Final Report

2005 Urban Water Management Plan—Claremont

Golden State
Water Company
A Subsidiary of American States Water Company

Region III Headquarters

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December 2005

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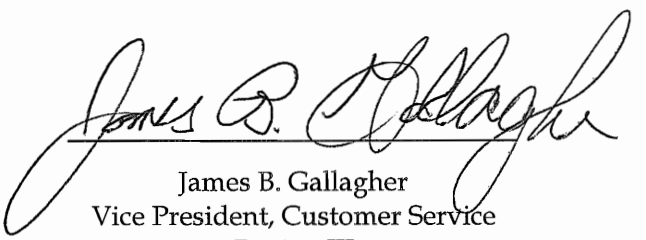
Notice of Adoption

A meeting to solicit public comments on the 2005 Urban Water Management Plan for the Golden State Water Company Claremont System was held on November 15, 2005 at 7:00 PM at the GSWC Corporate Office in San Dimas, California. Notice of this meeting was published in accordance with Section 6066 of Government Code in the San Gabriel Valley Tribune and the Pasadena Star-News on November 2, 2005 and on November 9, 2005.

Copies of the Urban Water Management Plan were made available to the public at the Claremont, San Dimas, and San Gabriel Valley Customer Service Offices two weeks prior to the public hearing.

Comments, oral and written, if received and responses to comments are documented in Appendix H of this document.

Golden State Water Company hereby adopts the 2005 Urban Water Management Plan for the Claremont System.



James B. Gallagher
Vice President, Customer Service
Region III
Golden State Water Company
December 31, 2005

Abbreviations

ABAG	Association of Bay Area Governments
ac-ft	acre-feet
ac-ft/yr	acre-feet per year
Act	Urban Water Management Planning Act
AMCL	alternative MCL
AWWA	American Water Works Association
BMPs	best management practices
CBO	community-based organization
CCL	contaminant candidate list
CCRs	consumer confidence reports
CDHS	California Department of Health Services
cfs	cubic feet per second
CIMIS	California Irrigation Management Information System
Council	California Urban Water Conservation Council
CPE	comprehensive performance evaluation
CPUC	California Public Utilities Commission
CSA	customer service area
CT	concentration time
CUWA	California Urban Water Agencies
CWSs	community water systems
D/DBP	disinfectant/disinfection by-product
DMM	demand management measure
DOC	dissolved organic carbon
DOF	Department of Finance
DWR Guidebook	Guidebook to Assist Water Suppliers in the Preparation of a 2005 Urban Water Management Plan
DWR	Department of Water Resources (California)

EC	enhanced coagulation
EPA	Environmental Protection Agency
ERP	emergency response plan
ETo	evapotranspiration
gpm	U.S. gallons per minute
GSWC	Golden State Water Company
GWR	Groundwater Rule
HAA5	haloacetic acids
IESWTR	Interim Enhanced Surface Water Treatment Rule
IOCs	inorganic contaminants
IRP	Integrated Resource Plan
LACSD	Sanitation Districts of Los Angeles County
LT1ESWTR	Long Term 1 Enhanced Surface Water Treatment Rule
LT2ESWTR	Long Term 2 Enhanced Surface Water Treatment Rule
MCLGs	maximum contaminant level goals
MCLs	maximum contaminant levels
Metropolitan	Metropolitan Water District of Southern California
MG	million gallons
MMM	multimedia mitigation
MOU	memorandum of understanding (regarding urban water conservation in California)
MRDLs	maximum residual disinfectant levels
mrem	millirems
MTBE	methyl tertiary-butyl ether
MWD	Municipal Water District with reference to any of the member agencies of the Metropolitan Water District of Southern California
N/A	not available
NAICS	North American Industry Classification System
NDMA	N-nitrosodimethylamine
NPV	net present value
NTNCWS	non-transient non-community water systems

NTU	nephelometric turbidity units
O&M	operation and maintenance
OEHHA	Office of Environmental Health Hazard Assessment
pCi	picoCuries
RO	reverse osmosis
SCAG	Southern California Association of Governments
SDWA	Safe Drinking Water Act
SMCL	secondary maximum contaminant level
SOCs	synthetic organic contaminants
SUVA	source-water-specific ultraviolet absorbance
SWP	State Water Project
SWTR	Surface Water Treatment Rule
TCR	Total Coliform Rule
TDS	total dissolved solids
TOC	total organic carbon
TTHMs	Total Trihalomethanes Rule
UCM	unregulated contaminants monitoring
ULF	ultra low flush
ULFT	ultra-low-flush-toilet
UWMP	Urban Water Management Plan
VOCs	volatile organic compounds
WEWAC	Water Education Water Awareness Committee
WRCC	Western Regional Climate Center
WRP	water reclamation plant
WSDM Plan	Water Surplus and Drought Management Plan
WY	water year

Definitions

Chapter 2, Part 2.6, Division 6 of the California Water Code provides definitions for the construction of the Urban Water Management Plans. Appendix A contains the full text of the Urban Water Management Planning Act.

CHAPTER 2. DEFINITIONS

Section 10611. Unless the context otherwise requires, the definitions of this chapter govern the construction of this part.

Section 10611.5. "Demand management" 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.

Section 10612. "Customer" means a purchaser of water from a water supplier who uses the water for municipal purposes, including residential, commercial, governmental, and industrial uses.

Section 10613. "Efficient use" means those management measures that result in the most effective use of water so as to prevent its waste or unreasonable use or unreasonable method of use.

Section 10614. "Person" means any individual, firm, association, organization, partnership, business, trust, corporation, company, public agency, or any agency of such an entity.

Section 10615. "Plan" means an urban water management plan prepared pursuant to this part. A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities. The components of the plan may vary according to an individual community or area's characteristics and its capabilities to efficiently use and conserve water. The plan shall address measures for residential, commercial, governmental, and industrial water demand management as set forth in Article 2 (commencing with Section 10630) of Chapter 3. In addition, a strategy and time schedule for implementation shall be included in the plan.

Section 10616. "Public agency" means any board, commission, county, city and county, city, regional agency, district, or other public entity.

Section 10616.5. "Recycled water" means the reclamation and reuse of wastewater for beneficial use.

Section 10617. "Urban water supplier" means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. An urban water supplier includes a supplier or contractor for water, regardless of the basis of right, which distributes or sells for ultimate resale to customers. This part applies only to water supplied from public water systems subject to Chapter 4 (commencing with Section 116275) of Part 12 of Division 104 of the Health and Safety Code.

Chapter 1. Introduction and Overview

Background

The Urban Water Management Plan (UWMP) for the Golden State Water Company (GSWC) Claremont System is prepared in compliance with Division 6, Part 2.6, of the California Water Code, Sections 10610 through 10657 as last amended by Senate Bill (SB) 318, the Urban Water Management Planning Act (Act). The original bill, requiring a UWMP, was initially enacted in 1983. SB 318, which became law in 2004, is the eighteenth amendment to the bill. Increased emphasis on drought contingency planning, water demand management, reclamation, and groundwater resources has been provided through the updates to the original bill.

Under the current law, urban water suppliers with more than 3,000 service connections or water use of more than 3,000 acre-feet per year (ac-ft/yr) are required to submit a UWMP every five years to the California Department of Water Resources (DWR). The reports must be submitted by December 31 of years ending in zero and five. Under the name Southern California Water Company, GSWC prepared an UWMP for the Claremont System in 1985, 1990, 1995, and 2000. The 2005 UWMP is an update to the 2000 plan.

The law, as it is now, states and declares the following:

Section 10610.2

(a) The Legislature finds and declares all of the following:

(1) The waters of the state are a limited and renewable resource subject to ever-increasing demands.

(2) The conservation and efficient use of urban water supplies are of statewide concern; however, the planning for that use and the implementation of those plans can best be accomplished at the local level.

(3) A long-term, reliable supply of water is essential to protect the productivity of California's businesses and economic climate.

(4) As part of its long-range planning activities, every urban water supplier should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry water years.

(5) Public health issues have been raised over a number of contaminants that have been identified in certain local and imported water supplies.

(6) Implementing effective water management strategies, including groundwater storage projects and recycled water projects, may require specific water quality and salinity targets for meeting groundwater basins water quality objectives and promoting beneficial use of recycled water.

(7) Water quality regulations are becoming an increasingly important factor in water agencies' selection of raw water sources, treatment alternatives, and modifications to existing treatment facilities.

(8) Changes in drinking water quality standards may also impact the usefulness of water supplies and may ultimately impact supply reliability.

(9) The quality of source supplies can have a significant impact on water management strategies and supply reliability.

(b) This part is intended to provide assistance to water agencies in carrying out their long-term resource planning responsibilities to ensure adequate water supplies to meet existing and future demands for water.

Section 10610.4. The Legislature finds and declares that it is the policy of the state as follows:

(a) The management of urban water demands and efficient use of water shall be actively pursued to protect both the people of the state and their water resources.

(b) The management of urban water demands and efficient use of urban water supplies shall be a guiding criterion in public decisions.

(c) Urban water suppliers shall be required to develop water management plans to actively pursue the efficient use of available supplies.

System Overview

GSWC owns and operates the Claremont System. GSWC is an investor-owned public utility company regulated by the California Public Utilities Commission (CPUC).

The Claremont System, located in Los Angeles County, encompasses a client service area that serves the City of Claremont, part of the cities of Montclair, Pomona, and Upland, and a portion of unincorporated county land. The system is located at the southern region of the San Gabriel Mountains. The Claremont System is bordered by the San Bernardino County line to the east, by the City of La Verne to the west, and by the City of Pomona to the south. The service area is primarily characterized by residential land use, with some commercial, institutional, and industrial land use. Figure 1-1 illustrates the location of the Claremont System.

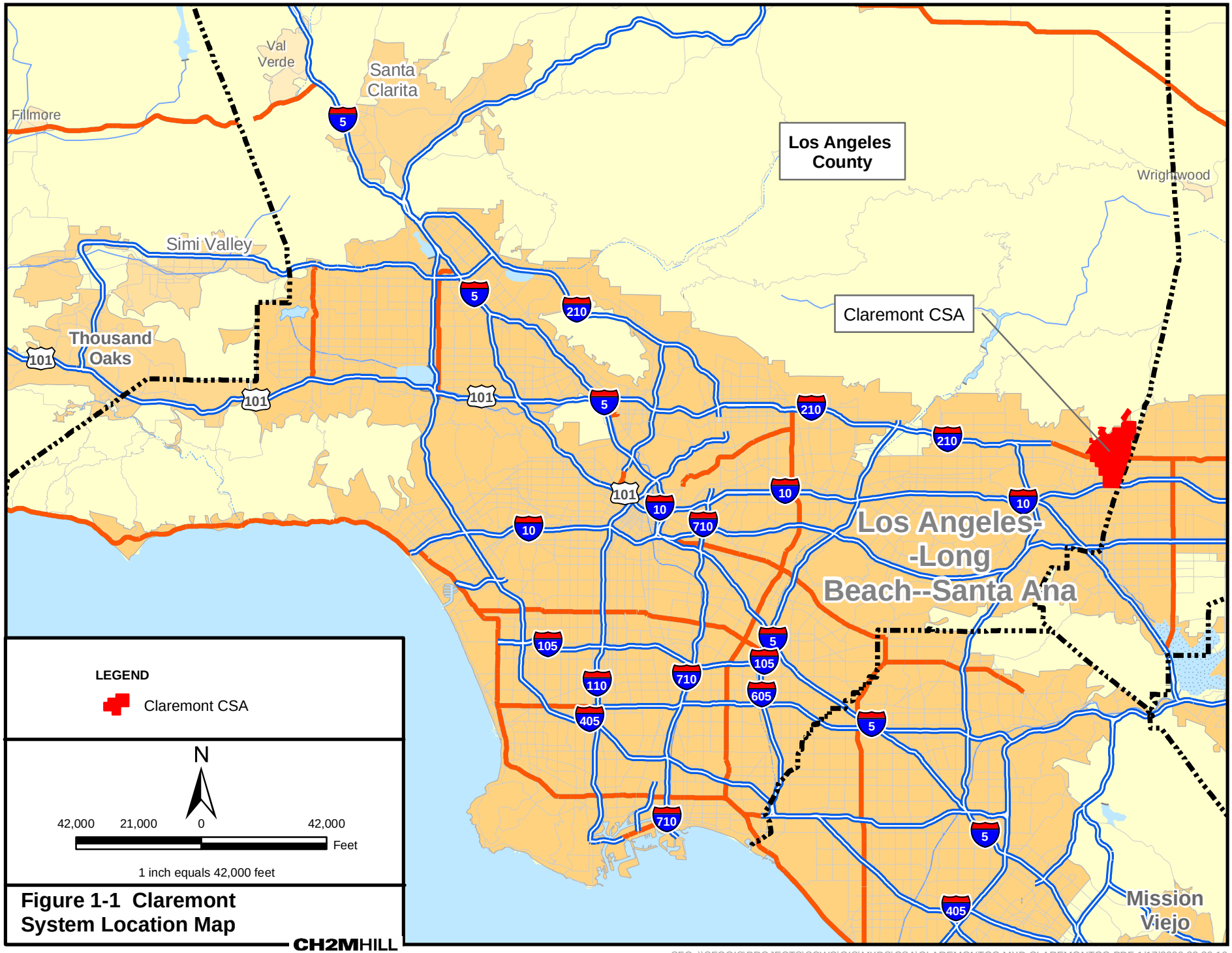


Figure 1-1 Claremont System Location Map

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California Urban Water Conservation Council

GSWC is a signatory to the Memorandum of Understanding Regarding Urban Water Conservation in California (MOU) administered by the California Urban Water Conservation Council (Council). The Council had its beginnings as an independent entity housed under California Urban Water Agencies (CUWA). Currently, the Council is a fully independent nonprofit organization.

The objective of the Council is to implement the MOU. The MOU was signed into existence in 1991 by nearly 100 urban water agencies and environmental groups. Current membership of the Council is over 300 members from various groups such as water suppliers, public advocacy organizations, and other interested groups (Council, 2004).

The MOU is a document by which the signatories obligate themselves to implement the urban water conservation practices identified in the MOU. The goal of the practices in the MOU is to reduce long-term urban water demands and to provide practices that may be implemented during occasional water supply shortages (Council, 2004). The urban water conservation practices identified in the MOU are called the Best Management Practices (BMPs) and range from water audits to toilet replacements. There are 14 practices that also coincide with the 14 demand management measures (DMMs) identified in the Act.

Each agency that is a signatory to the MOU is required to file reports on the implementation of the BMPs identified in the MOU. For the purposes of the UWMP, the reports filed with the Council on the BMPs that are implemented or under implementation can be substituted for the reporting requirements of Section 10631 (f) (1). The UWMP uses the reports filed with the Council in addition to any necessary analysis as described in Section 10631.

Public Utility Commission Policy Changes

Concurrent with the finalization of this document, the CPUC is considering the adoption of policy changes and objectives that would be applicable to GSWC and all other regulated water utilities. The CPUC's draft "Water Action Plan" (WAP) has established the following objectives:

1. Maintain highest standards of water quality;
2. Strengthen water conservation programs to a level comparable to those of energy utilities;
3. Promote water infrastructure investment;
4. Assist low income ratepayers;
5. Streamline CPUC regulatory decision-making; and
6. Set rates that balance investment, conservation, and affordability.

The WAP is a general policy document. Specific implementation policies and programs, along with necessary modifications to CPUC ratemaking policies, will be developed based

on the final WAP and other programs including conservation, long term planning, water quality and drought management programs developed in conjunction with the CPUC.

GSWC has been actively involved with the CPUC in suggesting optimal approaches to the WAP. In particular, the GSWC has suggested specific implementation measures and modifications to certain CPUC ratesetting practices so that regulated utilities are able as a practical matter to achieve the policy objectives of the WAP. The exact implementation details have not yet been determined, but if successful, are expected to have a significant impact on GSWC approaches to the planning and management of resources. These efforts may include further investment in local resource optimization, reduced reliance on imported supplies, enhanced conservation and intensification of company-wide efforts to optimize water resource mix, including planned water supply projects and programs to meet the long term water supply needs of GSWC's customers.

In another example, the Urban Water Management Planning Act requires public water suppliers to have in place predetermined actions to be undertaken during water shortage conditions. GSWC has developed actions to be undertaken in response to water supply shortages, including up to a 50 percent reduction in water supply. However, implementation of the actions is dependent upon CPUC approval, particularly where mandatory water use restrictions may be required. As an element of the WAP and related policy improvements, GSWC has requested the CPUC adopt water shortage allocation policies that will facilitate appropriate drought response activities and associated cost recovery mechanisms.

Finally, as part of the Water Action Plan process and otherwise, GSWC is seeking parity with public water agencies in key areas that will impact its long term supply planning and reliability, namely, 1) access to state bond money on behalf of its customers, and 2) full participation in integrated regional water planning mechanisms to ensure that utility customers have a voice in planning outcomes, and, equal access to available funding to implement agreed planning objectives on behalf of their customers.

This UWMP presents an assessment of GSWC's demand projections and water supply availability and reliability under currently established CPUC regulations and conditions. While GSWC has detailed approaches to providing its customers with a reliable supply of water in accordance with UWMP criteria, adoption and implementation of the WAP and other policy objectives mentioned above will likely result in changes in the resource mix described in this UWMP which will likely further improve water supply reliability.

Agency Coordination

Water Code Section 10620 details the coordination requirements of the Act and provides guidance on how the UWMP can be prepared. The text of this section states:

Section 10620

(a) Every urban water supplier shall prepare and adopt an urban water management plan in the manner set forth in Article 3 (commencing with Section 10640).

(b) Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.

(c) An urban water supplier indirectly providing water shall not include planning elements in its water management plan as provided in Article 2 (commencing with Section 10630) that would be applicable to urban water suppliers or public agencies directly providing water, or to their customers, without the consent of those suppliers or public agencies.

(d)

(1) An urban water supplier may satisfy the requirements of this part by participation in areawide, regional, watershed, or basinwide urban water management planning where those plans will reduce preparation costs and contribute to the achievement of conservation and efficient water use.

(2) Each urban water supplier shall 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.

GSWC initiated agency coordination with a mailing of letters to cities and counties within its service area, as well as to wholesale agencies, wastewater agencies, and agencies with which GSWC has emergency connections. The initial letters notified the agencies of GSWC intent and requested data for the preparation of the UWMPs. All identified agencies received a follow-up telephone call. Notices of public meeting and intent to adopt were submitted with a copy of the draft report to all above-mentioned agencies. Table 1-1 lists the agencies contacted during the preparation of this UWMP.

Table 1-1
Coordination with Agencies

Agency	Participated in UWMP Development	Commented on the Draft	Attended Public Meetings	Contacted for Assistance	Received Copy of the Draft	Sent Notice of Intent to Adopt	Not Involved/ No Information
City of Claremont			✓	✓		✓	
City of La Verne				✓		✓	
City of Montclair				✓		✓	
City of Pomona				✓		✓	
City of Upland				✓		✓	
Three Valleys Municipal Water District				✓	✓	✓	
Monte Vista Water District				✓		✓	
Sanitation Districts of Los Angeles County (LACSD)				✓		✓	
Southern California Association of Governments (SCAG)				✓			

Notes
1. This table is based on DWR's *Guidebook to Assist Water Suppliers in the Preparation of a 2005 Urban Water Management Plan* (DWR Guidebook) Table 1.

Public Participation and Plan Adoption

Public participation and plan adoption requirements are detailed in the following section of the Act:

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

For this update of the UWMP, a public hearing was held on November 15, 2005 at GSWC Corporate Office for the Claremont System. This public session was held for review and comment on the draft plan before approval by GSWC. Legal public notices for the public

hearing were published in the local newspapers in accordance with Government Code Section 6066. Copies of the draft plan were available to the public at GSWC Claremont, San Dimas, and San Gabriel Valley Customer Service Offices, California. Appendix B contains a copy of the hearing notice from a local newspaper and the meeting minutes from the public pertaining to the UWMP. Appendix C contains comments received, if any, and Appendix H contains responses to public comments.

The final UWMP, as adopted by GSWC, will be submitted to the DWR within 30 days of adoption. This plan includes all information necessary to meet the requirements of California Water Code Division 6, Part 2.6 (Urban Water Management Planning). Adopted copies of this plan are available to the public at GSWC's Claremont Office.

UWMP Preparation

GSWC prepared this UWMP with the assistance of its consultant, CH2M HILL, as permitted by the following section of the Act.

Section 10620

(e) The urban water supplier may prepare the plan with its own staff, by contract, or in cooperation with other governmental agencies.

During the preparation of the UWMP, documents that have been prepared over the years by GSWC and other entities were reviewed and results of those documents incorporated, as applicable, into this UWMP. The list of the documents is provided in Chapter 11.

The adopted plans are available for public review at GSWC's Claremont Customer Service Office, California. Copies of the plan were submitted to DWR, cities and counties within the service area, the State Library, and other applicable institutions within 30 days of adoption as required by Section 10644 and 10645.

UWMP Implementation

GSWC is committed to the implementation of this UWMP as required by Section 10643 of the Act. Each region of GSWC has a conservation coordinator that oversees the implementation of DMM via GSWC participation in the Council's MOU.

Content of the UWMP

This UWMP addresses all subjects required by Section 10631 of the Act as defined by Section 10630, which permits "levels of water management planning commensurate with the numbers of customers served and the volume of water supplied." All applicable sections of the Act are discussed in this UWMP, with chapters of the UWMP cross-referenced against the corresponding provision of the Act in Table 1-2.

Table 1-2
Summary of UWMP Chapters and Corresponding Provisions of the California Water Code

Chapter	Corresponding Provisions of the Water Code	
Chapter 1. Introduction and Overview	10642	Public participation
	10643	Plan implementation
	10644	Plan filing
	10645	Public review availability
	10620 (a)–(e)	Coordination with other agencies; document preparation
	10621 (a)–(c)	City and county notification; due date; review
	10620 (f)	Resource optimization
	10630	Level of planning
	10641	Coordination
Chapter 2. Service Area	10631 (a)	Demographics and climate
Chapter 3. Water Supply	10631 (b)–(d), (h), (k)	Water sources, reliability of supply, transfers and exchanges, supply projects, data sharing
Chapter 4. Water Use	10631 (e), (k)	Water use, data sharing
Chapter 5. Demand Management Measures	10631 (f)–(g), (j)	DMM
	10631.5	DMM implementation status
Chapter 6. Desalination	10631 (i)	Desalination
Chapter 7. Water Shortage Contingency Plan	10632	Water shortage contingency plan
Chapter 8. Recycled Water Plan	10633	Recycled water
Chapter 9. Water Quality	10634	Water quality impacts on reliability
Chapter 10. Water Service Reliability	10635	Water service reliability

Resource Optimization

Section 10620 (f) asks urban water suppliers to evaluate water management tools and options to maximize water resources and minimize the need for imported water from other regions.

GSWC is committed to optimizing its available water resources and implements water conservation programs for each of its districts or customer service areas (CSAs). In an effort to expand the breadth of offered programs, GSWC partners with wholesale suppliers, energy utilities, and other agencies that support water conservation programs. While GSWC is fully committed to optimizing its available water resources and implementation of BMPs and DMMs, GSWC is currently limited in its ability to do so by certain ratesetting practices. As noted in the introduction, GSWC is working with the CPUC in the shaping of

the Water Action Plan so that it assists regulated water utilities in implementing measures that optimize water resource programs.

Chapter 2. Service Area

Service area requirements are detailed in the following section of the Act:

Section 10631

(a) Describe the service area of the supplier, including current and projected population, climate, and other demographic factors affecting the supplier's water management planning. The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available.

Chapter Two summarizes the Claremont System and presents an analysis of available demographics, population growth projections, and climate data to provide the basis for estimating future water requirements.

Area

The Claremont System is located in Los Angeles County and serves the City of Claremont, part of the City of Pomona, and adjacent unincorporated county land. The system lies at the southern foot of the San Gabriel Mountains. The Claremont System is bordered by the San Bernardino County line to the east, by the City of La Verne to the west, and by the City of Pomona to the south. Figure 2-1 illustrates the customer service area of Claremont System. The service area is primarily characterized by residential land use, with some commercial and industrial land use.

Demographics

The City of Claremont was chosen as demographically representative of the Claremont System. According to 2000 U.S. census data, the median age of Claremont's residents is 36.8 years. Claremont has an average household size of 2.54 and a median household income of approximately $65,910.

As detailed in the City of Claremont's Land Use Background Report (General Plan 2004), residential development represents the predominant land use in Claremont, with housing covering 35 percent of the city's land area. Natural hillsides, parks and open spaces occupy the second largest land area (31 percent) and the remaining 34 percent of land area includes industrial, commercial, vacant, public facilities and others. Out of 34 percent remaining land area, 11 percent is vacant land and the majority of vacant land is located in the western hillsides. In the future, the City of Claremont has indicated that redevelopment projects including affordable multi-family housing units may potentially be implemented within the Claremont existing service area.

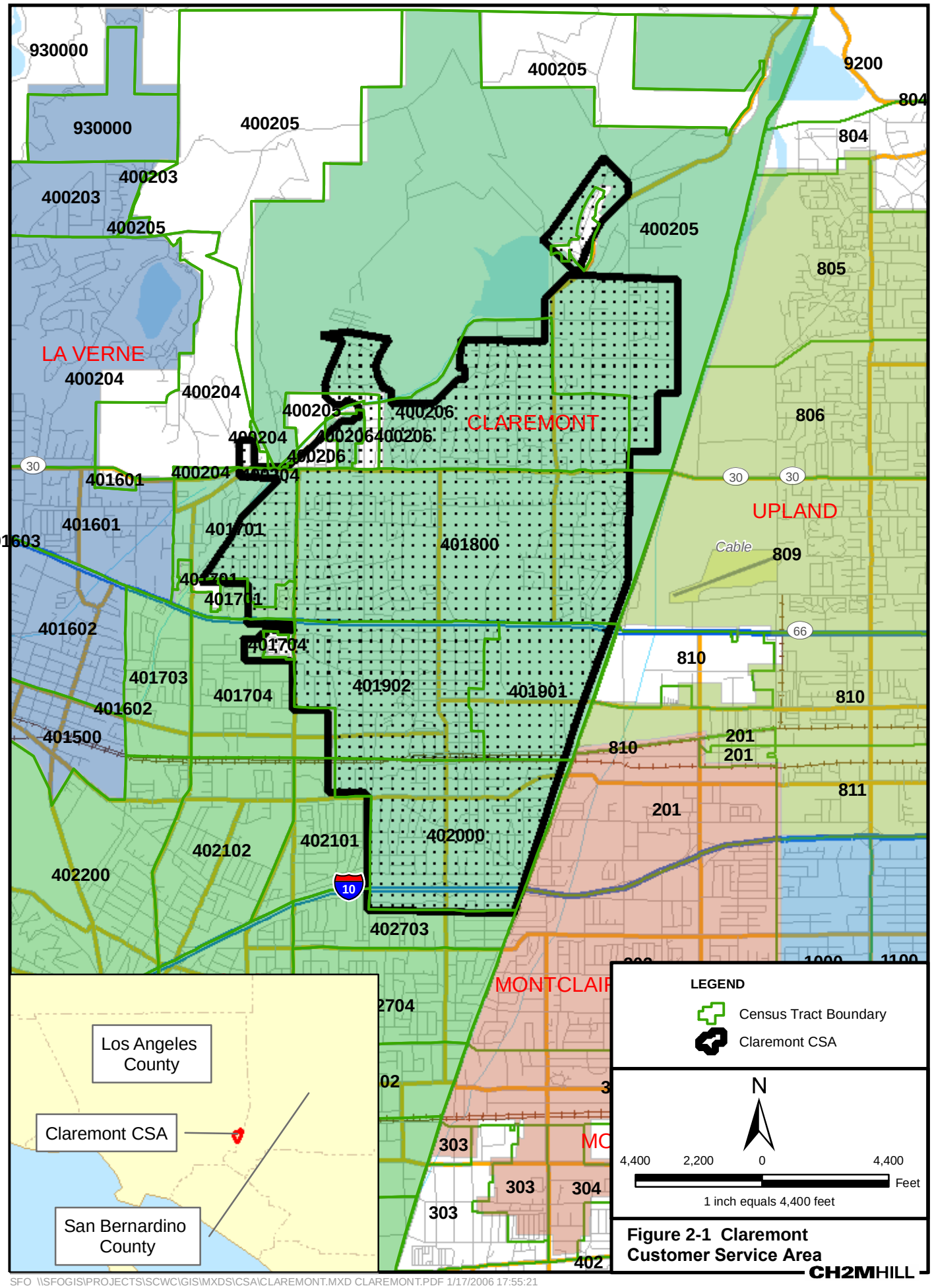

Figure 2-1 Claremont Customer Service Area

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Population, Housing and Employment

Population, housing, and employment projections were developed for the Claremont System using the Southern California Association of Governments (SCAG) population, housing and employment data. SCAG recently updated its projections for population, household, and employment growth through the year 2030 using 2000 U.S. Census data. SCAG's methodology is described below, followed by the derivation of population projections for the Claremont System. The current population projections differ from previous projections developed in 2000 primarily by the use of the 2000 U.S. Census data. Previous projections utilized 1990 U.S. Census data.

SCAG Population Projection Development Methodology

The 2000 population, housing, and employment data is derived from the 2000 U.S. Census, which forms a baseline for local data projections. SCAG applies a statistical cohort-component model and the headship rate to the 2000 U.S. Census data for regional, county, and household demographic projections. The cohort model projects population by adding increases in population (births and relocation into the region) and subtracting decreases in population (deaths and relocation out of the region). The cohort model uses a group quartered population, meaning it is broken down by sex, age, and ethnicity. Headship rate is the proportion of a population cohort that forms the household as specified by age and ethnicity. SCAG uses headship rate to project regional and county households by multiplying the projected civilian resident population by projected headship rates.

The forecasts and projections are grouped into many geographical categories, including regional, county, city, unincorporated areas, census tract, and transportation analysis zones. To evaluate the Claremont System, SCAG data was used in census tract form, the smallest geographic division of data that SCAG provides. SCAG projects subcounty and census tract demographic trends using the housing unit method. This is the most widely used method for estimating and projecting local-area households and population for planning purposes. It projects the number of occupied housing units (households) and persons per household. Households are extrapolated from past trends in occupied housing units. Population per household is estimated by multiplying the number of occupied households by the projected average household size.

SCAG regional employment projections utilize a top-down approach, starting with a U.S. forecast followed by a California then a (SCAG) regional forecast. Employment projections are based on population and household projections, labor force participation rates, long-range unemployment rates, the ratio of total jobs to employed residents, and historical employment growth trends.

SCAG's demographic forecasting section works closely with California Department of Finance (DOF), and the Plans and Programs Technical Advisory Committee, which consists of members from subregions, local jurisdictions, the public and other major stakeholders to produce, review, and refine the socioeconomic projections for population, housing, and employment. The SCAG's socioeconomic projections were compared with regional independent projections and adjustments are made accordingly before public release.

The detailed explanation of the population projection process employed by SCAG is provided in Final 2004 RTP Technical Appendix, Appendix A: Growth Forecast, 2004.

Claremont System Population Projections

SCAG-derived census-tract projections were used to determine population from 2000 to 2030. The Claremont System service area boundaries often contain multiple census tracts, many of which have boundaries that do not coincide exactly with service area boundaries. The population projection analysis consisted of superimposing service area boundaries over census tract boundaries, identifying the applicable overlapping census tracts, and developing a percentage estimate for each overlapping area. For a census tract 100 percent within the service area boundaries, it was assumed that 100 percent of the associated census tract population data was applicable to the Claremont System. For areas where the overlap was not exact, the area of overlap as a percentage was applied to the data to develop an estimate of applicable population. Appendix J, Table J-1 lists the census tracts with a corresponding estimate of what percent of each tract lies within the Claremont System. It was typically assumed that the various types of housing and employment distributed within a census tract are distributed uniformly within all parts of that census tract, unless maps indicated non-uniform concentrations. In these cases, population estimates were either increased or decreased as applicable to match the existing land use. Appendix J, Table J-2 contains all of the SCAG's historic and projected demographic data for each census tract number from 2000 through 2030. Figure 2-1 details the census tracts within the Claremont System.

As concluded from analysis of SCAG demographic data, the Claremont System has an estimated population of 36,493 people in 2005. This population is expected to reach 40,532 by 2030. A summary of historic and projected population, households, and employment within the Claremont System (based on SCAG data) is presented in Table 2-1 and illustrated in Figure 2-2**.**

In summary, from 2000 to 2005 the Claremont population increased 7 percent, which is a growth rate[1] of approximately 1.4 percent per year. By 2030, population is expected to increase by a total of 11 percent, from 36,493 in 2005 to 40,532 in 2030, which is a 0.45 percent growth rate per year. The number of households is expected to grow 15 percent during the same period, which equates to an annual household growth rate of 0.55 percent. Employment is expected to grow 38 percent during the same period, which equates to an annual employment growth rate of 1.3 percent. Areas with the highest projected growth increases are also the areas that will see the largest increase in water use. SCAG's demographic analysis does not project any planned residential developments for future years, though the City of Claremont's Land Use Background Report indicates some future residential units. The Claremont System has area available for future growth.

[1] Growth rate: The number of persons added to (or subtracted from) a population in a year due to natural increase or net migration; expressed as percentage of population at the beginning of the time period. (Source: http://www.prb.org)

Table 2-1
Claremont System Historical and Projected Population

Year	Service Area Population	Service Area Household	Service Area Employment
2000[2]	34,106	11,201	17,853
2005	36,493	11,616	18,130
2010	37,606	12,046	20,929
2015	38,359	12,365	22,033
2020	39,102	12,689	23,093
2025	39,833	13,013	24,077
2030	40,532	13,339	24,999

Notes
1. This table is based on the DWR Guidebook Table 2.
2. Based on fiscal year.
3. Dashed line represents division between historic and projected data

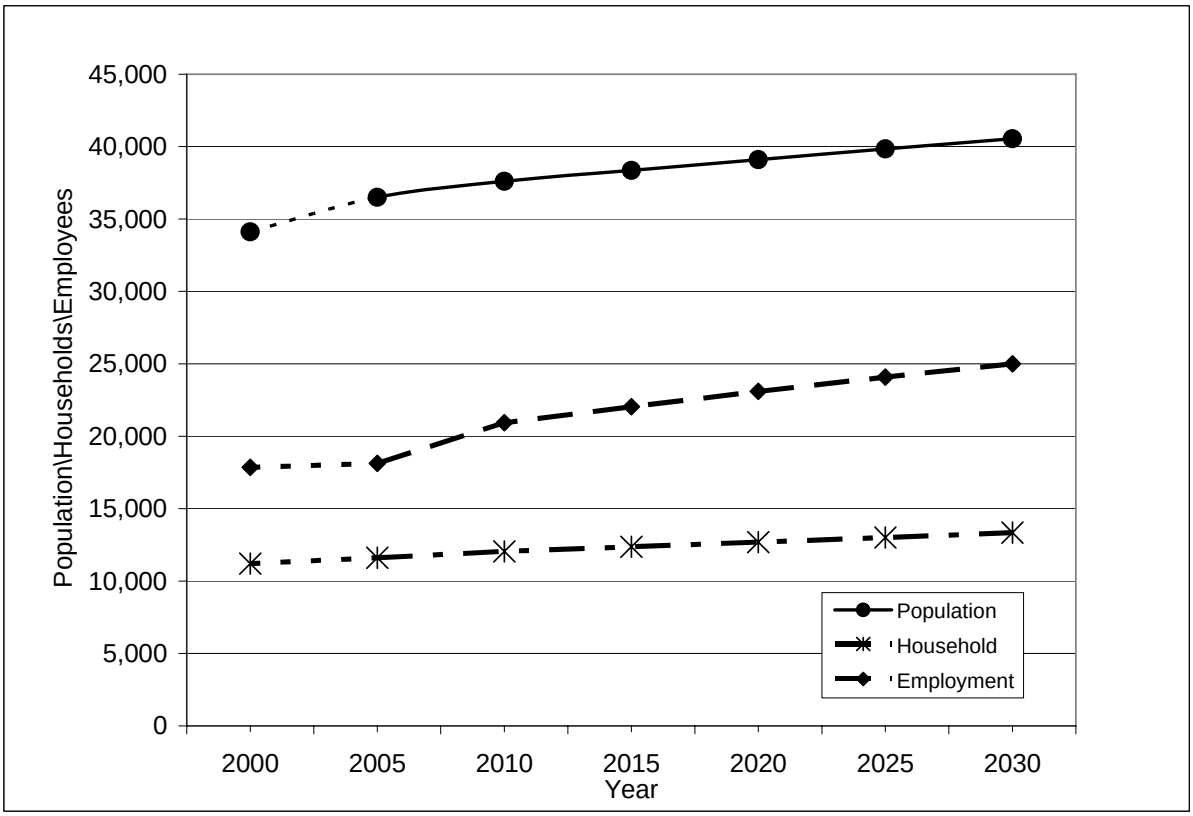

Figure 2-2 Historical and Projected Population, Household and Employment Growth within the Claremont System.

Climate

Claremont System has cool, humid winters and warm, dry summers. The Western Regional Climate Center web site (www.wrcc.dri.edu) has maintained 30 years of historic climate records for the Claremont station. Table 2-2 presents the monthly climate summary based on 30 year historical data for Claremont System. In winter, the lowest average monthly temperature is approximately 41 degrees Fahrenheit while the highest average monthly temperature reaches approximately 89 degrees Fahrenheit in the summer. Figure 2-3 presents the monthly average precipitation based on 30 year historical data. The rainy season is from November to March. Monthly precipitation during the winter months ranges from 2 to 5 inches. Low humidity occurs in the summer months from May to October. The moderately hot and dry weather during the summer months typically results in moderately high water demand.

Unlike the Western Regional Climate Center in the Claremont area, the California Irrigation Management Information System (CIMIS) web site (http://www.cimis.water.ca.gov) tracks and maintains records of evapotranspiration (ETo). ETo statistics used for this system come from Chino station, which is the closest station (8 miles) to the Claremont System that maintains ETo records. ETo is a standard measurement of environmental parameters that affect the water use of plants. ETo is given in inches per day, month, or year and is an estimate of the evapotranspiration of a large field of well-watered, cool-season grass that is four- to seven-inches tall. The monthly average ETo is presented in inches in Table 2-2. As the table indicates, a greater quantity of water evaporated during July and August in correlation to high temperatures and low humidity, which may result in high water demand.

Table 2-2
Monthly Average Climate Data Summary for Claremont System

Month	Standard Monthly Average ETo[(2)] (inches)	Average Total Rainfall (inches)	Average Temperature (degrees Fahrenheit) Max	Min
January	2.1	4.37	62.8	41.5
February	2.9	4.88	65.3	42.5
March	3.9	3.24	66.6	43.9
April	4.5	0.92	69.8	45.7
May	5.7	0.52	74.1	50.3
June	6.5	0.06	82.6	55.0
July	7.3	0.01	88.5	59.7
August	7.1	0.41	87.5	60.2
September	5.9	0.33	83.8	57.7

Table 2-2
Monthly Average Climate Data Summary for Claremont System

Month	Standard Monthly Average ETo[(2)] (inches)	Average Total Rainfall (inches)	Average Temperature (degrees Fahrenheit) Max	Min
October	4.1	0.44	77.7	52.3
November	2.6	1.08	67.3	43.8
December	1.9	2.41	63.9	41.2

Notes
1. This table is based on the DWR Guidebook Table 3.
2. Evapotranspiration Overview (ETo) from http://www.cimis.water.ca.gov/cimis/welcom.jsp

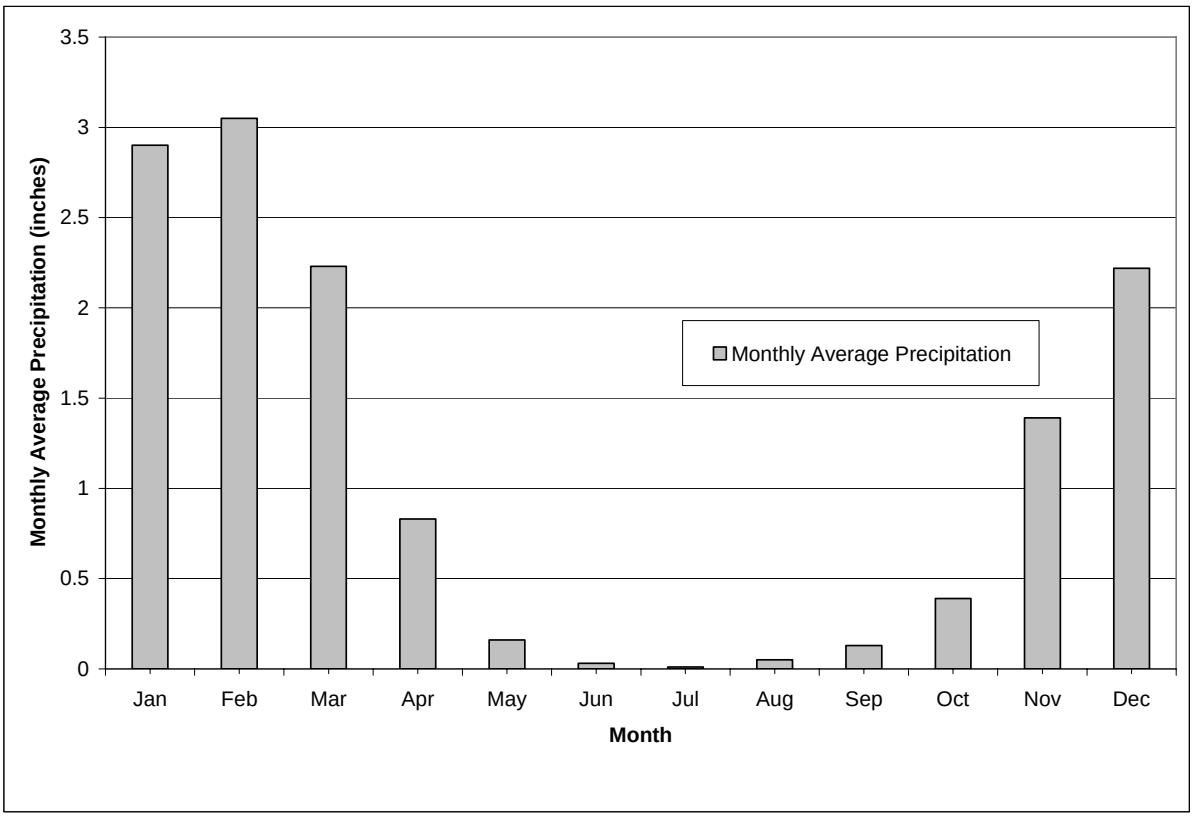

Figure 2-3 Monthly Average Precipitation in the Claremont System based on 30 Years Historical Data

Chapter 3. Water Supply

A detailed evaluation of water supplies is requested by the Act. Sections 10631 (a) through (d) and (h) require the following:

(b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a). If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information shall be included in the plan:

(1) A copy of any groundwater management plan adopted by the urban water supplier, including plans adopted pursuant to Part 2.75 (commencing with Section 10750), or any other specific authorization for groundwater management.

(2) A description of any groundwater basin or basins from which the urban water supplier pumps groundwater. For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree.

For basins that have not been adjudicated, information as to whether the department 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.

(3) A detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the urban water supplier. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(c) Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following:

(1) An average water year.

(2) A single dry water year.

(3) Multiple dry water years.

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.

(d) Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.

