Shut off the service connection.

All costs or expenses incurred by the city for enforcement of this section shall be borne by the water customer. No water service shall be limited or discontinued until the City Manager or his or her designee provides a written notice of intent to so limit or discontinue such service and the reasons for such decision, and further, provides such water customer notice of the right to request an administrative review and hearing pursuant to the procedures set forth in Section [1.18.090](#) of this code, except that any reference to "citation" in that section shall instead be deemed a reference to a "notice of intent" as described in this section. A written notice of intent shall be provided either by first class mail, by personal service on the water customer, or by posting said notice in a conspicuous place on the property wherein the violation occurred. Notwithstanding any other provision of this code, there shall be no right to further administrative review or appeal.

(Ord. 214 § 2 (part), 2008)

13.08.110 - Compliance.

The City Code Enforcement Officer and designee from the City Water Division shall enforce the provisions of this chapter.

(Ord. 214 § 2 (part), 2008)

Appendix G
Groundwater Management Plan

Optimum Basin Management Program

Staff Status Report 2011-1: January to June 2011



CHINO BASIN WATERMASTER

Optimum Basin Management Program

Highlighted Activities

- California is experiencing the second wettest year on record and the State's surface reservoir are full allowing the Governor to officially proclaim an end to California's drought.
- As a result in the State's bountiful water supply, Metropolitan Water District of Southern California (MWD) made imported water available at the replenishment rate. Watermaster is purchasing 40,000-50,000 acre-feet of this water to be used toward future replenishment obligations. As of June 30, 2011, approximately 9,465 acre-feet of that water had been recharged. It will continue to be recharged through December 31, 2011.
- During the fiscal year, approximately 16,848 acre-feet of stormwater were recharged, the second-highest year on record. In addition, approximately 8,010 acre-feet of recycled water were recharged during the fiscal year.
- Watermaster is preparing a restated Judgment at the request of the Court. A draft version of the restated Judgment is available for review on the website.
- The proposed Chino Creek Well Field locations for Wells I-19, I-20, and I-21 by the Chino Desalter Authority (CDA) are under review by Watermaster. When completed and in operation, these wells will achieve hydraulic control and will not conflict with the Optimum Basin Management Plan (OBMP) goal to minimize or abate permanent subsidence.
- On June 14, 2011 the MWD Board approved the local resources program (LRP) grant for the desalters.
- Watermaster and the Inland Empire Utilities Agency (IEUA) are working together for the creation of a 5th retention facility at the Turner Basin. Up to 175,000 cubic yards of dirt are anticipated to be removed for the Milliken Avenue Grade Separation Project funded by the City of Ontario and the San Bernardino Associated Governments (SANBAG). This represents a savings of approximately \$4.5 million.



MWD Turnout CB-14

Program Element 1: Develop and Implement a Comprehensive Monitoring Program

Groundwater Level Monitoring

Watermaster initiated a comprehensive monitoring program as part of the implementation of the OBMP. The current groundwater level monitoring program is comprised of about 700 wells. At about 500 of these wells, water levels are measured by well owners, which include municipal water agencies, the California Department of Toxic Substance Control (DTSC), the County of San Bernardino, and various private consulting firms. The measurement frequency is typically about once per month. Watermaster collects these water level data quarterly. The remaining 200 wells are private wells or dedicated monitoring wells that are mainly located in the southern portion of the Chino Basin. Watermaster staff measures water levels at these wells using manual methods once per month or with

Important Court Hearings and Orders

- JANUARY 21—CHINO BASIN WATERMASTER COURT HEARING: REGARDING MOTION TO RE-APPOINT NINE MEMBER BOARD FOR A FURTHER FIVE-YEAR TERM
- JANUARY 26—ORDER GRANTING MOTION TO RE-APPOINT NINE MEMBER WATERMASTER BOARD FOR A FURTHER FIVE-YEAR TERM
- FEBRUARY 3—COURT OF APPEAL ORDER REGARDING PARAGRAPH 31 APPEAL BRIEFING SCHEDULE

Optimum Basin Management Program

Program Element 1: Develop and Implement a Comprehensive Monitoring Program (Continued)

GOVERNOR
JERRY BROWN
PROCLAIMED AN
END TO
CALIFORNIA'S
DROUGHT ON
MARCH 30,
2011.

pressure transducers that record water levels once every 15 minutes. The wells in the monitoring program within the southern portion of the Basin were preferentially selected to assist in Watermaster's monitoring programs for hydraulic control, land subsidence, and desalter impacts to private well owners. The remaining wells are monitored in support of the triennial recomputation of ambient water quality in the Chino-North management zone. The water level data are checked by Watermaster staff and uploaded to a centralized relational database.

Groundwater Quality Monitoring

Watermaster initiated a comprehensive monitoring program as part of the implementation of the OBMP. The groundwater quality monitoring program consists of the following four components:

1. An Annual Key Well Water Quality Monitoring Program consisting of 120 wells which are mostly privately owned agricultural wells in the southern portion of Chino Basin that are otherwise not included in an established sampling program. Twenty of these wells are sampled every year; the remaining wells are sampled every three years. The wells sampled annually are for the continuous monitoring of areas of concern associated with the southern edge of the Archibald South (formerly OIA) VOC plume, the southern region of the Chino Airport Plume, and the Kaiser Steel Plume which includes the two multi-port MZ-3 monitoring wells. Data obtained for the Key Well Quality Monitoring Program are used for the triennial ambient water quality analysis, hydraulic control assessment, the Biennial State of the Basin Report, and to assess the overall health of the Basin.
2. Annual sampling at nine HCMP multi-port monitoring wells strategically placed between the Chino Basin Desalter well fields and the Santa Ana River. Results of the annual sampling are used to analyze the effect of desalter pumping over time by comparing water quality of the native groundwater and the Santa Ana River.
3. Monthly sampling at four near-river wells to characterize the Santa Ana River's influence to nearby groundwater. These shallow monitoring wells along the Santa Ana River consist of two former United States Geologic Survey (USGS) National Water Quality Assessment Program (NAWQA) wells (Archibald 1 and Archibald 2), and two wells (Well 9 and Well 11) owned by the Santa Ana River Water Company (SARWC).
4. A cooperative basin-wide data collection effort known as the Chino Basin Data Collection (CBDC) program which relies on municipal producers and other government agencies to supply groundwater quality data on a cooperative basis. These sources include the

Appropriators, Department of Toxic Substance Control (DTSC), Regional Water Quality Control Board (RWQCB), US Geological Survey (USGS), the Counties, and other cooperators. All water quality data are routinely collected, QA/QC'd, and loaded into Watermaster's relational database.

Groundwater-Production Monitoring

All active wells (except for minimum user wells) are now metered. Watermaster reads the agricultural production data from the meters on a quarterly basis and enters these data into Watermaster's relational database.

Surface Water Monitoring

Water Quality and Quantity in Recharge Basins. Watermaster measures the quantity of storm and supplemental water entering the recharge basins. Pressure transducers or staff gauges are used to measure water levels during recharge operations. In addition to these quantity measurements, imported



Watermaster operations staff preparing to pump a monitoring well to collect water quality samples

Optimum Basin Management Program

Program Element 1: Develop and Implement a Comprehensive Monitoring Program (Continued)

water quality data for State Water Project water are obtained from the Metropolitan Water District of Southern California (MWDSC) and recycled water quality data for the RP-1 and RP-4 treatment plant effluents are obtained from IEUA. Combining the measured flow data with the respective water qualities enables the calculation of the blended water quality in each recharge basin, the "new yield" to the Chino Basin, and the adequate dilution of recycled water.

Surface Water Monitoring in the Santa Ana River (SAR). Watermaster measures the discharge of the River and selected water quality parameters to determine those reaches of the SAR that are gaining flow from the Chino Basin and/or, conversely, those reaches that are losing flow into the Chino Basin. These bi-weekly flow and water quality measurements are combined with discharge data from permanent USGS stream gauges and discharge data from publicly owned treatment works (POTWs). These data are used along with groundwater modeling to assess the extent of hydraulic control.

HCMP Annual Report

In January 2004, the RWQCB amended the Water Quality Control Plan (Basin Plan) for the Santa Ana River Basin to incorporate an updated total dissolved solids (TDS) and nitrogen (N) management plan. The Basin Plan Amendment includes both "antidegradation" and "maximum benefit" objectives for TDS and nitrate-nitrogen for the Chino and Cucamonga groundwater management zones. The application of the "maximum benefit" objectives relies on Watermaster and IEUA's implementation of a specific program of projects and requirements, which are an integral part of the OBMP. On April 15, 2005, the RWQCB adopted resolution R8-2005-0064; thus approving the Surface Water Monitoring Program and Groundwater Monitoring Program in support of maximum benefit commitments in the Chino and Cucamonga Basins.