(h) Include a description of all water supply projects and water supply programs that may be undertaken by the urban water supplier to meet the total projected water use as established

pursuant to subdivision (a) of Section 10635. The urban water supplier shall include a detailed description of expected future projects and programs, other than the demand management programs identified pursuant to paragraph (1) of subdivision (f), that the urban water supplier may implement to increase the amount of the water supply available to the urban water supplier in average, single dry, and multiple dry water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.

This chapter addresses the water supply sources of the Claremont System. The following sections detail the requirements of this portion of the Act.

Water Sources

The Golden State Water Company (GSWC) obtains its water supply for the Claremont System from local groundwater from the Six Basins and the Chino Basin and imported water from the Three Valleys Municipal Water District (TVMWD). TVMWD obtains its imported water supply from the Metropolitan Water District of Southern California (Metropolitan).

Currently, groundwater is pumped from a total of nineteen active groundwater wells located in the Six Basins and one well in the Chino Basin. These wells have a current total active capacity of 15,361 acre-feet per year (ac-ft/yr) and between 2000 and 2004, the actual production averaged 7,040 ac-ft/yr.

The Claremont System has been allocated 4,578 ac-ft/yr of Tier 1 water for 2006. This is the first year that TVMWD has allocated water through this System. Currently, the tiered approach only affects the price of water, not its availability.

Water purchased from the TVMWD (with four connections) is delivered to the Claremont System through the following connections:

- Indian Hill interconnection with a capacity of 4,500 gallons per minute (gpm)
- Mills interconnection with a capacity of 3,500 gpm
- Miramar interconnection with a capacity of 1,200 gpm
- Mountain interconnection with a capacity of 3,500 gpm.

These connections have a combined active design capacity of 12,700 gpm. TVMWD normally supplies water to the Claremont System from the Miramar Treatment Plant. This treatment plant obtains water from the State Water Project (SWP) via the Rialto Feeder. The Miramar Water Treatment Plant has a capacity of 38 mgd.

In addition, GSWC has the following two emergency connections:

- Connection with the Monte Vista Water District with a design capacity of 900 gpm
- Connection with the City of La Verne with a design capacity of 1,000 gpm

Thirteen reservoirs with a volume of 6.94 million gallons serve as storage in the Claremont System. The system also has the first right to draw water from an 8 million gallons reservoir owned by TVMWD.

Table 3-1 summarizes the current and planned water supplies available to GSWC for the Claremont System that will meet their projected water demands. This water supply summary is based on an analysis of groundwater supply and data provided by TVMWD. Groundwater (including groundwater pumped under lease with Pomona College and through ownership in West End Consolidated Water Company) makes up about 50 percent of the available water supply, whereas the remainder is provided by purchased water from TVMWD. There are no plans to use recycled water for the Claremont System (see Chapter 8).

Table 3-1
Current and Planned Water Supplies for the Claremont System in ac-ft/yr

	Year					
Source	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**
Purchased water from TVMWD	7,041	6,971	7,501	8,024	8,529	9,020
Groundwater: Six Basins	6,494	7,596	7,596	7,596	7,596	7,596
Groundwater: Chino Basin	411	411	411	411	411	411
Total Groundwater	6,905	8,007	8,007	8,007	8,007	8,007
Recycled water	0	0	0	0	0	0
Total	13,946	14,978	15,508	16,031	16,536	17,027

Notes
1. Table format based on DWR Guidance Document Table 4

GSWC's water supply is projected to increase by about 22 percent from 2005 to 2030 to meet the associated projected water demands, with about 50 percent of this demand being met by purchased water from TVMWD. Water demand projections are documented in Chapter 4. Details of the groundwater supply are presented in the following section followed by a discussion of the reliability of all sources of water supply.

Groundwater

A brief description of the Six Basins and Chino Basin, including the groundwater supplies available to GSWC follows below. More detailed information can be found in the references cited in these sections.

The Claremont System pumps groundwater from the Six Basins Area. This area includes the region of the cities of Claremont, La Verne, Pomona, and Upland and surrounding unincorporated areas of Los Angeles and San Bernardino counties overlying six interconnected groundwater basins (Six Basins Watermaster, 2004). These basins are the Live Oak, Canyon, Ganesha, the Lower Claremont Heights, Upper Claremont Heights and Pomona Basins.

Six Basins

Lower Claremont Heights

The Lower Claremont Heights Basin has a surface area of approximately 1,400 acres (just over 2 square miles). It is bounded by the Sierra Madre-Cucamonga Fault on the north, Claremont Heights Barrier on the east, Thompson Wash on the west, and the Indian Hill Fault on the south (CDM, 1996).

The water-bearing units are alluvium with an average thickness of approximately 200 feet (CDM, 1996). The alluvium mainly consists of unsorted, angular to sub-rounded sedimentary cobbles, gravel, sands and silts (DWR, 2003). The hydraulic conductivities range from 0.01 feet per day (ft/d) to 100 ft/d (CDM, 1996).

Groundwater flow in the Lower Claremont Heights Basin is generally to the south and southwest. Average hydraulic gradients for the lower basins, including the Lower Claremont Heights, Pomona, and Live Oak Basins has been calculated to be 0.03 (CDM, 1996).

The useable storage capacity for the Lower Claremont Heights Basin was calculated to be 25,000 acre-feet (CDM, 1996). This value is based on an estimated average thickness of the aquifer of 200 feet and an assumed specific yield of 0.9.

Recharge for the Lower Claremont Heights Basin occurs from deep percolation (precipitation, applied water, wastewater from non-sewered areas) and subsurface inflow. Discharge for the Lower Claremont Heights Basin occurs through groundwater extractions and subsurface outflows.

Upper Claremont Heights

The Upper Claremont Heights Basin has a surface area of approximately 3,000 acres (about 5 square miles). It is bound by the Sierra Madre-Cucamonga Fault on the north, Claremont Heights Barrier on the west, San Jose Fault on the south and southeast, and the Indian Hill Fault on the south (CDM, 1996).

The water-bearing units are alluvium with an average thickness of approximately 350 feet (CDM, 1996). The alluvium mainly consists of unsorted, angular to sub-rounded sedimentary cobbles, gravel, sands and silts (DWR, 2003). The hydraulic conductivities range from 1 foot per day (ft/d) to 2,500 ft/d (CDM, 1996, Fetter, 1994).

Groundwater flow in the Upper Claremont Heights Basin is generally to the south and southwest. Average hydraulic gradients for the upper basins, including the Upper Claremont Heights and Canyon Basins, have been calculated to be 0.06. The relatively steep hydraulic gradient is due to the region receiving significant volumes of water from spreading basins and underflow from San Antonio Canyon (CDM, 1996).

The total useable storage capacity for the Upper Claremont Heights Basin was calculated to be 105,000 ac-ft. This value is based on an estimated average aquifer thickness of 350 feet and specific yield of 0.1(CDM, 1996).

Recharge for the Upper Claremont Heights Basin occurs from deep percolation (precipitation, applied water, wastewater from non-sewered areas), subsurface inflow, and

artificial recharge through spreading basins. Discharge for the Upper Claremont Heights Basin occurs through groundwater extractions and subsurface outflows.

Pomona

The Pomona Basin has a surface area of approximately 5,800 acres (just over 9 square miles). The Pomona Basin is bound by the San Jose Hills on the west, the San Jose Fault on the west and south, and the Indian Hill Fault on the north (CDM, 1996).

The water-bearing units are alluvium and the San Pedro Formation. The alluvium mainly consists of unsorted, angular to sub-rounded sedimentary sand and silt (DWR, 2003). The San Pedro formation consists of interbedded marine sand, gravel, and silt (DWR, 2003). The hydraulic conductivities range from 0.01 feet per day (ft/d) to 100 ft/d.

As groundwater flows towards the central and western portions of the Six Basins, the hydraulic gradient lessens from approximately 0.6 to 0.3. Groundwater in the western basins (Pomona, Live Oak, and Lower Claremont Heights Basins) generally flows to the south and southwest (CDM, 1996). Groundwater levels have been highly variable, with rapid rises and falls of 150 feet or more, which likely related to inflows at the Indian Hill Fault Zone from the Upper Claremont Heights Basin after periods of significant recharge in the spreading basins (CDM, 1996).

The total useable storage capacity for the Pomona Basin was calculated to be 190,000 acre-feet. This value is based on an estimated average thickness of the aquifer of 400 feet and an assumed specific yield of 0.081(CDM, 1996).

Recharge for the Pomona Basin occurs from deep percolation (precipitation, applied water, wastewater from non-sewered areas), subsurface inflow, and artificial recharge at spreading basins. Discharge for the Pomona Basin occurs through groundwater extractions and subsurface outflows.

Six Basins Adjudication

In 1998, the Pomona and Lower and Upper Claremont Basins, as a part of the Six Basins, were adjudicated in the Judgment entered in the case *Golden State Water Company vs. City of La Verne, et al* (Superior Court, County of Los Angeles, Case No. KC029152, Appendix H). The Six Basins Judgment set the pumping rights for all parties in the Six Basins. It also set provisions for spreading, storage, high groundwater, and water quality in the Six Basins. The Six Basins Judgment established a Watermaster Board (Six Basins Watermaster) to oversee the administration of the Six Basins (Six Basins Watermaster, 2004). During the adjudication process, the safe yield of the Six Basins was estimated based on long term records of groundwater pumping within the Six Basins and changes in basin storage. In the Six Basins, safe yield is defined as the long term average amount of groundwater which can be extracted on an annual basis without causing long-term overdraft conditions, such as steady lowering of groundwater levels and significant, sustained loss from storage (CDM, 1996). The safe yield was estimated from data from water years 1976 (October 1, 1975 – September 30, 1976) through 1993 (October 1, 1992 – September 30, 1993).

The safe yield for the Six Basins through the study period was calculated to be 19,300 ac-ft/yr. Annual groundwater pumping amounts averaging 19,300 ac-ft/yr should not cause overdraft conditions (CDM, 1996).

Annually, the Six Basins Watermaster performs hydrologic balance calculations to assess the groundwater conditions in the Six Basins. The hydrologic assessments are based on evaluation of groundwater levels in each of the individual basins, determination of the previous year's recharge and extraction activities, estimates of the current year's recharges and extractions, long-term consequences of water quality, historic and current rainfall data, and the availability of imported water to the Six Basins area. Each year, the Six Basins Watermaster calculates an Operating Safe Yield (OSY) based on the hydrologic conditions listed above. The OSY sets the operational baseline that groundwater pumpers freely can pump without any replacement water obligation.

Water purveyors in the Six Basins are annually allotted a fixed percentage of the total OSY that they are able to produce. Because the OSY fluctuates yearly, the actual amount water GSWC has rights to can fluctuate annually. Between 1998 and 2004, the OSY has ranged from a low of 17,000 ac-ft (2004 calendar year [January 1, 2004 – December 31, 2004]) to a high of 24,000 ac-ft (1999 calendar year [January 1, 1999 – December 31, 1999]).

GSWC's Claremont System has pumping rights (including rights under long-term leases) to 39.36 percent of the OSY of the Six Basins. Since the adjudication of the Six Basins, the Claremont System's pumping rights have historically varied between 6,160 - 8,697 ac-ft, as shown in Table 3-2. The historical OSY for the Six Basins is shown in Table 3-3 for the calendar years (January 1 – December 31) 2000 to 2004. The pumping rights for the Claremont System are shown in Table 3-4 for the calendar years 2000 to 2004.

Chino Basin

The Chino Basin has a surface area of approximately 154,000 acres (240 square miles). The Chino Subbasin (Chino Basin) of the Upper Santa Ana Valley Basin is bounded by the Rialto-Colton fault on the east, by the Jurupa Mountains and low divides connecting the exposures of impermeable rocks to the southeast, by the Puente Hill and Chino fault on the south, and by the San Gabriel Mountains and the Cucamonga fault on the north (DWR, 2003). The water-bearing unit is alluvium which consists mainly of alluvial-fan and fluvial deposits.

Recharge for the Chino Basin occurs from precipitation, surface flow, and by underflow from adjacent basins.

The total storage capacity of the Chino Basin is 18,300,000 ac-ft (DWR, 2003).

Groundwater levels declined approximately 80 feet from the 1920s to the 1980s but recovered by about 20 feet by 2000 (DWR, 2003).

In 1978, the Chino Basin was adjudicated in the Judgment entered in the case *Chino Basin Municipal Water District vs. City of Chino* (Superior and Municipal Court, County of San Bernardino, Case No. RCV 51010, Appendix J). In the Chino Basin Judgment, the OSY for the Chino Basin was set at 54,834 ac-ft as shown in Table 3-3. The Claremont System has rights to 0.75 percent of the OSY of the Chino Basin. The Claremont System's current share of the OSY is 411 ac-ft/yr, as shown in Table 3-4, and has not changed since the Basin was adjudicated in 1978. The Watermaster's Optimum Basin Management Program (WE, 1999) presents the Chino Basin Watermaster's goals and methods to preserve water resources and water quality within the Basin. The Chino Basin Watermaster is currently involved in

programs, including the Chino I Desalter, to increase groundwater storage through replenishment and in-lieu programs. Operation of basin-wide current and planned water supply projects will help ensure that the OSY for the water purveyors in the Chino Basin remains at or above current levels.

Table 3-2
Groundwater Pumping Rights

Basin Name	Pumping Rights (ac-ft/yr)
Six Basins	6,160 – 8,697
Chino Basin	411

Notes
1. Table format based on DWR Guidance Document Table 5

Table 3-3
Total Basin Operating Safe Yield in ac-ft

	Year				
Basin Name	**2000**	**2001**	**2002**	**2003**	**2004**
Six Basins	22,000	22,000	19,500	18,000	17,000
Chino Basin	54,834	54,834	54,834	54,834	54,834

Notes
1. Data for the Six Basins were obtained from the Six Basins Watermaster Preliminary Determination of Operating Safe Yield for Calendar Year 2005
2. Data for the Chino Basin were obtained from Chino Basin Watermaster Annual Reports
3. Values are reported in calendar years (January 1 – December 31)

Table 3-4
System's Share of Operating Safe Yield in ac-ft

	Year				
Basin Name	**2000**	**2001**	**2002**	**2003**	**2004**
Six Basins	7,972	7,972	7,066	6,523	6,160
Chino Basin	411	411	411	411	411

Notes
1. Values are reported in calendar years (January 1 – December 31)
2. OSY values reflect the pumping rights allocated to GSWC's Claremont System

Table 3-5 shows GSWC's wells and normal year well capacities for the Claremont System. The total normal year well capacity for GSWC's Claremont System is 10,640 gpm (15,361 ac-ft/yr). All the wells are located in the Six Basins except for Margarita Well No. 1 which is located in the Chino Basin.

Table 3-5
Wells and Well Capacity in the Claremont System in ac-ft/yr

Well Name	Normal Year Well Capacity (gpm)	Normal Year Well Capacity (ac-ft/yr)	Status
Alamose No. 2	350	505	Active
Berkeley No. 2	700	1,011	Active
Boulder No. 1	150	217	Standby
Campbell No. 1	0	0	Inactive
College No. 1	850	1,227	Active
College No. 2	1,500	2,166	Active
Del Monte No. 1	300	433	Active
Del Monte No. 2	375	541	Active
Del Monte No. 3	450	650	Active
Del Monte No. 4	700	1,011	Active
Dreher No. 1	0	0	Inactive
Fairoaks No. 1	650	938	Active
Harrison No. 2	200	289	Active
Indian Hill No. 3	850	1,227	Active
Margarita No. 1	550	794	Active
Marlboro No. 2	350	505	Active
Mills No. 1	490	707	Active
Miramar 3 No. 3	600	866	Active
Miramar 5 No. 5	250	361	Active
Mountain View No. 1	500	722	Active
Pomello No. 1	275	397	Active
Pomello No. 4	200	289	Active
Pomeroy No. 1	350	505	Active
Total Capacity	10,640	15,361	
Active Capacity	10,640	15,361	

Notes
1. gpm = gallons per minute
2. Active well status indicates the well is available for the current water supply
3. Standby/Inactive well status indicates the well is not part of the current water supply

Table 3-6 shows the pumping history for the Claremont System for the calendar years 2000 to 2004. The Claremont System pumps approximately 50 percent of its water supply from the Chino and Six Basins. The remaining water supply is obtained from imported water.

Table 3-6
Groundwater Pumping History by Claremont System (2000 to 2004) in ac-ft

	Year				
Basin Name	**2000**	**2001**	**2002**	**2003**	**2004**
Six Basins	7,764	7,112	6,247	6,370	6,535
Chino Basin	390	224	249	251	200
% of Total Water Supply	59	55	47	50	50

Notes
1. Table format based on DWR Guidance Document Table 6
2. Years are reported in calendar years (January 1 – December 31)

Table 3-7 shows the projected amounts of groundwater to be pumped from the Six Basins and the Chino Basins for the Claremont System. The pumping amounts are derived from the basins safe yield of 19,300 ac-ft/yr as provided by the Six Basins Watermaster during the adjudication process. Although variations in the Basin's OSY could occur, these values reflect projections based on the long term availability of water within the basin.

Table 3-7
Projected Groundwater Pumping Amounts by Claremont System to 2030 in ac-ft

	Year					
Basin Name	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**
Six Basins	6494	7596	7596	7596	7596	7596
Chino Basin	411	411	411	411	411	411
% of Total Water Supply	50	53	52	50	48	47

Notes
1. Table format based on DWR Guidance Document Table 7
2. Years are reported in calendar years (January 1 – December 31)
3. Projections are based on Six Basins annual safe yield of 19,300 ac-ft/yr. (OSY for 2005 is 16,500 ac-ft)
4. Total water supply is calculated from upper-bound demand projections

Reliability of Supply

The Claremont System gets its water supply from three sources, purchased water from TVMWD and groundwater from the Chino and Six Basins. Historically, purchased water and groundwater (including groundwater pumped under lease with Pomona College and through ownership in West End Consolidated Water Company) have been used in roughly equal amounts. Therefore, conditions in local and distant areas can impact the reliability of supplies. In general, GSWC's supply is expected to be 100 percent reliable through 2030. This reliability is a result of: 1) the projected reliability of TVMWD as a member of Metropolitan, which intends to provide 100 percent reliable supplies, and 2) GSWC's share

of the OSY in the Six Basins and the Chino Groundwater Basin. The following is a summary of the basis of this reliability.

Reliability of Purchased Water from TVMWD

TVMWD, the local imported water wholesaler, is largely a pass through entity which obtains nearly all its imported water from Metropolitan, directly or indirectly. Metropolitan's resource management plans are intended to optimize the use of its available resources during surpluses and shortages to minimize the probability of severe shortages and eliminate the possibility of extreme shortages and shortage allocations.

With the experience of the droughts of 1977-78 and 1989-92, Metropolitan undertook a number of planning initiatives to ensure supply reliability. Those initiatives included the Integrated Resources Plan (IRP), the Water Surplus and Drought Management Plan (WSDM Plan) and local resource investments. Together, these initiatives provided the policy framework for Metropolitan and its member agencies to manage their water resources to meet the needs of a growing population even under recurrences of the worst historical hydrologic conditions, locally and in the key distant watersheds that supply southern California. Metropolitan has stated that it expects to be 100 percent reliable in meeting all non-discounted, non-interruptible demands, as summarized below (see Metropolitan's UWMP for details). TVMWD has also proposed certain water supply development projects, as discussed below.

Metropolitan Integrated Resource Plan (IRP)

The objective of the 2003 IRP Update was to project the most likely combination of water resources to provide 100 percent reliability for full service demands over the next twenty years (from 2005 to 2025), at the lowest cost. Based upon the plans of its member agencies and the retail water suppliers, Metropolitan's preferred supply mix includes conservation, local supplies (recycled and brackish water desalination), SWP supplies, Colorado Aqueduct supplies, groundwater banking, and water transfers to meet projected water demands under severe shortage conditions. Additional objectives included: (1) review of the goals and achievements of the 1996 IRP, (2) identification of changed conditions for water resource development, and (3) update of the resource targets through 2025. The 2003 IRP Update revealed a decrease in the region's reliance on imported supplies from the Colorado River and SWP compared to the 1996 IRP, while continuing to provide 100 percent reliability through the year 2025.

To reduce the likelihood of shortfalls due to implementation risk and water quality issues, the 2003 IRP Update also includes a planning buffer of up to ten percent of regional demands. This planning buffer calls for identification of an additional 500,000 ac-ft of contingency supplies above that needed to meet demands in 2030. The buffer supplies would include an equal proportion of local and imported supplies.

Metropolitan Water Surplus and Drought Management Plan (WSDM Plan)

In 1999 Metropolitan adopted the WSDM plan to integrate planned operational actions with respect to both surplus and shortage situations (for further details on the WSDM Plan actions, refer to MWD's 2005 UWMP). While a specific allocation plan was not developed as part of the WSDM Plan, the guiding principle of the WSDM Plan is to manage

Metropolitan's water resources and management programs to maximize management of wet year supplies and minimize adverse impacts of water shortages to retail customers. The WSDM Plan states that, except in extreme shortages or emergencies, Metropolitan resource management will allow shortages to be mitigated without impacting retail municipal and industrial customers. The key guiding principles of the WSDM Plan include:

- Encouraging efficient water use and economical local resource programs
- Coordinating operations with member agencies to make as much surplus water as possible available for use in dry years
- Pursuing innovative transfer and banking programs to secure more imported water for use in dry years
- Increasing public awareness about water supply issues

The WSDM Plan contains the following considerations that would go into an equitable allocation of imported water:

- Population growth
- Changes and/or losses in local supplies
- Impact on retail consumers and regional economy
- Investments in local resources, including recycling and conservation
- Investment in Metropolitan's facilities

Metropolitan Local Resource Investments

Metropolitan has made significant investments in local resource projects to optimize local supplies. These investments have been made in conservation, water recycling, storage, and supply. Metropolitan's objective is that its resource management plan results in 100 percent reliability for non-discounted, non-interruptible demands through 2030. Metropolitan's resource management strategy deals with several supply resources:

Local Resource Investment. Metropolitan has co-funded more than 74 local supply projects that provided an annual contract yield of 118,000 ac-ft in 2004. Projects developed by the member agencies without Metropolitan funding provided an additional 155,000 ac-ft. In addition, between 1990 and 2003 Metropolitan and its member agencies invested a total of $290 million in conservation programs. Metropolitan estimates that conservation reduced the region's 2003 demand by 654,000 ac-ft, compared to the 1996 IRP goal of 571,000 ac-ft. As a large purchaser of Metropolitan water, GSWC has helped fund many of these programs.

Colorado River Region. Under the existing agreement, over 800,000 ac-ft of water is currently available to Metropolitan's service area in dry-years from the Colorado River region. This amount includes 30,000 ac-ft of the eventual 200,000 ac-ft transfer agreement between the San Diego County Water Authority and the Imperial Irrigation District. Additional programs are currently being studied.

State Water Project Region. Metropolitan has continued to explore out-of-region water storage and transfer programs. Current water storage agreements provide for dry-year supplies of almost 400,000 ac-ft. Transfer programs provide additional water, but this amount varies from year-to-year. Additional programs that could supply 125,000 ac-ft are

under development. In addition, Metropolitan's SWP contract allows it to store up to 220,000 ac-ft of carryover water in SWP storage reservoirs.

Regional Storage. Metropolitan has undertaken a number of projects to increase the level of in-region water storage to compensate for the reduced availability of its imported water supply. The key projects are summarized below:

- Diamond Valley Lake was filled for the first time by early 2002. Completion of this project added 800,000 ac-ft of storage to Metropolitan's mix of resources, of which 400,000 ac-ft are available for use as regulatory/carryover storage.
- In 1995, Metropolitan entered into an agreement with Calleguas Municipal Water District to jointly develop the North Las Posas Conjunctive Use Program. Phases 1 and 2 of this program are expected to be operational and come on-line by 2005, with facilities to manage the full 210,000 ac-ft of storage due to be operational by 2010.
- Metropolitan has expanded groundwater storage in the region. Five contractual storage programs signed to date will provide 181,000 ac-ft of storage. Three additional contracts (City of Compton, Three Valleys Municipal Water District, and the City of Long Beach) currently being finalized may provide an additional 8,900 ac-ft for a total of` approximately 190,000 ac-ft of dry-year storage capacity. The legal standing of the Long Beach storage agreement has not yet been acknowledged by DWR as Watermaster in the Central Basin but is expected to be resolved in accordance with amendments to the court Judgments that are anticipated to be filed after agreements are reached as part of ongoing discussions with DWR. GSWC also expects to enter into agreements for contractual storage programs in the Central and West Coast Basins.
- Metropolitan is also continuing to work with its member agencies in the Pasadena area to develop an additional 66,000 ac-ft of storage in the underlying Raymond Basin.

Together these programs will provide capability to store 866,000 ac-ft of supplies for dry years.

TVMWD's Water Supply Reliability

In addition to Metropolitan's reliability initiatives, TVMWD has taken important steps over the past decade to reduce the TVMWD's vulnerability to extended drought or other potential threats. Use of local groundwater, regional surface water and local recycled water are the major sources of TVMWD's water supply, in addition to imported water supplies from Metropolitan. Furthermore, TVMWD's conjunctive use projects foster efficient use of imported water and optimize the interdependence of groundwater storage and imported supplies. Conjunctive use assists with resource availability during times of drought, which are the most critical times with respect to water management and reliability. TVMWD is increasing reliability within its service area by maximizing existing water resources, diversifying the water resource mix over the next twenty-five years. The potential additional sources available to the Claremont System include: (1) increased local conservation and water recycling, (2) improvements in the reliability of imported supplies, (3) increased regional surplus storage, and (4) increased conjunctive-use groundwater programs. TVMWD's dependence on traditional sources of water (groundwater and imported) will

continue to decrease with the expansion of these alternative resources (see TVMWD's 2005 UWMP for details).

GSWC's Groundwater Supply Reliability

GSWC's Claremont System has pumping rights (including rights under long-term leases) to 39.36 percent of the OSY of the Six Basins. Since the adjudication of the Six Basins, the Claremont System's pumping rights have historically varied between 6,160 - 8,697 ac-ft/yr. The Claremont System also has rights to 0.75 percent of the OSY of the Chino Basin. The Claremont System's current share of the OSY is 411 ac-ft/yr and has not changed since the Basin was adjudicated in 1978. The respective judgments over each of these basins effectively set annual yields that limit the cumulative pumping from each but also serve to sustain the long term viability of the groundwater resources (TVMWD, 2005).

The Six Basins have substantial storage capacity to provide a buffer during droughts and to accept recharge of surplus waters during times of available supplies. Recharge in the Six Basins occurs from percolation of precipitation, return flow of applied water, and stream flow runoff (TVMWD, 2005)

Claremont System's Water Supply Reliability

Supply reliability for the Claremont System depends upon the reliability of purchased water from TVMWD and local groundwater supplies, as discussed above.

Two agencies work together with GSWC and other groundwater producers to ensure that the OSY is available to be pumped by the pumpers in the Main San Gabriel Basin. These agencies include the Pomona Valley Protective Association (PVPA) and TVMWD.

PVPA operates the San Antonio Spreading Grounds in the Six Basins area. Currently, the only source of recharge water for the spreading grounds is local runoff from upstream canyons. Consequently, the reliability of recharge water is highly dependent on local precipitation and operation of the San Antonio Dam by the U.S. Army Corps of Engineers. TVMWD, along with PVPA and the Six Basins Watermaster, is currently planning a conjunctive use groundwater management project that would manage groundwater levels, increase the reliability, and reduce cost of the water supply within the Six Basins Area by storing imported water that is in excess of current demand. To accomplish this, in cooperation with the Six Basins Watermaster, TVMWD would spread surplus imported water at the existing San Antonio Spreading Grounds and then extract the water at a down gradient location. The extracted water would then be blended with treated surface water and distributed to retailers, including GSWC. Application of surplus water at the spreading grounds and then storing the water in the Six Basins Area aquifers will increase the reliability of regional water supplies in times of increased demand.

Table 3-8 presents water supply projections for purchased and groundwater sources during a normal year, single-dry year, and multiple-dry years for the Claremont System. The normal-year supply represents the expected supply under average hydrologic conditions, the dry-year supply represents the expected supply under the single driest hydrologic year, and the multiple-dry year supply represents the expected supply during a period of three consecutive dry years. The IRPSIM results, prepared by Metropolitan, show the region's ability to respond in future years under a repeat of the 1990-1992 hydrology, that is, in the

case of multiple-dry years. The results show that the region can provide reliable water supplies under a series of multiple-dry years. A similar analysis using the historic hydrology of 1977, the single driest hydrologic year to date, shows that the region can provide reliable water supplies under a single-dry year.

The Six Basins Watermaster adjusts the OSY annually to account for fluctuations in groundwater availability in the Six Basins. While GSWC's groundwater supply may vary annually, TVMWD's 2005 UWMP states that all producers, including GSWC, will have access to adequate imported water supply to meet their demands during normal year, single-dry year, and multiple-dry year periods in the Six Basins (TVMWD, 2005).

As described above, imported water supplies from Metropolitan, through TVMWD, are expected to be 100 percent reliable to meet demands. Therefore, the purchased water supply projections for a normal water year, single-dry year, and multiple-dry years are taken as the 2030 projection, which is equivalent to the imported water demand projected for 2030. It is assumed that the single-dry year and multiple-dry year supplies are the same as those for the normal years because TVMWD has stated that they will meet their retailer's projected demands under all anticipated hydrologic conditions. Moreover, the single-dry year and multiple-dry year available supplies are significantly higher than the projected supplies required to meet the demands. An exception may occur in 2030 under a multiple dry-year hydrology scenario. Under this scenario TVMWD is projected to supply 99 percent of demand resulting in less than one percent shortage in GSWC's supplies. If this scenario does unfold in 2030, the potential shortfall is small enough that it can be readily addressed by conservation practices and/or utilizing other sources of supplies. Therefore, it is assumed that 100 percent of supplies will be available under multiple-dry year conditions.

GSWC, Metropolitan and TVMWD have implemented and will implement projects to ensure the imported water demands can be met under normal, single-dry year, and multiple-dry years.

As discussed before, Metropolitan intends to provide 100 percent supply reliability to TVMWD, which in turn provides 100 percent reliability of imported water supply to the Claremont System.

Table 3-8
Supply Reliability for the Claremont System for Year 2030 in ac-ft/yr

Source	Normal Water Year	Single Dry Water Year	Multiple Dry Water Years		
			Year 1	Year 2	Year 3
Imported Water from TVMWD	9,020	9,020	9,020	9,020	9,020
Groundwater[(2)]	8,007	8,007	8,007	8,007	8,007
Total	17,027	17,027	17,027	17,027	17,027
Percent of Normal		100	100	100	100

Notes
1. Reliability based on GSWC's share of water rights within the Six Basins and Chino Basin for the Claremont System
2. Table format based on DWR Guidance Document Table 8

Table 3-9 lists single-dry year and multiple-dry year periods for both groundwater and purchased water supplies. The single-dry year and multiple-dry year periods are based on TVMWD's (which are based on Metropolitan's) analysis on the lowest average precipitation for a single year and the lowest average precipitation for a consecutive multiple-year period, respectively. Utilizing the computer model that considers over 70 years of historical records for each water source, Metropolitan has indicated that 1977 is the single-dry year and the years of 1990, 1991 and 1992 are representative of the driest three consecutive years for Metropolitan supplies. TVMWD has determined that it can meet projected water demands for imported water for these years, so the supply is equal to the projected demands.

Table 3-9
Basis of Water Year Data

Water Year Type	Base Year(s)	Historical Sequence
	Imported Water	
Normal Water Year	N/A[1]	1922-1991
Single-Dry Water Year	1977	
Multiple-Dry Water Years	1990-1992	
	Groundwater[2]	
Normal Water Year[3]	1974	1960 - 2004
Single-Dry Water Year	2002	1960 – 2004
Multiple-Dry Water Years	1970-1972	1960 - 2004

Notes
1. Metropolitan presents data on average over all of the historic hydrology
2. Data used was from Six Basins Watermaster record of precipitation at San Antonio Dam on water year basis
3. Normal Water Year calculated from median precipitation from WY 1960-WY 2004
4. Table format based on DWR Guidance Document Table 9

For the groundwater reliability analysis, precipitation data from 1960 through 2004 were reviewed. Data for the water year basis for Table 3-9 was reported by the Six Basins Watermaster (Six Basins Watermaster, 2004). The Watermaster reported precipitation at the San Antonio Dam from Water Year (WY) 1960 through WY 2004 (WY October 1 through September 30). WY 2002 (October 1, 2001 - September 30, 2002) was the single driest year with 9.12-inches of precipitation. The normal water year was based on DWR's description of the median water year over the period of record (DWR, 2005). The median annual precipitation between WY 1960 and WY 2004 at San Antonio Dam was 18.25-inches. Based on the median precipitation, the normal water year was 1974. The multiple dry year period of WY 1970 through WY 1972 recorded the lowest 3-year total of precipitation. Estimates of the supply reliability for the Claremont System also are derived from historical values (1999 through 2005) of the operating safe yield as reported by the Six Basins Watermaster (SBW, 2004). The Claremont System's supply for a Normal Water Year was based on previous studies completed in support of the Six Basins adjudication (CDM, 1996).

For the groundwater supply reliability, a Six Basins OSY of 19,300 ac-ft/yr was used for the normal water year scenario. During dry years, historically, each of the Watermasters has

reduced the operating safe yields for the Basins. Annual reductions in the Six Basins OSY have ranged from zero percent to 12 percent from the previous year. It is anticipated that the OSY will not need to be reduced for single dry year situations, resulting from the Six Basins Watermaster's current and planned management practices. In single dry years and the first year of a multiple dry year period, the groundwater supply available to the Claremont System is anticipated to remain at normal water year levels. During additional subsequent dry year periods, the OSY could be expected to be reduced approximately 7 percent and 12 percent, respectively, below normal levels, based on recent changes by the Six Basins Watermaster. The Chino Basin Watermaster has not made any significant changes to the OSY that have affected the 411 ac-ft/yr that GSWC receives from the Chino Basin.

Based on historical changes in the Six Basins OSY, the Watermaster's current and planned management practices, increased storage of local and imported water supplies the Claremont System's water supply is expected to be 100 percent reliable through 2030.

Factors Resulting in Inconsistency of Supply

Table 3-10 presents factors resulting in inconsistency of supply for the Claremont System.

Groundwater extractions in the Six Basins and Chino Basin are regulated by the respective Watermasters. Annually, the Watermasters establishes basin-wide pumping limits based on local hydrologic conditions and groundwater levels within the basins. The Watermasters may raise or lower pumping limits annually in the Six Basins and Chino Basins.

Table 3-10
Factors Resulting in Inconsistency of Supply

Name of Supply	Legal	Environmental	Water Quality	Climatic
TVWMD	N/A	N/A	N/A	N/A
Groundwater, Six Basins	Adjudicated, operating safe yield set by the Six Basins Watermaster yearly	N/A	N/A	N/A
Groundwater, Chino Basin	Adjudicated, operating safe yield set by the Chino Basin Watermaster yearly	N/A	N/A	N/A

Notes
1. Table format based on DWR Guidance Document Table 10

Transfers and Exchanges

There are no specifically identified transfer and/or exchange opportunities in the Claremont System at this time; therefore, Table 3-11 has been left blank.

Table 3-11
Transfer and Exchange Opportunities

Source Transfer Agency	Transfer or Exchange	Short Term	Proposed Quantities	Long term	Proposed Quantities
N/A	N/A	N/A	N/A	N/A	N/A

Notes
1. Table format based on DWR Guidance Document Table 11

Planned Water Supply Projects and Programs

There are no planned water supply projects and programs in the Claremont System at this time; therefore, Table 3-10 has been left blank. GSWC, as a part of its normal maintenance and operations, will construct new wells, pipelines, and treatment systems as needed as a part of its ongoing Capital Investment Program to maintain its supply and meet distribution system requirements.

However, GSWC and other water producers are working with TVMWD on planned water supply projects to increase reliability within its service area by further diversifying the water resource mix over the next twenty-five years, with the increased conservation, and groundwater storage. Details of these plans can be found in TVMWD's 2005 Urban Water Management Plan.

Table 3-12
Future Water Supply Projects in ac-ft

			Multiple Dry Years		
Project Name	Normal Year	Single Dry Year	Year 1	Year 2	Year 3
N/A	N/A	N/A	N/A	N/A	N/A

Notes
1. This table is based on the DWR Guidebook Table 17.

Wholesale Agency Supply Data

TVMWD has planned water supply projects to increase reliability within its service area. Details of these plans can be found in TVMWD's 2005 Urban Water Management Plan. In addition to the existing imported water supplies received from Metropolitan, TVMWD plans to increase water supplies through various plans including storage and conjunctive use programs. The TVMWD's 2005 UWMP finds that the region is continuing to improve its water reliability by designing programs to protect and ensure water quality, maximize local supplies (local groundwater, surface water, and recycled water), promote conservation, increase storage capacity, encourage recycled water use and meet its demands during shortages. TVMWD's 2005 UWMP suggests that TVMWD has a water service plan that will provide 100 percent reliable service to its customer for the next twenty-five years.

Table 3-13 provides TVWMD's existing and planned water sources available to the Claremont System under normal years. These supplies are expected to meet the projected purchased water demands.

Table 3-13
Existing and Planned Water Sources Available to the Claremont System as Identified by TVMWD in ac-ft/yr

Wholesaler Sources	2010		2015		2020		2025		2030	
	Existing	Planned	Existing	Planned	Existing	Planned	Existing	Planned	Existing	Planned
TVMWD (Imported water and groundwater)	6,971	N/A	7,501	N/A	8,024	N/A	8,529	N/A	9,020	N/A

Notes
1. Table format based on DWR Guidance Document Table 20

Table 3-14 demonstrates the reliability of wholesale water supply to meet annual water demand of the Claremont System. The table includes a single-dry year and multiple-dry year supplies for 2030. TVMWD is assured by Metropolitan of 100 percent reliability to meet the water demand through 2030. It should also be noted that the available supply from TVMWD is higher than the supply needed to meet demands during various hydrologic conditions. An exception may occur in 2030 under a multiple dry-year hydrology scenario. Under this scenario TVMWD is projected to supply 99 percent of demand resulting in less than one percent shortage in GSWC's supplies. If this scenario does unfold in 2030, the potential shortfall is small enough that it can be readily addressed by conservation practices and/or utilizing other sources of supplies. Therefore, it is assumed that 100 percent of supplies will be available under multiple-dry year conditions.

Table 3-14
Reliability of Wholesale Supply for Year 2030 in ac-ft/yr

		Multiple-Dry Water Years		
Wholesaler	Single-dry	Year 1	Year 2	Year 3
TVMWD	9,020	9,020	9,020	9,020
Percent of Normal	100	100	100	100

Notes
1. Table format based on DWR Guidance Document Table 21

Table 3-15 lists factors affecting wholesale supply for the Claremont System. Metropolitan plans on providing 100 percent supply reliability to TVMWD, which in turn provides 100 percent reliability of supply to the Claremont System.

Table 3-15
Factors Affecting Wholesale Supply

Name of Supply	Legal	Environmental	Water Quality	Climatic
TVMWD[(1)]	N/A	N/A	N/A	N/A

Notes
1. No further constraints affecting wholesale supply. Metropolitan supplies already accounted for these factors (see Metropolitan's UWMP)
2. Table format based on DWR Guidance Document Table 22

Chapter 4. Water Use

Section 10631 (e) of the Act requires that an evaluation of water use be performed for the Claremont System. The Act states the following:

Section 10631

(e)

(1) Quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, identifying the uses among water- use sectors including, but not necessarily limited to, all of the following uses:

(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, or conjunctive use, or any combination thereof

(I) Agricultural.

(2) The water-use projections shall be in the same five-year increments described in subdivision (a).

In addition, Section 10631 (k) directs urban water suppliers to provide existing and projected water-use information to wholesale agencies from which water deliveries are obtained. The Act states the following:

Section 10631

(k) Urban water suppliers that rely upon a wholesale agency for a source of water, shall provide the wholesale agency with water-use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent practicable, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water-year types in accordance with subdivision (c). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (c), including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.

As part of the Urban Water Management Plans, California regulation requires water suppliers to quantify past and current water use and to project the total water demand for

the water system. Projections of future water demand allow a water supplier to analyze if future water supplies are adequate, as well as help the agency when sizing and staging future water facilities. Water use and production records, combined with population and employment projections, provide the basis for estimating future water requirements. This chapter presents an analysis of water use data and the resulting projections for future water needs in the Claremont System.

Historical and Projected Water Use

Historical water use data from 1984 to 2004 was analyzed in order to estimate the future water demands for the Claremont System. Projections for the number of service connections and future water use were calculated for the year 2005 through 2030 in five-year increments. Future water demands were estimated using two different methods, a population-based approach and a historical-trend approach, in order to present a projection range. Detailed descriptions of how the population-based and historical-trend projections were calculated are provided below.

The population-based projections resulted in estimated future water demands in excess of those calculated using historical-trend projections. This is due to the fact that SCAG's projected growth rates exceed the actual growth rates experienced within the Claremont System's service area over the past twenty years. GSWC has opted to use the population-based projections for future water demand estimates even though it is considered unlikely that actual demand increases will reach the levels predicted. Using these more conservative numbers will ensure that a reliable water supply is available should future water demands within the Claremont System exceed the levels anticipated based on historic water use.

The range established between these two approaches is intended as supplemental information; all recommendations are based on the population-based projections. The historical-trend projections are provided as ancillary information only.

Figure 4-1 shows the historical and projected number of metered service connections for the Claremont System from 1984 through 2030. Figure 4-2 shows the historical and projected water use for the Claremont System from 1984 until 2030.

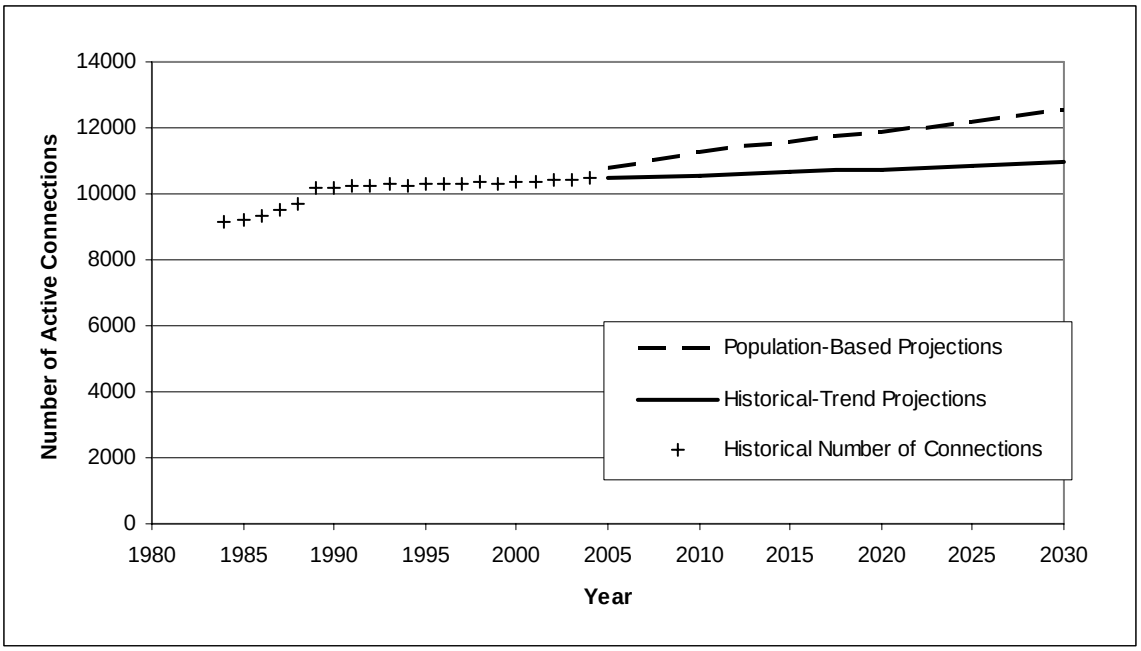

Figure 4-1 Historical and Projected Number of Metered Service Connections

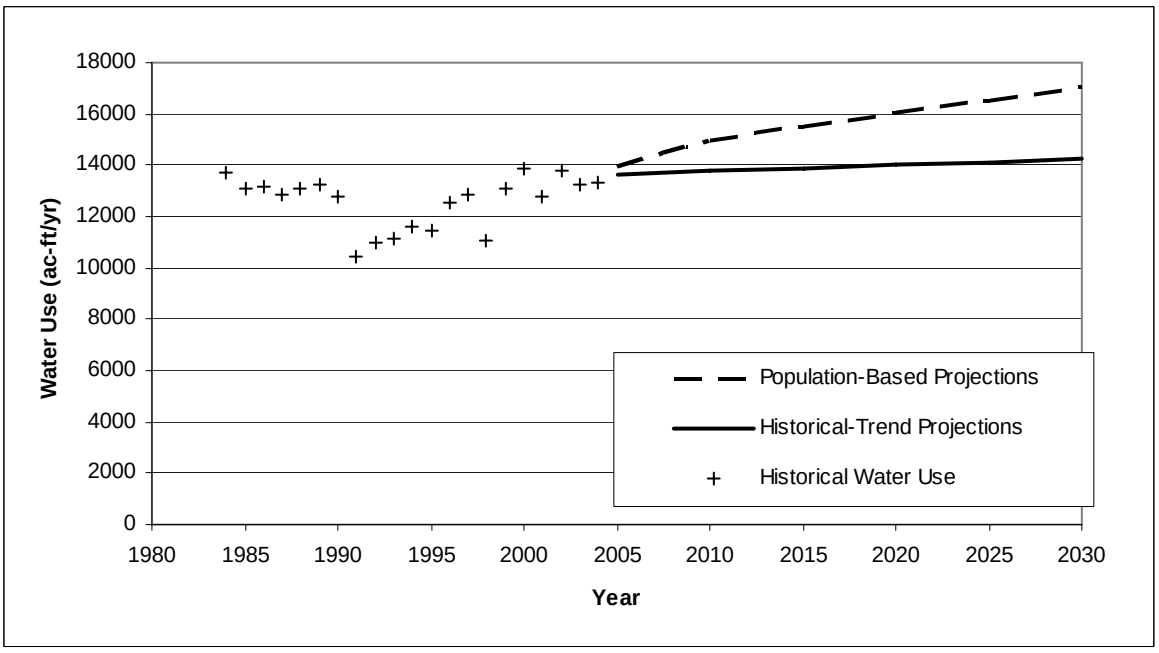

Figure 4-2 Historical Water Use and Future Water Use Projections

In order to generate estimates of future water demands, historical water use records from 1984 through 2004 were analyzed. The customer billing data for the system consists of annual water sales data. The water sales data was sorted by customer type using the

assigned North American Industry Classification System (NAICS) codes. Then the sorted water sales data was further grouped into the following 8 categories: single family, multi-family, industrial, commercial, institutional/government, landscape, agriculture, and others.

For each category, a water use factor was calculated in order to quantify the average water used per metered connection. For a given customer type, the unit water use factor is calculated as the total water sales for the category divided by the number of active service connections for that category. The unit water use factors for each customer type were averaged over the data range from 1999 through 2004 in order to obtain a representative water use factor that can be used for water demand projections by customer type.

The population-based water use projections are based on the population, housing, and employment projections developed for the Claremont System using the Southern California Association of Governments (SCAG) data. SCAG recently updated its projections for population, household, and employment growth through the year 2030 using 2000 U.S. Census data. SCAG's methodology and the derivation of population projections for the Claremont System are discussed in more detail in Chapter 2.

SCAG household projections were used to determine the growth in single-family and multi-family service connections for the years 2005, 2010, 2015, 2020, 2025, and 2030. For example, the ratio between the household projections for the year 2015 and the year 2000 was multiplied by the number of service connections in 2000 to obtain a projection of the number of connections in the year 2015. Similarly, employment growth projections were used to determine the growth for commercial, industrial, institutional/government, landscape, and agriculture service connections. The population-based projected water use was then calculated by multiplying the number of projected active service connections for each customer category with the corresponding customer average water use factor calculated above.

The historical-trend water use projections are not based on SCAG projections but are instead based on a linear projection of the historical number of metered service connections. To establish the historical trend, the data from 1989 through 2004 was used because the growth rate in number of connections decreased significantly after 1989 (refer to Figure 4-1). The average growth rate established by this historical trend was applied to the number of connections in each customer category to project the future number of service connections. The historical-trend projected water use was then calculated by multiplying the number of projected active service connections for each customer category with the corresponding customer average water use factor calculated above.

Figure 4-3 shows the average of the population-based and historical-trend water use projections by customer type, as well as the total water demand. The error bars provide the range of the total water demand projections for that year. The population-based and historical-trend projections of the number of service connections, and the resulting water demand, are provided in Table 4-1 and Table 4-2**,** respectively.

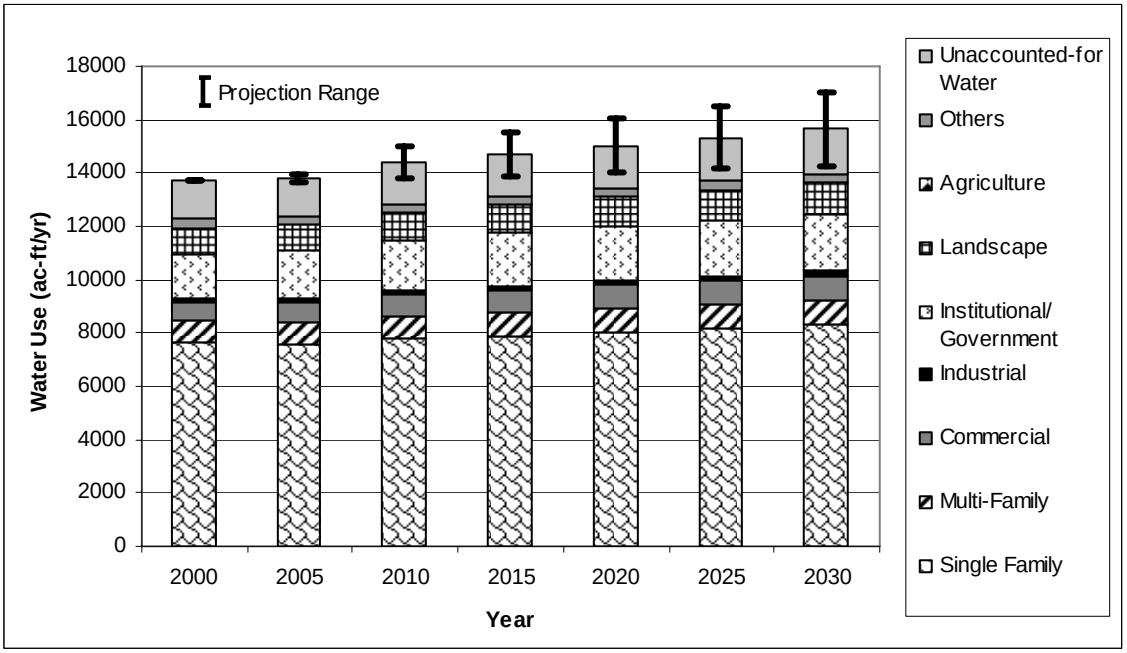

Figure 4-3 Water Use by Customer Type

Table 4-1
Population-Based and Historical-Trend Projections of the Number of Metered Service Connections for the Claremont System

		Accounts by Type								
Year	Projection Type	Single Family	Multifamily	Commercial	Industrial	Institutional/ Government	Landscape	Agriculture	Other[3]	Total
2000[2]	*N/A*	9,432	230	128	40	177	251	0	132	10,390
2005	*Population-Based*	9,782	239	130	41	180	255	0	134	10,759
	Historical-Trend	9,511	232	129	40	178	253	0	133	10,477
2010	*Population-Based*	10,144	247	150	47	208	294	0	155	11,245
	Historical-Trend	9,596	234	130	41	180	255	0	134	10,570
2015	*Population-Based*	10,412	254	158	49	218	310	0	163	11,564
	Historical-Trend	9,680	236	131	41	182	258	0	135	10,664
2020	*Population-Based*	10,685	261	166	52	229	325	0	171	11,887
	Historical-Trend	9,765	238	133	41	183	260	0	137	10,757
2025	*Population-Based*	10,958	267	173	54	239	339	0	178	12,207
	Historical-Trend	9,850	240	134	42	185	262	0	138	10,850
2030	*Population-Based*	11,232	274	179	56	248	351	0	185	12,525
	Historical-Trend	9,935	242	135	42	186	264	0	139	10,944

Notes
1. This table is based on the DWR Guidebook Table 12.
2. Based on calendar year.
3. Other accounts for any service connections not included in any other category, including idle or inactive connections.

Table 4-2
Population-Based and Historical-Trend Projections of Water Deliveries for Service Connections for the Claremont System in ac-ft/yr

		Accounts by Type								
Year	Projection Type	Single Family	Multifamily	Commercial	Industrial	Institutional/ Government	Landscape	Agriculture	Other[3]	Total
2000[2]	*N/A*	7,651	799	715	126	1,627	1,021	0	333	12,272
2005	*Population-Based*	7,700	843	749	157	1,766	964	0	291	12,470
	Historical-Trend	7,487	820	743	156	1,753	957	0	289	12,206
2010	*Population-Based*	7,985	875	864	182	2,038	1,113	0	336	13,393
	Historical-Trend	7,554	827	750	158	1,769	966	0	291	12,315
2015	*Population-Based*	8,196	898	910	191	2,146	1,171	0	353	13,866
	Historical-Trend	7,620	835	757	159	1,785	974	0	294	12,424
2020	*Population-Based*	8,411	921	954	200	2,249	1,228	0	370	14,334
	Historical-Trend	7,687	842	763	160	1,800	983	0	296	12,532
2025	*Population-Based*	8,626	945	994	209	2,345	1,280	0	386	14,786
	Historical-Trend	7,754	849	770	162	1,816	991	0	299	12,641
2030	*Population-Based*	8,842	968	1,032	217	2,435	1,329	0	401	15,225
	Historical-Trend	7,820	857	777	163	1,831	1,000	0	302	12,750

Notes
1. This table is based on the DWR Guidebook Table 12.
2. Based on calendar year.
3. Other accounts for any service connections not included in any other category, including idle or inactive connections.

Sales to Other Agencies

There are no sales to other agencies for the Claremont System; therefore, Table 4-3 has intentionally been left blank.

Table 4-3
Sales to Other Agencies in ac-ft/yr

Water Distributed	2000 [2]	2005	2010	2015	2020	2025	2030
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes
1. This table is based on the DWR Guidebook Table 13.
2. Based on calendar year.

Other Water Uses and Unaccounted-for Water

In order to accurately predict total water demand, other water uses, as well as any water lost during conveyance, must be added to the customer demand. California regulation requires water suppliers to quantify any additional water uses not included as a part of water use by customer type (Table 4-4). There are no other water uses in addition to those already reported in the Claremont System.

Unaccounted-for water must be incorporated when projecting total water demand. Unaccounted-for water is defined as the difference between annual production and supply and annual sales. Included in the unaccounted-for water are system losses (due to leaks, reservoir overflows, or inaccurate meters), and water used in operations. In the Claremont System, from 1999 through 2004, unaccounted-for water has averaged 10.59% of the total production. Table 4-4 provides a summary of unaccounted-for water in the Claremont System.

Table 4-4
Additional Water Uses and Losses in ac-ft/yr

Water-Use Type	2000 [2]	2005	2010	2015	2020	2025	2030
Other Water Uses	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Unaccounted-for System Losses[3]	1,453	1,476	1,586	1,642	1,697	1,750	1,802
Total	1,453	1,476	1,586	1,642	1,697	1,750	1,802

Notes
1. This table is based on the DWR Guidebook Table 14.
2. Based on calendar year.
3. Unaccounted-for water includes system losses due to leaks, reservoir overflows, and inaccurate meters, as well as water used in operations.

Total Water Demand

As mentioned above, other water uses, as well as any water lost during conveyance, must be added to the customer demand in order to project water demand for the Claremont System. Although there are no other water uses contributing to the total water demand in the Claremont System, unaccounted-for water must be incorporated into the total water demand (refer to the previous section above for a definition of unaccounted-for water). Table 4-5 summarizes the projections of water sales, unaccounted-for water, and total water demand through the year 2030. The projected water sales in the remainder of the analysis, including Table 4-5**,** are calculated using the population-based projections for water use.

The water demand projections below do not include any reduction due to future implementation of Demand Management Measures (DMM). More information regarding the status of demand reduction measures is available in Chapter 5.

Table 4-5
Projected Water Sales, Unaccounted-for System Losses, and Total Water Demand (ac-ft/yr)

Year	Projected Water Sales	Unaccounted-for System Losses	Total Water Demand
2000[2]	12,272	1,453	13,724
2005	12,470	1,476	13,946
2010	13,393	1,586	14,978
2015	13,866	1,642	15,508
2020	14,334	1,697	16,031
2025	14,786	1,750	16,536
2030	15,225	1,802	17,027

Notes
1. This table is based on the DWR Guidebook Table 15.
2. Based on calendar year.

Data Provided to Wholesale Agency

GSWC provided the following projected water use data to TVMWD, its wholesale water supplier for the Claremont System, as summarized in Table 4-6.

Table 4-6
Summary of Claremont System Data Provided to TVMWD in ac-ft/yr

Wholesaler	2010	2015	2020	2025	2030
TVMWD	6,971	7,501	8,024	8,529	9,020

Notes
1. This table is based on the DWR Guidebook Table 19.

Chapter 5. Demand Management Measures

The evaluation of Demand Management Measures (DMMs) occupies a significant portion of the Act. The Act states as follows:

Section 10631.

(f) Provide a description of the supplier's water demand management measures. This description shall include all of the following:

(1) A description of each water demand management measure that is currently being implemented, or scheduled for implementation, including the steps necessary to implement any proposed measures, including, but not limited to, all of the following:

(A) Water survey programs for single-family residential and multifamily residential customers.

(B) Residential plumbing retrofit.

(C) System water audits, leak detection, and repair.

(D) Metering with commodity rates for all new connections and retrofit of existing connections.

(E) Large landscape conservation programs and incentives.

(F) High-efficiency washing machine rebate programs.

(G) Public information programs.

(H) School education programs.

(I) Conservation programs for commercial, industrial, and institutional accounts.

(J) Wholesale agency programs.

(K) Conservation pricing.

(L) Water conservation coordinator.

(M) Water waste prohibition.

(N) Residential ultra-low-flush (ULF)toilet replacement programs.

(2) A schedule of implementation for all water demand management measures proposed or described in the plan.

(3) A description of the methods, if any, that the supplier will use to evaluate the effectiveness of water demand management measures implemented or described under the plan.

(4) 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 supplier's ability to further reduce demand.

(g) An evaluation of each water demand management measure listed in paragraph (1) of subdivision (f) that is not currently being implemented or scheduled for implementation. In the course of the evaluation, first consideration shall be given to water demand management measures, or combination of measures, that offer lower incremental costs than expanded or additional water supplies. This evaluation shall do all of the following:

(1) Take into account economic and noneconomic factors, including environmental, social, health, customer impact, and technological factors.

(2) Include a cost-benefit analysis, identifying total benefits and total costs.

(3) Include a description of funding available to implement any planned water supply project that would provide water at a higher unit cost.

(4) Include a description of the water supplier's legal authority to implement the measure and efforts to work with other relevant agencies to ensure the implementation of the measure and to share the cost of implementation.

(j) Urban water suppliers that are members of the California Urban Water Conservation Council and submit annual reports to that Council in accordance with the ''Memorandum of Understanding Regarding Urban Water Conservation in California,'' dated September 1991, may submit the annual reports identifying water demand management measures currently being implemented, or scheduled for implementation, to satisfy the requirements of subdivisions (f) and (g).

Section 10631.5. The department shall take into consideration whether the urban water supplier is implementing or scheduled for implementation, the water demand management activities that the urban water supplier identified in its urban water management plan, pursuant to Section 10631, in evaluating applications for grants and loans made available pursuant to Section 79163. 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.

This chapter presents a summary of Golden State Water Company's (GSWC) past, current and future water conservation activities for the Claremont System in compliance with the above listed sections of the Act.

The water conservation practices, as defined by the Act, are comprised of 14 DMMs. The DMMs are functionally equivalent to urban water conservation best management practices (BMPs) administered by the California Urban Water Conservation Council (Council). Table 1-1 lists the BMPs.

The Council was formed as part of an effort by the Department of Water Resources (DWR) working jointly with water utilities, environmental organizations, and other interested groups to develop and administer urban best management practices (BMPs) for conserving water. In 1991 the Council issued a Memorandum of Understanding Regarding Urban Water Conservation in California (MOU) which formalized the agreement to implement BMPs to reduce the consumption of California's water resources. As a signatory of the MOU, GSWC has agreed to implement the BMPs that are determined to be cost beneficial to its ratepayers and to complete such implementation in accordance with the schedule assigned to each BMP. GSWC files bi-annual reports with the Council on BMPs implementation progress.

Table 5-1
Water Conservation Best Management Practices

1	Water Survey Programs for Single-Family Residential and Multifamily Residential Customers
2	Residential Plumbing Retrofits
3	System Water Audits, Leak Detection, and Repair
4	Metering with Commodity Rates for All New Connections and Retrofit of Existing Connections
5	Large-Landscape-Conservation Programs and Incentives
6	High-Efficiency-Washing-Machine Rebate Programs
7	Public Information Programs (1)
8	School Education Programs (1)
9	Conservation Program for Commercial, Industrial, Institutional (CII) Accounts
10	Wholesale-Agency Assistance Programs (1)
11	Conservation Pricing (1)
12	Water Conservation Coordinator (1)
13	Water Waste Prohibition (1)
14	Residential Ultra-Low-Flush-Toilet (ULFT) Replacement Programs

Notes
1. Economic benefits of these BMPs are considered nonquantifiable.

BMP Implementation Status

The BMP implementation status was assessed based on information provided in BMP activity reports for the years 2001 to 2004 that were filed with the Council. In addition, the BMP coverage reports were used to assess whether the target implementation schedule, as defined by the Council, for each BMP is met. The 2004 Activity Report and Coverage Report are included in Appendix D. Based on Section 10631 (j) the Council reports meet the requirements of Water Code Section 10631 (f) and (g). A summary of these reports is presented in Table 5-2 and Table 5-3.

Table 5-2 presents a summary of the past water conservation activities in the Claremont System. It should be noted GSWC takes credit for water conservation activities completed under programs jointly offered by GSWC and other agencies in its service area.

Table 5-3 presents a description of the offered programs and implementation status in the Claremont System for all BMPs. GSWC is currently not meeting coverage requirements as defined by the Council for BMPs 1, 2, 3, 5, 6, and 9. In order to determine if implementation of these BMPs for the Claremont System should continue, a benefit-cost analysis was performed on these BMPs.

Table 5-2
Summary of Water Conservation Activities [1]

Year	BMP 1: Residential Surveys	BMP 2: Residential Retrofits	BMP 3: Pre-Screening System Water Audit	BMP 5: Large Landscape Surveys	BMP 6: High Efficiency Washing Machine Rebate	BMP 7: Public Information Programs	BMP 8: School Programs Students Reached	BMP 9: CII Surveys	BMP 14: Residential ULFT
Pre 2000	874	1640	Yes	183		Yes	4725		2363
2000			Yes			Yes	1000		900
2001	52	100	Yes			Yes	925		
2002			Yes			Yes	1150		
2003			No		55	Yes	1150		
2004	503	1509	No		100	Yes	1653		365
Meeting Coverage Requirements	No	No	No	No	No	Yes	Yes	No	Yes

Notes
1. BMPs 4, 11, 12, and 13 are fully implemented. BMP 10 is not applicable as this system does not provide wholesale water to other agencies.

Table 5-3
Summary of Best Management Practice Implementation

BMP		Summary of Activities	Coverage Implementation [2] Status
1	Residential Water Surveys	GSWC participates in Water Wise School Education that is accepted by Council as "at least as effective" measure for this BMP.	Coverage requirements are not met.
2	Residential Plumbing Retrofits	GSWC participates in Water Wise School Education that is accepted by Council as "at least as effective" measure for this BMP. Rebates for High-Efficiency Toilets are offered through the Metropolitan Residential Rebate Program.	Coverage requirements are not met.
3	System Water Audits, Leak Detection, and Repair	GSWC completed annual distribution system pre-screening system audits to assess water losses in the distribution system prior to 2003. Historically, the distribution system water losses were less than 10 percent.	Coverage requirements are not met.
4	Metering	All accounts in the Claremont System are metered and are billed by volume.	Fully implemented.
5	Large-Landscape-Conservation Program	Program currently not offered.	Coverage requirements are not met.
6	High-Efficiency-Washing-Machine Rebate Program	Rebates for high-efficiency washers are offered by energy utility providers (Southern California Gas Company) and the Metropolitan through the TVMWD. GSWC encourages its customers to participate.	Coverage requirements are not met.
7	Public Information Program [1]	Claremont System has a public information program. GSWC participates in adult education programs offered by Metropolitan ("Protector del Agua") and is a member of Water Education Water Awareness Committee (WEWAC).	Coverage requirements are being met.
8	School Education Program [1]	GSWC participates in Water Wise School Education that is accepted by CUWCC as "at least as effective" measure for this BMP.	Coverage requirements are being met.
9	Conservation Program CII Accounts	GSWC participates in Metropolitan "Save-a-Buck" rebate program tailored for commercial sector.	Coverage requirements are not met.
10	Wholesale-Agency Program [1]	Not applicable.	Not applicable
11	Conservation Pricing [1]	GSWC has adopted conservation pricing, including using water rates that are developed to recover the cost of providing service and billing customers for metered water use. GSWC has uniform water rate structure (i.e. no rate increase/decrease based on the quantity of water used).	Fully implemented.
12	Water Conservation Coordinator [1]	GSWC has a full time water conservation coordinator on staff for all of Region III service areas.	Coverage requirements are being met.
13	Water Waste Prohibition [1]	There is a water waste prohibition ordinance in effect in the Claremont System (CPUC Tariff Rule No. 14.1).	Fully implemented.
14	Residential-Ultra-Low-Flush-Toilet-Replacement Program	GSWC has a ULFT replacement program that targets the Pilgrim Lace retirement village	Fully implemented.

Notes

1. Benefits of these DMM's are considered non-quantifiable.

2. "Implementation" means achieving and maintaining the staffing, funding, and priority levels necessary to achieve the level of activity required to satisfy the target commitment as described in the MOU.

Cost Benefit Analysis

A benefit-cost economic analysis was completed for the quantifiable BMPs that are not meeting coverage requirements (BMP 1, 2, 3, 5, 6, and 9). The benefit-cost analysis was completed with the consideration of economic factors. Noneconomic factors, including environmental, social, health, customer impacts, and new technology, are not believed to be significant and were not considered in the analysis.

The basis and assumptions used in the economic analysis of each BMP, as well as detailed calculations are included in Appendix D. Common assumption for all BMPs is the value of conserved water. Based on information provided by GSWC, the value of water for the Claremont System is $467 per acre-foot. This value was estimated based on the cost of developing new water supply and the real discount rate of 6.71 percent. The analysis assumes that BMPs 1 and 2 (Residential Water Surveys and Plumbing Retrofits) would be done concurrently. Other assumptions with supporting references are described in Table D-1 (Appendix D).

The economic analysis was performed using a spreadsheet program developed by the Council. A separate, customized worksheet for each BMP is presented in Table D-2 (Appendix D). Each BMP economic analysis spreadsheet projects on an annual basis the number of interventions and the dollar values of the benefits and costs that would result from fully implementing a particular BMP. The definition of terms and formulas that are common to all worksheets are presented in Table D-3 (Appendix D).

Table 5-4 summarizes the results of the economic analysis. The table presents the total discounted costs and benefits, the benefit-cost ratio, the simple pay-back period, the discounted cost per acre-foot of water saved, and the net present value (NPV) per acre-foot of water saved for each BMP.

The economic analysis shows that all BMPs yield benefit-cost ratios greater than one, which indicates that the conservation measures are cost effective. Based on this, GSWC should continue efforts to implement BMPs 1, 2, 3, 5, 6 and 9 that appear to be cost effective.

Based on the results of the benefit-cost analysis an implementation program was developed for the cost effective BMPs.

Table 5-4
Results of Economic Analysis for BMPs Currently not Meeting Coverage Requirements

	BMP Description	Total Discounted Cost [1]	Total Discounted Benefits [2]	Total Water Saved (ac-ft) [3]	Benefit/ Cost Ratio [4]	Simple Payback Analysis (years) [5]	Discounted Cost/Water Saved ($/ac-ft) [6]	Net Present Value/ Water Saved ($/ac-ft) [7]
1	Water Survey Programs for Residential Customers	$19,408	$26,283	47	1.4	4	$414	$147
2	Residential Plumbing Retrofits	$43,430	$54,400	97	1.3	6	$448	$113
3	System Water Audits and Leak Repair	$388,125	$631,605	2098	1.6	15	$185	$116
5	Large Landscape Conservation Programs and Incentives	$141,711	$546,604	1042	3.9	2	$136	$388
6	High-efficiency Washing Machine Rebate Program	$44,283	$67,962	162	1.5	10	$273	$146
9	Conservation Program for CII Accounts	$28,999	$92,880	166	3.2	2	$175	$385

Notes
1. Present value of the sum of financial incentives and operating expenses - using discount rate of 6.71%.
2. Present value of the sum of avoided energy and purchased water costs - using discount rate of 6.71%.
3. Achieved water savings for the implemented BMP.
4. Total discounted benefits divided by total discounted costs.
5. Time horizon in years required for benefits to pay back costs of the BMP.
6. Total discounted costs divided by total water saved.
7. Total of discounted benefits less discounted costs divided by total water saved.

Recommended Conservation Program

GSWC should continue efforts to implement BMPs that are assessed to be cost beneficial (benefit-cost ratio equal or greater than one), and to achieve the target implementation coverage by the end of the implementation period assigned to each BMP.

BMP 1, 2, 3, 5, 6, and 9 were identified as cost beneficial in the Claremont System; therefore, an implementation program was developed for these BMPs. The program is based on achieving the target coverage requirements, as per the MOU.

Table 5-5 presents the proposed implementation program, including the number of annual interventions required for each BMP to comply with defined coverage requirements; the total annual expenditures necessary to support the interventions; and the estimated annual water savings. The expenditures for BMPs take into consideration the existing programs offered by other agencies in the service area, and reflect only the incremental cost to GSWC to implement BMPs to meet the coverage requirements.

BMPs 7, 8, 10, 11, 12, and 13 were not included in the proposed implementation program because they are considered non-quantifiable. These BMPs have no specific level of effort defined in the MOU, therefore water savings and costs associated with these BMPs were not included in the analysis. The cost for BMP 12 is contained in GSWC overhead. BMPs 4, 11, and 14 are already implemented, and, therefore, have no additional cost associated with them. BMP 13 has no associated cost unless initiated by a water shortage condition.

When implementing water conservation programs, GSWC is subject to economic and legal constraints that need to be considered as they may affect the proposed BMPs implementation schedule.

Economic Considerations

As a private utility, GSWC is subject to the rules and regulations of the CPUC. The CPUC approves GSWC's water rate structure and the capital and operating budget, including the budget for implementation of water conservation measures. GSWC is often constrained in the funding available to implement programs. GSWC implements cost effective water conservation programs that have been approved by the CPUC.

While GSWC is fully committed to optimizing its available water resources and implementation of BMPs and DMMs, the Company is currently limited in its ability to do so by certain ratesetting practices of the CPUC. As noted above, the CPUC's draft "Water Action Plan" has as one of its major objectives strengthening water conservation programs to a level comparable to those of energy utilities. While implementation measures have not yet been identified by the CPUC, GSWC has proposed specific changes to current CPUC ratesetting practices which will, as a practical matter, support implementation of the WAP conservation objectives and greatly enhanced DMMs.

The cost of water is an important economic factor that needs to be considered when implementing conservation programs. Higher cost of water increases the attractiveness of BMPs implementation. Currently there are no water projects planned in the Claremont System that would result in higher unit cost of water, thus increasing the feasibility of implementing water conservation measures. However, the marginal cost of water is based on purchased water from the TVMWD, which is likely to increase with time.

Legal Considerations

GSWC has the legal authority to implement cost beneficial BMPs that were approved by the CPUC in its capital/operating budget. When developing programs that advance water conservation, GSWC can offer financial incentives, information or educational programs in its service area; however, GSWC has no legal authority to enforce urban codes or plumbing codes for new or existing connections that pertain to implementation of efficient devices, or reduction of water use.

Ordinances that prohibit water waste (BMP 13) are jointly developed by CPUC and GSWC. Ordinances are enacted by the CPUC only during water shortage. As a water retailer, GSWC has no legal authority to enact or enforce waste water prohibition ordinances without CPUC approval.

Cost Share Partners

In an effort to expand the breadth of offered programs GSWC partners with wholesale suppliers, energy utilities, and other agencies that support conservation programs. Joint participation offers opportunity for cost sharing and development of more effective conservation strategies.

GSWC obtains water from Metropolitan through the TVMWD and actively participates in programs offered by this wholesaler. Metropolitan has a mandate to provide financial incentives or other resources, as appropriate, to the retail water agency customers to further cost effective water conservation efforts. Metropolitan offers the following conservation programs in the Claremont System that provide GSWC an opportunity for cost sharing:

- Rebate program for high-efficiency toilets (BMP 2)
- Rebates for high-efficiency clothes washers, in cooperation with energy utilities (BMP 6)
- Adult education programs (BMP 7)
- Financial incentives for CII sector under its "Save-a-Buck" program (BMP 9)

The GSWC participates in these programs by providing additional funding or resources to implement offered programs. The additional funding may include additional rebate offers, program advertising, or sharing of costs related to organizing events in its service area.

GSWC is a member of the Water Education Water Awareness Committee (WEWAC). WEWAC, which comprises local water agencies, forms partnerships with educators and institutions within its service territory and assists in incorporating the water conservation message into the regular curriculum, development of education workshops and other tools.

GSWC is committed to continue efforts to implement cost effective BMPs that are approved by the CPUC, and to achieve, to the extent possible, target implementation coverage by the end of the implementation period assigned to each BMP.

Table 5-5
Summary of Required Interventions, Implementation Cost and Estimated Water Saved for BMPs Not Meeting Coverage Requirements

	BMP 1: Residential Water Surveys			**BMP 2: Residential Plumbing Retrofits**			**BMP 3: System Audits and Repair**		
Year	Interven-tions	Water Saved (ac-ft/Yr)	Cost ($/Yr)	Interven-tions	Water Saved (ac-ft/Yr)	Cost ($/Yr)	Interven-tions	Water Saved (ac-ft/Yr)	Cost ($/Yr)
2006	286	6	$10,019	621	16	$10,265	30	18	$30,400
2007	286	12	$10,019	156	20	$12,847	30	36	$30,400
2008	0	12	$0	156	24	$15,429	30	55	$30,400
2009	0	12	$0	0	24	$15,429	30	73	$30,400
2010	0	6	$0	0	8	$5,164	30	91	$30,400
2011	0	0	$0	0	4	$2,582	30	91	$30,400
2012	0	0	$0	0	0	$0	30	91	$30,400
2013	0	0	$0	0	0	$0	30	91	$30,400
2014	0	0	$0	0	0	$0	30	91	$30,400
2015	0	0	$0	0	0	$0	30	91	$30,400
2016	0	0	$0	0	0	$0	30	91	$30,400
2017	0	0	$0	0	0	$0	30	91	$30,400
2018	0	0	$0	0	0	$0	30	91	$30,400
2019	0	0	$0	0	0	$0	30	91	$30,400
2020	0	0	$0	0	0	$0	30	91	$30,400
2021	0	0	$0	0	0	$0	30	91	$30,400
2022	0	0	$0	0	0	$0	30	91	$30,400
2023	0	0	$0	0	0	$0	30	91	$30,400
2024	0	0	$0	0	0	$0	30	91	$30,400
2025	0	0	$0	0	0	$0	30	91	$30,400
2026	0	0	$0	0	0	$0	30	91	$30,400
2027	0	0	$0	0	0	$0	30	91	$30,400
2028	0	0	$0	0	0	$0	30	91	$30,400
2029	0	0	$0	0	0	$0	30	91	$30,400
2030	0	0	$0	0	0	$0	30	91	$30,400
Total	573	47	$20,038	934	97	$61,716	760	2098	$760,000

Table 5-5 (continued)
Summary of Required Interventions, Implementation Cost and Estimated Water Saved for BMPs Not Meeting Coverage Requirements

	BMP 5: Large Landscapes			BMP 6: Washing Machine Rebates		
Year	Interven-tions	Water Saved (ac-ft/Yr)	Cost ($/Yr)	Interven-tions	Water Saved (ac-ft/Yr)	Cost ($/Yr)
2006	117	129	$76,332	305	6	$22,860
2007	117	259	$76,332	305	12	$22,860
2008	10	259	$1,474	0	12	$0
2009	10	260	$1,474	0	12	$0
2010	4	131	$567	0	12	$0
2011	4	2	$567	0	12	$0
2012	0	1	$0	0	12	$0
2013	0	1	$0	0	12	$0
2014	0	0	$0	0	12	$0
2015	0	0	$0	0	12	$0
2016	0	0	$0	0	12	$0
2017	0	0	$0	0	12	$0
2018	0	0	$0	0	12	$0
2019	0	0	$0	0	12	$0
2020	0	0	$0	0	6	$0
2021	0	0	$0	0	0	$0
2022	0	0	$0	0	0	$0
2023	0	0	$0	0	0	$0
2024	0	0	$0	0	0	$0
2025	0	0	$0	0	0	$0
2026	0	0	$0	0	0	$0
2027	0	0	$0	0	0	$0
2028	0	0	$0	0	0	$0
2029	0	0	$0	0	0	$0
2030	0	0	$0	0	0	$0
Total	262	1,042	$156,747	610	162	$45,720

Table 5-5 (continued)
Summary of Required Interventions, Implementation Cost and Estimated Water Saved for BMPs Not Meeting Coverage Requirements

	BMP 9: CII Conservation			Total		
Year	Interven-tions	Water Saved (ac-ft/Yr)	Cost ($/Yr)	Interven-tions	Water Saved (ac-ft/Yr)	Cost ($/Yr)
2006	24	21	$14,970	1384	196	$164,846
2007	24	41	$14,970	919	380	$167,428
2008	0	41	$0	196	403	$47,303
2009	0	41	$0	40	422	$47,303
2010	0	21	$0	34	269	$36,131
2011	0	0	$0	34	109	$33,549
2012	0	0	$0	30	104	$30,400
2013	0	0	$0	30	103	$30,400
2014	0	0	$0	30	103	$30,400
2015	0	0	$0	30	103	$30,400
2016	0	0	$0	30	103	$30,400
2017	0	0	$0	30	103	$30,400
2018	0	0	$0	30	103	$30,400
2019	0	0	$0	30	103	$30,400
2020	0	0	$0	30	97	$30,400
2021	0	0	$0	30	91	$30,400
2022	0	0	$0	30	91	$30,400
2023	0	0	$0	30	91	$30,400
2024	0	0	$0	30	91	$30,400
2025	0	0	$0	30	91	$30,400
2026	0	0	$0	30	91	$30,400
2027	0	0	$0	30	91	$30,400
2028	0	0	$0	30	91	$30,400
2029	0	0	$0	30	91	$30,400
2030	0	0	$0	30	91	$30,400
Total	48	166	$29,940	3,186	3,612	$1,074,160

Chapter 6. Desalination

The Act requires that desalination opportunities be discussed in the UWMP. The Act states:

Section 10631

(i) Describe the opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.

Per requirements of California Water Code section 10631(i), this chapter presents opportunities to use desalinated water as a future water supply source for the Claremont System. The reliability of water supply for the Claremont System could be further augmented by plans for the desalination of seawater by Metropolitan.

Water available from desalination of seawater may increase the reliability of water supply for the System because it could increase total available water supply for the wholesalers. However, it is not possible at this point to quantify the amount of water from desalination projects that will be available for the GSWC's Claremont System. The following discussion summarizes Metropolitan's desalination plan.

Metropolitan and its member agencies view seawater desalination as a future component of a diversified water supply portfolio. Recent and continuous breakthroughs in membrane technology have helped to reduce desalination costs, warranting consideration among alternative resource options outlined in Metropolitan's 2003 Integrated Resources Plan (IRP) Update. Metropolitan's IRP Update includes a target goal of up to 150,000 acre-feet per year (ac-ft/yr) of seawater desalination by 2025. This is an important component of the total estimated water supply production for the region.

To achieve the long term goals, Metropolitan initiated the Seawater Desalination Program (SDP) in 2001. As part of the program, Metropolitan is providing support for projects in its service area that would deliver desalted water up to 50,000 ac-ft/yr, including financial assistance of up to $250 per ac-ft of water for supplies that have been developed and delivered to the Metropolitan's distribution system for a period of up to 25 years. In addition, Metropolitan has an established desalination research program. As part of this program, the agency is providing $250,000 to five member agencies to conduct research and investigation in various aspects of seawater desalination. Metropolitan is also involved in efforts to assess current desalination projects and to compare project features and applicability to Southern California. Furthermore, Metropolitan, in association with member agencies, is involved in assessing established and emerging desalination treatment technologies, pretreatment alternatives, and brine disposal issues, as well as the permitting and regulatory approvals associated with the delivery of desalinated seawater to regional and local distribution systems.

Table 6-1 provides a summary of opportunities for water desalination. As it has been mentioned earlier, the future desalination projects of Metropolitan and TVMWD will collectively increase the reliability of water supply for the region. However, the exact quantity that will be allotted for the GSWC's Claremont System is not known at this time.

Table 6-1
Summary of Opportunities for Water Desalination

Source of Water	Yield (acre-feet per Year)	Start Date	Type of Use	Other
Seawater (Metropolitan)	150,000	2025	Potable water	N/A

Notes
1. Table format based on DWR Guidance Document Table 18

Chapter 7. Water Shortage Contingency Plan

Section 10632 of the Act details the requirements of the water shortage contingency analysis. The Act states:

Section 10632. The plan shall provide an urban water shortage contingency analysis which includes each of the following elements which are within the authority of the urban water supplier:

(a) Stages of action to be undertaken by the urban water supplier in response to water supply shortages, including up to a 50 percent reduction in water supply, and an outline of specific water supply conditions which are applicable to each stage.

(b) 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.

(c) Actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including, California Urban Water Management Planning Act Page 9 August 1, 2003 but not limited to, a regional power outage, an earthquake, or other disaster.

(d) 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.

(e) 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.

(f) Penalties or charges for excessive use, where applicable.

(g) 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.

(h) A draft water shortage contingency resolution or ordinance.

(i) A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.

This chapter documents GSWC's Water Shortage Contingency Plan for the Claremont System per requirements of Section 10632 of the Act. The Water Shortage Contingency Plan is based on Rule No. 14.1 Mandatory Water Conservation, Restrictions and Ratings Program adopted by GSWC. Appendix F contains the full text of the rule.

The purpose of the Water Shortage Contingency Plan is to provide a plan of action to be followed during the various stages of a water shortage. The plan includes the following elements: action stages, estimate of minimum supply available, actions to be implemented during a catastrophic interruption of water supplies, prohibitions, penalties and consumption reduction methods, revenue impacts of reduced sales, and water use monitoring procedures.

Action Stages

The Act requires documentation of actions to be undertaken during a water shortage. GSWC has developed actions to be undertaken in response to water supply shortages, including up to a 50 percent reduction in water supply. Implementation of the actions is dependent upon approval of the California Public Utilities Commission (CPUC), especially for implementing mandatory water use restriction. CPUC has jurisdiction over GSWC because GSWC is an investor-owned water utility. Section 357 of the California Water Code requires that suppliers that are subject to regulation by the CPUC secure its approval before imposing water consumption regulations and restrictions required by water supply shortage emergencies. GSWC has proposed that the CPUC support implementation of water shortage allocation policies by amending Commission Rule 14.1 to (a) adopt specific rationing rates and restrictor valve removal fees; and (b) provide for a shortened authorization period to implement emergency measures such as mandatory conservation and rationing in order to effectively manage water shortages.

GSWC has grouped the actions to be taken during a water shortage into four stages, I through IV, that are based on the water supply conditions. Table 7-1 describes the water supply shortage stages and conditions. The stages will be implemented during water supply shortages according to shortage level, ranging from 5 percent shortage in Stage I to 50 percent shortage in Stage IV. The stage determination and declaration during a water supply shortage will be made by the Regional Vice President Customer Service.

Table 7-1
Water Supply Shortage Stages and Conditions

Stage No.	Water Shortage Supply Conditions	Shortage Percent
I	Minimum	5 -10
II	Moderate	10 - 20
III	Severe	20 – 35
IV	Critical	35 - 50

Notes
This table is based on the DWR Guidebook Table 23.

The actions to be undertaken during each stage include, but are not limited to, the following:

Stage I (5 - 10 percent shortage) - Water alert conditions are declared and voluntary conservation is encouraged. The drought situation is explained to the public and governmental bodies. GSWC explains the possible subsequent water shortage stages in order to forecast possible future actions for the customer base. The activities performed by GSWC during this stage include, but are not limited to:

- Public information campaign consisting of distribution of literature, speaking engagements, bill inserts, and conversation messages printed in local newspapers
- Educational programs in area schools

- Conservation Hotline, a toll free number with trained Conservation Representatives to answer customer questions about conservation and water use efficiency

Stage II (10 - 20 percent shortage) – Stage II will include actions undertaken in Stage I. In addition, GSWC may propose voluntary conservation allotments and/or require mandatory conservation rules. The severity of actions depends upon the percent shortage. The level of voluntary or mandatory water use reduction requested from the customers is also based on the severity. It needs to be noted that prior to implementation of any mandatory reductions, GSWC must obtain approval from CPUC. If necessary, GSWC may also support passage of drought ordinances by appropriate governmental agencies.

Stage III (20 - 35 percent shortage) – Stage III is a severe shortage that entails or includes allotments and mandatory conservation rules. This phase becomes effective upon notification by the GSWC that water usage is to be reduced by a mandatory percentage. GSWC implements mandatory reductions after receiving approval from CPUC. Rate changes are implemented to penalize excess usage. Water use restrictions are put into effect, i.e. prohibited uses can include restrictions of daytime hours for watering, excessive watering resulting in gutter flooding, using a hose without a shutoff device, use of non-recycling fountains, washing down sidewalks or patios, unrepaired leaks, etc. GSWC monitors production weekly for compliance with necessary reductions. Use of flow restrictors is implemented, if abusive practices are documented.