Pursuant to the Basin Plan and the Watermaster/IEUA permit to recharge recycled water, Watermaster and IEUA have conducted groundwater and surface water monitoring programs since 2004. During this reporting period, Watermaster measured 426 manual water levels at private wells throughout the Chino Basin, conducted two quarterly downloads at the 130 wells containing pressure transducers, collected 26 groundwater quality samples, 221 surface water quality samples, and 36 direct discharge stream measurements. Quarterly Surface Water Monitoring Program Reports that summarize data collection efforts were submitted to the RWQCB in January and April of 2011. The Chino Basin Maximum Benefit Monitoring Program 2010 Annual Report was submitted to the RWQCB on April 15, 2011.



Installing a pressure transducer

Chino Basin Groundwater Recharge Program

IEUA, Watermaster, CBWCD, and the SBCFCD jointly sponsor the Chino Basin Groundwater Recharge Program. This is a comprehensive water supply program to enhance water supply reliability and improve the groundwater quality in local drinking water wells throughout the Chino Basin by increasing the recharge of storm water, imported water, and recycled water. The recharge program is regulated under RWQCB Order No. R8-2007-0039 and Monitoring and Reporting Program No. R8-2007-0039.

Recharge Activities. On-going recycled water recharge occurred in the Brooks, 7th Street, 8th Street, Victoria, San Sevaine, Ely, Hickory, and RP-3 Basins this reporting period.

Monitoring Activities. Watermaster and IEUA collect weekly water quality samples from basins that are actively recharging recycled water and from lysimeters installed within those

Optimum Basin Management Program

Program Element 1: Develop and Implement a Comprehensive Monitoring Program (Continued)

basins. During this reporting period, approximately 475 basin and lysimeter samples were collected and 21 recycled water samples were collected for alternative monitoring plans that include the application of a correction factor for Soil-Aquifer Treatment determined from each basin's start-up period. Monitoring wells located down-gradient of the recharge basins were sampled quarterly at a minimum, however, some monitoring wells were sampled more frequently during the reporting period for a total of 85 samples.

Reporting. Watermaster and IEUA completed the following required reports concerning the recharge program during the reporting period:

- 4Q-2010 Quarterly Report, submitted to the RWQCB – February 2011
- 1Q-2011 Quarterly Report, submitted to the RWQCB – May 2011
- 2010 Annual Report, submitted to the RWQCB — May 2011

Land Surface Monitoring

The MZ-1 Subsidence Management Plan (MZ-1 Plan) was approved by Watermaster in October 2007, and was approved by the Court in November 2007 which ordered its implementation (see Program Element 4: Develop and Implement a Comprehensive Groundwater Management Plan for Management Zone 1). The MZ-1 Plan calls for a number of activities with the goal of minimizing or completely abating the future occurrence of land subsidence and ground fissuring in Chino Basin. Some of these activities include:

- Continuing the scope and frequency of monitoring within the so-called Managed Area (southwest MZ-1) that was conducted during the period when the MZ-1 Plan was being developed.
- Expanding the monitoring of the aquifer system and land subsidence into other areas of MZ-1 and Chino Basin where the data indicate concern for future subsidence and ground fissuring.
- Monitoring of horizontal strain across the historical fissure zone.
- Further evaluating the potential contribution of pumping in the central and northern portions of MZ-1 on groundwater conditions in the central and southern portions of MZ-1.
- Conducting additional testing and monitoring to refine the Guidance Criteria.
- Developing alternative pumping plans for the MZ-1 producers that are impacted by the MZ-1 Plan.



MZ-1 Monument Construction & Surveying

- Constructing and testing a lower-cost extensometer facility at Ayala Park.
- Evaluating and comparing ground-level surveying and Interferometric Synthetic Aperture Radar (InSAR), and recommending future monitoring protocols for both techniques.
- Conducting an ASR (aquifer injection and recovery) feasibility study at a production well owned by the City of Chino Hills within the Managed Area.
- Providing for recovery of groundwater levels.

It was determined that the land subsidence is not just isolated to MZ-1. Hence, the Board of Directors approved the formation of the Land Subsidence Committee in December 2010, and its first meeting was held on January 20, 2011.