Stage IV (35 - 50 percent shortage) – This is a critical shortage that includes all steps taken in prior stages regarding allotments and mandatory conservation. All activities are intensified and production is monitored daily by GSWC for compliance with necessary reductions.

Minimum Supply

The Act requires 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 GSWC's water supply.

Table 7-1 summarizes the minimum volume of water available from each source during the next three years based on multiple-dry water years and normal water year. The driest three-year historic sequence is provided in Chapter 3. The water supply quantities for 2006 to 2008 are calculated by linearly interpolating between the projected water supplies of 2005 and 2010. The water supplies for 2005 and 2010 are presented in Chapter 3. It is assumed that the multiple-dry year supplies will be the same as those for the normal years because purchased water supplies will meet projected purchased water demands under all anticipated hydrologic conditions.

GSWC's supply is expected to be 100 percent reliable from 2005 to 2008. This reliability is a result of, 1) the projected reliability of TVMWD as a member of Metropolitan, which expects to provide 100 percent reliable imported water supplies, and 2) GSWC's share of the OSY in the Six Basins and the Chino Groundwater Basin (see Chapters 3 and 10 for details).

Table 7-2
Three-Year Estimated Minimum Water Supply in ac-ft/yr

Source	2006	2007	2008	2005 Average year
Purchased water from TVMWD	7,027	7,013	6,999	7,041
Groundwater	7,125	7,346	7,566	6,905
Recycled Water	0	0	0	0
Total	14,152	14,359	14,565	13,946

Notes
1. This table is based on the DWR Guidebook Table 24.

Catastrophic Supply Interruption Plan

The Act requires documentation of actions to be undertaken by the water supplier to prepare for, and implement during a catastrophic interruption of water supplies. A catastrophic interruption constitutes a proclamation of a water shortage and could be any event (either natural or man-made) that causes a water shortage severe enough to classify as either a Stage III or Stage IV water supply shortage condition.

In order to prepare for catastrophic events, GSWC has prepared an Emergency Response Plan (ERP) in accordance with other state and federal regulations. The purpose of this plan is to design actions necessary to minimize the impacts of supply interruptions due to catastrophic events.

The ERP coordinates overall company response to a disaster in any and all of its districts. In addition, the ERP requires each district to have a local disaster plan that coordinates emergency responses with other agencies in the area. The ERP also provides details on actions to be undertaken during specific catastrophic events. Table 7-3 provides a summary of actions cross-referenced against specific catastrophes for three of the most common possible catastrophic events: regional power outage, earthquake, and malevolent acts.

In addition to specific actions to be undertaken during a catastrophic event, GSWC performs maintenance activities, such as annual inspections for earthquake safety, and budgets for spare items, such as auxiliary generators, to prepare for potential events.

Table 7-3
Summary of Actions for Catastrophic Events

Possible Catastrophe	Summary of Actions
Regional power outage	• Isolate areas that will take the longest to repair and/or present a public health threat. Arrange to provide emergency water. • Establish water distribution points and ration water if necessary. • If water service is restricted, attempt to provide potable water tankers or bottled water to the area. • Make arrangements to conduct bacteriological tests, in order to determine possible contamination. • Utilize backup power supply to operate pumps in conjunction with elevated storage.
Earthquake	• Assess the condition of the water supply system. • Complete the damage assessment checklist for reservoirs, water treatment plants, wells and boosters, system transmission and distribution. • Coordinate with OES utilities group or fire district to identify immediate fire fighting needs. • Isolate areas that will take the longest to repair and/or present a public health threat. Arrange to provide emergency water. • Prepare report of findings, report assessed damages, advise as to materials of immediate need and identify priorities including hospitals, schools and other emergency operation centers. • Take actions to preserve storage. • Determine any health hazard of the water supply and issue any “Boil Water Order” or “Unsafe Water Alert” notification to the customers, if necessary. • Cancel the order or alert information after completing comprehensive water quality testing. • Make arrangements to conduct bacteriological tests, in order to determine possible contamination.
Malevolent acts	• Assess threat or actual intentional contamination of the water system. • Notify local law enforcement to investigate the validity of the threat. • Get notification from public health officials if potential water contamination • Determine any health hazard of the water supply and issue any “Boil Water Order” or “Unsafe Water Alert” notification to the customers, if necessary. • Assess any structural damage from an intentional act. • Isolate areas that will take the longest to repair and or present a public health threat. Arrange to provide emergency water.

Notes
1. This table is based on the DWR Guidebook Table 25.

Prohibitions, Penalties, and Consumption Reduction Methods

The Act requires an analysis of mandatory prohibitions, penalties, and consumption reduction methods against specific water use practices which may be considered excessive during water shortages. Given that GSWC is an investor owned entity, it does not have the authority to pass any ordinances enacting specific prohibitions or penalties. In order to enact or rescind any prohibitions or penalties, GSWC would seek approval from CPUC to enact or rescind Rule No. 14.1, Mandatory Conservation and Rationing, which is presented in Appendix F. When Rule No. 14.1 has expired or is not in effect, mandatory conservation and rationing measures will not be in force.

Rule No. 14.1 details the various prohibitions and sets forth water use violation fines, charges for removal of flow restrictors, as well as establishes the period during which mandatory conservation and rationing measures will be in effect. The prohibitions on various wasteful water uses, include, but are not limited to, the hose washing of sidewalks and driveways using potable water, and cleaning for filling decorative fountains. Table 7-4 summarizes the various prohibitions and the stages during which the prohibition becomes mandatory.

Table 7-4
Summary of Mandatory Prohibitions

Examples of Prohibitions	Stage When Prohibition Becomes Mandatory
Uncorrected plumbing leaks	II, III, IV
Watering which results in flooding or run-off in gutters, waterways, patios, driveway, or streets	II, III, IV
Washing aircraft, cars, buses, boats, trailers, or other vehicles without a positive shut-off nozzle on the outlet end of the hose	II, III, IV
Washing buildings, structures, sidewalks, walkways, driveways, patios, parking lots, tennis courts, or other hard-surfaced areas in a manner which results in excessive run-off	II, III, IV
Irrigation of non-permanent agriculture	II, III, IV
Use of water for street watering with trucks or for construction purposes unless no other source of water or other method can be used	II, III, IV
Use of water for decorative fountains or the filling or topping off of decorative lakes or ponds	II, III, IV
Filling or refilling of swimming pools	II, III, IV

Notes
1. This table is based on the DWR Guidebook Table 26.

In addition to prohibitions during water supply shortage events requiring a voluntary or mandatory program, GSWC will make available to its customers water conservation kits as required by GSWC's Rule No. 20. GSWC will notify all customers of the availability of conservation kits.

In addition to prohibitions, Rule No. 14.1 provides penalties and charges for excessive water use. The enactment of these penalties and charges is contingent on approval of Rule 14.1 implementation by the CPUC. When the rule is in effect, violators receive one verbal and one written warning after which a flow-restricting device may be installed in the violator's service for a reduction of up to 50 percent of normal flow or 6 ccf per month, whichever is greater. Table 7-5 summarizes the penalties and charges and the stage during which they take effect.

Table 7-5
Summary of Penalties and Charges for Excessive Use

Penalties or Charges	Stage When Penalty Takes Effect
Penalties for not reducing consumption	III, IV
Charges for excess use	III, IV
Flat fine; Charge per unit over allotment	III, IV
Flow restriction	III, IV
Termination of Service	III, IV

Notes
1. This table is based on the DWR Guidebook Table 28.

In addition to prohibitions and penalties, GSWC can use other consummation reduction methods to reduce water use up to 50 percent. Based on the requirements of the Act, Table 7-6 summarizes the methods that can be used by GSWC in order to enforce a reduction in consumption, where necessary.

Finally, GSWC has requested that the CPUC support implementation of water shortage allocation policies by amending Commission Rule 14.1 to (a) adopt specific rationing rates and restrictor valve removal fees; and (b) provide for a shortened authorization period to implement emergency measures such as mandatory conservation and rationing in order to effectively manage water shortages.

Table 7-6
Summary of Consumption Reduction Methods

Consumption Reduction Method	Stage When Method Takes Effect	Projected Reduction Percentage
Demand reduction program	All Stages	N/A
Reduce pressure in water lines; Flow restriction	III, IV	N/A
Restrict building permits; Restrict for only priority uses	II, III, IV	N/A
Use prohibitions	II, III, IV	N/A
Water shortage pricing; Per capita allotment by customer type	II, IV	N/A

Table 7-6
Summary of Consumption Reduction Methods

Consumption Reduction Method	Stage When Method Takes Effect	Projected Reduction Percentage
Plumbing fixture replacement	All Stages	N/A
Voluntary rationing	II	N/A
Mandatory rationing	III, IV	N/A
Incentives to reduce water consumption; Excess use penalty	III, IV	N/A
Water conservation kits	All Stages	N/A
Education programs	All Stages	N/A
Percentage reduction by customer type	III, IV	N/A

Notes
1. This table is based on the DWR Guidebook Table 27.

Revenue Impacts of Reduced Sales

Section 10632(g) of the Act requires an analysis of the impacts of each of the actions taken for conservation and water restriction on the revenues and expenditures of the water supplier. Because GSWC is an investor owned water utility and, as such, is regulated by the CPUC, the CPUC authorizes it to establish memorandum accounts to track expenses and revenue shortfalls caused by both mandatory rationing and voluntary conservation efforts. Utilities with CPUC-approved water management plans are authorized to implement a surcharge to recover revenue shortfalls recorded in their drought memorandum accounts. Table 7-7 provides a summary of actions with associated revenue reductions; while Table 7-8 provides a summary of actions and conditions that impact expenditures. Table 7-9 summarizes the proposed measures to overcome revenue impacts. Table 7-10 provides a summary of the proposed measures to overcome expenditure impacts.

Table 7-7
Summary of Actions and Conditions that Impact Revenue

Type	Anticipated Revenue Reduction
Reduced sales	Reduction in revenue will be based on the decline in water sales and the corresponding quantity tariff rate
Recovery of revenues with CPUC approved surcharge	Higher rates may result in further decline in water usage and further reduction in revenue

Notes
1. This table is based on a DWR Guidebook table on page 59.

Table 7-8
Summary of Actions and Conditions that Impact Expenditures

Category	Anticipated Cost
Increased staff cost	Salaries and benefits for new hires required to administer and implement water shortage program
Increased O&M[(2)] cost	Operating and maintenance costs associated with alternative sources of water supply
Increased cost of supply and treatment	Purchase and treatment costs of new water supply

Notes
1. This table is based on a DWR Guidebook table on page 59.
2. Operations and maintenance.

Table 7-9
Proposed Measures to Overcome Revenue Impacts

Names of Measures	Summary of Effects
Obtain CPUC approved surcharge	Allows for recovery of revenue shortfalls brought on by water shortage program
Penalties for excessive water use	Obtain CPUC approval to use penalties to offset portion of revenue shortfall

Notes
1. This table is based on the DWR Guidebook Table 29.

Table 7-10
Proposed Measures to Overcome Expenditure Impacts

Names of Measures	Summary of Effects
Obtain CPUC approved surcharge	Allows for recovery of increased expenditures brought on by water shortage program
Penalties for excessive water use	Obtain CPUC approval to use penalties to offset portion of increased expenditures

Notes
1. This table is based on the DWR Guidebook Table 30.

Water-Use Monitoring Procedures

The Act asks for an analysis of mechanisms for determining actual reduction in water use when the Water Shortage Contingency Plan is in effect. Table 7-11 lists the possible mechanisms used by GSWC to monitor water use and the quality of data expected.

Table 7-11
Water-Use Monitoring Mechanisms

Mechanisms for Determining Actual Reductions	Type and Quality of Data Expected
Customer meter readings	Hourly/daily/monthly water consumption data for a specific user depending on frequency of readings
Production meter readings	Hourly/daily/monthly water production depending on frequency of readings; correlates to water use plus system losses

Notes
1. This table is based on the DWR Guidebook Table 31.

In addition to the specific actions that GSWC can undertake to verify level of conservation, GSWC can monitor long-term water use through regular bi-monthly meter readings, which gives GSWC the ability to flag exceptionally high usage for verification of water loss or abuse.

Chapter 8. Recycled Water Plan

Section 10633 details the requirements of the Recycled Water Plan to be included in the Act. The Act states the following:

Section 10633. The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier. The preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area and shall include all of the following:

(a) A description of 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.

(b) A description of the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.

(c) A description and quantification of the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.

(d) 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 pursuant to this subdivision.

(e) A description of 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.

(f) 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.

Coordination

Table 8-1 summarizes the role of the agencies that participated in the development of recycled water plans that affect the Claremont System of the GWSC.

Table 8-1
Role of Participating Agencies in the Development of the Recycled Water Plan

Participating Agencies	Role in Plan Development
Water agencies	GSWC works with the Sanitation Districts of Los Angeles County in providing data for planning a potential recycled water distribution system and identifying potential recycled water customers. The Sanitation Districts of Los Angeles County, acting as the recycled water wholesaler, would lead the way in implementing the recycled water plan and distribution network.
Wastewater agencies	The Sanitation Districts of Los Angeles County provide a reliable supply of recycled water that meets California recycled water quality standards set forth in Title 22 of the California Code of Regulations.
Groundwater agencies	Not applicable for this System.
Planning agencies	The Sanitation Districts of Los Angeles County, in conjunction with the affected city governments, play a key role in conducting data and customer assessments, as well as analyzing community and economic impacts.

Notes
1. This table is based on the DWR Guidebook Table 32.

Wastewater Quantity, Quality, and Current Uses

Wastewater in the Claremont System is collected by gravity sewers and lift stations owned by the cities of Claremont and Pomona, as well as by the Sanitation Districts of Los Angeles County (LACSD). The wastewater is transported through trunk sewers to LACSD's Pomona Water Reclamation Plant (WRP).

The Pomona WRP provides primary, secondary, and tertiary treatment for an average dry weather flow (DWF) of 10 million gallons of wastewater per day (mgd); the design capacity is 15 mgd. The plant serves a population of approximately 130,000 people. Approximately 5.8 mgd of the treated effluent is reused at approximately 137 different reuse sites throughout the area. These include irrigation of parks, schools, golf courses, landscaping and greenbelts, irrigation and dust control at the Spadra Landfill and industrial use by local paper manufacturers. The remainder of the effluent (4.2 mgd) is discharged into the San Jose Creek channel where it makes its way to the unlined portion of the San Gabriel River.

Because the Pomona WRP treats wastewater for a larger population than is accounted for in the Claremont System, an estimated per capita wastewater generation factor was used to calculate the volume of wastewater generated by the customers in the Claremont System. The wastewater generation factor is based on the population served and the average wastewater treatment rate for the Pomona WRP. The plant serves approximately 130,000 residents and treats an average of 10 mgd, making the average per capita wastewater generation factor for Pomona WRP 77 gallons per day (gpd). This is the per capita wastewater generation factor used to estimate the existing and projected volumes of wastewater collected and treated in the Claremont System (refer to Table 8-2).

Because all of the effluent from the Pomona WRP is treated to meet Title 22 recycled water standards, 100 percent of the treated effluent is included in Table 8-2 as meeting such standards. However, out of the total effluent (10 mgd), 5.8 mgd (58 percent) of the treated water is actively reused throughout the region. Therefore, the assumption is that 58 percent of the treated wastewater that is collected in the Claremont System is actively reused throughout the region and the remaining 42 percent is discharged into the unlined portions of the San Gabriel River. Although the majority of the water that is discharged into the San Gabriel River will contribute to groundwater recharge through the riverbed, LACSD does not consider this an active recycled water use. Therefore, of the wastewater collected in the Claremont System, Table 8-3 lists the estimates of existing and projected volumes of treated effluent that will be discharged into the San Gabriel River.

Region-wide, 58 percent of the effluent from the Pomona WRP is actively reused for a variety of applications. However, there are no existing uses of recycled water within the boundaries of the Claremont System; therefore, Table 8-4 has intentionally been left blank.

Table 8-2
Estimates of Existing and Projected Wastewater Collection and Treatment in Ac-ft/yr (mgd) for the Claremont System

	2000[2]	2005	2010	2015	2020	2025	2030
Projected population in service area	34,106	36,494	37,606	38,360	39,102	39,833	40,532
Wastewater collected & treated in service area	2,949 (2.6 mgd)	3,155 (2.8 mgd)	3,251 (2.9 mgd)	3,316 (3.0 mgd)	3,381 (3.0 mgd)	3,444 (3.1 mgd)	3,504 (3.1 mgd)
Quantity that meets recycled water standard	2,949 (2.6 mgd)	3,155 (2.8 mgd)	3,251 (2.9 mgd)	3,316 (3.0 mgd)	3,381 (3.0 mgd)	3,444 (3.1 mgd)	3,504 (3.1 mgd)

Notes
1. This table is based on the DWR Guidebook Table 33.
2. Based on actual year.
3. Values of wastewater collected and treated are estimated. For a description of the methodology, refer to the text.

Table 8-3
Estimates of Existing and Projected Disposal of Wastewater In ac-ft/yr (mgd) for the Claremont System

Method of Disposal	Treatment Level	2000[2]	2005	2010	2015	2020	2025	2030
San Gabriel River Discharge (via San Jose Creek)	Tertiary	1,238 (1.1)	1,325 (1.2)	1,366 (1.2)	1,393 (1.2)	1,420 (1.3)	1,446 (1.3)	1,472 (1.3)

Notes
1. This table is based on the DWR Guidebook Table 34.
2. Based on actual year.
3. Values of discharged water are estimated. For a description of the methodology, refer to the text.

Table 8-4
Existing Recycled Water Use in the Claremont System

Type of Use	Treatment Level	2004 Use (acre-feet per year)
N/A	N/A	N/A

Notes
1. This table is based on the DWR Guidebook Table 35a.

Potential and Projected Use

The available output of recycled water from the Pomona WRP is already being used by recycled water customers that are not part of the Claremont System and LACSD does not plan to provide recycled water to Claremont customers in the next 25 years. The downstream water reclamation plants (San Jose Creek and Whittier Narrows WRPs) are too far from the Claremont System to economically provide reclaimed water. Therefore, Table 8-5 and Table 8-6 are not applicable for this system and have been intentionally left blank.

In the Urban Water Management Plan for the Claremont System (2000), there were no projections of recycled water by the year 2005. Therefore, Table 8-7 has been intentionally left blank.

Table 8-5
Potential Future Recycled Water Uses in Acre-Feet Per Year

Type of Use	Treatment Level	2010	2015	2020	2025	2030
N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes
1. This table is based on the DWR Guidebook Table 35b.

Table 8-6
Projected Future Recycled Water Use in Service Area in Acre-Feet Per Year

Type of Use	2010	2015	2020	2025	2030
N/A	N/A	N/A	N/A	N/A	N/A

Notes
1. This table is based on the DWR Guidebook Table 36.

Table 8-7
Comparison of Recycled Water Uses—Year 2000 Projections versus 2005 Actual

Type of Use	2000 Projection for 2005	2005 Actual Use
N/A	N/A	N/A

Notes
1. This table is based on the DWR Guidebook Table 37.

Optimization and Incentives for Recycled Water Use

It is not economically viable to provide recycled water to the Claremont service area due to the distance from the San Jose and Whittier Narrows WRPs (refer to section on Potential and Projected Use). The Pomona WRP is located near the Claremont service area; however, most of the output is already being used by customers that are not located within the boundaries of the Claremont System.

As owner and operator of the Pomona WRP, LACSD is responsible for determining the technical and economic feasibility of supplying recycled water to the Claremont System. Extension of the recycled water lines within the Claremont service area is also the responsibility of LACSD.

Because there are currently no plans to extend recycled water to the Claremont System, there are no actions in place at this time by which GSWC is encouraging the use of recycled water in the system. Therefore, Table 8-8 is not applicable for this system and has been intentionally left blank.

However, if and when LACSD decides to implement a recycled water project in the system, where feasible, GSWC will support the project by encouraging recycled water use among its customers.

Table 8-8
Methods to Encourage Recycled Water Use and the Resulting Projected Use in Acre-Feet Per Year

Actions	2010	2015	2020	2025	2030
N/A	N/A	N/A	N/A	N/A	N/A

Notes
1. This table is based on the DWR Guidebook Table 38.

Chapter 9. Water Quality

Section 10634 of the Act requires an analysis of water quality issues and their impact to supply reliability. The Act states as follows:

Section 10634. The plan shall include information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments as described in subdivision (a) of Section 10631 and the manner in which water quality affects water management strategies and supply reliability.

GSWC Measures for Water Quality Regulation Compliance

To facilitate full compliance with water quality laws and regulations, GSWC maintains a water quality department that has independent lines of reporting authority within the organization. The water quality department is headed by a company officer specifically assigned to oversee and manage the company's water quality program. The Vice President of Water Quality has a staff of three managers, located in each of the company's regional offices. Water quality managers, in turn, manage a staff of water quality engineers and technicians that are assigned to district offices. Each district office is assigned one water quality engineer and at least one water quality technician to provide direct support to the local drinking water systems within the district.

The district water quality engineer is the main point of contact for the Department of Health Services as well as other regulatory agencies. The water quality engineer also is responsible for coordinating compliance measures through scheduling required sample collection, preparing water quality related plans, maintaining a water quality database, providing training to operations, implementing a cross connection control program, and preparing and submitting monitoring reports, permit applications and other regulatory related correspondence.

As a whole, the water quality department monitors and participates in the development of new water quality related laws and regulations. Through routine department meetings and training, the district water quality engineers are kept up to date with changing water quality regulations and related technology. These efforts contribute towards maintaining a pool of trained water quality professionals that can be utilized throughout the company. This provides the company the ability to respond to a wide variety of water quality issues or emergencies.

Current and Proposed Water Quality Regulations

Environmental Protection Agency (EPA) and the State of California have established, or will develop, the following key primary water quality regulations under the Safe Drinking Water Act (SDWA). The Current and proposed water quality regulations listed below are discussed in the following paragraphs. These regulations apply to community and non-community water systems, which includes those of Golden State Water Company (GSWC)

and may affect the GSWC water treatment facilities, treatment processes used, and monitoring requirements. See Table 9-1 for the status of current and proposed water quality regulations.

- Total Coliform Rule (TCR)
- Surface Water Treatment Rules
  - Surface Water Treatment Rule (SWTR)
  - *Cryptosporidium* Action Plan
  - Interim Enhanced SWTR (IESWTR)
  - Long Term 1 Enhanced SWTR (LT1ESWTR)
  - Long Term 2 Enhanced SWTR (LT2ESWTR)
- Disinfectant/Disinfection By-Product Rules
  - Total Trihalomethanes (TTHMs) Rule
  - Disinfectant/Disinfection By-Product (D/DBP) Rule Stage 1
  - Disinfectant/Disinfection By-Product (D/DBP) Rule Stage 2
- Volatile Organic, Synthetic Organic and Inorganic Chemical Rules
  - Volatile Organic Chemicals Rule
  - Phase IIA Fluoride Rule
  - Phase IIA Synthetic Organic Chemicals and Inorganic Chemicals Rule
  - Phase V Synthetic Organic Chemicals and Inorganic Chemicals Rule
- Groundwater Rule
- Filter Backwash Rule
- Lead and Copper Rule
- Arsenic Rule
- Radionuclide Rule
- Radon Rule
- Drinking Water Candidate Contaminant List

Safe Drinking Water Act (SDWA)

Under the federal SDWA of 1974, EPA established drinking water regulations for 23 contaminants. The SDWA Amendments of 1986 required EPA to set maximum contaminant levels (MCLs) for 83 specific constituents and to set MCLs for an additional 25 constituents every 3 years, indefinitely. The 1996 SDWA amendments retained the requirement to regulate the 83 contaminants imposed by the 1986 amendments but removed the requirement for 25 additional contaminants every 3 years and established a different process for selecting contaminants for regulation.

Under the 1996 SDWA amendments, EPA must:

- Publish a list of contaminants that may require regulation under the SDWA no later than February 6, 1998, and every 5 years thereafter
- Consult with the scientific community, including the Science Advisory Board, when preparing the list
- Provide notice and opportunity for public comment on the list

- Establish an occurrence database to be considered when EPA makes decisions to regulate contaminants that are known or anticipated to occur in public water systems
- Decide whether to regulate no fewer than five listed contaminants, no later than August 6, 2001, and every 5 years thereafter

To regulate a contaminant, EPA must find that the contaminant has an adverse effect on human health, that it occurs or is likely to occur in public water systems at a frequency and at concentrations of public health concern, and that regulation of the contaminant presents a meaningful opportunity to reduce health risks for those served by public water systems.

The status of the regulations, including the final rules and those that are still being formulated, are discussed below and summarized in Table 9-1. The current national primary drinking water standards, which are those standards related to health, are shown in Table 9-2. EPA considers compliance with secondary standards, which are those standards related to the aesthetic quality of water, to be optional; but, in California, secondary standards are mandatory unless the population served consents otherwise. The California secondary drinking water standards are shown in Table 9-3.

Primacy

EPA has delegated primary enforcement responsibility for drinking water program implementation and enforcement to the state of California. To maintain primacy (authority to enforce drinking water regulations) under the SDWA, the state must adopt drinking water regulations at least as stringent as the federal regulations and meet other relevant criteria. State drinking water regulations may be more stringent than the federal regulations, but not less stringent. In California, the California Department of Health Services (CDHS) is the primacy agency for drinking water regulations.

Table 9-1
Status of Drinking Water Regulations

Regulation	Contaminants	Status
Final Rules		
NIPDWR	18 original contaminants	Rule final 1975
Interim Radionuclides	4 additional radionuclides	Rule final 1976
Total Trihalomethanes	Sum of four trihalomethanes	Rule final 1979
Revised Fluoride	Fluoride	Rule final 1986
VOCs (Phase I)	8 VOCs	Rule final 1987
SWTR	Treatment tech. (*Giardia* and viruses)	Rule final 1989
TCR	Total coliforms, fecal coliforms, *E. coli*	Rule final 1989
Lead and Copper Rule	Lead, copper	Rule final 1991
SOCs, IOCs (Phase II)	36 IOCs, SOCs, and pesticides	MCLs final 1991
SOCs, IOCs (Phase IV)	5 IOCs, 18 SOCs	MCLs final 1992
D/DBP Rule Stage 1	Disinfectants, disinfection by-products	Rule final 1998
IESWTR	Treatment Tech. (*Cryptosporidium*)	Rule final 1998
Radionuclides	Radionuclides (other than Radon)	Rule final 2000
Arsenic(1)	Arsenic	Rule final 2001, new MCL of 10 µg/L effective January 23, 2006
LT1ESWTR	Extends IESWTR to small utilities	Rule final 2001
Filter Backwash Rule	Regulate Filter Backwash recycle	Rule final 2001
Methyl Tertiary Butyl Ether	MTBE	Rule final 2001
Drinking Water Contaminant Candidate List$^{\alpha}$	No less than 5 Contaminants	Decision to regulate in 2001, revised DWCCL in 2003 and every 5 years thereafter
Proposed Rules		
LT2ESWTR(1)	Revision of IESWTR to control *Cryptosporidium*	Proposed August 2003, missed May 2002 SDWA deadline. Final rule expected 2005
D/DBP Rule Stage 2(1)	Revision of D/DBP Rule Stage 1 for distribution system monitoring	Proposed August 2003, missed May 2002 SDWA deadline. Final rule expected 2005
Groundwater Rule(1)	Virus, groundwater disinfection	Proposed May 2000, missed May 2002 SDWA deadline. Final rule expected 2005
Future Rules		
Radon(1)	Radon	Proposed November 1999, EPA has not indicated a final schedule for promulgation
TCR Revisions(1)	Distribution System Issues	Potentially proposed mid-2006, final rule by 2008

Notes
1. Regulation with potential future impact to GSWC

Table 9-2
Current Federal Drinking Water Standards

Parameter	mg/L (except as noted)
Inorganic Contaminants	**MCL**
Antimony	0.006
Arsenic[1]	0.05
Asbestos	7×10^6 Fibers/L
Barium	2
Beryllium	0.004
Bromate	0.010
Cadmium	0.005
Chlorite	0.8
Chromium	0.1
Cyanide	0.2
Fluoride	4
Mercury	0.002
Nickel	0.1
Nitrate (as N)	10
Nitrite (as N)	1
Nitrate plus Nitrite (both as N)	10
Selenium	0.05
Thallium	0.002
Inorganic Contaminants	**Treatment Technique**
Copper	1.3 (Action Level)
Lead	0.015 (Action Level)
Organic Contaminants	**MCL**
Alachlor	0.002
Benzene	0.005
Benzo (a) pyrene	0.0002
Carbon Tetrachloride	0.005
Carbonfuran	0.04
Chlordane	0.002
2,4-D	0.07
Dalapon	0.2
Di (2-ethylhexyl) adipate	0.4
Di (2-ethylhexyl) phthalate	0.006
1,2-Dibromo-3-chloropropane (DBCP)	0.0002
p-Dichlorobenzene	0.075
o-Dichlorobenzene	0.6
1,2-Dichloroethane	0.005
1,1-Dichloroethylene	0.007
cis-1,2-Dichloroethylene	0.07
trans-1,2-Dichloroethylene	0.1

Table 9-2
Current Federal Drinking Water Standards

Parameter	mg/L (except as noted)
Dichloromethane	0.005
1,2-Dichloropropane	0.005
Dinoseb	0.007
Diquat	0.02
Endothall	0.1
Endrin[h]	0.002
Ethylbenzene	0.7
Ethylene Dibromide	0.00005
Glyphosate	0.7
Haloacetic Acids (sum of 5 [HAA%])	0.060
Heptachlor	0.0004
Heptachlor epoxide	0.0002
Hexachlorobenzene	0.001
Hexachlorocyclopentadiene	0.05
Lindane	0.0002
Methoxychlor	0.04
Monochlorobenzene	0.1
Oxamyl (vydate)	0.2
Pentachlorophenol	0.001
Picloram	0.5
Polychlorinated biphenyls (PCBs)	0.0005
Simazine	0.004
Styrene	0.1
2,3,7,8-TCDD (dioxin)	5×10^{-8}
Tetrachloroethylene	0.005
Toluene	1
Toxaphene (revised)[f]	0.003
2,4,5-TP (silvex)	0.05
1,2,4-Trichlorobenzene	0.07
1,1,1-Trichloroethane	0.20
1,1,2-Trichlororethane	0.005
Trichloroethylene	0.005
Trihalomethanes (sum of 4 [TTHM])	0.080
Vinyl Chloride	0.002
Xylenes (total)	10
Organic Contaminants	**Treatment Technique**
Acrylamide	Restrictions in polymer use
Epichlorohydrin	Restrictions in material use
Microorganisms	**Standard**
Cryptosporidium	Treatment Tech (99% removal/inactivation)
Escherichia coli	Treatment Tech (0 cfu/100 mL)

Table 9-2
Current Federal Drinking Water Standards

Parameter	**mg/L (except as noted)**
Fecal Coliforms	Treatment Technique (0 cfu/100 mL)
Giardia lamblia	Treatment Tech (99.9% removal/inactivation)
Heterotrophic Bacteria	Treatment Tech (500 cfu/mL at end of distribution system or measurable chlorine residual)
Legionella	Treatment Tech
Total Coliforms	5% (presence/absence)
Turbidity	Performance Std (0.3 NTU, 95%)
Viruses	Treatment Tech (99.99% removal/inactivation)
Radionuclides	**MCL**
Beta-particle and photon emitters	4 mrem
Alpha emitters	15 pCi/L
Radium 226 + 228	5 pCi/L
Uranium	0.030

Notes
1. Arsenic has been proposed at 10 µg/L in the new rule that is currently being reviewed

Table 9-3
Current State Secondary Drinking Water Regulations

Parameter	**mg/L (except as noted)**		
Contaminants	**SMCL or SMCL Ranges**		
Aluminum	0.2		
Color	15 Color Units		
Copper	1.0		
Corrosivity	Noncorrosive		
Foaming Agents (MBAs)	0.5		
Iron	0.3		
Manganese	0.05		
Methyl tertiary butyl ether (MTBE)	0.005		
Odor	3 Threshold Odor Number		
Silver	0.1		
Thiobencarb (Bolero)	0.001		
Turbidity	5 units		
Zinc	5		
	Recommended	**Upper**	**Short Term**
Total Dissolved Solids	500	1,000	1,500
Specific Conductance, micromhos	900	1,600	2,200
Chloride	250	500	600
Sulfate	250	500	600

Total Coliform Rule (TCR)

The TCR is the latest version of one of the oldest drinking water regulations. Coliform bacteria are organisms that have one or more biochemical reactions similar to Escherichia coli (E. coli). E. coli are bacteria that are commonly found in the digestive tract of warm-blooded animals. The total coliform test, then, is a test for bacteria, with similar biochemistry to E. coli, but which are capable of growing at 35 degrees Celsius (°C). The total coliform group includes several genera of bacteria belonging to the family Enterobacteriaciae. Some of these bacteria are not pathogenic. Total coliform testing is commonly used in drinking water treatment to determine the effectiveness of source water, treatment, and distribution system barriers to bacterial contamination.

The TCR was promulgated by the EPA in 1989 and DHS enacted its companion TCR that became effective on June 30, 1992. The TCR changed the basic principle of regulating bacterial quality. Instead of having an MCL based on average concentrations, total coliforms are now regulated based on presence/absence. For systems that collect 40 or more samples per month (more than 33,000 population) to be in compliance, no more than 5 percent of the samples taken for coliforms in a month can be coliform positive. A sample is considered positive if 1 of the 10 tubes is positive.

Other significant provisions of the TCR are:

- In the event of a coliform-positive sample, the utility must resample that location as well as the nearest upstream and downstream services for coliforms the following day and continue to analyze on consecutive days until either all three samples are negative, or the TCR is violated.
- Coliform-positive samples must be further examined for the presence of fecal coliforms or *E. coli*.
- If two consecutive samples from the same sample point are positive and one of those samples is positive for fecal coliforms, the system is out of compliance for that month.
- All distribution system zones must be included in the routine sampling program, and some of the sample locations must be rotated throughout the year.

TCR Potential Revisions and Distribution System Requirements

The 1996 amendments to the SDWA require EPA to review and revise, as appropriate, each national primary drinking water regulation at least every 6 years. EPA published as part of its National Primary Drinking Water Regulation (NPDWR) Review its decision to revise the TCR in July, 2003.

EPA is in the process of reviewing available data and research on distribution system risks. These efforts will result in the review and possible revision of the TCR, as well as the potential for requirements for finished water quality in the distribution system. The potential rule revisions could be proposed in 2006 with the rule final by 2008.

EPA has been working with distribution system experts to compile existing information regarding potential health risks that may be associated with distribution systems in "white papers" on the following nine distribution system issues:

- Intrusion
- Cross-connection control
- Aging infrastructure and corrosion
- Permeation and leaching
- Nitrification
- Biofilms/growth
- Covered storage
- Decay in water quality over time
- New or repaired watermains

EPA is also involved in the development of a series of ten TCR issue papers on the following issues:

- Distribution system indicators of water quality
- The effectiveness of disinfectant residuals in the distribution system
- Analysis of compliance and characterization of violations of the TCR
- Evaluating HACCP strategies for distribution system monitoring, hazard assessment and control
- Inorganic contaminant accumulation in distribution systems
- Distribution system inventory and condition assessment
- Optimization of distribution system monitoring strategies
- Effect of treatment on nutrient availability
- Causes of Total Coliform positive samples and contamination events in distribution systems
- Total Coliform sample invalidation

Distribution system white papers and TCR issue papers are intended to inform EPA and stakeholders of areas of potential TCR revisions and distribution system requirements.

Surface Water Treatment Rules

A series of rules has been or is currently being developed to provide control of microbial contaminants from surface water or groundwater that is under the direct influence of surface water.

The Surface Water Treatment Rule (SWTR)

The SWTR is primarily a microbiological regulation and codified the use of the multiple barrier concept for control of pathogenic organisms. The SWTR became effective in June 1993, and required all but the most pristine water sources to provide filtration of their surface water (or groundwater under the direct influence of surface water). It also required all systems having a surface water source to provide some level of disinfection.

In further defining the physical barrier of filtration, the SWTR reduced the MCL for finished water turbidity from 1 NTU to 0.5 NTUs (95 percent of the monthly samples, measured daily), and set a limit of 5 NTUs on the maximum finished water turbidity.

For disinfection, the SWTR required 99.9 percent (3 logs) for the combination of removal and inactivation of *Giardia* cysts and 99.99 percent (4 logs) for the combination of removal and inactivation of enteric viruses. The SWTR gave credit for 99.7 percent (2½ logs) removal of *Giardia* cysts and 99 percent (2 logs) removal of viruses in a "well-operated" conventional surface water treatment plant. The SWTR, then, required an additional ½-log of inactivation of *Giardia* cysts and an additional 2 logs of inactivation of viruses. Credit for the inactivation (or disinfection) requirements for *Giardia* and viruses was given for chlorine, chloramines, ozone, and chlorine dioxide. The credit was based upon achieving the product of disinfectant concentration and contact time, known as CT. The concentration (C) used was normally the concentration exiting the reactor used for primary disinfection and the time (T) was the time it took for 10 percent of the influent flow to exit the reactor (T_{10}). T_{10} was to be determined using tracer testing in the plants using different flow rates. Tables of CT required for each of the disinfectants at different temperatures, and in some cases, different pH values were published in the *Guidance Manual for Compliance with the Filtration and Disinfection Requirements for Public Water Systems Using Surface Water Sources* (American Water Works Association, Denver, CO, 1991).

As an additional barrier to organisms, the SWTR required that a measurable disinfectant residual be present or heterotrophic plate counts be less than 500 colony-forming units at the farthest ends of the distribution system. The measurable residual was defined as a minimum of 0.2 mg/L of free or combined chlorine.

Cryptosporidium Action Plan

In April 1995, the California DHS adopted a *Cryptosporidium* Action Plan that is intended to facilitate comprehensive compliance with the SWTR. The plan does not include any requirements beyond the existing regulations but, instead, clarifies the existing requirements to optimize the treatment process and reduce the risk of a waterborne illness outbreak. The plan includes six elements:

1. Conduct watershed sanitary surveys
2. Submission of available data to CDHS
3. Review of alternative technologies
4. Prepare operations plan/optimized treatment
5. Prepare reliable removal treatment processes
6. Inform the public

The plan acknowledges that seasonal raw water turbidity and coliform data are a necessary part of any watershed sanitary survey. If cattle, sheep, or other livestock are allowed on a watershed, the survey must identify their location and number as well as steps that are taken to prevent contamination from the animal waste. Measures that will prevent runoff from any animal containment site reaching the water source should also be identified.

As part of the plan, the DHS completed a comprehensive review of the operations by water systems that use an alternative treatment system. The review focused on compliance with the turbidity standard during normal operations and after backwashing or other

interruptions in service. It also included a review of the engineering report required 60 days after the first year of operation.

The *Cryptosporidium* Action Plan states that DHS "agrees with and endorses" the American Water Works Association (AWWA) goal of 0.1 NTU for effluent turbidity from all surface water treatment plants. The plan recommends that all water systems with a surface water supply "adopt a philosophy of always optimizing their surface water treatment plant operations in a manner designed to achieve the maximum turbidity removal." CDHS believes that, by striving to meet these goals, water systems will be minimizing their customers' risk of exposure to pathogens, including *Cryptosporidium*. The plan identifies the following elements that should be included in the operations plan of a system for treatment optimization:

- Including a statement at the beginning of the operations plan stating that it is the goal of the water utility to optimize plant performance and maximize turbidity removal.
- Monitoring all unit processes closely and responding immediately to any malfunction.
- Operating unit processes at hydraulic loading rates to meet optimization goals.
- Establishing procedures to optimize coagulation, flocculation, and sedimentation to enable maximum turbidity removal in the pretreatment units with a turbidity goal of 1 to 2 NTUs in the sedimentation basin effluent at all times. The proper pretreatment chemical and dose should be determined from results of jar tests or particle counters.
- Expanding turbidity monitoring of individual filters on both a continuous basis and intermittent grab samples and, if possible, turbidity monitoring of all sedimentation processes.
- Calibrating turbidimeters frequently.
- Establishing procedures for optimizing filter operations to avoid turbidity spikes after service interruptions and attempting to achieve turbidity values of 0.3 NTU or less after backwash.
- Operating the plant to avoid sudden increases in flow through a filter.
- Optimizing the performance of backwash water recovery systems. Establishing a goal of less than 2.0 NTUs for the reclaimed backwash water and sludge reclamation system effluent.

The *Cryptosporidium* Action Plan states that all water treatment plants should install a continuous turbidity analyzer and chart recorder to monitor the plant effluent. The monitor should be inspected and standardized regularly. Additionally, all water utility systems should be capable of quickly replacing or repairing failed equipment including:

- Filter media and filter underdrains
- Backwash pumps and surface wash systems
- Pretreatment chemical feed and mixing facilities
- Turbidity monitoring units

Finally, the CDHS suggests that water utilities should provide an informational notification to its customers if they do not have a treatment process in place that provides for physical removal of pathogens. Those plants that are hydraulically overloaded or unable to achieve the effluent turbidity goals until improvements are made may also inform the customers of the system.

Interim Enhanced Surface Water Treatment Rule

The two main purposes of the IESWTR are to improve control of microbial pathogens in drinking water, particularly for the protozoan, *Cryptosporidium*, and to guard against significant increases in microbial risk that might otherwise occur when systems implement the Stage 1 D/Disinfectant By-Product (DBP) Rule (discussed below). The IESWTR was finalized in December 1998, but enforcement began in 2002.

Because of the resistance of *Cryptosporidium* oocysts to inactivation by chlorine and chloramine and a lack of data concerning other disinfectants, the IESWTR concentrated its efforts on improving the physical barrier (filtration). This was done by further reducing the MCL for finished water turbidity from 0.5 NTU to 0.3 NTU and the maximum single sample finished water turbidity limit was reduced to 1 NTU. A facility is deemed to be in compliance with the MCL if 95 percent of the daily values per month are at or below 0.3 NTU. Since the limit is 0.3 NTU and not 0.30 NTU, the plant is in compliance as long as the values stay at or below 0.34 NTU. Additionally, individual filter monitoring was required and exception reports to the state are required for:

- Any individual filter with a turbidity level greater than 1.0 NTU based on two consecutive measurements 15 minutes apart, and
- Any individual filter with a turbidity greater than 0.5 NTU at the end of the first 4 hours of filter operation based on the two consecutive measurements 15 minutes apart

Also, if an individual filter turbidity level is greater than 1.0 NTU, based on two consecutive measurements 15 minutes apart at any time in each of 3 consecutive months, the system must provide an exceptions report (within 30 days of the exceedance) and conduct a self-assessment of the filter (according to the EPA guidance for Comprehensive Performance Evaluation). And, if an individual filter has turbidity greater than 2.0 NTU, based on two consecutive measurements 15 minutes apart at any time in each of 2 consecutive months, the system must provide an exceptions report (within 30 days of the exceedance) and arrange for a Comprehensive Performance Evaluation (CPE) by the state or a third party approved by the state.

To guard against an increase in microbial risk due to implementation of the DBP Rule, disinfectant profiling and benchmarking are required. Systems having total trihalomethane (TTHM) concentrations exceeding 0.064 mg/L or total haloacetic acid (HAA5) concentrations exceeding 0.048 mg/L are required to produce disinfectant profiles for 3 years of existing data showing the CT that was actually achieved, divided by the CT required for inactivation of *Giardia* and viruses. If the data do not exist, the system was required to collect 1 year of data by March 16, 2000. The data were analyzed; and the month having the lowest ratio of CT to CT required became the "critical period," and the average value of the ratio became the "benchmark." Systems have to consult with the state before

changing disinfection practices, which could result in a log inactivation less than the benchmark value.

Long Term 1 Enhanced Surface Water Treatment Rule

The LT1ESWTR extends the IESWTR to systems serving fewer than 10,000 people.

Long Term 2 Enhanced Surface Water Treatment Rule

The LT2ESWTR is also designed to control risk from *Cryptosporidium*. An Agreement in Principle was reached by the Federal Advisory Committee for this rule and the Disinfectant/Disinfection By-Product Rule Stage 2 (discussed below) in August 2003. In this Agreement, the major microbial issues were addressed as follows:

- Monitoring for Bin Classification. A two year monitoring program is required for systems serving 10,000 or more people for *Cryptosporidium*, *E. coli*, and turbidity. The water system will be classified into a bin for *Cryptosporidium* risk based upon this monitoring.
- Action Bins. Table 9-4 illustrates the bin classification system for *Cryptosporidium* risk.
- Toolbox. A toolbox approach was recommended that would receive log-credit given in Table 9-5.
- Reassessment and Future Monitoring. Systems that provide a total of 2.5 logs of treatment (99.7 percent) for *Cryptosporidium* in addition to conventional treatment are exempt from reassessment and future monitoring. Six years after initial bin characterization, another round of monitoring will be held.
- Unfiltered Systems. Unfiltered systems must continue to meet filtration avoidance criteria, provide 4-log virus inactivation, 3-log *Giardia* inactivation, and 2-log *Cryptosporidium* inactivation.

Table 9-4
Bin Requirements Table (from Microbial/Disinfection Byproducts [M/DBP] Federal Advisory Committee Stage 2 M-DBP Agreement in Principle)

Bin Number	Average *Cryptosporidium* Concentration	Additional treatment requirements for systems with conventional treatment that are in full compliance with the IESWTR
1	*Cryptosporidium* <0.075/L	No Action
2	0.075/L ≤ *Cryptosporidium*< 1.0/L	1-log treatment (systems may use any technology or combination of technologies from toolbox as long as total credit is at least 1 log)
3	1.0/L ≤ *Cryptosporidium* < 3.0/L	2.0-log treatment (systems must achieve at least 1-log of the required 2-log treatment using ozone, chlorine dioxide, UV, membranes, bag/cartridge filters, or in-bank filtration)
4	*Cryptosporidium* ≥ 3.0/L	2.0-log treatment (systems must achieve at least 1-log of the required 2.5-log treatment using ozone, chlorine dioxide, UV, membranes, bag/cartridge filters, or in-bank filtration)

Disinfectant/Disinfection By-Product Rules

Total Trihalomethanes (TTHM) Rule

The TTHM Rule was the first rule to recognize that a risk of cancer may be connected to the use of chlorine to inactivate pathogenic organisms. The TTHM Rule was effective in 1981.

Chlorine reacts with naturally occurring organic matter (NOM) present in water to form chlorinated organic compounds. Four of these—chloroform, dichlorobromo-methane, dibromochloromethane, and bromoform—were selected to serve as indicators for the cancer risk due to chlorinated disinfection by-products. The MCL for the total of these four compounds was set at 0.1 mg/L. This historic rule changed the manner in which many water plants in the U.S. performed disinfection. Prior to the rule, chlorine was added liberally to raw water to improve plant operations which maximized contact time available through the treatment plant. After this rule took effect, many utilities changed to applying chlorine after much of the NOM had been removed through coagulation, flocculation, and sedimentation. Also, the use of chloramines, which limit the formation of trihalomethanes, was increased as a disinfectant for the distribution system.

Table 9-5
Microbial Toolbox Components (from Microbial/Disinfection Byproducts [M/DBP] Federal Advisory Committee Stage 2 M-DBP Agreement in Principle)

	Potential Log Credit			
APPROACH	**0.5**	**1**	**2**	**>2.5**
Watershed Control				
Watershed Control Program (1)	X			
Reduction in oocyst concentration (3)		As Measured		
Reduction in viable oocyst concentration (3)		As Measured		
Alternative Source				
Intake Relocation (3)		As Measured		
Change to Alternative Source of Supply (3)		As Measured		
Mgmt. of Intake to Reduce Capture of Oocysts in Source Water (3)		As Measured		
Managing Timing of Withdrawal (3)		As Measured		
Managing Timing of Withdrawal in Water Column (3)		As Measured		
Pretreatment				
Off-Stream Raw Water Storage w/Detention ~ X days (1)	X			
Off-Stream Raw Water Storage w/Detention ~ Y weeks (1)		X		
Presettling Basin w/Coagulant (1)	X	--►		
Lime Softening (1)	----------►			
In-Bank Filtration (1)		X	---------►	
Improved Treatment				
Lower Finished Water Turbidity (0.15 NTU 95%tile Combined Filter Effluent)	X			
Slow Sand Filters (1)				X
Roughing Filters (1)	X	----------►		
Membranes (MF, UF, NF, RO) (1)				X

Table 9-5
Microbial Toolbox Components (from Microbial/Disinfection Byproducts [M/DBP] Federal Advisory Committee Stage 2 M-DBP Agreement in Principle)

	Potential Log Credit			
APPROACH	**0.5**	**1**	**2**	**>2.5**
Bag Filters (1)		X	---------►	
Cartridge Filters (1)			X	
Improved Disinfection				
Chlorine Dioxide (2)	X	X		
Ozone (2)	X	X	X	
UV (2)				X
Peer Review/Other Demo./Validation or System Performance				
Peer Review Program (ex. Partnership Phase IV)		X		
Performance Studies demonstrating reliable specific log removals for technologies not listed above. This provision does not supersede other inactivation requirements.		As demonstrated		

Notes

X indicates potential log credit based on proper design and implementation in accordance with EPA guidance. Arrow indicates estimation of potential log credit based on site-specific or technology-specific demonstration of performance.

1. Criteria to be specified in guidance to determine allowed credit.
2. Inactivation dependent on dose and source water characteristics.
3. Additional monitoring for *Cryptosporidium* after this action would determine new bin classification and whether additional treatment is required.

Disinfectant/Disinfection By-Product (D/DBP) Rule Stage 1

Stage 1 of the D/DBP Rule was enacted to reduce the health risk due to disinfection practice. To accomplish this, the Rule reduced the MCL for TTHM, enacted MCLs for haloacetic acids (HAA5) (Table 9-6), bromate (an ozone by-product), and chlorite (a chlorine dioxide by-product), enacted maximum residual disinfectant levels (MRDLs) for chlorine, chloramines, and chlorine dioxide (Table 9-7), and enacted a treatment technique called "enhanced coagulation" (EC) to limit the amount of unknown by-products that may be formed during chlorination.

Table 9-6
Disinfection By-Product MCLs from Stage 1 of the D/DBP Rule

Compound or Group	MCL, mg/L
Trihalomethanes (TTHM)	0.08
Haloacetic Acids (HAA5)	0.06
Bromate	0.01
Chlorite	1.0

Table 9-7
Disinfectant MRDLs from Stage 1 of the D/DBP Rule

Compound or Group	MCL, mg/L
Chlorine	4.0
Chloramines	4.0
Chlorine Dioxide	0.8

EC defines a requirement for removal of total organic carbon (TOC) in the coagulation, flocculation, sedimentation portion of the conventional treatment plant. A system does not have to implement enhanced coagulation if any of the following are true:

1. Source water TOC is less than 2.0 mg/L.
2. Treated water TOC is less than 2.0 mg/L.
3. Source water TOC < 4.0 mg/L, raw water alkalinity > 60 mg/L as $CaCO_3$, distribution system TTHM and HAA5 concentrations are less than or equal to 40 mg/L and 30 mg/L, respectively.
4. Distribution system TTHM and HAA5 concentrations are less than or equal to 40 mg/L and 30 mg/L, respectively, and the system uses only free chlorine for disinfection.
5. Source-water-specific ultraviolet absorbance (SUVA) is less than 2.0 L/mg-m. SUVA is calculated by dividing UV absorbance (m^{-1}) at 254 nm by the concentration (mg/L) of dissolved organic carbon (DOC).
6. Treated water SUVA is less than 2.0 L/mg-m.

If none of these conditions are met, Step 1 of EC takes effect. Step 1 establishes targets for additional precursor removals to be achieved based on raw water TOC and alkalinity. These targets are shown in Table 9-8. If a utility can satisfy the TOC percent removals specified in Step 1, the EC criterion for Stage 1 is satisfied.

Table 9-8
Required Removal of TOC by Enhanced Coagulation, Step 1

Source Water TOC, mg/L	Source Water Alkalinity , mg/L as $CaCO_3$		
	0 to 60	>60 to 120	>120
>2.0 to 4.0	35	25	15
>4.0 to 8.0	45	35	25
>8.0	50	40	30

If a system is unable to meet the Step 1 TOC removal requirements, an alternative percent TOC removal requirement may be selected by Step 2 procedures as follows:

1. Bench or pilot tests are performed in which alum or an equivalent dose of ferric coagulant is added in 10-mg/L increments until the pH is lowered to the target pH value. The target pH values are given in Table 9-9 for varying source water alkalinity.
2. Once the bench or pilot test is complete, the TOC removal (mg/L) is then plotted versus coagulant dose (mg/L).
3. The alternative TOC removal percentage is set at the point on the TOC versus coagulant dose plot where the slope changes from greater than 0.3 mg TOC/L / 10 mg alum/L to less than 0.3/10 and remains less than 0.3/10.

If the TOC removal versus coagulant dose plot does not reach this point of diminishing returns, the water is considered not amenable to enhanced coagulation; and a waiver from the enhanced coagulation requirements must be obtained from the state.

Table 9-9
Target pH Values for Enhanced Coagulation, Step 2 Bench Testing

Raw Water Alkalinity, mg/L as $CaCO_3$	Target pH
0 to <60	5.5
60 to <120	6.3
120 to <240	7.0
240	7.5

D/DBP Rule Stage 2

Stage 2 of the D/DBP Rule is designed to reduce DBP occurrence peaks in the distribution system. An Agreement in Principle was reached by the Federal Advisory Committee for this rule and the Long Term 2 Enhanced Surface Water Treatment Rule (discussed above) in August 2003. This rule is expected to be finalized in 2005. In this Agreement, the major DBP issues were addressed as follows:

- Compliance monitoring will be preceded by an initial distribution system monitoring study to select optimal sampling points for capturing peaks.
- Compliance with each MCL (TTHM and HAA5) will be determined based upon a Locational Running Annual Average (a running annual average calculated at each sample location).
- Systems will comply with the Stage 2 D/DBP Rule in two phases—3 years after promulgation all systems must comply with a 120 µg/L TTHM / 100 µg/L HAA5 locational running annual average based on Stage 1 monitoring sites and continue to comply with the 80 µg/L TTHM / 60 µg/L HAA5 system running annual average from Stage 1.
- Six years after rule promulgation (with an additional 2-year extension available for systems requiring capital improvements) large and medium systems must comply with

an 80 µg/L TTHM / 60 µg/L HAA5 based upon the new sample sites identified in the initial distribution system monitoring described above.

- Small systems must comply with the 80 µg/L TTHM / 60 µg/L HAA5 locational running annual average in either 7.5 or 8.5 years (with an additional 2-year extension available for systems requiring capital improvements) depending upon whether the system is required to do *Cryptosporidium* monitoring as part of the LT2ESWTR.
- The bromate MCL will remain at 0.010 mg/L. EPA commits to review the bromate MCL as part of the 6-year review to determine whether the bromate MCL should be reduced to 0.005 mg/L or a lower concentration.

Volatile Organic, Synthetic Organic and Inorganic Chemical Rules

Volatile Organic Chemicals Rule

The Phase I Volatile Organic Chemicals (VOCs) Rule established MCLGs and MCLs for eight VOCs. The rule was promulgated in July 1987 and became effective in January 1989. All public water systems (PWS) were required to complete initial VOC monitoring by December 1991. Monitoring requirements include sampling at each entry point to the distribution system. If no VOCs were detected during the initial monitoring, repeat monitoring is required every three to five years, depending on the vulnerability of the source. If VOCs are detected, quarterly samples must be analyzed. Compliance requires that VOC levels be lower than the MCLs, based on the annual average of quarterly samples.

The Phase I VOC Rule also required monitoring of 51 additional unregulated VOCs. All systems were required to complete the initial monitoring for these contaminants by December 1991. Repeat monitoring is required every five years; however, USEPA revises the list of unregulated contaminants thereby changing the constituents to be monitored. Monitoring requirements for Phase I contaminants were revised in the Phase II Synthetic Organic Chemicals and Inorganic Chemicals Rule (Phase II SOC/IOC Rule) to conform with the standardized monitoring.

Phase IIA Fluoride Rule

The Phase IIA Fluoride Rule applies to all public water systems. The rule was finalized in April 1986 and became effective in October 1987. The primary purpose of the Phase IIA Fluoride Rule was to protect the public from crippling skeletal fluorosis. The rule established an MCLG and MCL for fluoride at 4 mg/L. A secondary contaminant level (SMCL) of 2 mg/L was established to protect against dental fluorosis. Monitoring of fluoride concentration is required yearly for surface water sources and every three years for groundwater sources. For systems practicing fluoridation, daily monitoring of fluoride at the entrance to the distribution system is recommended.

Phase II Synthetic Organic Chemicals and Inorganic Chemicals Rule

The Phase II SOC/IOC Rule applies to all public water systems. The rule was promulgated in June 1991 (33 contaminants) and July 1991 (5 contaminants). This rule established MCLs and treatment techniques for 38 contaminants. Monitoring for the Phase II contaminants occurs in a standardized 3 year cycle, which began in January 1993. Compliance with the Phase II MCLs is based on the average of quarterly samples.

Phase V Synthetic Organic Chemicals and Inorganic Chemicals Rule

The Phase V Rule was promulgated in July 1992 and set MCLGs and MCLs for 23 contaminants. Compliance monitoring for these contaminants follows the same standardized monitoring framework introduced with the Phase II rule. Some of the Phase V contaminants were previously on the unregulated contaminants monitoring (UCM) lists under other rules. To eliminate duplication, these contaminants were withdrawn from the UCM lists.

Groundwater Rule

The EPA is currently in the process of developing the Groundwater Rule (GWR), formerly known as the Groundwater Disinfection Rule. The rule name was changed to reflect a more holistic regulatory approach to addressing ground water issues. The rule applies to public ground water systems and to systems that mix surface water and ground water if the ground water is added directly to the distribution system and provided to consumers without treatment. This includes untreated stand-alone ground water wells and untreated ground water plants that have their own entry points to the distribution system as well as untreated groundwater blended with treated surface water prior to the entry point to the distribution system. Treatment in this case is defined as 4-log inactivation/removal of viruses.

The proposed Groundwater Rule was published in the Federal Register on May 10, 2000. The final rule is expected in late 2005. Specific requirements proposed in the rule include:

1. System sanitary surveys conducted by the state and identification of significant deficiencies.
2. Hydrogeologic sensitivity assessments for undisinfected systems.
3. Source water microbial monitoring by systems that do not disinfect and draw from hydrogeologically sensitive aquifers or have detected fecal indicators within the system's distribution system.
4. Corrective action by any system with significant deficiencies or positive microbial samples indicating fecal contamination.
5. Compliance monitoring for systems which disinfect to ensure that they reliably achieve 4-log inactivation or removal of viruses.

EPA missed the May 2002 deadline to promulgate, and the final rule was expected in early 2005, but was withdrawn for further review. The schedule for the release of the final GWR is uncertain at this time.

Filter Backwash Rule

The Filter Backwash Rule is a regulation for filtered surface water supplies that recycle some or all of filter backwash into the plant. The purpose of the rule is to require systems to review their recycle practices and, where appropriate, work with the State to make any necessary changes to current practices that may compromise microbial control. The proposed rule was published in April 2000, with the final rule promulgated in April 2001. It

will apply to all systems that use filter recycle streams. The final rule contained the following key provisions:

1. Return of all recycle flows prior to the point of the primary coagulant addition.
2. Direct filtration plants to provide information to the state on their current recycle practice.
3. A requirement for systems meeting criteria to perform a one-time self assessment of their recycle practice and consult with their primacy agency to address and correct high risk recycle operations.

The first element would require that all systems using surface water or groundwater under the direct influence of surface water return all recycle flows to the process prior to the point of the primary coagulant addition. Waivers to this requirement would be available from state primacy agencies for unique treatment conditions.

The second element would require all direct filtration plants to report to the state primacy agency whether flow equalization or treatment is provided for recycle flow prior to its return to the treatment process. The state would use that information to determine the plants that need to change their current recycle practice in order to provide additional public health protection.

The third element would require that all plants using 20 or fewer filters and directly recycling flows to the treatment process without any form of treatment on the recycle flow complete a self-assessment. The self-assessment would be used to determine the effect of untreated recycle flows to the plant process. The State primacy agency would use the results of the self-assessment to determine the appropriate level of treatment of recycle flows.

Systems were to notify the State of their recycle practices by October 2003, modify their recycle return location as required by June 2004, and complete the necessary capital improvements to comply with all rule requirements by June 2006.

Lead and Copper Rule

The Lead and Copper Rule was promulgated in June 1991 and went into effect in December 1992, with minor revisions released in April 2000. The rule applies to all community and non-transient non-community water systems. The rule developed MCLGs and action levels for both lead and copper in drinking water. The major difference between this regulation and most others is that the water is to be monitored at the customer's tap, not the treatment plant discharge point. Lead and copper must be monitored at the customer's taps every 6 months and twice each calendar year at the highest risk locations. The highest risk locations are defined as:

- Piping with lead solder installed after 1982,
- Lead water service lines,
- Lead interior piping.

For compliance, the samples at the customer’s tap must not exceed the following action levels:

- Lead concentration of 0.015 mg/L detected in the 90th percentile of all samples.
- Copper concentration of 1.3 mg/L detected in the 90th percentile of all samples.

If action levels are exceeded, water systems must collect source water samples and submit all data to the state with a treatment recommendation to reduce concentrations below the action level. In addition, the water system must also provide a public education program to its customers within 60 days of the action level exceedance. The education program must be continued until the samples are found to be below the lead action levels.

All water systems that exceed the lead or copper action levels are also required to conduct a corrosion control study. Corrosion control studies must compare the effectiveness of pH and alkalinity adjustment, calcium adjustment, and addition of a phosphate or silica-based corrosion inhibitor. Large and medium systems are also required to monitor many other water quality parameters at the plant discharge and customer's tap.

After a corrosion control study is completed, a water system must develop a corrosion control program and submit it for approval to the primacy agency. Once approval of the plans is received, water systems have 24 months to install and implement the treatment methods for corrosion control and 12 additional months to collect follow-up samples. After this time, the water system must comply with the action levels for both lead and copper.

In 2000, minor revisions to the lead and copper rule were promulgated to streamline requirements and reduce some burdens on water systems. No changes to the MCLs or the MCLGs were made. Small changes were made to reduce the frequency of monitoring for systems with low lead and copper tap levels and to update the analytical methods used for compliance. Further revisions to the lead and copper rule are expected to be proposed in late 2005, but no information as to what will be included in the potential revisions to the rule has been released.

Arsenic Rule

The original arsenic MCL of 50 µg/L was set by the EPA in 1975 based on Public Health Service Standard originally published in 1942. A new proposed Arsenic Rule was released in June 2000. The EPA was originally under a court-imposed deadline to promulgate this rule by November 1992. However, the EPA has received extensions to examine health effects and occurrence data. EPA succeeded in finalizing the Arsenic Rule on January 16, 2001, during the final days of the Clinton administration. The final rule was published in the *Federal Register* on January 22, 2001 and became effective on February 22, 2002.

The following is a summary of the major provisions and requirements of the rule:

- A MCLG for arsenic in drinking water is set at zero.
- The MCL for arsenic is revised from 50 µg/L down to 10 µg/L by January 23, 2006.
- Beginning with Consumer Confidence Reports (CCRs) due by July 1, 2002, all community water systems (CWSs) will begin providing health information and arsenic concentrations in the annual reports for water that exceeds 5 µg/L (one half of the MCL).

- Both CWSs and non-transient non-community water systems (NTNCWSs) are required to meet the revised arsenic standard.
- Two compliance requirements for inorganic contaminants (IOCs), volatile organic contaminants (VOCs), and synthetic organic contaminants (SOCs). Specifically, when a system fails to collect the required number of samples, compliance averages will be based on the actual number of samples collected. Also, new public water systems and systems using new sources of water must demonstrate compliance within state-specified time and sampling frequencies. These provisions apply to arsenic.

All CWSs and NTNCWSs that exceed the MCL of 10 µg/L are required to come into compliance 5 years after the publication of the final rule.

Radionuclide Rule

The original Radionuclide Rule was proposed in July 1991, but court action delayed its final promulgation. The final Radionuclides Rule was published in the Federal Register on December 7, 2000. The rule became effective in December 2003. New monitoring requirements have been phased-in the publication date of the final rule and the beginning of the next Standardized Monitoring Framework period on December 31, 2007. "Phased-in monitoring" refers to the fact that States will require some fraction of water systems to complete their initial monitoring requirements each year of the period between the effective date (December 8, 2003) and the beginning of the new cycle (December 31, 2007). Water systems will determine initial compliance under the new monitoring requirements using the average of four quarterly samples or, at state discretion, using appropriate grandfathered data. Compliance will be determined immediately based on the annual average of the quarterly samples for that fraction of systems required by the state to monitor in any given year or based on the results from the grandfathered data. Water systems with existing radionuclides monitoring data demonstrating that the system is out of compliance with new provisions will be out of compliance on the effective date of December 8, 2003.

In the final rule, EPA set the MCL for uranium at 30 micrograms per liter (µg/L), using its authority under the SDWA for the first time to set a standard at a higher than the feasible level based on cost-benefit considerations. The standard for combined radium-226/228 remains at 5 picoCuries per liter (pCi/L). However, the rule requires improved monitoring for radium. The final rule retains the interim standards for gross alpha particles at 15 pCi/L and for beta and photon emitters at 4 millirems (mrem).

A summary of the final Radionuclides Rule is provided below. Table 9-10 also lists the existing (1979) and the revised MCLs of the final Radionuclide Rule.

- Affected Systems: Community Water Systems (CWSs); non-CWSs, including transient and non-transient, are exempt.
- MCL Goals (MCLGs) for radionuclides: MCLGs of zero; includes combined radium-226/228; gross alpha, beta particle and photon radioactivity, and uranium
- Radium MCL: Combined Ra-226 and Ra-228 MCL of 5 pCi/L; based on new risk levels.
- Beta/Photon Radioactivity MCL:

  - ≤ 4 mrem/yr to the total body or any given internal organ except for H-3 and Sr-90
  - H-3 = 20,000 pCi/L; Sr-90 = 8 pCi/L
  - Total dose from co-occurring beta/photon emitters must be ≤ 4 mrem/yr to the total body of any internal organ;
  - This MCL will be reviewed within 2 to 3 years based on a need for further re-evaluation of the risk management issues.
- Gross alpha MCL: 15 pCi/L excluding uranium and radon, but including Ra-226; maintain current MCL.
- Uranium MCL: 30 µg/L; new MCL.
- Polonium-210: Part of gross alpha; monitoring required under the UCMR rule; further action may be proposed at a later date.
- Lead-210: Not regulated; monitoring required under the UCMR rule; further action may be proposed at a later date.

Table 9-10
Existing and Revised MCLs for Radionuclides

Contaminant	1979 MCLs	2000 Radionuclide Rule MCLs
Radium 226/228	5 piC/L	5 piC/L
Uranium	N/A	30 piC/L
Gross Alpha	15piC/L	15 piC/L
Beta Particles and Photon Emitters	4 mrems	4 mrem

Radon Rule

Radon is a naturally occurring, carcinogenic, radioactive gas. Radon in drinking water increases risk to public health, primarily from inhalation of radon discharged through normal household use, such as showering, but also from ingestion of water. The proposed Radon Rule applies to all community water systems that use groundwater or mixed groundwater and surface water supply sources.

On November 2, 1999, the long anticipated and heavily debated Radon Rule was formally proposed, but EPA missed the SWDA deadline of August 2000 promulgation. EPA has not indicated a final schedule for the promulgation of the Radon Rule at this time.

The rule includes a two-option approach that allows states and water suppliers to reduce radon risks in indoor air while protecting public health from the highest levels of radon in drinking water. The proposed rule includes the following provisions:

- MCLG zero
- MCL 300 pCi/L

- Alternative MCL (AMCL) 4,000 pCi/L

The AMCL provision of the rule applies to water systems that adopt and comply with a multimedia mitigation (MMM) program aimed at reducing household indoor/air health risks from the soil as well as the tap water. The AMCL of 4,000 pCi/L is based on the National Research Council recommended estimate of 10,000 to 1 as the transfer factor from water to air and the national average outdoor radon concentration of 0.4 pCi/L in air. Thus, an estimate of 0.4 pCi/L in air would be equivalent to 4,000 pCi/L in water.

If a state develops an MMM program that is approved by the EPA, public water systems in that state will be able to comply with the AMCL rather than the MCL. Alternatively, if a state chooses not to adopt its own MMM program or a state's MMM program does not meet EPA approval, an individual public water supplier can submit an MMM program for approval. The 1996 SDWA Amendments require that the EPA evaluate MMM programs every 5 years.

Drinking Water Contaminant Candidate List

As amended in 1996, the SWDA requires the EPA to establish a list of contaminants that are known or anticipated to occur in public water systems and may require regulation under the SWDA. The first Contaminant Candidate List (CCL) was published in the Federal Register in March 1998 and included 60 contaminants under consideration for regulation. A second version of the CCL was published in February 2005. The second version of the CCL carries forward 51 of the original 60 unregulated contaminants from the first version of the CCL. The CCL includes both microbiological and chemical contaminants. The CCL published in February 2005 includes 42 chemical contaminants and 9 microbiological contaminants/contaminant groups. Table 9-11 lists the contaminants published in the CCL in February 2005.

Contaminants included in the CCL are studied to develop analytical methods for detecting the contaminants, determine whether they occur in drinking water, and evaluate treatment technologies to remove them from drinking water. In addition, the health effects of the contaminants are studied to help determine if actions such as drinking water guidance, health advisories, or regulation need to be developed. The CCL alone does not impose any requirements on public water system.

Table 9-11
Contaminant Candidate List (CCL)

Microbiological Contaminants
Adenoviruses
Aeromonas hydrophila
Caliciviruses
Coxsackieviruses
Cyanobacteria (blue-green algae), other freshwater algae, and their toxins
Echoviruses
Helicobacter pylori

Table 9-11
Contaminant Candidate List (CCL)

Microsporidia (Enterocytozoon & Septata)
Mycobacterium avium intracellulare (MAC)
Chemical Contaminants
1,2,2,2-tetrachloroethane
1,2,4-trimethylbenzene
1,1-dichloroethane
1,1-dichloropropene
1,2-diphenylhydrazine
1,3-dichloropropane
1,3-dichloropropene
2,4,6-trichlorophenol
2,2-dichloropropane
2,4-dichlorophenol
2,4-dinitrophenol
2,4-dinitrotoluene
2,6-dinitrotoluene
2-methyl-Phenol (o-cresol)
Acetochlor
Alachlor ESA & other acetanilide pesticide degradation products
Aluminum
Boron
Bromobenzene
DCPA mono-acid degradate
DCPA di-acid degradate
DDE
Diazinon
Disulfoton
Diuron
EPTC (s-ethyl-dipropylthiocarbamate)
Fonofos
p-Isopropyltoluene (p-cymene)
Linuron
Methyl bromide

Table 9-11
Contaminant Candidate List (CCL)

Methyl-t-butyl ether (MTBE)
Metolachlor
Molinate
Nitrobenzene
Organotins
Perchlorate
Prometon
RDX
Terbacil
Terbufos
Triazines and degradation products of triazines (including, but not limited to Cyanazine, and atrazine-desethyl)
Vanadium

Water Quality Issues

Surface Water Quality

Treated surface water is received from connections with Metropolitan and TVMWD. Water has to meet all drinking water standards as it leaves the treatment plant, but may not at the connections. While it is assumed that Metropolitan and TVMWD will be responsible for any required water treatment, this may not be the case for parameters monitored in distribution system, such as disinfectant by-products or alternative disinfectant by-products from future D/DBP Regulations.

Groundwater Quality

Portions of the basin are impacted by contaminants from past agricultural practices, improper waste disposal and leaking underground storage tanks. The contaminants consist primarily of volatile organic compounds (VOCs) and nitrates. The water system has been able to compensate for the loss of the contaminated wells and maintain its extractions from the basin by upgrading equipment at existing well sites, and making other system improvements.

The water system currently owns a total of 23 wells, four of which have been taken off-line due to groundwater contamination. These four wells and associated contaminants are: Berkeley Well 1 with MTBE; Boulder Well 1 with 1,2,3-TCP; Campbell Well 1 with nitrate and perchlorate; and Dreher Well with nitrate.

Indian Hill Well 3 and Pomeroy Well have elevated nitrate concentrations for which blending is being used to lower the concentrations to less than 80 percent of the MCL. Del Monte Wells 1 & 4 have VOC contamination for which Granular Activated Carbon

treatment is being provided. VOCs have been detected at concentrations less than the MCL in the following wells: College Well 2, Del Monte Well 3, Fair Oaks Well, and Mills Well. For these wells, VOC monitoring is occurring on a more frequent basis in accordance with the regulations. Non-volatile Synthetic Organic Chemicals (SOCs) have been detected at concentrations less than the MCL in the following wells: Alamosa Well, Del Monte Well 3, Marlboro Well, MiraMar Well 3, Miramar Well 5, and Pomello Well 4. These wells are being monitored on a more frequent basis for SOCs in accordance with the regulations.

As discussed in Section 9.1.10, the MCL for arsenic is being revised from 50 µg/L down to 10 µg/L. Water systems must comply with the 10 µg/L MCL by January 23, 2006. To date, arsenic has been detected at concentrations above 10 µg/L at Del Monte Well 4. Recent arsenic levels in this well are 39 µg/L and will be addressed by blending with other wells to ensure the concentrations are below 10 µg/L.

Table 9-12 summarizes water quality issues and recommendations for wells within the water system.

Table 9-12
Summary of Assessment

Well	Capacity (gpm)	Status	Water Quality Issue/Concern	Existing Treatment	Recommendations
Alamosa 2	350	Active	DBCP; Radon	None	Continue monitoring; multimedia mitigation
Berkeley 1	700	Active (offline)	MTBE; Radon	None	Potential treatment; multimedia mitigation
Boulder 1	150	Standby	1,2,3-TCP; Radon	None	Potential treatment; multimedia mitigation
Campbell 1	365	Inactive	Nitrate and Perchlorate; Radon	None	Potential treatment; multimedia mitigation
College 1	850	Active	Radon		Multimedia mitigation
College 2	1500	Active	1,1-DCE; Radon	None	Elevated VOC monitoring; multimedia mitigation
Del Monte 1	300	Active	VOCs	GAC	
Del Monte 2	375	Active			
Del Monte 3	450	Active	1,1-DCE and DBCP; Radon	None	Elevated VOC and SOC monitoring; multimedia mitigation
Del Monte 4	700	Active	VOCs and Arsenic; Radon	GAC	Plan for blending treatment for arsenic; multimedia mitigation
Dreher 1	260	Inactive	Nitrate; Radon	None	Potential treatment; multimedia mitigation
Fair Oaks 1	650	Active	1,1-DCE; Radon	None	Elevated VOC monitoring; multimedia mitigation

Table 9-12
Summary of Assessment

Well	Capacity (gpm)	Status	Water Quality Issue/Concern	Existing Treatment	Recommendations
Harrison 2	200	Active	Radon		Multimedia mitigation
Indian Hill 3	850	Active	Nitrate; Radon	Blending	Continue blending; multimedia mitigation
Margarita 1	550	Active			
Marlboro	350	Active	DBCP; Radon	None	Elevated VOC monitoring; multimedia mitigation
Mills	490	Active	1,1-DCE; Radon	None	Elevated VOC monitoring; multimedia mitigation
Miramar 3	600	Active	DBCP; Radon	None	Elevated VOC monitoring; multimedia mitigation
Miramar 5	250	Active	DBCP; Radon	None	Elevated VOC monitoring; multimedia mitigation
Mountain View	500	Active	Radon		Multimedia mitigation
Pomello 1	275	Active	Radon		Multimedia mitigation
Pomello 4	200	Active	DBCP; Radon	None	Elevated VOC monitoring; multimedia mitigation
Pomeroy	350	Active	Nitrate; Radon	Blending	Continue blending; multimedia mitigation

Projected Impact of Water Quality

As the water system looses additional wells due to groundwater contamination, evaluations will be made to determine treatment options and/or drilling new wells.

Table 9-13
Summary of Projected Water Supply Changes Due to Water Quality Issues

	Projected Change (percent)					
Water Source	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**
Alamosa 2	0	0	0	0	0	0
Berkeley 1	0	0	0	0	0	0
Boulder 1	0	0	0	0	0	0
Campbell 1	0	0	0	0	0	0
College 1	0	0	0	0	0	0
College 2	0	0	0	0	0	0
Del Monte 1	0	0	0	0	0	0
Del Monte 2	0	0	0	0	0	0
Del Monte 3	0	0	0	0	0	0
Del Monte 4	0	0	0	0	0	0
Dreher 1	0	0	0	0	0	0
Fair Oaks 1	0	0	0	0	0	0
Harrison 2	0	0	0	0	0	0
Indian Hill 3	0	0	0	0	0	0
Margarita 1	0	0	0	0	0	0
Marlboro	0	0	0	0	0	0
Mills	0	0	0	0	0	0
Miramar 3	0	0	0	0	0	0
Miramar 5	0	0	0	0	0	0
Mountain View	0	0	0	0	0	0
Pomello 1	0	0	0	0	0	0
Pomello 4	0	0	0	0	0	0
Pomeroy	0	0	0	0	0	0

Notes
1. Table format based on DWR Guidance Document Table 39

Distribution System Water Quality

Distribution System Water Quality Monitoring is performed for several water quality parameters in the Claremont System, including general physical parameters, presence of coliform bacteria, disinfectant and disinfection by-product levels, and corrosivity of the water by monitoring lead and copper levels at customers' water taps. All monitoring parameters and levels currently meet drinking water standards. The ability to continue to

meet these standards is not expected to change in the foreseeable future, with one exception. Drinking water standard levels for disinfection by-products will be lowered in the future in accordance with the Stage 2 D/DBP Rule. It is unknown at this time if this impending increase will be of concern.

Emerging Water Quality Issues

Ammonium perchlorate is used as a main component in solid rocket propellant, and can be found in some types of ammunitions and fireworks. The California Legislature had required the CDHS to adopt a new drinking water standard for perchlorate by January 1, 2004. In advance of the requirement, the Office of Environmental Health Hazard Assessment (OEHHA) set a public health goal of perchlorate at 6 µg/L in March of 2004. The primary health concern related to perchlorate is its effect on the thyroid gland's ability to produce hormones required for normal growth and development. CDHS anticipates it will establish an MCL for perchlorate during 2005. Impact from the contaminant to the water system has been minor since its discovery in groundwater supplies in 1997. To date, perchlorate has been detected in one well, Campbell Well 1. This well is inactive and treatment options are being evaluated.

Until recently, MTBE was the primary oxygenate in virtually all gasoline used in California. It was introduced into groundwater supplies by leaking underground storage tanks. The CDHS adopted a primary MCL of 13 µg/L for MTBE based on carcinogenicity studies in animals. They also established a secondary MCL for MTBE at 5 µg/L, based upon taste and odor concerns. MTBE has been detected in Berkeley Well 1 below the primary MCL but above the secondary MCL. Berkeley is off-line and treatment options are being evaluated.

Although NDMA is one of the contaminants released from manufacture of liquid rocket propellants, munitions, and fireworks, the recent findings indicated that low level (ng/L) of NDMA may be a byproduct of surface water treatment process and/or formed in the distribution system. Treated recycled water also has been detected with NDMA. Since there are no known sources of the contaminant in the area, the impact of NDMA could be negligible.

Radon levels in the groundwater supply have been reported in the range of 197 to 780 pCi/L. The USEPA has proposed a radon MCL at 300 pCi/L, with an alternative standard of 4,000 pCi/L if the state has an approved Multimedia Mitigation program to reduce the indoor radon risk from soil and rocks underneath homes and buildings. It is expected the state will develop an approved Multimedia Mitigation program which will allow for the alternative MCL standard.

In 2000, there was significant interest in the detection and possible health effects of chromium 6 in drinking water supplies throughout the state. In 2001, the OEHHA withdrew their previously established public health goal of 2.5 µg/L for total chromium. The current MCL enforced by the CDHS is 50 µg/L for total chromium, and OEHHA is in the process of establishing a specific public health goal for chromium 6. The water system sampled of all its water sources for chromium 6 in 2002. Chromium 6 ranged from less than 1 µg/L to 8.7 µg/L.

Per the USEPA requirements, all utilities completed Source Water Assessments for all water sources. The water system completed the Assessments in 2002. The water sources were found to be most vulnerable to the following activities not associated with any detected contaminants in the water supply as of this time: above ground storage tanks, drinking water treatment plants, housing – high density, parks, transportation corridors – freeways/state highways, transportation corridors – railroads, wells – water supply, dry cleaners, lumber processing and manufacturing, mining – sand/gravel, automobile – gas stations, sewer collection systems, parking lots/malls, home manufacturing, and wastewater treatment plants.

CPUC Interface. One of the four key principles of the CPUC draft Water Action Plan is to provide safe, high quality water to all regulated water utility customers. Water Plan objectives include maintaining the highest standards of water quality and promoting infrastructure investment including investments to protect water quality. Specific proposed actions to support water plan objectives include strengthening inter-agency relations between the CPUC and Department of Health Services and developing funding mechanisms to address water quality concerns. GSWC has suggested additional steps that can be taken by the CPUC to ensure water quality including assurances of timely recovery of water pollution clean-up costs.

Chapter 10. Water Service Reliability

Section 10635 of the Act requires that an assessment of water service reliability for various climatic conditions be undertaken. The Act states:

> *10635. (a) Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare 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. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.*
>
> *(b) The urban water supplier shall provide that portion of its urban water management plan prepared pursuant to this article to any city or county within which it provides water supplies no later than 60 days after the submission of its urban water management plan.*
>
> *(c) Nothing in this article is intended to create a right or entitlement to water service or any specific level of water service.*
>
> *(d) Nothing in this article is intended to change existing law concerning an urban water supplier's obligation to provide water service to its existing customers or to any potential future customers.*

This chapter provides a water supply and demand assessment for the Claremont System for a normal year, a single-dry year, and multiple-dry years. The following is a summary of the water supply sources and reliability of those sources for the Claremont System. The details of water supply sources and the reliability of these supplies are provided in Chapter 3. Water demand projections are documented in Chapter 4.

The Claremont System currently gets its water supply primarily from local groundwater and imported water from TVMWD. Groundwater makes up about 50 percent of the available supply, and imported water supplies the remainder. Due to the different sources of supply, conditions in local and distant areas can impact the reliability of supplies. In general, GSWC's supply is expected to be 100 percent reliable through 2030. This reliability is a result of, 1) the projected reliability of TVMWD as a member of Metropolitan, which intends to provide 100 percent reliable supplies and, 2) firm water rights to groundwater rights in the Six Basins and the Chino Basin (see Chapters 3 and 10 for details).

Reliability and vulnerability of the imported water supply to seasonal or climatic shortages are dependent on the reliability plan of Metropolitan. Metropolitan's plan for resource management optimizes the use of its available resources during surpluses and shortages to minimize the probability of severe shortages and eliminate the possibility of extreme shortages and shortage allocations. Metropolitan's initiatives to ensure supply reliability are discussed in Chapter 3.

In addition to Metropolitan's reliability initiatives, TVMWD participates in a variety of programs intended to enhance regional water supply. Use of local groundwater, regional surface water and local recycled water are the major sources of TVMWD's water supply in addition to imported water supplies from Metropolitan. Furthermore, TVMWD's conjunctive use projects foster efficient use of imported water and optimize the interdependence of groundwater storage and imported supplies. Conjunctive use assists with resource availability during times of drought, which are the most critical times with respect to water management and reliability. TVMWD is increasing reliability within its service area by maximizing existing water resources, diversifying the water resource mix over the next twenty-five years. The potential additional sources available to the Claremont System include: (1) increased local conservation and water recycling, (2) improvements in the reliability of imported supplies, (3) increased regional surplus storage, and (4) increased conjunctive-use groundwater programs. TVMWD's dependence on traditional sources of water (groundwater and imported) will continue to decrease with the expansion of these alternative resources (see TVMWD's 2005 UWMP for details).

GSWC's Claremont System has pumping rights to 39.36 percent of the OSY of the Six Basins. Since the adjudication of the Six Basins, the Claremont System's pumping rights have historically varied between 6,160 - 8,697 ac-ft/yr. The Claremont System also has rights to 0.75 percent of the OSY of the Chino Basin. The Claremont System's current share of the OSY is 411 acre-feet/year and has not changed since the Basin was adjudicated in 1978. The respective judgments over each of these basins effectively set annual yields that limit the cumulative pumping from each but also serve to sustain the long term viability of the groundwater resources (TVMWD, 2005).

The Six Basins have substantial storage capacity to provide a buffer during droughts and to accept recharge of surplus waters during times of available supplies. Recharge in the Six Basins occurs from percolation of precipitation, return flow of applied water, and stream flow runoff (TVMWD, 2005).

Based on historical changes in the Six Basins OSY, the Watermaster's current and planned management practices, increased storage of local and imported water supplies the Claremont System's water supply is expected to be 100 percent reliable through 2030.

The following sections present the normal water year, single-dry year, multiple-dry year water supply and demand assessments.

Normal Water Year Analysis

Table 10-1 provides the projected water supply from groundwater and imported water in normal water years (see Chapter 3 for details).

Table 10-1
Projected Normal Water Year Supply

	Supply (ac-ft/yr)				
	2010	**2015**	**2020**	**2025**	**2030**
Total Water Supply	14,978	15,508	16,031	16,536	17,027
Percent of Year 2005	107	111	115	119	122

Notes
1. Table format based on DWR Guidance Document Table 40
2. Unit of measure: ac-ft/yr

Table 10-2 provides water demand projections in normal water years (see Chapter 4 for details).

Table 10-2
Summary of Projected Normal Water Year Demands

	Demand (ac-ft/yr)				
	2010	**2015**	**2020**	**2025**	**2030**
Total Water Demand	14,978	15,508	16,031	16,536	17,027
Percent of Year 2005	107	111	115	119	122

Notes
1. Table format based on DWR Guidance Document Table 41

Table 10-3 summarizes the service reliability assessment for a normal water year based on water supply and water demand projections. As described in Chapter 3, imported water provided by TVMWD and local groundwater from the Claremont Basin are expected to be 100 percent reliable to meet the projected demands through 2030.

Table 10-3
Comparison of Projected Normal Year Supply and Demand in ac-ft/yr

	2010	**2015**	**2020**	**2025**	**2030**
Water Supply Total (acre-feet per year)	14,978	15,508	16,031	16,536	17,027
Water Demand Total (acre-feet per year)	14,978	15,508	16,031	16,536	17,027
Difference (supply minus demand)	0	0	0	0	0
Difference as Percent of Supply	0	0	0	0	0
Difference as Percent of Demand	0	0	0	0	0

Notes
1. Table format based on DWR Guidance Document Table 42

Single Dry-Year Analysis

GSWC, in coordination with local and regional water agencies (e.g., Metropolitan, TVMWD, Upper District) have undertaken a number of planning initiatives to ensure supply reliability over a range of hydrologic conditions. These initiatives are discussed in Chapter 3. Together, these initiatives provided a plan to manage the water resources to meet the needs of a growing population even under recurrences of the worst historical hydrologic conditions locally and in the key distant watersheds that supply water to the Claremont System.