Optimum Basin Management Program

Program Element 1: Develop and Implement a Comprehensive Monitoring Program (Continued)

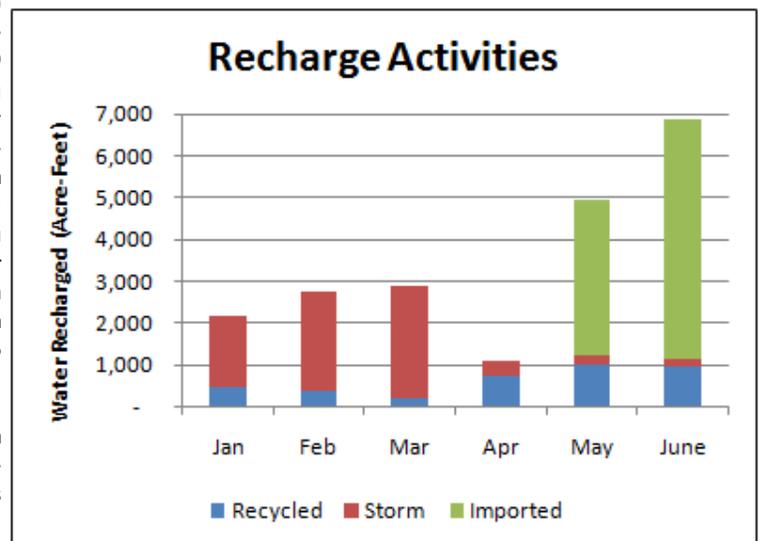
With regard to monitoring and testing, Watermaster began or continued the implementation of some of these activities called for in the MZ-1 Plan. During this reporting period these activities included:

- The continuation of detailed water-level monitoring at wells within the Managed Area and at wells in central MZ-1.
- Continuation of monitoring and maintenance at the Ayala Park Extensometer Facility. This includes monitoring at the newly installed lower-cost pair of cable extensometers within two piezometers at Ayala Park to test this technology for application in other parts of the Basin.
- Collected InSAR data from radar satellites during all six months of the reporting period, which will be analyzed for land surface displacement in early 2012.
- Performed the Spring 2011 ground-level survey across the MZ-1 Managed Area.
- Continued to plan for and implement a new testing and monitoring program within the MZ-1 Managed Area with the goals of (1) refining the Guidance Criteria, (2) confirming the existence of the Riley Barrier, (3) testing the feasibility of injection in the Managed Area, and (4) evaluating the effect of pumping/drawdown and injection/recovery on the fissure zone.
- Prepared equipment to install a horizontal extensometer across the zone of historical ground fissuring. This work was performed by the subcontractor that will be installing and calibrating the horizontal extensometer and data loggers.
- Prepared a right-of-entry agreement with a private property owner in the City of Chino to install the horizontal extensometer.
- Developed a scope of work and budget for Watermaster's 2011-12 fiscal year. The main features of this scope include (1) the installation of the horizontal extensometer across the fissure zone, (2) the installation of a new vertical extensometer near the Chino Creek Well Field, and (3) the implementation of a testing and monitoring program in the MZ-1 Managed Area during 2012 and 2013.

Program Element 2: Develop and Implement a Comprehensive Recharge Program

The theoretical average stormwater recharge capacity of the Chino Basin Facilities Improvement Program (CBFIP) facilities is about 14,000 acre-feet/yr (AFY) and the theoretical supplemental water recharge capacity is 99,000 AFY. Stormwater recharge in the first half of year ending June 30, 2011 was about 7,468 acre-feet. Recycled water recharge during this period were about 3,768 acre-feet. The IEUA and Watermaster recharge permit was amended in fiscal year 2009-10 to allow for underflow dilution and extended the dilution period from a running 60 months to a running 120 months. The significance of this permit amendment was to reduce the amount of imported and storm waters required for dilution. IEUA projects that dilution requirements will likely be met through 2019-20, even if no imported water were available for dilution.

In May, the Metropolitan Water District of Southern California (MWD) made water available at the replenishment rate. It had been approximately four years



Optimum Basin Management Program

Program Element 2: Develop and Implement a Comprehensive Recharge Program (Continued)

since it was last available. Watermaster intends to recharge 40,000-50,000 acre-feet of imported water to offset basin overdraft and to meet future replenishment obligations.

The cumulative unmet replenishment obligation (CURO) was approximately 8,889 acre-feet. It was fully satisfied in May 2011 by purchasing water from Appropriators. The total amount of supplemental water recharged in MZ-1 since the Peace II Agreement is approximately 19,671 acre-feet, which is 6,329 acre-feet (cumulative) less than the average annual requirement of 6,500 acre-feet.