Table 10-4 presents projected single-dry year water supplies to meet the projected demands. It is assumed that the single-dry year supplies are the same as those for the normal years because imported water supplies available during the draught periods are significantly higher than the supplies required to meet the demands. In addition, local groundwater will be available to meet projected demands under all anticipated hydrologic conditions.

Table 10-4
Projected Single-Dry Year Water Supply

	Supply (ac-ft/yr)				
	2010	**2015**	**2020**	**2025**	**2030**
Water Supply	14,978	15,508	16,031	16,536	17,027
Percent of Year 2005	107	111	115	119	122

Notes
1. Table format based on DWR Guidance Document Table 43

Table 10-5 provides projected single-dry year water demand. It is assumed that the single-dry year demands are the same as those water demands projected for the normal years.

Table 10-5
Summary of Projected Single-Dry Year Demands

	Demand (ac-ft/yr)				
	2010	**2015**	**2020**	**2025**	**2030**
Water Demand	14,978	15,508	16,031	16,536	17,027
Percent of Year 2005	107	111	115	119	122

Notes
1. Table format based on DWR Guidance Document Table 44

Table 10-6 demonstrates the reliability of water supplies to meet projected annual water demands for the Claremont System in a single-dry year. TVMWD has determined that it can meet its projected water demands in a single-dry year, so the projected combination of imported water and local groundwater supplies are equal to the projected demands. The imported water supply is expected to be much greater than the projected water demands in a single-dry year (see TVMWD's 2005 UWMP for details).

Table 10-6
Comparison of Projected Supply and Demand for Single Dry Year in ac-ft/yr

	2010	2015	2020	2025	2030
Supply Total (acre-feet per year)	14,978	15,508	16,031	16,536	17,027
Demand Total (acre-feet per year)	14,978	15,508	16,031	16,536	17,027
Difference (supply minus demand)	0	0	0	0	0
Difference as Percent of Supply	0	0	0	0	0
Difference as Percent of Demand	0	0	0	0	0

Notes
1. Table format based on DWR Guidance Document Table 45

Multiple Dry-Year Analysis

Table 10-7 presents the projected multiple-dry year water supply and demand assessment. It is assumed that the multiple-dry year water supplies are the same as those for the normal years because TVMWD will meet projected purchased water demands under all anticipated hydrologic conditions. The third year of the multiple-dry year water supply projection represents the end of each 3-year multiple-dry year period as required for the multiple-dry year analysis. TVMWD has determined that they can meet their projected water demands for multiple-dry years, so the water supply is projected to equal the projected demands. It is assumed that the water demand for the preceding two years (of the 3-year multiple-dry year period) will be the same as those in the third year. For example, the water demand projection for 2010 has been used as the water demands projected in 2009 and 2008.

An exception may occur in 2030 under a multiple dry-year hydrology scenario. Under this scenario TVMWD is projected to supply 99 percent of demand resulting in less than one percent shortage in GSWC's supplies. If this scenario does unfold in 2030, the potential shortfall is small enough that it can be readily addressed by conservation practices and/or utilizing other sources of supplies. Therefore, it is assumed that 100 percent of supplies will be available under multiple-dry year conditions.

Table 10-7 demonstrates that the water supplies are sufficient to meet the projected water demand for each multiple-dry year period because, 1) TVMWD has determined that they can meet their projected water demands for the multiple-dry year periods (discussed in Chapter 3); and 2) Groundwater from the Claremont Basin is expected to be 100 percent reliable in multiple-dry years. The purchased water supply is expected to be much greater than the expected projected water demands during multiple-dry years (see TVMWD's 2005 UWMP for details).

In summary, Metropolitan and TVMWD have implemented and will implement projects to ensure the imported water demands can be met under normal, single-dry year, and multiple-dry years.

Table 10-7
Projected Multiple-Dry Year Water Supply and Demand Assessment in ac-ft/yr

Year	Supply (acre-feet per year)	Demand (acre-feet per year)	Difference	Difference as Percent of Supply	Difference as Percent of Demand
2006					
2007					
2008	14,978	14,978	0	0	0
2009	14,978	14,978	0	0	0
2010	14,978	14,978	0	0	0
2011					
2012					
2013	15,508	15,508	0	0	0
2014	15,508	15,508	0	0	0
2015	15,508	15,508	0	0	0
2016					
2017					
2018	16,031	16,031	0	0	0
2019	16,031	16,031	0	0	0
2020	16,031	16,031	0	0	0
2021					
2022					
2023	16,536	16,536	0	0	0
2024	16,536	16,536	0	0	0
2025	16,536	16,536	0	0	0
2026					
2027					
2028	17,027	17,027	0	0	0
2029	17,027	17,027	0	0	0
2030	17,027	17,027	0	0	0

Notes
1. This assessment is based on the 3-year multiple-year period ending in 2010, 2015, 2020, 2025, and 2030.
2. Table format based on DWR Guidance Document Tables 47 through 57.

Chapter 11. References

California Department of Water Resources (DWR). 2005. *Guidebook to Assist Water Suppliers in the Preparation of a 2005 Urban Water Management Plan*. January 18.

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Appendix A
Urban Water Management Planning Act

Established: AB 797, Klehs, 1983
Amended: AB 2661, Klehs, 1990
AB 11X, Filante, 1991
AB 1869, Speier, 1991
AB 892, Frazee, 1993
SB 1017, McCorquodale, 1994
AB 2853, Cortese, 1994
AB 1845, Cortese, 1995
SB 1011, Polanco, 1995
AB 2552, Bates, 2000
SB 553, Kelley, 2000
SB 610, Costa, 2001
AB 901, Daucher, 2001
SB 672, Machado, 2001
SB 1348, Brulte, 2002
SB 1384 Costa, 2002
SB 1518 Torlakson, 2002
AB 105, Wiggins, 2003
SB 318, Alpert, 2004

CALIFORNIA WATER CODE DIVISION 6
PART 2.6. URBAN WATER MANAGEMENT PLANNING
CHAPTER 1. GENERAL DECLARATION AND POLICY

10610. This part shall be known and may be cited as the "Urban Water Management Planning Act."

10610.2. (a) The Legislature finds and declares all of the following:
(1) The waters of the state are a limited and renewable resource subject to ever-increasing demands.
(2) The conservation and efficient use of urban water supplies are of statewide concern; however, the planning for that use and the implementation of those plans can best be accomplished at the local level.
(3) A long-term, reliable supply of water is essential to protect the productivity of California's businesses and economic climate.
(4) As part of its long-range planning activities, every urban water supplier should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry water years.
(5) Public health issues have been raised over a number of contaminants that have been identified in certain local and imported water supplies.
(6) Implementing effective water management strategies, including groundwater storage projects and recycled water projects, may require specific water quality and salinity targets for meeting groundwater basins water quality objectives and promoting beneficial use of recycled water.

(7) Water quality regulations are becoming an increasingly important factor in water agencies' selection of raw water sources, treatment alternatives, and modifications to existing treatment facilities.
(8) Changes in drinking water quality standards may also impact the usefulness of water supplies and may ultimately impact supply reliability.
(9) The quality of source supplies can have a significant impact on water management strategies and supply reliability.
(b) This part is intended to provide assistance to water agencies in carrying out their long-term resource planning responsibilities to ensure adequate water supplies to meet existing and future demands for water.
10610.4. The Legislature finds and declares that it is the policy of the state as follows:
(a) The management of urban water demands and efficient use of water shall be actively pursued to protect both the people of the state and their water resources.
(b) The management of urban water demands and efficient use of urban water supplies shall be a guiding criterion in public decisions.
(c) Urban water suppliers shall be required to develop water management plans to actively pursue the efficient use of available supplies.

CHAPTER 2. DEFINITIONS
10611. Unless the context otherwise requires, the definitions of this chapter govern the construction of this part.
10611.5. "Demand management" 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.
10612. "Customer" means a purchaser of water from a water supplier who uses the water for municipal purposes, including residential, commercial, governmental, and industrial uses.
10613. "Efficient use" means those management measures that result in the most effective use of water so as to prevent its waste or unreasonable use or unreasonable method of use.
10614. "Person" means any individual, firm, association, organization, partnership, business, trust, corporation, company, public agency, or any agency of such an entity.
10615. "Plan" means an urban water management plan prepared pursuant to this part. A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities. The components of the plan may vary according to an individual community or area's characteristics and its capabilities to efficiently use and conserve water. The plan shall address measures for residential, commercial, governmental, and industrial water demand management as set forth in Article 2 (commencing with Section 10630) of Chapter 3. In addition, a strategy and time schedule for implementation shall be included in the plan.
10616. "Public agency" means any board, commission, county, city and county, city, regional agency, district, or other public entity.
10616.5. "Recycled water" means the reclamation and reuse of wastewater for beneficial use.
10617. "Urban water supplier" means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. An urban water

supplier includes a supplier or contractor for water, regardless of the basis of right, which distributes or sells for ultimate resale to customers. This part applies only to water supplied from public water systems subject to Chapter 4 (commencing with Section 116275) of Part 12 of Division 104 of the Health and Safety Code.

CHAPTER 3. URBAN WATER MANAGEMENT PLANS

Article 1. General Provisions

10620.

(a) Every urban water supplier shall prepare and adopt an urban water management plan in the manner set forth in Article 3 (commencing with Section 10640).

(b) Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.

(c) An urban water supplier indirectly providing water shall not include planning elements in its water management plan as provided in Article 2 (commencing with Section 10630) that would be applicable to urban water suppliers or public agencies directly providing water, or to their customers, without the consent of those suppliers or public agencies.

(d)(1) An urban water supplier may satisfy the requirements of this part by participation in area wide, regional, watershed, or basin wide urban water management planning where those plans will reduce preparation costs and contribute to the achievement of conservation and efficient water use.

(2) Each urban water supplier shall 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.

(e) The urban water supplier may prepare the plan with its own staff, by contract, or in cooperation with other governmental agencies.

(f) An urban water supplier shall describe in the plan water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions.

10621.

(a) Each urban water supplier shall update its plan at least once every five years on or before December 31, in years ending in five and zero.

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

(c) The amendments to, or changes in, the plan shall be adopted and filed in the manner set forth in Article 3 (commencing with Section 10640).

Article 2. Contents of Plans

10630. It is the intention of the Legislature, in enacting this part, to permit levels of water management planning commensurate with the numbers of customers served and the volume of water supplied.

10631. A plan shall be adopted in accordance with this chapter and shall do all of the following:

(a) Describe the service area of the supplier, including current and projected population, climate, and other demographic factors affecting the supplier's water management planning. The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available.

(b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a). If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information shall be included in the plan:

(1) A copy of any groundwater management plan adopted by the urban water supplier, including plans adopted pursuant to Part 2.75 (commencing with Section 10750), or any other specific authorization for groundwater management.

(2) A description of any groundwater basin or basins from which the urban water supplier pumps groundwater. For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree. For basins that have not been adjudicated, information as to whether the department 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.

(3) A detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the urban water supplier. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(c) Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following:

(1) An average water year.

(2) A single dry water year.

(3) Multiple dry water years.

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.

(d) Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.

(e)(1) Quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, identifying the uses among water use sectors including, but not necessarily limited to, all of the following uses:

(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, or conjunctive use, or any combination thereof.
(I) Agricultural.

(2) The water use projections shall be in the same five-year increments described in subdivision (a).

(f) Provide a description of the supplier's water demand management measures. This description shall include all of the following:

(1) A description of each water demand management measure that is currently being implemented, or scheduled for implementation, including the steps necessary to implement any proposed measures, including, but not limited to, all of the following:
(A) Water survey programs for single-family residential and multifamily residential customers.
(B) Residential plumbing retrofit.
(C) System water audits, leak detection, and repair.
(D) Metering with commodity rates for all new connections and retrofit of existing connections.
(E) Large landscape conservation programs and incentives.
(F) High-efficiency washing machine rebate programs.
(G) Public information programs.
(H) School education programs.
(I) Conservation programs for commercial, industrial, and institutional accounts.
(J) Wholesale agency programs.
(K) Conservation pricing.
(L) Water conservation coordinator.
(M) Water waste prohibition.
(N) Residential ultra-low-flush toilet replacement programs.

(2) A schedule of implementation for all water demand management measures proposed or described in the plan.

(3) A description of the methods, if any, that the supplier will use to evaluate the effectiveness of water demand management measures implemented or described under the plan.

(4) 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 supplier's ability to further reduce demand.

(g) An evaluation of each water demand management measure listed in paragraph (1) of subdivision (f) that is not currently being implemented or scheduled for implementation. In the course of the evaluation, first consideration shall be given to water demand management measures, or combination of measures, that offer lower

incremental costs than expanded or additional water supplies. This evaluation shall do all of the following:

(1) Take into account economic and noneconomic factors, including environmental, social, health, customer impact, and technological factors.

(2) Include a cost-benefit analysis, identifying total benefits and total costs.

(3) Include a description of funding available to implement any planned water supply project that would provide water at a higher unit cost.

(4) Include a description of the water supplier's legal authority to implement the measure and efforts to work with other relevant agencies to ensure the implementation of the measure and to share the cost of implementation.

(h) Include a description of all water supply projects and water supply programs that may be undertaken by the urban water supplier to meet the total projected water use as established pursuant to subdivision (a) of Section 10635. The urban water supplier shall include a detailed description of expected future projects and programs, other than the demand management programs identified pursuant to paragraph (1) of subdivision (f), that the urban water supplier may implement to increase the amount of the water supply available to the urban water supplier in average, single-dry, and multiple-dry water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.

(i) Describe the opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.

(j) Urban water suppliers that are members of the California Urban Water Conservation Council and submit annual reports to that council in accordance with the "Memorandum of Understanding Regarding Urban Water Conservation in California," dated September 1991, may submit the annual reports identifying water demand management measures currently being implemented, or scheduled for implementation, to satisfy the requirements of subdivisions (f) and (g).

(k) Urban water suppliers that rely upon a wholesale agency for a source of water , shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent practicable, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water -year types in accordance with subdivision (c). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (c).

10631.5. The department shall take into consideration whether the urban water supplier is implementing or scheduled for implementation, the water demand management activities that the urban water supplier identified in its urban water management plan, pursuant to Section 10631, in evaluating applications for grants and loans made available pursuant to Section 79163. 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.

10632. The plan shall provide an urban water shortage contingency analysis that includes each of the following elements that are within the authority of the urban water supplier:
(a) Stages of action to be undertaken by the urban water supplier in response to water supply shortages, including up to a 50 percent reduction in water supply, and an outline of specific water supply conditions which are applicable to each stage.
(b) 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.
(c) 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.
(d) 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.
(e) 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.
(f) Penalties or charges for excessive use, where applicable.
(g) 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.
(h) A draft water shortage contingency resolution or ordinance.
(i) A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.
10633. The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier. The preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area, and shall include all of the following:
(a) A description of 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.
(b) A description of the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.
(c) A description and quantification of the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.
(d) 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 pursuant to this subdivision.

(e) A description of 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.
(f) 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.
10634. The plan shall include information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments as described in subdivision (a) of Section 10631, and the manner in which water quality affects water management strategies and supply reliability.

Article 2.5 Water Service Reliability
10635. (a) Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare 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. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.
(b) The urban water supplier shall provide that portion of its urban water management plan prepared pursuant to this article to any city or county within which it provides water supplies no later than 60 days after the submission of its urban water management plan.
(c) Nothing in this article is intended to create a right or entitlement to water service or any specific level of water service.
(d) Nothing in this article is intended to change existing law concerning an urban water supplier's obligation to provide water service to its existing customers or to any potential future customers.

Article 3. Adoption and Implementation of Plans
10640. Every urban water supplier required to prepare a plan pursuant to this part shall prepare its plan pursuant to Article 2 (commencing with Section 10630). The supplier shall likewise periodically review the plan as required by Section 10621, and any amendments or changes required as a result of that review shall be adopted pursuant to this article.
10641. An urban water supplier required to prepare a plan may consult with, and obtain comments from, any public agency or state agency or any person who has special expertise with respect to water demand management methods and techniques.
10642. Each urban water supplier shall encourage the 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. Prior to adopting a plan, the urban water supplier shall make the plan available for public inspection and shall hold a public hearing thereon. Prior to the hearing, notice of the time and place of hearing shall be published within the jurisdiction of the publicly owned water supplier pursuant to

Section 6066 of the Government Code. The urban water supplier shall provide notice of the time and place of hearing to any city or county within which the supplier provides water supplies. A privately owned water supplier shall provide an equivalent notice within its service area. After the hearing, the plan shall be adopted as prepared or as modified after the hearing.

10643. An urban water supplier shall implement its plan adopted pursuant to this chapter in accordance with the schedule set forth in its plan.

10644. (a) An urban water supplier shall submit to the department, the California State Library, and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption. Copies of amendments or changes to the plans shall be submitted to the department, the California State Library, and any city or county within which the supplier provides water supplies within 30 days after adoption.

(b) The department shall prepare and submit to the Legislature, on or before December 31, in the years ending in six and one, a report summarizing the status of the plans adopted pursuant to this part. The report prepared by the department shall identify the outstanding elements of the individual plans. The department shall provide a copy of the report to each urban water supplier that has filed its plan with the department. The department shall also prepare reports and provide data for any legislative hearings designed to consider the effectiveness of plans submitted pursuant to this part.

10645. Not later than 30 days after filing a copy of its plan with the department, the urban water supplier and the department shall make the plan available for public review during normal business hours.

CHAPTER 4. MISCELLANEOUS PROVISIONS

10650. Any actions or proceedings to attack, review, set aside, void, or annul the acts or decisions of an urban water supplier on the grounds of noncompliance with this part shall be commenced as follows:

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

(b) 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 90 days after filing of the plan or amendment thereto pursuant to Section 10644 or the taking of that action.

10651. In any action or proceeding to attack, review, set aside, void, or annul a plan, or an action taken pursuant to the plan by an urban 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 supplier has not proceeded in a manner required by law or if the action by the water supplier is not supported by substantial evidence.

10652. 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 or to the implementation of actions taken pursuant to Section 10632. Nothing in this part shall be interpreted as exempting from the California Environmental Quality Act any project that would significantly affect water supplies for fish and wildlife, or any project for implementation of the plan, other than projects implementing Section 10632, or any project for expanded or additional water supplies.

10653. The adoption of a plan shall satisfy any requirements of state law, regulation, or order, including those of the State Water Resources Control Board and the Public Utilities Commission, for the preparation of water management plans or conservation plans; provided, that if the State Water Resources Control Board or the Public Utilities Commission requires additional information concerning water conservation to implement its existing authority, nothing in this part shall be deemed to limit the board or the commission in obtaining that information. The requirements of this part shall be satisfied by any urban water demand management plan prepared to meet federal laws or regulations after the effective date of this part, and which substantially meets the requirements of this part, or by any existing urban water management plan which includes the contents of a plan required under this part.

10654. An urban water supplier may recover in its rates the costs incurred in preparing its plan and implementing the reasonable water conservation measures included in the plan. Any best water management practice that is included in the plan that is identified in the "Memorandum of Understanding Regarding Urban Water Conservation in California" is deemed to be reasonable for the purposes of this section.

10655. If any provision of this part or the application thereof to any person or circumstances is held invalid, that invalidity shall not affect other provisions or applications of this part which can be given effect without the invalid provision or application thereof, and to this end the provisions of this part are severable.

10656. An urban water supplier that does not prepare, adopt, and submit its urban water management plan to the department in accordance with this part, is ineligible to receive funding pursuant to Division 24 (commencing with Section 78500) or Division 26 (commencing with Section 79000), or receive drought assistance from the state until the urban water management plan is submitted pursuant to this article.

10657. (a) The department shall take into consideration whether the urban water supplier has submitted an updated urban water management plan that is consistent with Section 10631, as amended by the act that adds this section, in determining whether the urban water supplier is eligible for funds made available pursuant to any program administered by the department.

(b) This section shall remain in effect only until January 1, 2006, and as of that date is repealed, unless a later enacted statute, that is enacted before January 1, 2006, deletes or extends that date.

Appendix B
Public Hearing Notice and Meeting Minutes

Notice of Public Hearing

In conformance with the California Urban Water Management Planning Act, Golden State Water Company (formerly Southern California Water Company) is hosting a public hearing on Tuesday, November 15, at 7:00 p.m. at the Golden State Water Company Corporate Office, 630 East Foothill Blvd, San Dimas, CA 91773, to solicit comments on the Urban Water Management Plans (UWMP) for the following water systems: Claremont, San Dimas, South Arcadia and South San Gabriel. The UWMPs are available for public review prior to the public hearing and can be reviewed during normal business hours at the Customer Service Offices, located at:

Claremont Customer Service Office

Golden State Water Company
689 West Foothill Blvd, Ste D
Claremont, CA 91711

San Dimas Customer Service Office

Golden State Water Company
121 Exchange Place
San Dimas, CA 91773

San Gabriel Valley Customer Service Office

Golden State Water Company
110 East Live Oak
Arcadia, CA 91006

Golden State
Water Company
A Subsidiary of American States Water Company

No Meeting Minutes were taken since there was no attendance by the public.

Appendix C
Public Comments on the Draft UWMP

No Public Comments received during Public Review Period.

Appendix D
Economic Analysis of Selected Demand Management Measures

Claremont System
Table D-1. Assumptions Used for Economic Analysis

BMP 1 – Water Survey Programs for Single-Family Residential and Multi-Family Residential Customers

Assumptions:

1. Survey 15% of single- and multi-family units within 10 years of the date implementation is to commence. Surveys will be conducted according to the following schedule: 1.5% by end of the first reporting period, 3.6% by end of second reporting period, 6.3% by end of third reporting period, 9.6% by end of fourth reporting period, and 15% by end of the fifth reporting period.

MOU, page 16 and page 17 Section E.d.

2. Single-family outdoor water usage = 254 gpd/unit

Single-family water usage was estimated by analyzing 12 months of billing data. The monthly indoor water use is assumed to be equivalent to 60 percent of average monthly water use. Outdoor water is calculated as the difference between annual total use and the assumed annual indoor water use.

3. Multi-family outdoor water usage = 56 gpd/unit

Multi-family water usage was estimated by analyzing 12 months of billing data. The monthly indoor water use is assumed to be equivalent to 70 percent of average monthly water use.

4. Water savings from indoor leak detection, not including toilet leaks = 4.1 gpd per residence

A & N Technical Services report (2003, page 2-38) (12.4 gpd per household repair; 33 percent of households audited have leaks – based on data from GSWC indoor leak detection program).

5. Water surveys decrease outdoor water use by 15%

MOU estimate is 10% (page 18).

6. Each water survey costs $35.

The estimate includes marketing, contract labor, GSWC labor, overhead and materials. It is assumed that this BMP is done in conjunction with BMP2.

7. The life span of a water survey is four years.

A & N Technical Services report (2003, page 2-38) gives life spans for various components of a water survey. Four years selected as a reasonable average value..

8. Water savings from indoor plumbing retrofits are tracked under BMP 2. Only water savings from decrease in outdoor water use and water savings from indoor leak detection are tracked in BMP 1 to avoid double counting of water savings.

9. Energy Savings of $70 per AC-FT of water conserved.

Based on GSWC data.

Claremont System
Table D-1. Assumptions Used for Economic Analysis

BMP 2 – Residential Plumbing Retrofit

Assumptions:

1. Plumbing retrofit devices will be installed at a minimum of 10% of residences per reporting period until it can be demonstrated that 75% of pre-1992 single-family residences and 75% of pre-1992 multi-family residences have low flow showerheads (LFSHs).

MOU, page 19.

2. 70% of single-family and 60% of multi-family residences have low-water-use fixtures.

Based on GSWC data

3. Average number of fixtures per residence includes: 2.0 showers, 2.4 toilets, and 4.6 faucets (1 kitchen faucet and 3.6 other faucets).

4. Water savings from one low-flow showerhead = 5.5 gpd

A & N Technical Services report (2003, page 2-38).

5. Water savings from one faucet aerator = 1.5 gpd

A & N Technical Services report (2003, page 2-38).

6. Water savings from one toilet flapper = 8 gpd; assume 20 percent of toilets leak.

A & N Technical Services report (2003, page 2-38).

7. Water savings from kitchen "flip" faucet aerator = 3.0 gpd.

Based on GSWC data.

8. Indoor water savings = 23,2 gpd/unit

We used the following equation to calculate indoor water savings, based on assumptions 4 through 8:

(2.0*5.5) + (1.0*3.0) + (3.6*1.5) + (2.4*8*0.20).

9. The BMP will cost an average of $48 per residence.

Based on information provided by GSWC.

10. The life span of the retrofit devices is four years.

A & N Technical Services report (2003, page 2-38) gives life spans for a various components of a water survey. Four years selected as a reasonable average value.

11. Base year dwelling units include 9,298 single-family and 3,125 multi-family units.

Claremont System
Table D-1. Assumptions Used for Economic Analysis

BMP 3 – System Water Audits, Leak Detection and Repair
Assumptions: **1.** 20% of the distribution system will be surveyed and repaired each year. 2. Leak repairs will result in annual savings of approximately 0.6 acre-feet of water per mile of pipe. Based on information provided by Southern California Water Company 3. System water audits, leak detection and leak repair will cost approximately $1000 per mile of pipe. Based on information provided by GSWC.

Claremont System
Table D-1. Assumptions Used for Economic Analysis

BMP 5 – Large Landscape Conservation Programs and Incentives

Assumptions:

1. Develop Eto-based water use budgets for 90 percent of the CII accounts with dedicated irrigation meters and provide irrigation water use surveys to15 percent of CII accounts with mixed use meters.

MOU (Page 28)

2. Base year values include 228 dedicated landscape and 504 CII mixed use accounts.

Based on GSWC account summary data.

3. Dedicated landscape accounts are an average size of 1.7 acres

CII mixed use account landscape areas are assumed to be an average of 0.1 acre in size

4. Water use prior to the survey is 4.9 ft per year.

Irrigation allocation is equal to 100 percent of local evapotranspiration (ETo), and the MOU estimates that surveys will reduce water usage by 15 percent. Based on California Irrigation Management Information System data.

5. Surveys will reduce water usage by 15%.

MOU, page 30.

6. The life span of the large landscape water surveys is four years.

A & N Technical Services report (2003) gives a life span of four years for turf audits (page 2-34). Water

surveys for large landscapes are assumed to have a similar life span.

7. Each survey will cost $425 per acre. Minimum cost is $150 per account.

The estimate includes labor, administration, evaluation and overhead.

Claremont System
Table D-1. Assumptions Used for Economic Analysis

BMP 6 – High-Efficiency Washing Machine Rebate Programs
Assumptions 1. Coverage Goal is equal to total (single- and multi-family) dwelling units x 0.048. MOU page 35. 2. Each rebate will cost $75. The MOU does not require implementation of this BMP if the maximum cost-effective rebate is less than $50 (MOU, page 34). A $50 rebate plus $25 per rebate is assumed for program administration and overhead. 3. Each high efficiency washing machine will reduce water usage by 6,200 gallons per year. MOU, page 38. Based on washing machines with water factor of 8.0. 4. The life span of a high efficiency washing machine is 14 years. MOU, page 38.

Claremont System
Table D-1. Assumptions Used for Economic Analysis

BMP 9 – Conservation Programs for Commercial, Industrial, and Institutional (CII) Accounts

Assumptions:

1. Provide water-use surveys to10% of CII accounts within 10 years of the date implementation is to commence. *MOU, pages 43 and 44.*

2. The life span of a water survey is four years.

The life span for a CII water survey is the same as the life span for a residential survey.

3. The average annual water savings resulting from a commercial and institutional water survey is 0.83 acre-feet per account.

A & N Technical Services report (2003, page 2-51) gives average annual water savings for three types of surveys; "analyst surveys", "consultant surveys" and "water efficiency studies". Analyst surveys are conducted by non-engineers, consultant surveys are conducted by engineers for sites that have process water, and water efficiency studies are conducted at major industrial facilities that use very large quantities of water. For purposes of this economic analysis, only analyst surveys will be conducted for commercial and institutional account surveys. Values for water savings in the A & N report represent the maximum potential water savings that could occur if a customer were to implement every possible water conservation measure. Only 25% of the maximum potential water savings is assumed to be realized.

4. The average annual water savings resulting from an industrial water survey is 1.9 acre-feet per account.

For purposes of this economic analysis, consultant surveys will be conducted for industrial account surveys. Values for water savings in the A & N 2003 report represent the maximum potential water savings that could occur if a customer were to implement every possible water conservation measure. Only 25% of the maximum potential water savings is assumed to be realized.

5. Each analyst survey (for commercial and institutional accounts) will cost an average of $600 and each consultant survey (for industrial accounts) will cost an average of $1,500.

A & N Technical Services report (2003, page 2-53).

Claremont System
Table D-2. Economic Analysis Worksheets
BMP 1. Water Survey Programs for Single-Family and Multi-Family Customers

	Water Saving Calculations								Benefits ($)					Costs ($)					
Calendar Year	Single Family Intervention	Multi-Family Intervention	Percent Units Surveyed	Single-Family Outdoor Savings (ac-ft/yr)	Multi-Family Outdoor Savings (ac-ft/yr)	Total Outdoor Savings (ac-ft/yr)	Total Intdoor Savings (ac-ft/yr)	Annual Water Savings	Avoided Capital Costs	Avoided Variable Costs	Avoided Purchase Costs	Total Undiscounted Benefits	Total Discounted Benefits	Capital Costs	Financial Incentives	Operating Expenses	Total Undiscounted Costs	Total Discounted Costs	New present Value
Pre 2005	1,293	11	10.4%					0.0											
2006	56	230	2.3%	2.4	2.17	4.5	1.3	5.9	$0	$410	$3,319	$3,729	$3,729	$0	$0	$10,019	$10,019	$10,019	-$6,290
2007	56	230	2.3%	2.4	2.17	4.5	1.3	11.7	$0	$821	$6,637	$7,458	$6,989	$0	$0	$10,019	$10,019	$9,389	-$2,399
2008								11.7	$0	$821	$6,637	$7,458	$6,550	$0					$6,550
2009								11.7	$0	$821	$6,637	$7,458	$6,138	$0					$6,138
2010								5.9	$0	$410	$3,319	$3,729	$2,876	$0					$2,876
2011																			
2012																			
2013																			
2014																			
2015																			
2016																			
2017																			
2018																			
2019																			
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2021																			
2022																			
2023																			
2024																			
2025																			
2026																			
2027																			
2028																			
2029																			
2030																			
Totals	1,405	472	15%	5	4	9	3	47	$0	$3,284	$26,550	$29,834	$26,283	$0	$0	$20,038	$20,038	$19,408	$6,875

Credit Table for Previously Performed Surveys

Year	Single Family Units Surveyed	Multi-Family Units Surveyed	% Credit	Single Family Credits	Multi-Family Credits
Pre-1990			0.0%	0	0
1990			12.5%	0	0
1991			25.0%	0	0
1992			37.5%	0	0
1993			50.0%	0	0
1994			62.5%	0	0
1995	500		75.0%	375	0
1996			87.5%	0	0
1997	374		100.0%	374	0
1998-2004	544	11	100.0%	544	11
Total	1418	11		1293	11

Value of conserved water ($/ac-ft) =	566
Discount rate (real) =	6.71%
Indoor water savings (gpd/unit) =	4.1
Outdoor water savings =	15%
Single family outdoor water usage (gpd/unit) =	254
Multi-family outdoor water usage (gpd/unit) =	56
Conservation measure unit cost ($) =	35
1997 Single family units =	9364
1997 Multi-family units =	3146
Life span of water survey (years) =	4
Energy savings ($/ac-ft) =	70

Benefit cost ratio =	1.4
Simple pay-back period (years) =	4
Discounted cost/water saved ($acre-feet) =	414
NPV/ water saved (acre-feet) =	147

Claremont System
Table D-2. Economic Analysis Worksheets
BMP 2. Residential Plumbing Retrofit

	Water Saving Calculations						Benefits ($)					Costs ($)					
Calendar Year	Single-Family Intervention	Multi-Family Intervention	Percent Units Surveyed Single-Family	Percent Units Surveyed Multi-Family	Incremental Water Savings (ac-ft/yr)	Annual Water Savings	Avoided Capital Costs	Avoided Variable Costs	Avoided Purchase Costs	Total Undiscounted Benefits	Total Discounted Benefits	Capital Costs	Financial Incentives	Operating Expenses	Total Undiscounted Costs	Total Discounted Costs	New present Value
Pre 2005			70%	60%													
2006	465	156	5.0%	5.0%	16.1	16.1	$0	$1,130	$9,135	$10,265	$10,265	$0	$0	$29,815	$29,815	$29,815	-$19,550
2007	0	156	0.0%	5.0%	4.1	20.2	$0	$1,414	$11,433	$12,847	$12,039	$0	$0	$7,500	$7,500	$7,028	$5,011
2008	0	156	0.0%	5.0%	4.1	24.3	$0	$1,698	$13,731	$15,429	$13,550	$0	$0	$7,500	$7,500	$6,586	$6,963
2009	0	0	0.0%	0.0%	0.0	24.3	$0	$1,698	$13,731	$15,429	$12,698	$0	$0	$0	$0	$0	$12,698
2010	0	0	0.0%	0.0%	0.0	8.1	$0	$568	$4,596	$5,164	$3,983	$0	$0	$0	$0	$0	$3,983
2011	0	0	0.0%	0.0%	0.0	4.1	$0	$284	$2,298	$2,582	$1,866	$0	$0	$0	$0	$0	$1,866
2012	0	0	0.0%	0.0%	0.0	0.0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2013																	
2014																	
2015																	
2016																	
2017																	
2018																	
2019																	
2020																	
2021																	
2022																	
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2027																	
2028																	
2029																	
2030																	
Totals	465	469	75%	75%	24	97	$0	$6,793	$54,923	$61,716	$54,400	$0	$0	$44,815	$44,815	$43,430	$10,970

Percent of Residences Having Low-Water-Use Fixtures		
Year	Single-Family	Multi-Family
Pre-2005	70%	60%
Annual Replacement		
2006	5%	5%
2007	0%	5%
2008	0%	5%
2009	0%	0%
2010	0%	0%
2011	0%	0%
2012	0%	0%
2013	0%	0%
2014	0%	0%

Value of conserved water ($/ac-ft) =	566
Discount rate (real) =	6.71%
Water savings (gpd/unit) =	23.2
Conservation measue unit cost ($) =	48
Percent units receiving retrofits =	5%
1991 Single family units =	9298
1991 Multi-family units =	3125
Life span of retrofit devices (years) =	4
Energy savings ($/ac-ft) =	70

Benefit cost ratio =	1.3
Simple pay-back period (years) =	6
Discounted cost/water saved ($acre-feet) =	448
NPV/ water saved (acre-feet) =	113

Claremont System
Table D-2. Economic Analysis Worksheets
BMP 3. System Water Audits, Leak Detection, and Repair

	Water Savings		Benefits ($)					Costs ($)					
Calendar Year	Length of Pipe Surveyed (miles)	Annual Water Savings	Avoided Capital Costs	Avoided Variable Costs	Avoided Purchase Costs	Total Undiscounted Benefits	Total Discounted Benefits	Capital Costs	Financial Incentives	Operating Expenses	Total Undiscounted Costs	Total Discounted Costs	New present Value
Pre 1998													
2006	30.4	18.2	$0	$1,277	$10,324	$11,601	$11,601	$0	$0	$30,400	$30,400	$30,400	-$18,799
2007	30.4	36.5	$0	$2,554	$20,648	$23,201	$21,742	$0	$0	$30,400	$30,400	$28,488	-$6,746
2008	30.4	54.7	$0	$3,830	$30,972	$34,802	$30,563	$0	$0	$30,400	$30,400	$26,697	$3,866
2009	30.4	73.0	$0	$5,107	$41,295	$46,403	$38,188	$0	$0	$30,400	$30,400	$25,018	$13,170
2010	30.4	91.2	$0	$6,384	$51,619	$58,003	$44,733	$0	$0	$30,400	$30,400	$23,445	$21,288
2011	30.4	91.2	$0	$6,384	$51,619	$58,003	$41,920	$0	$0	$30,400	$30,400	$21,971	$19,950
2012	30.4	91.2	$0	$6,384	$51,619	$58,003	$39,285	$0	$0	$30,400	$30,400	$20,589	$18,695
2013	30.4	91.2	$0	$6,384	$51,619	$58,003	$36,814	$0	$0	$30,400	$30,400	$19,295	$17,520
2014	30.4	91.2	$0	$6,384	$51,619	$58,003	$34,499	$0	$0	$30,400	$30,400	$18,081	$16,418
2015	30.4	91.2	$0	$6,384	$51,619	$58,003	$32,330	$0	$0	$30,400	$30,400	$16,944	$15,386
2016	30.4	91.2	$0	$6,384	$51,619	$58,003	$30,297	$0	$0	$30,400	$30,400	$15,879	$14,418
2017	30.4	91.2	$0	$6,384	$51,619	$58,003	$28,392	$0	$0	$30,400	$30,400	$14,880	$13,511
2018	30.4	91.2	$0	$6,384	$51,619	$58,003	$26,607	$0	$0	$30,400	$30,400	$13,945	$12,662
2019	30.4	91.2	$0	$6,384	$51,619	$58,003	$24,934	$0	$0	$30,400	$30,400	$13,068	$11,866
2020	30.4	91.2	$0	$6,384	$51,619	$58,003	$23,366	$0	$0	$30,400	$30,400	$12,246	$11,120
2021	30.4	91.2	$0	$6,384	$51,619	$58,003	$21,897	$0	$0	$30,400	$30,400	$11,476	$10,420
2022	30.4	91.2	$0	$6,384	$51,619	$58,003	$20,520	$0	$0	$30,400	$30,400	$10,755	$9,765
2023	30.4	91.2	$0	$6,384	$51,619	$58,003	$19,229	$0	$0	$30,400	$30,400	$10,078	$9,151
2024	30.4	91.2	$0	$6,384	$51,619	$58,003	$18,020	$0	$0	$30,400	$30,400	$9,445	$8,576
2025	30.4	91.2	$0	$6,384	$51,619	$58,003	$16,887	$0	$0	$30,400	$30,400	$8,851	$8,036
2026	30.4	91.2	$0	$6,384	$51,619	$58,003	$15,825	$0	$0	$30,400	$30,400	$8,294	$7,531
2027	30.4	91.2	$0	$6,384	$51,619	$58,003	$14,830	$0	$0	$30,400	$30,400	$7,773	$7,058
2028	30.4	91.2	$0	$6,384	$51,619	$58,003	$13,898	$0	$0	$30,400	$30,400	$7,284	$6,614
2029	30.4	91.2	$0	$6,384	$51,619	$58,003	$13,024	$0	$0	$30,400	$30,400	$6,826	$6,198
2030	30.4	91.2	$0	$6,384	$51,619	$58,003	$12,205	$0	$0	$30,400	$30,400	$6,397	$5,808
Totals	760	2,098	$0	$146,832	$1,187,242	$1,334,074	$631,605	$0	$0	$760,000	$760,000	$388,125	$243,480

Value of conserved water ($/ac-ft) =	566	Benefit cost ratio =	1.6
Discount rate (real) =	6.71%	Simple pay-back period (years) =	15
Annual water savings (ac-ft/mile) =	0.6	Discounted cost/water saved ($acre-feet) =	185
Conservation measue unit cost ($) =	1000	NPV/ water saved (acre-feet) =	116
Percent of pipe surveyed =	20%		
Total length of pipe in system (miles) =	152		
Life span of leak repairs (years) =	5		
Energy savings ($/ac-ft) =	70		

Claremont System
Table D-2. Economic Analysis Worksheets
BMP 5. Large Landscape Conservation Programs and Incentives

	Water Saving Calculations						Benefits					Costs					
Calendar Year	CII Accounts w/Dedicated Irr. Meters Interventions	CII Accounts w/Mixed Use Meters Offered Surveys	CII Accounts w/Mixed Use Meters % Surveyed	CII Accounts w/Mixed Use Meters Interventions	Incremental Water Savings (ac-ft/Yr)	Cumulative Water Savings (ac-ft/Yr)	Avoided Capital Costs	Avoided Variable Costs	Avoided Purchase Costs	Total Undiscounted Benefits	Total Discounted Benefits	Capital Costs	Financial Incentives	Operating Expenses	Total Undiscounted Costs	Total Discounted Costs	Net Present Value
			3.77%	19													
2005	0	0	0.00%	0	0	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2006	103	50	2.92%	15	129	129	$0	$9,049	$73,172	$82,221	$77,051	$0	$0	$76,332	$76,332	$71,532	$5,519
2007	103	50	2.92%	15	129	259	$0	$18,099	$146,343	$164,442	$144,412	$0	$0	$76,332	$76,332	$67,034	$77,378
2008	0	50	1.95%	10	1	259	$0	$18,150	$146,752	$164,902	$135,709	$0	$0	$1,474	$1,474	$1,213	$134,496
2009	0	50	1.95%	10	1	260	$0	$18,200	$147,161	$165,361	$127,530	$0	$0	$1,474	$1,474	$1,137	$126,393
2010		50	0.75%	4	0	131	$0	$9,170	$74,147	$83,317	$60,215	$0	$0	$567	$567	$410	$59,805
2011		50	0.75%	4	0	2	$0	$140	$1,132	$1,272	$862	$0	$0	$567	$567	$384	$478
2012		50	0.00%	0	0	1	$0	$89	$723	$813	$516	$0	$0	$0	$0	$0	$516
2013		50	0.00%	0	0	1	$0	$39	$315	$353	$210	$0	$0	$0	$0	$0	$210
2014		50	0.00%	0	0	0	$0	$19	$157	$177	$98	$0	$0	$0	$0	$0	$98
2015																	
2016																	
2017																	
2018																	
2019																	
2020																	
2021																	
2022																	
2023																	
2024																	
2025																	
2026																	
2027																	
2028																	
2029																	
2030																	
Totals:	205	454	15%	76	261	1042	$0	$72,956	$589,902	$662,858	$546,604	$0	$0	$156,747	$156,747	$141,711	$404,893

Credit Table for Prevoiusly Performed Surveys

Year	# of Surveys	% Credit	Credits
Prior to 7/1/96 with follow up inspection		100%	0
Prior to 7/1/96 without follow up inspection		50%	0
After 7/1/96	19	100%	19
TOTAL			19

Value of Conserved Water ($/ac-ft) =	$566	Benefit Cost Ratio:	3.9
Discount Rate (Real) =	6.71%	Simple Pay-Back Period (years):	2.3
Acres/CII accounts with dedicated irrigation meters =	1.7	Discounted Cost / Water Saved ($/ac-ft):	$136
Acres/CII accounts with mixed use meters =	0.1	NPV / Water Saved ($/ac-ft):	$388
Annual water use (ac-ft/acre) =	4.9		
Water Savings =	15%		
Conservation Measure Unit Cost ($/Acre) =	$425		
Minimum Conservation Measure Unit Cost ($/Account) =	$150		
Number of CII accounts with dedicated irrigation meters in 1997 =	228		
Number of CII accounts with mixed use meters in 1997 =	504		
Lifespan of Benefit (Years) =	4		
Energy savings ($/ac-ft) =	70		

Claremont System
Table D-2. Economic Analysis Worksheets
BMP 6. High-Efficiency Washing Machine Rebate Programs

				Benefits ($)					Costs ($)					
Calendar Year	Coverage Goal	Incremental Water Savings (ac-ft/yr)	Annual Water Savings	Avoided Capital Costs	Avoided Variable Costs	Avoided Purchase Costs	Total Undiscounted Benefits	Total Discounted Benefits	Capital Costs	Financial Incentives	Operating Expenses	Total Undiscounted Costs	Total Discounted Costs	Net Present Value
2006	305	5.8	5.8		406	3,282	3,699	3,699	0	15,240	7,620	22,860	22,860	-19,161
2007	305	5.8	11.6		812	6,564	7,393	6,928	0	15,240	7,620	22,860	21,423	-14,494
2008		0.0	11.6		812	6,564	7,387	6,488	0	0	0	0	0	6,488
2009		0.0	11.6		812	6,564	7,387	6,080	0	0	0	0	0	6,080
2010		0.0	11.6		812	6,564	7,387	5,697	0	0	0	0	0	5,697
2011		0.0	11.6		812	6,564	7,387	5,339	0	0	0	0	0	5,339
2012		0.0	11.6		812	6,564	7,387	5,003	0	0	0	0	0	5,003
2013		0.0	11.6		812	6,564	7,387	4,689	0	0	0	0	0	4,689
2014		0.0	11.6		812	6,564	7,387	4,394	0	0	0	0	0	4,394
2015		0.0	11.6		812	6,564	7,387	4,118	0	0	0	0	0	4,118
2016		0.0	11.6		812	6,564	7,387	3,859	0	0	0	0	0	3,859
2017		0.0	11.6		812	6,564	7,387	3,616	0	0	0	0	0	3,616
2018		0.0	11.6		812	6,564	7,387	3,389	0	0	0	0	0	3,389
2019		0.0	11.6		812	6,564	7,387	3,176	0	0	0	0	0	3,176
2020		0.0	5.8		406	3,282	3,694	1,488	0	0	0	0	0	1,488
2021														
2022														
2023														
2024														
2025														
2026														
2027														
2028														
2029														
2030														
Totals	610	11.6	162.4		11,365	91896.03	103,435	67,962	0	30,480	15,240	45,720	44,283	23,679

Value of conserved water ($/ac-ft) =	566	Benefit cost ratio =	1.5
Discount rate (real) =	6.71%	Simple pay-back period (years) =	10
Water savings (gpy/unit) =	6200	Discounted cost/water saved ($acre-feet) =	273
Amount of rebate =	50	NPV/ water saved (acre-feet) =	146
Cost to administer rebate =	25		
Water factor value =	8.0		
Single family units in year 2005 =	9506		
Multi-Family units in year 2005 =	3194		
Energy savings ($/ac-ft) =	70		

Claremont System
Table D-2. Economic Analysis Worksheets
BMP 9. Conservation Programs for Commercial, Industrial, and Institutional (CII) Accounts

	Water Savings						Benefits ($)					Costs ($)					
Calendar Year	Percent Surveyed	Commercial Interventions	Industrial Interventions	Institutional Interventions	Incremental Savings (Surveys) (ac-ft/yr)	Annual Savings Total (ac-ft/yr)	Avoided Capital Costs	Avoided Variable Costs	Avoided Purchase Costs	Total Undiscounted Benefits	Total Discounted Benefits	Capital Costs	Financial Incentives	Operating Expenses	Total Undiscounted Costs	Total Discounted Costs	Net Present Value
Pre 1998																	
2006	5.00%	14.7	0.50	9.0	20.7	20.7	$0	$1,450	$11,728	$13,179	$13,179	$0	$0	$14,970	$14,970	$14,970	-$1,791
2007	5.00%	14.7	0.50	9.0	20.7	41.4	$0	$2,901	$23,456	$26,357	$24,700	$0	$0	$14,970	$14,970	$14,029	$10,671
2008						41.4	$0	$2,901	$23,456	$26,357	$23,147	$0	$0	$0	$0	$0	$23,147
2009						41.4	$0	$2,901	$23,456	$26,357	$21,691	$0	$0	$0	$0	$0	$21,691
2010						20.7	$0	$1,450	$11,728	$13,179	$10,164	$0	$0	$0	$0	$0	$10,164
2011																	
2012																	
2013																	
2014																	
2015																	
2016																	
2017																	
2018																	
2019																	
2020																	
2021																	
2022																	
2023																	
2024																	
2025																	
2026																	
2027																	
2028																	
2029																	
2030																	
Totals	10%	29	1	18	41	166	$0	$11,604	$93,825	$105,428	$92,880	$0	$0	$29,940	$29,940	$28,999	$63,881

Value of conserved water ($/ac-ft) =	566	Benefit cost ratio =	3.2
Discount rate (real) =	6.71%	Simple pay-back period (years) =	2
Annual survey - Annual water savings (ac-ft/unit) =	0.83	Discounted cost/water saved ($acre-feet) =	175
Annual survey - Conservation measure unit cost ($) =	600	NPV/ water saved (acre-feet) =	385
Consultant survey - Annual water savings (ac-ft/unit) =	2.1		
Consultant survey - Conservation measure unit cost ($) =	1500		
Cost of conservation measure for ULFT replacement ($) =	126		
Number of commrcial accounts in 1997 =	294		
Number of industrial accounts in 1997 =	10		
Number of institutional accounts in 1997 =	180		
Percent units surveyed =	10%		
Life span of water survey (years) =	4		
Energy savings ($/ac-ft) =	70		

Table D-3 Definitions of Terms Used in the Economic Analysis

Term	Definition	Comments
Benefits:		
Avoided Capital Costs	Capital costs that are avoided by implementing the BMP	Example is the cost of a well that would not have to be installed due to implementation of the BMP.
Avoided Variable Costs	Variable costs that are avoided by implementing the BMP.	Example is the cost of electricity that would be saved if the BMP were implemented.
Avoided Purchase Costs	Purchase costs that are avoided by implementing the BMP.	Example is the cost of purchasing water that would not be required due to implementation of the BMP.
Total Undiscounted Benefits	The sum of avoided capital, variable, and purchase costs.	
Total Discounted Benefits	The present value of the sum of avoided capital, variable, and purchase costs.	The discount rate is used to calculate the present value of avoided costs.
Costs:		
Capital Costs	Capital costs incurred by implementing the BMP.	
Financial Incentives	Financial incentives paid to customers.	Example is the rebate for purchasing low-flow plumbing devices.
Operating Expenses	Operating expenses incurred implementing the BMP.	Example is the administrative cost of conducting surveys.
Total Undiscounted Costs	The sum of capital, financial incentives and operating expenses.	
Total Discounted Costs	The present value of the sum of capital, financial incentives and operating expenses.	The discount rate is used to calculate the present value of incurred costs.
Results:		
Net Present Value	Total discounted benefits minus total discounted costs.	A value greater than zero indicates an economically justifiable BMP.
Benefit/Cost Ratio	The sum of the total discounted benefits divided by the sum of the total discounted costs.	A ratio greater than one indicates an economically justifiable BMP.
Simple Pay-Back Period	The sum of the total discounted costs divided by the average annual total discounted benefits.	Indicates the number of years required for the benefits to pay back the costs of the BMP.
Discounted Cost/Water Saved	The sum of the total discounted costs divided by the total acre-feet of water saved over the study period.	Indicates the present-value cost to save one acre-foot of water. A low value is considered economically attractive.
Net Present Value/Water Saved	The sum of the net present value divided by the total acre-feet of water saved over the study period.	Indicates the net value of saving one acre-foot of water. A high value is considered economically attractive.

Appendix E
Council Annual Reports for Demand Management Measures

Reported as of 4/1

Water Supply & Reuse

Reporting Unit:

Year:
2004

Water Supply Source Information

Supply Source Name	Quantity (AF) Supplied	Supply Type

Total AF:

CLAREMONT

2004

Reported as of 4/1

Accounts & Water Use

Reporting Unit Name:	Submitted to CUWCC	Year:
So. California Water Company - Claremont	**04/01/2005**	**2004**

A. Service Area Population Information:

1. Total service area population 35260

B. Number of Accounts and Water Deliveries (AF)

Type	Metered		Unmetered	
	No. of Accounts	Water Deliveries (AF)	No. of Accounts	Water Deliveries (AF)
1. Single-Family	9506	6782	0	0
2. Multi-Family	226	674	0	0
3. Commercial	404	1105	0	0
4. Industrial	10	41	0	0
5. Institutional	179	1311	0	0
6. Dedicated Irrigation	282	866	0	0
7. Recycled Water	0	0	0	0
8. Other	0	0	0	0
9. Unaccounted	NA	1102	NA	0
Total	10607	11881	0	0
	Metered		**Unmetered**	

Reported as of 4/1

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

Reporting Unit:	BMP Form Status:	Year:
So. California Water Company - Claremont	**100% Complete**	**2004**

A. Implementation

1. Based on your signed MOU date, 12/11/1991, your Agency STRATEGY DUE DATE is:	12/10/1993
2. Has your agency developed and implemented a targeting/ marketing strategy for SINGLE-FAMILY residential water use surveys?	yes
a. If YES, when was it implemented?	1/1/1996
3. Has your agency developed and implemented a targeting/ marketing strategy for MULTI-FAMILY residential water use surveys?	yes
a. If YES, when was it implemented?	1/1/1996

B. Water Survey Data

Survey Counts:	**Single Family Accounts**	**Multi-Family Units**
1. Number of surveys offered:	800	0
2. Number of surveys completed:	503	0
Indoor Survey:		
3. Check for leaks, including toilets, faucets and meter checks	yes	yes
4. Check showerhead flow rates, aerator flow rates, and offer to replace or recommend replacement, if necessary	yes	yes
5. Check toilet flow rates and offer to install or recommend installation of displacement device or direct customer to ULFT replacement program, as neccesary; replace leaking toilet flapper, as necessary	yes	yes
Outdoor Survey:		
6. Check irrigation system and timers	yes	no
7. Review or develop customer irrigation schedule	yes	no
8. Measure landscaped area (Recommended but not required for surveys)	yes	no
9. Measure total irrigable area (Recommended but not required for surveys)	yes	no
10. Which measurement method is typically used (Recommended but not required for surveys)		Pacing
11. Were customers provided with information packets that included evaluation results and water savings recommendations?	yes	yes
12. Have the number of surveys offered and completed, survey results, and survey costs been tracked?	yes	yes

a. If yes, in what form are surveys tracked? database

b. Describe how your agency tracks this information.

Database managed by staff and/or contractor.

C. Water Survey Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	15949	

D. "At Least As Effective As"

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

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

CUWCC accepted ALAEA with the Water Wise School Education and Home Survey/Kit distribution program.

E. Comments

Reported as of 4/1

BMP 02: Residential Plumbing Retrofit

Reporting Unit: **So. California Water Company - Claremont**

BMP Form Status: **100% Complete**

Year: **2004**

A. Implementation

1. Is there an enforceable ordinance in effect in your service area requiring replacement of high-flow showerheads and other water use fixtures with their low-flow counterparts? no

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

2. Has your agency satisfied the 75% saturation requirement for single-family housing units? no

3. Estimated percent of single-family households with low-flow showerheads: 70%

4. Has your agency satisfied the 75% saturation requirement for multi-family housing units? no

5. Estimated percent of multi-family households with low-flow showerheads: 60%

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

B. Low-Flow Device Distribution Information

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

   a. If YES, when did your agency begin implementing this strategy? 1/1/1998

   b. Describe your targeting/ marketing strategy.

   A school program, conducted at the 6th grade level, providing a home survey kit with retro-fit devices.

Low-Flow Devices Distributed/ Installed	SF Accounts	MF Units
2. Number of low-flow showerheads distributed:	503	0
3. Number of toilet-displacement devices distributed:	0	0
4. Number of toilet flappers distributed:	0	0
5. Number of faucet aerators distributed:	1006	0

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

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

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

   Database managed by contractor and/or staff.

C. Low-Flow Device Distribution Expenditures

	This Year	Next Year

1. Budgeted Expenditures	0	22000
2. Actual Expenditures	15949	

D. "At Least As Effective As"

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

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

CUWCC accepted ALAEA using the Water Wise Education and Home Survey/Kit Distribution program.

E. Comments

Reported as of 4/1

BMP 03: System Water Audits, Leak Detection and Repair

Reporting Unit:	BMP Form Status:	Year:
So. California Water Company - Claremont	**100% Complete**	**2004**

A. Implementation

1. Has your agency completed a pre-screening system audit for this reporting year?	no
2. If YES, enter the values (AF/Year) used to calculate verifiable use as a percent of total production:	
a. Determine metered sales (AF)	11947
b. Determine other system verifiable uses (AF)	278
c. Determine total supply into the system (AF)	13327
d. Using the numbers above, if (Metered Sales + Other Verifiable Uses) / Total Supply is < 0.9 then a full-scale system audit is required.	0.92
3. Does your agency keep necessary data on file to verify the values used to calculate verifiable uses as a percent of total production?	yes
4. Did your agency complete a full-scale audit during this report year?	no
5. Does your agency maintain in-house records of audit results or the completed AWWA audit worksheets for the completed audit?	yes
6. Does your agency operate a system leak detection program?	yes

a. If yes, describe the leak detection program:

SCWC maintains an in-house leak detection and repair division. In addition, the program includes a meter exchange program, testing and calibration of production meters,vigerous response to identified system system leaks.

B. Survey Data

1. Total number of miles of distribution system line.	152
2. Number of miles of distribution system line surveyed.	0

C. System Audit / Leak Detection Program Expenditures

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

D. "At Least As Effective As"

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

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

E. Comments

Reported as of 4/1

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

Reporting Unit:	BMP Form Status:	Year:
So. California Water Company - Claremont	**100% Complete**	**2004**

A. Implementation

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

B. Feasibility Study

1. Has your agency conducted a feasibility study to assess the merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters?	no
a. If YES, when was the feasibility study conducted? (mm/dd/yy)	
b. Describe the feasibility study:	
2. Number of CII accounts with mixed-use meters.	592
3. Number of CII accounts with mixed-use meters retrofitted with dedicated irrigation meters during reporting period.	0

C. Meter Retrofit Program Expenditures

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

D. "At Least As Effective As"

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

E. Comments

Reported as of 4/1

BMP 05: Large Landscape Conservation Programs and Incentives

Reporting Unit:	BMP Form Status:	Year:
So. California Water Company - Claremont	**100% Complete**	**2004**

A. Water Use Budgets

1. Number of Dedicated Irrigation Meter Accounts:	282
2. Number of Dedicated Irrigation Meter Accounts with Water Budgets:	0
3. Budgeted Use for Irrigation Meter Accounts with Water Budgets (AF):	0
4. Actual Use for Irrigation Meter Accounts with Water Budgets (AF):	0
5. Does your agency provide water use notices to accounts with budgets each billing cycle?	no

B. Landscape Surveys

1. Has your agency developed a marketing / targeting strategy for landscape surveys?	yes
a. If YES, when did your agency begin implementing this strategy?	1/1/1996
b. Description of marketing / targeting strategy:	

Target home owner associations with 1+ acres of landscaping, city parks and sports fields. and other large landscape customers. Offer through mail and direct contact.

2. Number of Surveys Offered.	0
3. Number of Surveys Completed.	0
4. Indicate which of the following Landscape Elements are part of your survey:	
a. Irrigation System Check	yes
b. Distribution Uniformity Analysis	yes
c. Review / Develop Irrigation Schedules	yes
d. Measure Landscape Area	yes
e. Measure Total Irrigable Area	yes
f. Provide Customer Report / Information	yes
5. Do you track survey offers and results?	yes
6. Does your agency provide follow-up surveys for previously completed surveys?	no
a. If YES, describe below:	

C. Other BMP 5 Actions

1. An agency can provide mixed-use accounts with ETo-based landscape budgets in lieu of a large landscape survey program. Does your agency provide mixed-use accounts with landscape budgets?	no
2. Number of CII mixed-use accounts with landscape budgets.	0

3. Do you offer landscape irrigation training?	yes
4. Does your agency offer financial incentives to improve landscape water use efficiency?	no

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

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

D. Landscape Conservation Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	32000
2. Actual Expenditures	0	

E. "At Least As Effective As"

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

F. Comments

Reported as of 4/1

BMP 06: High-Efficiency Washing Machine Rebate Programs

Reporting Unit: **So. California Water Company - Claremont**

BMP Form Status: **100% Complete**

Year: **2004**

A. Implementation

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

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

   SoCal Gas provides betweenn $35 and $75 per unit depending on rating. TVMWD passes through the MWDSC rebate of $110.

2. Does your agency offer rebates for high-efficiency washers? no

3. What is the level of the rebate?

4. Number of rebates awarded. 100

B. Rebate Program Expenditures

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

C. "At Least As Effective As"

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

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

D. Comments

Reported as of 4/1

BMP 07: Public Information Programs

Reporting Unit: **So. California Water Company - Claremont**

BMP Form Status: **100% Complete**

Year: **2004**

A. Implementation

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

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

We participate in "Protector Del Agua", WEWAC and GBATA. We also conduct our own elementary school program utilizing the "EnviroScape" model as well as water plays and videos. For high school level students, we conduct a water issues course covering water use/conservation and water supply/quality. For adults we expand the water issues course to include rates/regulations and company organization.

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

Public Information Program Activity	Yes/No	Number of Events
a. Paid Advertising	yes	1
b. Public Service Announcement	yes	1
c. Bill Inserts / Newsletters / Brochures	yes	5
d. Bill showing water usage in comparison to previous year's usage	yes	
e. Demonstration Gardens	no	
f. Special Events, Media Events	yes	1
g. Speaker's Bureau	yes	1
h. Program to coordinate with other government agencies, industry and public interest groups and media	yes	

B. Conservation Information Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	24000	24000
2. Actual Expenditures	24000	

C. "At Least As Effective As"

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

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

D. Comments

Reported as of 4/1

BMP 08: School Education Programs

Reporting Unit:
So. California Water Company - Claremont

BMP Form Status:
100% Complete

Year:
2004

A. Implementation

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

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

Grade	Are grade-appropriate materials distributed?	No. of class presentations	No. of students reached	No. of teachers' workshops
Grades K-3rd	yes	9	250	0
Grades 4th-6th	yes	25	750	0
Grades 7th-8th	yes	11	503	2
High School	yes	5	150	1

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

4. When did your Agency begin implementing this program? 1/1/1992

B. School Education Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	15949	

C. "At Least As Effective As"

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

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

Grades 7th-8th reached through the Water Wise Program.

D. Comments

Implemented in cooperation with MWDSC and WEWAC.

Reported as of 4/1

BMP 09: Conservation Programs for CII Accounts

Reporting Unit:	BMP Form Status:	Year:
So. California Water Company - Claremont	**100% Complete**	**2004**

A. Implementation

1. Has your agency identified and ranked COMMERCIAL customers according to use?	no
2. Has your agency identified and ranked INDUSTRIAL customers according to use?	no
3. Has your agency identified and ranked INSTITUTIONAL customers according to use?	no

Option A: CII Water Use Survey and Customer Incentives Program

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

CII Surveys	Commercial Accounts	Industrial Accounts	Institutional Accounts
a. Number of New Surveys Offered			
b. Number of New Surveys Completed			
c. Number of Site Follow-ups of Previous Surveys (within 1 yr)			
d. Number of Phone Follow-ups of Previous Surveys (within 1 yr)			

CII Survey Components	Commercial Accounts	Industrial Accounts	Institutional Accounts
e. Site Visit			
f. Evaluation of all water-using apparatus and processes			
g. Customer report identifying recommended efficiency measures, paybacks and agency incentives			

Agency CII Customer Incentives	Budget ($/Year)	No. Awarded to Customers	Total $ Amount Awarded
h. Rebates	0	1	500
i. Loans	0	0	0
j. Grants	0	0	0
k. Others	0	0	0

Option B: CII Conservation Program Targets

5. Does your agency track CII program interventions and water savings for the purpose of complying with BMP 9 under this option?	yes
6. Does your agency document and maintain records on how savings were realized and the method of calculation for estimated savings?	yes
7. Estimated annual savings (AF/yr) from site-verified actions taken by agency since 1991.	10.24
8. Estimated annual savings (AF/yr) from non-site-verified actions taken by agency since 1991.	0

B. Conservation Program Expenditures for CII Accounts

	This Year	Next Year
1. Budgeted Expenditures	0	1500
2. Actual Expenditures	0	

C. "At Least As Effective As"

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

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

D. Comments

Programs and rebates implemented under the MWDSC's Save-A-Buck program.

Reported as of 4/1

BMP 09a: CII ULFT Water Savings

Reporting Unit: **So. California Water Company - Claremont**

BMP Form Status: **100% Complete**

Year: **2004**

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

A. Targeting and Marketing

1. What basis does your agency use to target customers for participation in this program? Check all that apply.

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

2. How does your agency advertise this program? Check all that apply.

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

B. Implementation

1. Does your agency keep and maintain customer participant information? (Read the Help information for a complete list of all the information for this BMP.)

2. Would your agency be willing to share this information if the CUWCC did a study to evaluate the program on behalf of your agency?

3. What is the total number of customer accounts participating in the program during the last year ?

CII Subsector	Number of Toilets Replaced			
4.	Standard Gravity Tank	Air Assisted	Valve Floor Mount	Valve Wall Mount
a. Offices				
b. Retail / Wholesale				
c. Hotels				
d. Health				
e. Industrial				
f. Schools: K to 12				
g. Eating				
h. Govern-ment				
i. Churches				
j. Other				

5. Program design.

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

a. If yes, check all that apply.

7. Participant tracking and follow-up.

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

a. Disruption to business

b. Inadequate payback

c. Inadequate ULFT performance

d. Lack of funding

e. American's with Disabilities Act

f. Permitting

g. Other. Please describe in B. 9.

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

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

No program implemented.

C. Conservation Program Expenditures for CII ULFT

1. CII ULFT Program: Annual Budget & Expenditure Data

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

2. CII ULFT Program: Annual Cost Sharing

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

e. Total	0

D. Comments

No assessment done to develop or target a program.

Reported as of 4/1

BMP 11: Conservation Pricing

Reporting Unit:
So. California Water Company - Claremont

BMP Form Status:
100% Complete

Year:
2004

A. Implementation

Rate Structure Data Volumetric Rates for Water Service by Customer Class

1. Residential	
a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	$9582909
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	$0
2. Commercial	
a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	$1306760
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	$0
3. Industrial	
a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	$82902
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	$0
4. Institutional / Government	
a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	$570101
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	$0
5. Irrigation	
a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	$71339
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	$0

6. Other

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	$105772
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	$0

B. Conservation Pricing Program Expenditures

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

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as e

Reported as of 4/1

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

Reporting Unit:
So. California Water Company - Claremont

Reporting Period:
03-04

MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period? Yes

A Reporting Unit (RU) must meet three conditions to satisfy strict compliance for BMP 1.

Condition 1: Adopt survey targeting and marketing strategy on time

Condition 2: Offer surveys to 20% of SF accounts and 20% of MF units during report period

Condition 3: Be on track to survey 15% of SF accounts and 15% of MF units within 10 years of implementation start date.

Test for Condition 1

So. California Water Company - Claremont to Implement Targeting/Marketing Program by:	1999

	Single-Family	Multi-Family
Year So. California Water Company - Claremont Reported Implementing Targeting/Marketing Program:	307	307
So. California Water Company - Claremont Met Targeting/Marketing Coverage Requirement:	YES	YES

Test for Condition 2

			Single-Family	Multi-Family
Survey Program to Start by:	1998	Residential Survey Offers (%)	8.54%	
Reporting Period:	03-04	Survey Offers ≥ 20%	NO	NO

Test for Condition 3

	Completed Residential Surveys	
	Single Family	Multi-Family
Total Completed Surveys 1999 - 2004:		
Past Credit for Surveys Completed Prior to 1999 (Implementation of Reporting Database):	749	
Total + Credit	749	
	9,364	3,146

Residential Accounts in Base Year		
So. California Water Company - Claremont Survey Coverage as % of Base Year Residential Accounts	8.00%	
Coverage Requirement by Year 7 of Implementation per Exhibit 1	7.90%	7.90%
So. California Water Company - Claremont on Schedule to Meet 10-Year Coverage Requirement	YES	NO

BMP 1 COVERAGE STATUS SUMMARY:
Water supplier has not met one or more coverage requirements for this BMP.

Reported as of 4/1

BMP 02 Coverage: Residential Plumbing Retrofit

Reporting Unit: **So. California Water Company - Claremont**

Reporting Period: **03-04**

MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period? Yes

An agency must meet one of three conditions to satisfy strict compliance for BMP 2.

Condition 1: The agency has demonstrated that 75% of SF accounts and 75% of MF units constructed prior to 1992 are fitted with low-flow showerheads.

Condition 2: An enforceable ordinance requiring the replacement of high-flow showerheads and other water use fixtures with their low-flow counterparts is in place for the agency's service area.

Condition 3: The agency has distributed or directly installed low-flow showerheads and other low-flow plumbing devices to not less than 10% of single-family accounts and 10% of multi-family units constructed prior to 1992 during the reporting period.

Test for Condition 1

		Single-Family		Multi-Family	
Report Year	Report Period	Reported Saturation	Saturation ≥ 75%?	Reported Saturation	Saturation ≥ 75%?
1999	99-00	32.00%	NO	36.00%	NO
2000	99-00	32.00%	NO	36.00%	NO
2001	01-02	32.00%	NO	36.00%	NO
2002	01-02	33.00%	NO	37.00%	NO
2003	03-04	65.00%	NO	55.00%	NO
2004	03-04	70.00%	NO	60.00%	NO

Test for Condition 2

Report Year	Report Period	So. California Water Company - Claremont has ordinance requiring showerhead retrofit?
1999	99-00	NO
2000	99-00	NO
2001	01-02	NO
2002	01-02	NO
2003	03-04	NO
2004	03-04	NO

Test for Condition 3

Reporting Period: 03-04

1992 SF Accounts	Num. Showerheads Distributed to SF Accounts	Single-Family Coverage Ratio	SF Coverage Ratio ≥ 10%
9,298	503	5.4%	NO

1992 MF Accounts	Num. Showerheads Distributed to MF Accounts	Multi-Family Coverage Ratio	MF Coverage Ratio > 10%

3,125	NO

BMP 2 COVERAGE STATUS SUMMARY:
Water supplier has not met one or more coverage requirements for this BMP.

Reported as of 4/1

BMP 03 Coverage: System Water Audits, Leak Detection and Repair

Reporting Unit: **So. California Water Company - Claremont**

Reporting Period: **03-04**

MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period? No

An agency must meet one of two conditions to be in compliance with BMP 3:

Condition 1: Perform a prescreening audit. If the result is equal to or greater than 0.9 nothing more needs be done.

Condition 2: Perform a prescreening audit. If the result is less than 0.9, perform a full audit in accordance with AWWA's Manual of Water Supply Practices, Water Audits, and Leak Detection.

Test for Conditions 1 and 2

Report Year	Report Period	Pre-Screen Completed	Pre-Screen Result	Full Audit Indicated	Full Audit Completed
1999	99-00	YES	93.9%	No	YES
2000	99-00	YES	96.8%	No	YES
2001	01-02	YES	94.5%	No	YES
2002	01-02	YES	92.8%	No	YES
2003	03-04	NO	90.8%	No	NO
2004	03-04	NO	91.7%	No	NO

BMP 3 COVERAGE STATUS SUMMARY:

Water supplier has not met one or more coverage requirements for this BMP.

Reported as of 4/1

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

Reporting Unit:
So. California Water Company - Claremont

Reporting Period:
03-04

MOU Exhibit 1 Coverage Requirement

No exemption request filed	
Agency indicated "at least as effective as" implementation during report period?	No

An agency must be on track to retrofit 100% of its unmetered accounts within 10 years to be in compliance with BMP 4.

Test for Compliance

Total Meter Retrofits Reported through 2004	
No. of Unmetered Accounts in Base Year	
Meter Retrofit Coverage as % of Base Year Unmetered Accounts	
Coverage Requirement by Year 6 of Implementation per Exhibit 1	42.0%
RU on Schedule to meet 10 Year Coverage Requirement	YES

BMP 4 COVERAGE STATUS SUMMARY:
Water supplier is meeting coverage requirements for this BMP.

Reported as of 4/1

BMP 05 Coverage: Large Landscape Conservation Programs and Incentives

Reporting Unit: **So. California Water Company - Claremont**

Reporting Period: **03-04**

MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period?	No

An agency must meet three conditions to comply with BMP 5.

Condition 1: Develop water budgets for 90% of its dedicated landscape meter accounts within four years of the date implementation is to start.

Condition 2: (a) Offer landscape surveys to at least 20% of its CII accounts with mixed use meters each report cycle and be on track to survey at least 15% of its CII accounts with mixed use meters within 10 years of the date implementation is to start OR (b) Implement a dedicated landscape meter retrofit program for CII accounts with mixed use meters or assign landscape budgets to mixed use meters.

Condition 3: Implement and maintain customer incentive program(s) for irrigation equipment retrofits.

Test for Condition 1

Year	Report Period	BMP 5 Implementation Year	No. of Irrigation Meter Accounts	No. of Irrigation Accounts with Budgets	Budget Coverage Ratio	90% Coverage Met by Year 4
1999	99-00	1	230			NA
2000	99-00	2	230			NA
2001	01-02	3	233			NA
2002	01-02	4	233			No
2003	03-04	5	282			No
2004	03-04	6	282			No

Test for Condition 2a (survey offers)

Select Reporting Period:	03-04
Large Landscape Survey Offers as % of Mixed Use Meter CII Accounts	
Survey Offers Equal or Exceed 20% Coverage Requirement	NO

Test for Condition 2a (surveys completed)

Total Completed Landscape Surveys Reported through	
Credit for Surveys Completed Prior to Implementation of Reporting Database	19
Total + Credit	19
CII Accounts in Base Year	484
RU Survey Coverage as a % of Base Year CII Accounts	3.9%
Coverage Requirement by Year of Implementation per Exhibit 1	6.3%
RU on Schedule to Meet 10 Year Coverage	

Requirement	NO

Test for Condition 2b (mixed use budget or meter retrofit program)

Report Year	Report Period	BMP 5 Implementation Year	Agency has mix-use budget program	No. of mixed-use budgets
1999	99-00	1	NO	
2000	99-00	2	NO	
2001	01-02	3	NO	
2002	01-02	4	NO	
2003	03-04	5	NO	
2004	03-04	6	NO	

Report Year	Report Period	BMP 4 Implementation Year	No. of mixed use CII accounts	No. of mixed use CII accounts fitted with irrig. meters
1999	99-00	1	934	
2000	99-00	2	934	
2001	01-02	3	951	
2002	01-02	4	948	
2003	03-04	5	592	
2004	03-04	6	592	

Test for Condition 3

Report Year	Report Period	BMP 5 Implementation Year	RU offers financial incentives?	No. of Loans	Total Amt. Loans
1999	99-00	1	NO		
2000	99-00	2	NO		
2001	01-02	3	NO		
2002	01-02	4	NO		
2003	03-04	5	NO		
2004	03-04	6	NO		

Report Year	Report Period	No. of Grants	Total Amt. Grants	No. of rebates	Total Amt. Rebates
1999	99-00				
2000	99-00				
2001	01-02				
2002	01-02				
2003	03-04				
2004	03-04				

BMP 5 COVERAGE STATUS SUMMARY:
Water supplier has not met one or more coverage requirements for this BMP.

Reported as of 4/1

BMP 06 Coverage: High-Efficiency Washing Machine Rebate Programs

Reporting Unit:
So. California Water Company - Claremont

Reporting Period:
03-04

MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period? No

An agency must meet one condition to comply with BMP 6.

Condition 1: Offer a cost-effective financial incentive for high-efficiency washers if one or more energy service providers in service area offer financial incentives for high-efficiency washers.

Test for Condition 1

Year	Report Period	BMP 6 Implementation Year	Rebate Offered by ESP?	Rebate Offered by RU?	Rebate Amount
1999	99-00	1	NO	NO	
2000	99-00	2	NO	NO	
2001	01-02	3	YES	NO	
2002	01-02	4	YES	NO	
2003	03-04	5	YES	NO	
2004	03-04	6	YES	NO	

Year	Report Period	BMP 6 Implementation Year	No. Rebates Awarded	Coverage Met?
1999	99-00	1		YES
2000	99-00	2		YES
2001	01-02	3		NO
2002	01-02	4		NO
2003	03-04	5	55	NO
2004	03-04	6	100	NO

BMP 6 COVERAGE STATUS SUMMARY:
Water supplier has not met one or more coverage requirements for this BMP.

Reported as of 4/1

BMP 07 Coverage: Public Information Programs

Reporting Unit: **So. California Water Company - Claremont**

Reporting Period: **03-04**

MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period? No

An agency must meet one condition to comply with BMP 7.

Condition 1: Implement and maintain a public information program consistent with BMP 7's definition.

Test for Condition 1

Year	Report Period	BMP 7 Implementation Year	RU Has Public Information Program?
1999	99-00	2	YES
2000	99-00	3	YES
2001	01-02	4	YES
2002	01-02	5	YES
2003	03-04	6	YES
2004	03-04	7	YES

BMP 7 COVERAGE STATUS SUMMARY:
Water supplier is meeting coverage requirements for this BMP.

Reported as of 4/1

BMP 08 Coverage: School Education Programs

Reporting Unit: **So. California Water Company - Claremont**

Reporting Period: **03-04**

MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period? Yes

An agency must meet one condition to comply with BMP 8.

Condition 1: Implement and maintain a school education program consistent with BMP 8's definition.

Test for Condition 1

Year	Report Period	BMP 8 Implementation Year	RU Has School Education Program?
1999	99-00	2	YES
2000	99-00	3	YES
2001	01-02	4	YES
2002	01-02	5	YES
2003	03-04	6	YES
2004	03-04	7	YES

BMP 8 COVERAGE STATUS SUMMARY:
Water supplier is meeting coverage requirements for this BMP.

Reported as of 4/1

BMP 09 Coverage: Conservation Programs for CII Accounts

Reporting Unit: **So. California Water Company - Claremont**

Reporting Period: **03-04**

MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period? No

An agency must meet three conditions to comply with BMP 9.

Condition 1: Agency has identified and ranked by use commercial, industrial, and institutional accounts.

Condition 2(a): Agency is on track to survey 10% of commercial accounts, 10% of industrial accounts, and 10% of institutional accounts within 10 years of date implementation to commence.
OR
Condition 2(b): Agency is on track to reduce CII water use by an amount equal to 10% of baseline use within 10 years of date implementation to commence.
OR
Condition 2(c): Agency is on track to meet the combined target as described in Exhibit 1 BMP 9 documentation.

Test for Condition 1

Year	Report Period	BMP 9 Implementation Year	Ranked Com. Use	Ranked Ind. Use	Ranked Inst. Use
1999	99-00	1	NO	NO	NO
2000	99-00	2	NO	NO	NO
2001	01-02	3	NO	NO	NO
2002	01-02	4	NO	NO	NO
2003	03-04	5	NO	NO	NO
2004	03-04	6	NO	NO	NO

Test for Condition 2a

	Commercial	Industrial	Institutional
Total Completed Surveys Reported through 2004			
Credit for Surveys Completed Prior to Implementation of Reporting Databases			
Total + Credit			
CII Accounts in Base Year	294	10	180
RU Survey Coverage as % of Base Year CII Accounts			
Coverage Requirement by Year 6 of Implementation per Exhibit 1	4.2%	4.2%	4.2%
RU on Schedule to Meet 10 Year Coverage Requirement	NO	NO	NO

Test for Condition 2a

	Performance

Year	Report Period	BMP 9 Implementation Year	Performance Target Savings (AF/yr)	Performance Target Savings Coverage	Target Savings Coverage Requirement	Coverage Requirement Met
1999	99-00	1			0.5%	NO
2000	99-00	2			1.0%	NO
2001	01-02	3			1.7%	NO
2002	01-02	4			2.4%	NO
2003	03-04	5	8	0.7%	3.3%	NO
2004	03-04	6	10	0.9%	4.2%	NO

Test for Condition 2c

Total BMP 9 Surveys + Credit	
BMP 9 Survey Coverage	
BMP 9 Performance Target Coverage	0.9%
BMP 9 Survey + Performance Target Coverage	0.9%
Combined Coverage Equals or Exceeds Coverage Requirement?	NO

BMP 9 COVERAGE STATUS SUMMARY:
Water supplier has not met one or more coverage requirements for this BMP.

Reported as of 4/1

BMP 11 Coverage: Conservation Pricing

Reporting Unit: **So. California Water Company - Claremont**

Reporting Period: **03-04**

MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period? No

An agency must meet one condition to comply with BMP 11.

Agency shall maintain rate structure consistent with BMP 11's definition of conservation pricing. Implementation methods shall be at least as effective as eliminating non-conserving pricing and adopting conserving pricing. For signatories supplying both water and sewer service, this BMP applies to pricing of both water and sewer service. Signatories that supply water but not sewer service shall make good faith efforts to work with sewer agencies so that those sewer agencies adopt conservation pricing for sewer service.

a) Non-conserving pricing provides no incentives to customers to reduce use. Such pricing is characterized by one or more of the following components: rates in which the unit price decreases as the quantity used increases (declining block rates);rates that involve charging customers a fixed amount per billing cycle regardless of the quantity used; pricing in which the typical bill is determined by high fixed charges and low commodity charges.

b) Conservation pricing provides incentives to customers to reduce average or peak use, or both. Such pricing includes: rates designed to recover the cost of providing service; and billing for water and sewer service based on metered water use. Conservation pricing is also characterized by one or more of the following components: rates in which the unit rate is constant regardless of the quantity used (uniform rates) or increases as the quantity used increases (increasing block rates); seasonal rates or excess-use surcharges to reduce peak demands during summer months; rates based upon the longrun marginal cost or the cost of adding the next unit of capacity to the system.

Test for Condition 1

Year	Report Period	RU Employed Non Conserving Rate Structure	RU Meets BMP 11 Coverage Requirement
1999	99-00	NO	YES
2000	99-00	NO	YES
2001	01-02	NO	YES
2002	01-02	NO	YES
2003	03-04	NO	YES
2004	03-04	NO	YES

BMP 11 COVERAGE STATUS SUMMARY:
Water supplier is meeting coverage requirements for this BMP.

Reported as of 4/1

BMP 12 Coverage: Conservation Coordinator

Reporting Unit: **So. California Water Company - Claremont**

Reporting Period: **03-04**

MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period? No

Agency shall staff and maintain the position of conservation coordinator and provide support staff as necessary.

Test for Compliance

Report Year	Report Period	Conservation Coordinator Position Staffed?	Total Staff on Team (incl. CC)
1999	99-00	YES	1
2000	99-00	YES	1
2001	01-02	YES	1
2002	01-02	YES	1
2003	03-04	YES	1
2004	03-04	YES	1

BMP 12 COVERAGE STATUS SUMMARY:
Water supplier is meeting coverage requirements for this BMP.

Reported as of 4/1

BMP 13 Coverage: Water Waste Prohibition

Reporting Unit: **So. California Water Company - Claremont**

Reporting Period: **03-04**

MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period? No

An agency must meet one condition to comply with BMP 13.

Implementation methods shall be enacting and enforcing measures prohibiting gutter flooding, single pass cooling systems in new connections, non-recirculating systems in all new conveyer car wash and commercial laundry systems, and non-recycling decorative water fountains.

Test for Condition 1

Agency or service area prohibits:

Year	Gutter Flooding	Single-Pass Cooling Systems	Single-Pass Car Wash	Single-Pass Laundry	Single-Pass Fountains	Other	RU has ordinance that meets coverage requirement
1999	yes	no	no	no	no	no	NO
2000	yes	no	no	no	no	no	NO
2001	yes	no	no	no	no	no	NO
2002	yes	no	no	no	no	no	NO
2003	yes	no	no	no	no	no	NO
2004	yes	no	no	no	no	no	NO

BMP 13 COVERAGE STATUS SUMMARY:

Water supplier has not met one or more coverage requirements for this BMP.

Reported as of 4/1

BMP 14 Coverage: Residential ULFT Replacement Programs

Reporting Unit: **So. California Water Company - Claremont**

MOU Exhibit 1 Coverage Requirement

A Reporting Unit (RU) must meet one of the following conditions to be in compliance with BMP 14.

Condition 1: Retrofit-on-resale (ROR) ordinance in effect in service area.

Condition 2: Water savings from toilet replacement programs equal to 90% of Exhibit 6 coverage requirement.

An agency with an exemption for BMP 14 is not required to meet one of the above conditions. This report treats an agency with missing base year data required to compute the Exhibit 6 coverage requirement as out of compliance with BMP 14.

Status: Water supplier is meeting coverage requirements for this BMP. as of 2004

Coverage Year	BMP 14 Data Submitted to CUWCC	Exemption Filed with CUWCC	ROR Ordinance in Effect	Exhibit 6 Coverage Req'mt (AF)	Toilet Replacement Program Water Savings* (AF)
1998	Yes			28.10	157.15
1999	Yes	No	No	80.38	227.47
2000	Yes	No	No	153.34	323.69
2001	Yes	No	No	243.91	416.05
2002	Yes	No	No	349.35	504.72
2003	Yes	No	No	467.27	589.85
2004	Yes	No	No	595.54	681.21
2005	No	No	No	732.28	
2006	No	No	No	875.83	
2007	No	No	No	1024.76	

*NOTE: Program water savings listed are net of the plumbing code. Savings are cumulative (not annual) between 1991 and the given year. Residential ULFT count data from unsubmitted forms are NOT included in the calculation.

BMP 14 COVERAGE STATUS SUMMARY:
Water supplier is meeting coverage requirements for this BMP.