As part of the Recharge Master Plan Implementation, MZ-3 recharge opportunities were discussed. The projects include Wineville Basin spillway and pipeline and pump station to Jurupa Basin, Jurupa Basin and RP-3 Inlet improvements. The Riverside County Flood Control and Water Conservation District is potentially looking to participate in the funding of these projects that would have a direct benefit to their service area.

Program Element 3: Develop and Implement Water Supply Plan for the Impaired Areas of the Basin; and Program Element 5: Develop and Implement Regional Supplemental Water Program

Construction of the Chino I Desalter Expansion and the Chino II Desalter facilities was completed in February 2006. As currently configured, the Chino I Desalter provides 2.6 million gallons per day (MGD) of treated (air stripping for VOC removal) water from Well Nos. 1-4, 4.9 MGD of treated (ion exchange for nitrate removal) water from Well Nos. 5-15, and 6.7 MGD of treated (reverse osmosis for nitrate and TDS removal) water from Well Nos. 5-15 for a total of 14.2 MGD (15,900 AFY). The Chino II Desalter provides 4.0 MGD of ion exchange treated water and 6.0 MGD of reverse osmosis treated water from eight additional wells for a total of 10.0 MGD (11,200 AFY).

Planning continued between the Chino Desalter Authority (CDA) and Western Municipal Water District (WMWD) to expand the Chino II Desalter by 10.5 MGD (11,800 AFY). Watermaster worked with the CDA parties to produce a realistic schedule approved by the RWQCB last June. Raw water will be drawn from existing CDA II wells, and possible additional new wells, if needed. In addition, a new Chino Creek Desalter Well Field, required for the hydraulic control commitment associated with Maximum Benefit, will provide additional raw water to the Chino I Desalter, enabling some existing wells to direct production to the expanded Chino II Desalter facility.

On June 14, 2011 the MWD Board approved the local resources program (LRP) grant for the desalters.

Program Element 4: Develop and Implement a Comprehensive Groundwater Management Plan for Management Zone 1 and Management Zone 3

MZ-1 Management Plan

Because of the historical occurrence of pumping-induced land subsidence and ground fissuring in southwestern Chino Basin (southern MZ-1), the OBMP called for the development and implementation of an Interim Management Plan (IMP) for MZ-1 that would:

- Minimize subsidence and fissuring in the short-term,
- Collect information necessary to understand the extent, rate, and mechanisms of subsidence and fissuring, and
- Formulate a management plan to reduce to tolerable levels or abate future subsidence and fissuring.

From 2001-2005, Watermaster developed, coordinated, and conducted an Interim Monitoring Program (IMP) under the guidance of the MZ-1 Technical Committee, which is composed of representatives from all major MZ-1 producers and their technical consultants. The IMP was an aquifer-system and land subsidence investigation focused in the southwestern region of MZ-1 that would support the development of a long-term management plan to minimize and abate subsidence and fissuring (MZ-1 Plan). The IMP involved the construction of highly-sophisticated monitoring facilities, such as deep borehole extensometers and piezometers, the monitoring of land surface displacements through traditional ground-level surveys and remote-sensing techniques, the detailed monitoring of

Optimum Basin Management Program

Program Element 4: Develop and Implement a Comprehensive Groundwater Management Plan for Management Zone 1 and Management Zone 3 (Continued)

the aquifer system with water-level-recording transducers installed at an array of production and monitoring wells, and the purposeful stressing of the aquifer system through multiple controlled pumping tests.

The investigation methods, results, and conclusions are described in detail in the MZ-1 Summary Report, dated February 2006. The investigation provided enough information for Watermaster to develop Guidance Criteria for the MZ-1 producers in the investigation area that, if followed, would minimize the potential for subsidence and fissuring during the completion of the MZ-1 Plan. The Guidance Criteria included a listing of Managed Wells and their owners subject to the criteria, a map of the so-called Managed Area, and an initial threshold water level (Guidance Level) of 245 feet below the top of the PA-7 well casing. The MZ-1 Summary Report and the Guidance Criteria were adopted by the Watermaster Board in May 2006. The Guidance Criteria formed the basis for the MZ-1 Plan, which was approved by Watermaster in October 2007. The Court approved the MZ-1 Plan in November 2007 and ordered its implementation.

During this reporting period, Watermaster continued implementation of the MZ-1 Plan. Drawdown at the PA-7 piezometer did not fall below the Guidance Level during the reporting period, and very little, if any permanent compaction was recorded at the Ayala Park Extensometer. The ongoing monitoring program called for by the MZ-1 Plan continues to be implemented.

Program Element 6: Develop and Implement Cooperative Programs with the Regional Water Quality Control Board, Santa Ana Region (Regional Board) and Other Agencies to Improve Basin Management; and Program Element 7: Develop and Implement a Salt Management Program

Ontario International Airport (Archibald South Plume)

Watermaster continued to negotiate with the potentially responsible parties (PRPs) associated with the Ontario International Airport (OIA). The PRPs have formed a group called ABGL (Aerojet, Boeing, GE, and Lockheed). Watermaster has continued to participate in meetings with ABGL and their consultants, counsel, the Regional Board, and CDA in order to find common ground for a joint remedy for desalting and plume mitigation. Watermaster prepared technical and legal responses to a presentation made by ABGL's technical consultant in December 2010. Watermaster also coordinated with ABGL's consultant regarding the next round of sampling for VOCs in ABGL's monitoring wells.

Chino Airport

Watermaster continued to negotiate with the County of San Bernardino, Department of Airports (County) in order to find common ground for a joint remedy for desalting and plume mitigation. Watermaster coordinated with the Chino Desalter Authority's consultant, who provided an update on the well drilling and construction activities at the Chino Creek Desalter Well Field (CCWF). Watermaster reviewed hydrogeological information for a cross-section near the Chino Desalter and CCWF (pumping test analysis, cross-sections, etc.) in order to develop estimates of Darcian groundwater flux past this area. Then Watermaster prepared maps and charts of the groundwater model that estimate the degree of hydraulic control that would be achieved after the CCWF is completed as well as the fate of the Chino Airport plume. Watermaster prepared for and attended a meeting at San Bernardino County offices with County staff and technical consultants in February 2011 to present the groundwater model results. Watermaster also prepared a letter report (text, tables, and figures) of modeling results of the Peace II alternative with updated well locations for the CCWF and pumping rates for all Chino Desalter wells.

Watermaster reviewed maps and aerial photos of Chino Creek to develop a surface water monitoring program to characterize groundwater/surface water interactions along Chino Creek.

California Institute for Men

Watermaster continued to coordinate with the State on a memorandum of understanding that would allow Watermaster to continue to monitor a subset of wells on CIM. Watermaster prepared the following letter: "Chino Basin Groundwater Monitoring Programs: Preservation of Certain Monitoring Wells Owned by the State of California at the California Institute for Men (CIM)."

Optimum Basin Management Program

Program Element 6: Develop and Implement Cooperative Programs with the Regional Water Quality Control Board, Santa Ana Region (Regional Board) and Other Agencies to Improve Basin Management; and Program Element 7: Develop and Implement a Salt Management Program (Continued)

Other Water Quality Issues

Watermaster is responding to a public information request regarding perchlorate and perchlorate stable isotope testing in the Chino Basin. The request was made by Lewis, Brisbois, Bisgaard, & Smith LLP, who are defending Sociedad Química y Minera de Chile S.A. (SQM), a Chilean company that historically produced fertilizer that was imported to the United States.

Program Element 8: Develop and Implement a Groundwater Storage Management Program; and Program Element 9: Develop and Implement a Storage and Recovery Program

The existing Watermaster/IEUA/MWDSC Dry-Year Yield (DYY) program continued during the reporting period. All DYY program construction projects have been completed and are currently being used for DYY “take”, or removal from storage. As of April 30, 2011 all of the water in the DYY storage account was extracted, leaving the account with a zero balance.

In February 2008, the DYY Expansion Project was initiated by IEUA and Watermaster to evaluate increasing the DYY storage account. The purpose of the DYY Expansion Project was to determine the facilities needed to store up to 150,000 acre-feet and to recover up to 50,000 acre-feet/year. The expansion project analysis was completed in December 2008. The expansion project evaluated the technical, financial, and institutional frame work for individual projects to move forward. Negotiations to-date related to actual projects and the amount of expansion have not resulted in any planned expansion projects.

IN MAY, MWD
MADE WATER
AVAILABLE
AT THE
REPLENISHMENT
RATE FOR THE
FIRST TIME IN
APPROXIMATELY
FOUR YEARS.
WATERMASTER
INTENDS TO
RECHARGE
40,000-50,000
ACRE-FEET OF
IMPORTED
WATER TO BE
USED TOWARD
FUTURE
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