BMP 14 Coverage: Residential ULFT Replacement Programs

Reporting Unit: **So. California Water Company - Claremont**

BMP 14 Coverage Calculation Detail: Retrofit on Resale (ROR) Ordinance Water Savings

	Single Family	Multi-Family
1992 Housing Stock		
Average rate of natural replacement (% of remaining stock)	.04	.04
Average rate of housing demolition (% of remining stock)	.005	.005
Estimated Housing Units with 3.5+ gpf Toilets in 1997	7589.24	2550.69
Average resale rate	.045	.09
Average persons per unit		
Average toilets per unit		
Average savings per home (gpd; from Exhibit 6)	45.8	46.3

Single Family Housing Units

Coverage Year	Unretrofitted Houses	Houses Sold	Houses Unsold	Sold and Retrofitted	Sold and Already Retrofitted	Unsold and Retrofitted	Gross ROR Savings (AFY)	Nat'l Replacement Only Savings (AFY)	Net ROR Savings (AFY)
1998	6960.97	339.81	7211.48	339.81		288.46	119.88	103.14	16.73
1999	6384.71	338.11	7175.42	311.68	26.43	264.58	149.44	118.02	31.42
2000	5856.16	336.42	7139.55	285.88	50.54	242.68	176.55	132.31	44.24
2001	5371.36	334.74	7103.85	262.21	72.53	222.59	201.42	146.02	55.39
2002	4926.70	333.06	7068.33	240.50	92.56	204.16	224.23	159.19	65.03
2003	4518.85	331.40	7032.99	220.59	110.80	187.26	245.15	171.84	73.31
2004	4144.76	329.74	6997.82	202.33	127.41	171.76	264.33	183.98	80.35
2005	3801.64	328.09	6962.83	185.58	142.51	157.54	281.94	195.64	86.29
2006	3486.93	326.45	6928.02	170.22	156.23	144.50	298.08	206.84	91.24
2007	3198.26	324.82	6893.38	156.13	168.69	132.53	312.89	217.59	95.30

Multi Family Housing Units

Coverage Year	Unretrofitted Houses	Houses Sold	Houses Unsold	Sold and Retrofitted	Sold and Already Retrofitted	Unsold and Retrofitted	Gross ROR Savings (AFY)	Nat'l Replacement Only Savings (AFY)	Net ROR Savings (AFY)
1998	2229.90	228.41	2309.53	228.41		92.38	46.42	35.04	11.37
1999	1949.45	227.27	2297.98	199.69	27.59	80.76	60.96	40.10	20.86
2000	1704.27	226.14	2286.49	174.57	51.56	70.61	73.67	44.95	28.72
2001	1489.93	225.01	2275.06	152.62	72.39	61.73	84.79	49.61	35.17
2002	1302.54	223.88	2263.68	133.42	90.46	53.96	94.50	54.09	40.42
2003	1138.72	222.76	2252.36	116.64	106.12	47.18	103.00	58.38	44.61
2004	995.51	221.65	2241.10	101.97	119.67	41.24	110.42	62.51	47.91
2005	870.31	220.54	2229.90	89.15	131.39	36.06	116.92	66.47	50.44
2006	760.85	219.44	2218.75	77.94	141.50	31.52	122.59	70.28	52.32

2007	665.16	218.34	2207.65	68.13	150.21	27.56	127.55	73.93	53.63

Appendix F
Rule No. 14.1: Mandatory Water Conservation, Restrictions, and Rationing Program

Rule No. 14.1

MANDATORY WATER CONSERVATION, RESTRICTIONS AND RATIONING PROGRAM (N)

A. GENERAL INFORMATION:

If water supplies are projected to be insufficient to meet normal customer demand, and are beyond the control of the Company, the Company may elect to implement voluntary conservation using the portion of this plan set forth in Section C of this rule after notifying the Commission's Water Division of its intent. If, in the opinion of the Company, more stringent water measures are required, the Company shall request Commission authorization to implement the mandatory conservation and rationing measures set forth in Section D.

The Commission shall authorize mandatory conservation and rationing by approving Schedule No. 14.1, Mandatory Water Conservation and Rationing. When Schedule No. 14.1 has expired or is not in effect, mandatory conservation and rationing measures will not be in force. Schedule No. 14.1 will set forth water use violation fines, charges for removal of flow restrictors, and the period during which mandatory conservation and rationing measures will be in effect.

When the applicable Schedule No. 14.1 is in effect and the Company determines that water supplies are again sufficient to meet normal demands, and mandatory conservation and rationing measures are no longer necessary, the Company shall seek Commission approval to rescind Schedule No. 14.1 to discontinue rationing.

In the event of a water supply shortage requiring a voluntary or mandatory program, the Company shall make available to its customers water conservation kits as required by Rule No. 20. The Company shall notify all customers of the availability of conservation kits.

B. DEFINITIONS

As used in this water rationing plan, the word:

1. "Company" means the Southern California Water Company, California Cities Water, and Arden-Cordova Water Service;
2. "Persons" means an individual customer, resident, business, organizations including commercial, industrial, nonprofit, and government organizations or associations;
3. "Customer" means any person who uses water supplied by the Company;
4. "Water" means water supplied by the Company;

(N)

Rule No. 14.1

(N)

MANDATORY WATER CONSERVATION, RESTRICTIONS AND RATIONING PROGRAM
(Continued)

B. DEFINITIONS (Continued)

5. "Water shortage emergency" means the conditions which constitute a determination that deliveries of potable water supplies have reached a level such that continued unrestricted water use would be detrimental to the public welfare.

C. CONSERVATION – NON-ESSENTIAL OR UNAUTHORIZED WATER USE

No customer shall use Company–supplied water for non-essential or unauthorized uses as defined as follows:

1. Use of water through any connection when the Company has notified the customer in writing to repair a broken or defective plumbing, sprinkler, watering or irrigation system and the customer has failed to make such repairs within 5 days after receipt of such notice.
2. Use of water which results in flooding or run-off in gutters, waterways, patios, driveway, or streets.
3. Use of water for washing aircraft, cars, buses, boats, trailers or other vehicles without a positive shut-off nozzle on the outlet end of the hose. Exceptions include washing vehicles at commercial or fleet vehicle washing facilities operated at fixed locations where equipment using water is properly maintained to avoid wasteful use.
4. Use of water through a hose for washing buildings, structures, sidewalks, walkways, driveways, patios, parking lots, tennis courts, or other hard-surfaced areas in a manner which results in excessive run-off or waste.
5. Use of water for watering streets with trucks, except for initial wash-down for construction purposes (if street sweeping is not feasible), or to protect the health and safety of the public.
6. Use of water for construction purposes, such as consolidation of backfill, dust control, or other uses unless no other source of water or other method can be used.
7. Use of water for more than minimal landscaping in connection with any new construction.
8. Use of water for outside plants, lawn, landscape, and turf areas more often than every other day, with even numbered addresses watering on even numbered days of the month and odd numbered addresses watering on the odd numbered days of the month, except that this provision shall not apply to commercial nurseries, golf courses and other water-dependent industries.
9. Use of water for watering outside plants, lawn, landscape and turf areas during certain hours if and when specified in the applicable Schedule No. 14.1 when the schedule is in effect.
10. Use of water for watering outside plants and turf areas using a hand-held hose without a positive shut-off valve.
11. Use of water for decorative fountains or the filling or topping off of decorative lakes or ponds. Exceptions are made for those decorative fountains, lakes, or ponds which utilize recycled water. (N)

(Continued)

Rule No. 14.1

(N)

MANDATORY WATER CONSERVATION, RESTRICTIONS AND RATIONING PROGRAM
(Continued)

C. CONSERVATION – NON-ESSENTIAL OR UNAUTHORIZED WATER USE (Continued)

12. Use of water for the filling or refilling of swimming pools.
13. Service of water by any restaurant except upon the request of the patron.

D. RATIONING OF WATER USE

In the event the conservation measures required by Section C are insufficient to control the water shortage, the Company shall, upon Commission approval, impose mandatory conservation and rationing. Rationing shall be in accordance with the conditions set forth in the applicable Schedule No. 14.1 as filed at the time such rationing is approved by the Commission.

Before mandatory conservation and rationing is authorized by the Commission, the Company shall hold public meetings and take all other applicable steps required by Sections 350 through 358 of the California Water Code.

E. ENFORCEMENT OF MANDATORY CONSERVATION AND RATIONING

1. The water use restrictions of the conservation program, in Section C of this rule, become mandatory when the rationing program goes into effect. These restrictions are applicable whether or not the customer exceeds the monthly water allocation.

2. The Company may, after one verbal and one written warning, install a flow-restricting device on the service line of any customer observed by Company personnel to be using water for any non-essential or unauthorized use as defined in Section C above.

3. A flow restrictor shall not restrict water delivery by greater than 50% of normal flow and shall provide the premise with a minimum of 6 Ccf/month. The restricting device may be removed only by the Company, only after a three-day period has elapsed, and only upon payment of the appropriate removal charge as set forth in the applicable Schedule No 14.1.

4. After the removal of the restricting device, if any non-essential or unauthorized use of water shall continue, the Company may install another flow-restricting device. This device shall remain in place until water supply conditions warrant its removal and until the appropriate charge for removal has been paid to the Company.

5. Each customer's water allocation shall be shown on the water bill. Water allocations may be appealed in writing as provided in Section F of this Rule. If a customer uses water in excess of the allocated amount, the utility may charge the excess usage penalty shown in the applicable Schedule No. 14.1.

(N)

(Continued)

Rule No. 14.1

(N)

MANDATORY WATER CONSERVATION, RESTRICTIONS AND RATIONING PROGRAM
(Continued)

E. ENFORCEMENT OF MANDATORY CONSERVATION AND RATIONING (Continued)

6. Any money collected by the Company through water use violation fines shall not be accounted for as income, but shall be accumulated by the Company in a separate account for disposition as directed or authorized from time to time by the Commission.

7. The charge for removal of a flow-restricting device shall be in accordance with the applicable Schedule No. 14.1.

F. APPEAL PROCEDURE

Any customer who seeks a variance from any of the provisions of this water conservation and rationing plan shall notify the Company in writing, explaining in detail the reason for such a variation. The Company shall respond to each such request.

Any customer not satisfied with the Company's response may file an appeal with the staff of the Commission. The customer and the Company will be notified of the disposition of such appeal by letter from the Executive Director of the Commission.

If the customer disagrees with such disposition, the customer shall have the right to file a formal complaint with the Commission. Except as set forth in this Section, no person shall have any right or claim in law or in equity, against the Company because of, or as a result of, any matter or thing done or threatened to be done pursuant to the provisions of this water conservation and rationing plan.

G. PUBLICITY

In the event the Company finds it necessary to implement this plan, it shall notify customers and hold public hearings concerning the water supply situation, in accordance with Chapter 3, Water Shortage Emergencies, Section 350 through 358, of the California Water Code. The Company shall also provide each customer with a copy of this plan by means of billing inserts or special mailings; notifications shall take place prior to imposing any fines associated with this plan. In addition, the Company shall provide customers with periodic updates regarding its water supply status and the results of customers' conservation efforts. Updates may be by bill insert, special mailing, poster, flyer, newspaper, television or radio spot/advertisement, community bulletin board, or other appropriate methods.

(N)

Appendix G
Rate Schedule

Schedule No. R3-CM-1
Claremont Customer Service Area
GENERAL METERED SERVICE

APPLICABILITY

Applicable to all general metered water service.

TERRITORY

The City of Claremont, portions of Montclair, Pomona, Upland, and adjacent unincorporated territory in Los Angeles and San Bernardino Counties excluding the areas described in Schedule CMC-1.

RATES

Quantity Rates:

For all water delivered, per 100 cu. ft……	$1.5950

Service Charge:	Per Meter Per Month
For 5/8 x 3/4-inch meter……	$13.65
For 3/4-inch meter……	20.45
For 1-inch meter……..	34.05
For 1 ½ -inch meter…….	68.15
For 2-inch meter…….	109.00
For 3-inch meter…….	204.00
For 4-inch meter…….	341.00
For 6-inch meter…….	681.00
For 8-inch meter…….	1,090.00
For 10-inch meter …….	1,567.00

The service charge is a readiness-to-serve charge applicable to all metered service and to which is added the charge for water used computed at the Quantity Rates.

SPECIAL CONDITIONS

1. All bills are subject to the reimbursement fee set forth on Schedule No. UF. (D)

(D)

2. As authorized by the California Public Utilities Commission, an amount of $0.09630 per Ccf is (N) to be added to the Quantity Rate for a period of 12 months, beginning on the effective date of (N)
Advice Letter 1181-WB. This surcharge will recover the undercollection in the Balancing-type (N)
Memorandum Account for the period of November 29, 2001 thru December 31, 2003. (N)

Schedule No. R3-CMC-1
Claremont Customer Service Area
GENERAL METERED SERVICE

APPLICABILITY

Applicable to all general metered water service.

TERRITORY

Within the area north of Thompson Creek and the Padua Hills Service area, Los Angeles, County.

RATES

Quantity Rates:

For all water delivered, per 100 cu. ft…… $1.5950

Service Charge:	Per Meter Per Month
For 5/8 x 3/4inch meter……	$13.65
For 3/4-inch meter……	20.45
For 1-inch meter……	34.05
For 1 ½ -inch meter……	68.15
For 2-inch meter……..	109.00
For 3-inch meter……..	204.00
For 4-inch meter……..	341.00
For 6-inch meter……..	681.00
For 8-inch meter……..	1,090.00
For 10-inch meter ……	1,567.00

The service charge is a readiness-to-serve charge applicable to all metered service and to which is added the charge for water used computed at the Quantity Rates.

SPECIAL CONDITIONS

1. All bills are subject to the reimbursement fee set forth on Schedule No. UF. (D)

(D)

2. As authorized by the California Public Utilities Commission, an amount of **$**0.09630 per Ccf is (N) to be added to the Quantity Rate for a period of 12 months, beginning on the effective date of (N)

Advice Letter 1181-WB. This surcharge will recover the undercollection in the Balancing-type (N)

Memorandum Account for the period of November 29, 2001 thru December 31, 2003. (N)

Schedule No. R3-CMH-3M
Claremont Customer Service Area
MEASURED IRRIGATION SERVICE

APPLICABILITY

Applicable to all metered irrigation service.

TERRITORY

Within the City of Claremont, in Los Angeles County, bounded on the east by the County Line, on the south by Bluefield Drive and its easterly extension, on the west by Bonnie Brea Avenue and its northerly extension, on the north by the westerly extension of 21st Street.

RATES	Per Meter Per Month
Quantity Rates:	
For all water delivered:	
Per 100 cu. ft.....	$ 0.299
Turn-on Charge:	
For each turn-on.....	$ 3.00

SPECIAL CONDITIONS

1. Consumption shall be computed for billing in units of hundred cubic feet for all water delivered.
2. Service shall be rendered according to a schedule of delivery to be set up annually by the utility.
3. The utility does not represent or guarantee that any water delivered hereunder is potable or of a quality suitable for human consumption. Any customer who uses said water or makes it available to others for human consumption shall take all necessary precautions to make the same potable and shall assume all risks and liabilities in connection therewith.
4. The utility does not guarantee a continuous and uninterrupted supply under this schedule and reserves the right to temporarily suspend the delivery of water when it is necessary to take the whole or part of the system out of service for the purpose of cleaning, maintaining and repairing or other essential improvements thereon; or for domestic purpose.
5. Water delivered to customers will be made and measured at the utility's conduits, or as near thereto as practicable.
6. This service is limited to existing irrigation customers of record who irrigate all or a reasonable part of their acreage each and every year.
7. The utility is not required to provide service under this schedule for the watering of lawns, golf courses, parks, memorial parks or cemeteries.
8. All bills are subject to the reimbursement fee set forth on Schedule No. UF. (D)

(D)

9. As authorized by the California Public Utilities Commission, an amount of **$**0.09630 per Ccf is to be added to the Quantity Rate for a period of 12 months, beginning on the effective date of Advice Letter 1181-WB. This surcharge will recover the undercollection in the Balancing-type Memorandum Account for the period of November 29, 2001 thru December 31, 2003. (N) (N) (N) (N)

Schedule No. R3-CMP-3M
Claremont Customer Service Area
METERED IRRIGATION SERVICE

APPLICABILITY

Limited to irrigation service provided to Seyfarth Nursery, Severin Garth (or 4153 Mt. Baldy Road) and Larry Sloan only.

TERRITORY

Padua Hills and vicinity, located approximately 3 miles northeast of Claremont, Los Angeles County.

RATES

	Per Meter Per Month
Quantity Rates:	
For all water delivered:	
Per 100 cu. ft.....,,	$ 0.499
Service Charge.....	$154.00

The Service Charge is a readiness-to-serve charge which is applicable to all metered service and to which is to be added to the charge for water used computed at the Quantity Rates.

SPECIAL CONDITIONS

1. Service under this schedule is for Commercial usage only and may be provided through more than one meter combined for monthly billing.
2. Residential service will be provided only through a separate meter and billed under Schedule No. CMC-1 (formerly PVC-1), General Metered Service.
3. All bills are subject to the reimbursement fee set forth on Schedule No. UF. (D)
(D)
4. As authorized by the California Public Utilities Commission, an amount of **$**0.09630 per Ccf is to be added to the Quantity Rate for a period of 12 months, beginning on the effective date of Advice Letter 1181-WB. This surcharge will recover the undercollection in the Balancing-type Memorandum Account for the period of November 29, 2001 thru December 31, 2003. (N) (N) (N) (N)

Schedule No. R3-CM-7ML
Claremont Customer Service Area
LIMITED METERED SERVICE

APPLICABILITY

Applicable to all metered water service to the City of Claremont.

TERRITORY

The City of Claremont, Los Angeles County.

RATES

Quantity Rates:

For all water delivered, per 100 cu. ft……	$0.7970

Service Charge:	Per Meter Per Month
For 5/8 x 3/4inch meter……	$13.65
For 3/4-inch meter……	20.45
For 1-inch meter……	34.05
For 1 ½ -inch meter……..	68.15
For 2-inch meter……..	109.00
For 3-inch meter……..	204.00
For 4-inch meter……..	341.00
For 6-inch meter……..	681.00
For 8-inch meter……..	1,090.00
For 10-inch meter ……	1,567.00

The service charge is a readiness-to-serve charge applicable to all metered service And to which is added the charge for water used computed at the Quantity Rates.

SPECIAL CONDITIONS

1. Parkway irrigation service provided to the City of Claremont under this tariff is limited to between the hours of 7:00 p.m. and 6:00 a.m.
2. All bills are subject to the reimbursement fee set forth on Schedule No. UF. (D)

(D)

3. As authorized by the California Public Utilities Commission, an amount of $0.09630 per Ccf is (N) to be added to the Quantity Rate for a period of 12 months, beginning on the effective date of (N)
Advice Letter 1181-WB. This surcharge will recover the undercollection in the Balancing-type (N)
Memorandum Account for the period of November 29, 2001 thru December 31, 2003. (N)

Appendix H
Responses to Public Comments

No Public Comments received during Public Review Period.

Appendix I
Groundwater Basin Water Rights Stipulation/Judgment

SCOTT S. SLATER (State Bar No. 117317)
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HATCH AND PARENT
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Telephone: (805) 963-7000

Attorneys for Plaintiff and Special Counsel
SOUTHERN CALIFORNIA WATER COMPANY

SUPERIOR COURT OF THE STATE OF CALIFORNIA

FOR THE COUNTY OF LOS ANGELES

SOUTHERN CALIFORNIA WATER COMPANY, Plaintiff, v. CITY OF LA VERNE; CITY OF CLAREMONT; CITY OF POMONA; CITY OF UPLAND; POMONA COLLEGE; POMONA VALLEY PROTECTIVE ASSOCIATION; SAN ANTONIO WATER COMPANY; SIMPSON PAPER COMPANY; THREE VALLEYS MUNICIPAL WATER DISTRICT; WEST END CONSOLIDATED WATER COMPANY; and DOES 1 THROUGH 1,000, INCLUSIVE, Defendants.	**CASE NO.** KC029152 Assigned for all purposes to Judge William McVittie **NOTICE OF ENTRY OF JUDGMENT**

TO ALL PARTIES AND TO THEIR COUNSEL OF RECORD:

PLEASE TAKE NOTICE that on December 18, 1998, the Honorable William J. McVittie, Judge of the Los Angeles County Superior Court, entered Judgment in the above-entitled action.

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A conformed copy of the Judgment is attached to this notice.

DATED: December 21, 1998

HATCH AND PARENT

By _____
ROBERT J. SAPERSTEIN
Attorneys for Plaintiff

SCOTT S. SLATER, ESQ. (State Bar No. 117317)
ROBERT J. SAPERSTEIN, ESQ. (State Bar No. 166051)
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Attorneys for Plaintiff,
Special Counsel for Southern California Water Company

SUPERIOR COURT OF THE STATE OF CALIFORNIA

FOR THE COUNTY OF LOS ANGELES

SOUTHERN CALIFORNIA WATER COMPANY

Plaintiff,

vs.

CITY OF LA VERNE, CITY OF CLAREMONT, CITY OF POMONA, CITY OF UPLAND, POMONA COLLEGE, POMONA VALLEY PROTECTIVE ASSOCIATION, SAN ANTONIO WATER COMPANY, SIMPSON PAPER COMPANY, THREE VALLEYS MUNICIPAL WATER DISTRICT, WEST END CONSOLIDATED WATER COMPANY, and DOES 1 through 1,000, Inclusive,

Respondents and Defendants.

CASE NO. KC029152

Assigned for All Purposes to Judge William O. McVittie

Department O

(Complaint Filed, September 28, 1998)

JUDGMENT

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93101-2782

CODES

HATCH AND PARENT
21 EAST CARRILLO STREET
SANTA BARBARA, CA
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PRELIMINARY FINDINGS

A. Complaint.

The Southern California Water Company ("SCWC"), (or "Plaintiff"), and the City of La Verne ("La Verne"), City of Claremont ("Claremont"), City of Pomona ("Pomona"), City of Upland ("Upland"), Pomona College ("Pomona College"), Pomona Valley Protective Association ("PVPA"), San Antonio Water Company ("San Antonio"), Simpson Paper Company ("Simpson"), Three Valleys Municipal Water District ("TVMWD"), West End Consolidated Water Company ("West End"), collectively (Defendants) either:

i. account for essentially all of the current production of groundwater from or the replenishment to the Canyon Basin, the Upper Claremont Heights Basin, the Lower Claremont Heights Basin, the Pomona Basin, the Live Oak Basin and the Ganesha Basin ("Six Basins Area"), located in Los Angeles and San Bernardino Counties, and described in Exhibits "A,"and "B" attached hereto, and further defined in Judgment Section I(A) below; or

ii. are public agencies with an interest in the efficient and responsible management of groundwater resources within the Six Basins.

On or about September 28, 1998 the Plaintiff filed a complaint against Defendants and Does 1 through 1,000 requesting a declaration of their individual and collective rights to groundwater and a mandatory and prohibitory injunction requiring the reasonable use and equitable management of groundwater within the Six Basins pursuant to *Article X, Section 2 of the California Constitution* The pleadings further allege that the Plaintiff and Defendants collectively claim substantially all rights of groundwater use, replenishment and storage within the Six Basins Area, that the available Safe Yield (as defined in Judgment Section I(A), below) is being exceeded and that the groundwater supply to the Six Basins Area is inadequate to meet the current and long term demands of Plaintiff and Defendants without the imposition of a physical solution. Plaintiff requests a determination of all groundwater rights, including replenishment and storage rights, of whatever nature within the boundaries of the Six Basins and request the imposition of an equitable physical solution.

B. **Answers and Cross-Complaints.** On or before November 13, 1998, Plaintiff and Defendants filed a stipulation for entry of judgment

C. **Jurisdiction.** This Court has jurisdiction to enter judgment declaring and adjudicating the Plaintiff's and Defendants' ("the Parties") rights to the reasonable and beneficial use of groundwater by the Parties in the Six Basins Area pursuant to *Article X, Section 2 of the California Constitution* and to impose a complete physical solution. All pre-existing rights to groundwater within the Basin held or claimed by any Party (as defined in Section I(A) of the Judgment below) are hereby settled and defined as the production allocations and the other rights and obligations set forth under this judgment ("Judgment"). The respective allocations for each Party are expressly set forth in Exhibit "D."

D. **Parties.**

1. SCWC is an investor-owned public utility incorporated under the laws of the State of California. (*See Public Utilities Code Section 1001 et seq. and 2701 et seq.*) SCWC produces groundwater from the Six Basins and delivers it for use on land within its certificated service area that predominantly overlies some portion of the Six Basins, and otherwise is within the Counties of Los Angeles and San Bernardino.

2. Pomona is a charter city situated in the County of Los Angeles. Pomona produces groundwater from the Six Basins and delivers it for use on land within its incorporated boundaries, on land lying outside its incorporated boundaries within the County of Los Angeles and on City owned lands that predominantly overlie some portion of the Six Basins. Pomona owns and controls land in the Six Basins Area upon which it has historically diverted, for direct use and spreading, surface water from San Antonio Creek and Evey Canyon.

3. La Verne is a general law city situated in the County of Los Angeles. La Verne produces groundwater from the Six Basins and delivers it for use on land within its incorporated boundaries, on land lying outside its incorporated boundaries within the County of Los Angeles and on City owned lands that predominantly overlie some portion of the Six Basins.

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4. Upland is a general law city situated in the County of San Bernardino. Upland produces groundwater from the Six Basins and delivers it for use on land within its incorporated boundaries some portion of which overlie the Six Basins. It possesses a majority of the shares of stock in San Antonio and West End.

5. San Antonio is a mutual water corporation incorporated under the laws of the State of California, with its principal place of business in San Bernardino County. San Antonio produces groundwater from the Six Basins and delivers it for use by its shareholders.

6. West End is a mutual water corporation, incorporated under the laws of the State of California, with its principal place of business in San Bernardino County. West End produces groundwater from the Six Basins and delivers it for use by its shareholders.

7. Claremont is a general law city situated in the County of Los Angeles. Claremont's incorporated boundaries and City owned lands overlie a portion of the Six Basins. The City has executed an agreement with SCWC with respect to its groundwater rights.

8. Pomona College is a California corporation, with a principal place of business in the County of Los Angeles. Pomona College owns land and groundwater production facilities that overlie the Six Basins Area and it has executed operating leases with SCWC regarding these facilities. Pomona College has executed an agreement with SCWC with respect to its groundwater rights.

9. Simpson is a Washington corporation, which is doing business in the State of California and the County of Los Angeles. Simpson produces groundwater from the Six Basins for its own use and also purchases water service from Pomona.

10. PVPA is a California corporation, operating on a non-profit basis for the mutual benefit of its members with its principal place of business in the County of Los Angeles. Shareholders of PVPA include Pomona, Pomona College, San Antonio, SCWC, Simpson, Upland and West End. PVPA owns the primary spreading grounds and recharge facilities for the Six Basins and owns other lands which also overlie the Six Basins. PVPA has undertaken ongoing studies and evaluation of groundwater conditions in the Six Basins Area.

11 TVMWD is a California Municipal Water District formed pursuant to the provisions of the municipal water district act and with the power to acquire, control, distribute, store, and spread water for beneficial purposes within its boundaries.

E. **Settlement Negotiations.**

1. **Importance of Groundwater.** Groundwater is an important water supply source for businesses, individuals and public agencies that overlie or extract groundwater from the Six Basins. The Parties have a mutual and collective interest in the efficient and reasonable use of groundwater and the coordinated management of water resources to ensure the prudent use of the resource. The Parties have a further collective interest in furthering the efficient and reasonable use of groundwater and the coordinated and comprehensive management of water resources to ensure that the common resource may be sustained and enhanced.

2. **Coordinated Study.** PVPA has conducted and continues to conduct technical studies of the Six Basins and has developed groundwater models of the Six Basins. To achieve the goals of coordinated basin management and to ensure and promote the sustainable and enhanced use of the groundwater resources of the Six Basins, the Parties joined in a collaborative process, reviewed prior groundwater production reports and hydrologic studies, other historical data and engaged in new technical studies to supplement the previous work of PVPA. Substantial engineering, hydrologic and geologic data not previously known have been collected and jointly analyzed and verified by the Parties. Included therein are estimates of production and reported production from the Six Basins and further refinement of PVPA's groundwater models. The results of these efforts provide the technical foundation for this Judgment.

3. **Overdraft.**

a. **Native Safe Yield.** The Native Safe Yield (as defined in Judgment, Section I(A), below) of the Six Basins Area has historically been augmented generally by the spreading activities conducted by PVPA, Pomona and La Verne and from return flows from water imported to the Six Basins Area through TVMWD. There is no precise estimate of the Native Safe Yield; however, without augmentation comprised of the substantial spreading operations conducted

by PVPA and others, and the return flows from imported water, the amount of groundwater comprising the Native Safe Yield is substantially less than the Safe Yield which is allocated to the parties pursuant to this Judgment

b. Safe Yield. Safe Yield (as defined in Judgment, Section I(A), below) for all groundwater supplies within the Six Basins, including the benefits of historic augmentation is nineteen thousand three hundred (19,300) acre feet per year

c. Groundwater Production. Reports filed with the State of California pursuant to *Water Code Section 4999 et seq.*, production records reported to PVPA by its members, and independent verification by the Parties all demonstrate that the cumulative groundwater production of the Parties from the Six Basins Area annually has been greater than twenty thousand (20,000) acre feet in each of the five years immediately preceding the filing of this action. Therefore, groundwater production has exceeded the available Safe Yield and *a fortiori* the Native Safe Yield in each of the last five years.

F. Stipulation. The Parties, whose production from the Six Basins cumulatively comprise essentially all of the groundwater production in the Six Basins Area, which have engaged in long-standing groundwater replenishment activities or otherwise have an interest in the efficient and coordinated management of groundwater, have stipulated to the entry of this Judgment. Each of the Parties stipulate that this Judgment is a physical solution (as defined in Judgment, Section I(A), below) which provides due consideration to the environment, the respective groundwater rights of the Parties, and that this Judgment will not cause substantial material injury to any Party under these circumstances of a lengthy period of overdraft and the competing claims to groundwater. The Parties further stipulate that the Judgment is a fair and equitable allocation of water in accordance with the provisions of *Article X, Section 2 of the California Constitution*.

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JUDGMENT

IT IS HEREBY ORDERED, ADJUDGED AND DECREED:

I. INTRODUCTION

A. Definitions.

1. "**Base Annual Production Right**" means the average annual production , in acre-feet, for each Party for the twelve year period beginning on January 1 of 1985 and ending on December 31 of 1996 as set forth in Exhibit "D"

2. "**Carryover Rights**" means the maximum percentage of a Party's annual allocation of Operating Safe Yield production of which may be deferred until the following Year free of any Replacement Water Assessment.

3. "**Effective Date**" means January 1, 1999.

4. "**Four Basins or Four Basins Area**" means the following groundwater basins and the area overlying them: Canyon, Upper Claremont Heights, Lower Claremont Heights and Pomona as shown on Exhibit "A" and further described in Exhibit "B".

5. "**Groundwater**" means all water beneath the ground surface and contained within any one of the Six Basins except as provided in Article IIIA Section 1.

6. "**Imported Water**" means water that is not naturally tributary to the Six Basins Area and which is delivered to the Six Basins Area.

7. "**In Lieu Procedures**" means a method of either providing Replacement Water or water to be stored under a Storage and Recovery Agreement whereby a Party receives direct deliveries of Imported Water or water other than Replenishment Water in exchange for foregoing the production of an equivalent amount of such Party's share of the Operating Safe Yield.

8. "**Minimal Producers**" means any producer whose production is less than 25 acre feet each Year.

9. "**Native Groundwater**" means groundwater within the Six Basins Area that originates from the deep percolation of rainfall, natural stream flow or subsurface inflow, and

expressly excluding groundwater which originates from (a) the Parties' replenishment activities and (b) return flows from both imported water and the Parties' replenishment activities, and water described in Article IIIA Section 1.

10. **"Native Safe Yield"** means the amount of Native Groundwater, in acre feet, that can be extracted from the Six Basins Area on an annual basis without causing an undesirable result. Expressed as a formula. Native Safe Annual Yield = Annually Available Groundwater - (Replenishment Water + return flows from Imported Water and Replenishment Water)

11. **"Native Water"** means water which is naturally tributary to the Six Basins Area.

12. **"Non-party"** means any person or entity which is not a party to this Judgment

13. **"Operating Plan"** means the plan, developed by Watermaster (as defined in Judgment, Article V below) for the Four Basins Area, by which the purpose and objectives of the Physical Solution will be implemented and realized.

14. **"Operating Safe Yield"** means the amount of groundwater, in acre feet, which the Watermaster shall determine can be produced from the Four Basins Area by the Parties during any single year, free of any replacement obligation under the Physical Solution herein. Because of the benefits created by coordinated management of groundwater provided by the Physical Solution, the Operating Safe Yield set by Watermaster may exceed the Safe Yield that would otherwise be available for production by the Parties. The Two Basins Area is excluded from the Operating Safe Yield allocated pursuant to this Judgment with its annual Safe Yield being equivalent to the amount of groundwater La Verne may reasonably produce from the Two Basins Area on an annual basis without causing substantial injury to any other Party.

15. **"Overdraft"** means a condition wherein the total annual production from a groundwater basin exceeds the Safe Yield.

16. **"Party or Parties"** means any person(s) or entity(ies) named in this action, who has/have intervened in this case or has/have become subject to this Judgment through succession, stipulation, transfer, default, trial or otherwise.

17. **"Physical Solution"** means the efficient and equitable coordinated management of groundwater within the Six Basins Area to maximize the reasonable and beneficial use of groundwater resources in a manner that is consistent with the public interest, *Article X, Section 2 of the California Constitution,* and with due regard for the environment.

18. **"Producer"** means a person, firm, association, organization, joint venture, partnership, business, trust, corporation or public entity who, or which, produces or has a right to produce groundwater from the Six Basins Area.

19. **"Production"** means the process of pumping groundwater, also, the gross amount of groundwater pumped.

20. **"Replacement Water"** means imported water or water other than Replenishment Water supplied through in-lieu procedures that is acquired by the Watermaster or provided by a Party to replace production by such Party in excess of the amount of its share of the Operating Safe Yield, Carry-Over Rights and Storage and Recovery rights authorized by Watermaster.

21. **"Replacement Water Assessment"** means an assessment levied by Watermaster pursuant to Article XII A, Section 4 of this Judgment.

22 **"Replenishment"** means a program to spread or inject Replenishment Water into the Six Basins Area. A description of the current replenishment programs is attached hereto as Exhibit "E."

23. **"Replenishment Water"** means native water which augments the Native Safe Yield and thereby comprises a portion of the Operating Safe Yield pursuant to a historical replenishment program as described in Article VIB, Section 9 and Exhibit E.

24. **"Return Flows"** means water which percolates, infiltrates or seeps into the Six Basins after having been previously applied to some end use by one of the Parties or any user of water.

25. **"Safe Yield"** means the amount of groundwater, including Replenishment and return flows from Imported Water, that can be reasonably produced from the combined Two Basins

and the Four Basins Areas on an annual basis without causing an undesirable result, including but not limited to land subsidence, water quality degradation, and harm from high groundwater levels, i e. 19,300 acre feet per year.

26. "Six Basins or Six Basins Area" means the Four Basins Area plus the Two Basins Area, as shown on Exhibit "A" and further described in Exhibit "B."

27. "Spreading" means a method of groundwater recharge whereby water is placed in permeable impoundments and allowed to percolate into a basin.

28. "Storage and Recovery" means a program administered under an agreement between the Watermaster and a Party to store water either directly by sinking, spreading or injecting or by in-lieu procedures, into the Four Basins, and subsequently recovering such water without regard to the limitations imposed by the Party's Base Annual Production Right.

29 "Storage and Recovery Agreement" means an agreement between Watermaster and a Party for Storage and Recovery of water by such Party. An acceptable pre-approved Storage and Recovery Agreement between Watermaster and Pomona is listed on Exhibit "F."

30. "Transfer" means temporary or permanent assignment, sale, contract or lease of any Party's Base Annual Production Right and its associated percentage of the Safe Yield, Carry-Over Rights or rights to recover water stored under a Storage and Recover Agreement to any other Party or a person that becomes a Party. A lease shall not be considered a "permanent transfer" unless both the Lessee and Lessor jointly agree to such characterization.

31. "Two Basins or Two Basins Area" means the Live Oak and Ganesha Basins and the areas overlying them, as shown on Exhibit "A" and further described in Exhibit "B."

32. "Water Shortage Emergency" means the substantial impairment, which cannot be promptly mitigated, of the ability of the Parties to provide sufficient water for human consumption, sanitation and fire protection because of: (a) a sudden occurrence such as storm, flood, fire, unexpected equipment outage; or (b) an extended period of drought.

33. "Watermaster" means the committee with the powers and duties defined in Article V of this Judgment.

34. **"Year"** means a calendar year

B. **Exhibits.** Each exhibit is expressly incorporated herein and made part of this Judgment.

Exhibit A: Six Basin Map

Exhibit B: General Description of the Six Basins Area

Exhibit C: Memorandum of Agreement between Watermaster and PVPA

Exhibit D: Base Annual Production Rights of Parties

Exhibit E: Description of Replenishment Programs

Exhibit F: City of Pomona Storage and Recovery Agreement

Exhibit G: Initial Operating Plan

II. FINDINGS AND HYDROLOGIC CONDITIONS

A. **Safe Yield.** Prior to the imposition of this Physical Solution, the Safe Yield of the Six Basins is historically found to be 19,300 acre feet per year

B. **Overdraft and Prescriptive Circumstances.** For a period in excess of five consecutive Years prior to the filing of the complaint herein, the Native Safe Yield and the Safe Yield have been exceeded by the aggregate Production therefrom and the Six Basins have been in a continuous state of Overdraft. The court finds that the Production constituting such Overdraft has been open, notorious, continuous, adverse, hostile, and under claim of right. The court further finds that the groundwater Production has exceeded the Native Safe Yield and the Safe Yield in each of the last five years and thus all the required elements necessary to establish prescription have been satisfied.

1. **Adversity.** The Native Safe Yield of the Six Basins Area has been continuously exceeded for decades. It is only through the ongoing Replenishment undertaken by PVPA, Pomona and La Verne coupled with the availability of and return flows from Imported Water that a further decline in water levels has been averted. An unmanaged downward decline in water levels is known to have severe adverse impacts on the rights of groundwater producers and groundwater quality, to cause land subsidence and to cause increased pump-lifts. Moreover, the Court finds that presently

estimated Safe Yield of 19,300 acre feet, with the full benefit of the Replenishment carried on by the Parties has been exceeded and if Production is not managed pursuant to this Physical Solution, severe adverse impacts will result.

2. **Continuity.** The Native Safe Yield has been continuously exceeded for at least two decades. For each of the last five Years the Safe Yield has been exceeded. The Court finds that cumulative total Production from the Six Basins Area for the Years 1993 through 1997 is as follows.

1993	21,020 acre feet
1994	20,313 acre feet
1995	22,959 acre feet
1996	23,584 acre feet
1997	21,902 acre feet

3. **Notice.** Each of the Parties with a Base Annual Production Right, or their agents, have filed groundwater production reports with the State Department of Water Resources pursuant to *Water Code Section 4999*. These reports are public records and are available for inspection by any member of the public. SCWC is an investor-owned public utility subject to regulation by the California Public Utilities Commission (PUC). Its records, reports and filings with the PUC regularly include information regarding the wells used and groundwater produced from the Six Basins Area. The PUC has held publicly noticed rate hearings which have been attended by the public and representatives from Claremont. Pomona, La Verne and Upland are all public entities and their groundwater production information are public records and open to public inspection upon reasonable notice. PVPA has frequently published reports which indicate the nature of its Replenishment and the volume of groundwater produced in the Six Basins Area. At least two settlement agreements have been entered between certain Parties on matters related to the adverse impacts of increased groundwater production. Both of these agreements were approved by a public entity and are public records. Moreover, the negotiations leading up to the entry of this Judgment were open to all persons claiming the right to produce groundwater by virtue of their owning overlying land or having corporate boundaries overlying the Six Basins Area. Regular meetings concerning these negotiations

have been held at the headquarters of TVMWD, a public agency, and were personally attended by representatives from each of the Parties. These meetings have taken place at regular intervals for more than twelve consecutive months and the contents of this Judgment and the status of groundwater conditions in the Six Basins Area has remained readily available. Accordingly, the Court finds that all persons claiming the right to produce had actual notice, constructive notice or could have easily determined upon reasonable diligence that the Six Basins Area was in Overdraft and of each Party's claim to groundwater. The circumstances of such Overdraft and water use are such that each of the Parties either: (i) had actual knowledge of such circumstances; or (ii) should have discovered such circumstances upon the exercise of reasonable diligence or (iii) received constructive notice of the adverse nature of such aggregate production through the public record filings with the State of California pursuant to *Water Code Section 4999* and through the various reports published by the Parties.

C. **High Groundwater Levels.** There are cienegas and springs in the Four Basins Area and there is a potential for groundwater to rise to the surface regardless of the replenishment, replacement or storage operations of the Watermaster and carried out by the Parties. Periodically, though not in the past twelve years, high groundwater levels have constituted an important causative factor, in creating damage in the Four Basins Area.

D. **Water Quality Problems.** Some of the Six Basins have experienced problems of high concentrations of nitrates and volatile organic compounds (VOC's) in groundwater. Potential sources of the nitrate are historical agricultural practices and individual wastewater disposal systems, most of which have been abandoned. The Two Basins Area and some of the Four Basins Area have been adversely impacted by high concentrations of nitrates and VOC's and may also require remediation.

III. DECLARATION OF RIGHTS AND RESPONSIBILITIES

A. General Provisions.

1. **Surface Water Rights.** Pomona and San Antonio have prior and paramount pre-1914 water rights, superior to the rights of any other party, to the surface water and supporting

subsurface flows historically and presently diverted therefrom in San Antonio and Evey Canyon, except as provided in Article VIB Section 9 and as referenced in Article IIIA Section 1d.

a. Historically, Pomona and San Antonio have diverted, and presently are diverting, surface waters and supporting subsurface flows from San Antonio Canyon

b Historically, Pomona has diverted, and presently is diverting, surface water and supporting subsurface flows from Evey Canyon.

c. Pomona and San Antonio are under no obligation to spread such waters

d. Surface waters and supporting subsurface flows diverted in San Antonio and Evey Canyons at existing diversion locations are excluded from (i) the operation of this Judgment and (ii) the determination of Operating Safe Yield, except to the extent of the portion of such waters which are spread by Pomona at its Pedley Treatment Plant, which portion is governed by the provisions of Article VIB, Section 9

e. The diversion and the use of surface waters and supporting subsurface flows shall not be subject to this Judgment.

f. The above-referenced surface waters and supporting subsurface flows shall not be subject to allocation among the Parties pursuant to this Judgment.

g. Surface waters and supporting subsurface flows may be used by Pomona and San Antonio to satisfy Replacement Water obligations as provided in Article VIB, Section 5

2. **Loss of Priorities.** By reason of the long continued overdraft in the Six Basins, and in light of the complexity of determining appropriative priorities and the need for conserving and making maximum beneficial use of the water resources of the State, each and all of the Parties listed in Exhibit "D" are estopped and barred from asserting special priorities or preferences *inter se* to groundwater except as expressly provided herein. All the Parties' rights to groundwater are accordingly deemed and considered to be of equal priority unless otherwise expressly stated herein.

3. **Limitations on Export.** Other than the limitation on Pomona's use of 109 acre feet as further described in Exhibit "D", any Party's share of the Operating Safe Yield, including Carryover Rights and Transfers, may be produced and exported for use outside the Six Basins Area.

However, groundwater stored and recovered pursuant to a Storage and Recovery Agreement may be produced and exported only in accordance with the terms and conditions of the Storage and Recovery Agreement.

4. **No Abandonment of Rights.** It is in the interest of reasonable beneficial use of the Six Basins Area and its water supply, that no Party be encouraged to take and use more water in any Year than is actually required. Failure to produce all of the water to which a Party is entitled hereunder shall, in and of itself, not be deemed to be, or constitute an abandonment of such Party's right, in whole or in part.

5. **Pre-Existing Rights.** This Judgment controls each Party's rights to the Production, Replenishment, Storage and Recovery of groundwater and expressly supersedes other rights, claims or defenses arising from agreement, operation of law, prior use or a prior judgment to the extent that they are inconsistent with this Judgment. However, nothing in this Judgment shall alter or affect any rights or remedies that any Party may have under any contract or agreement with any other Party on matters which are not inconsistent with or are unrelated to the provisions of this Judgment or as provided in Article IVC herein.

6. **Physical Solution.** This Judgment represents a total and complete Physical Solution for the Six Basins Area and all basins included therein. Although prior hydrologic and physical conditions limited the Safe Yield to 19,300 acre feet per year, through the coordinated and equitable management of the Four Basins and Two Basins Areas provided under this Judgment, an Operating Safe Yield, Operating Plan and Base Annual Production Rights shall be independently established for the Four Basins Area. However, La Verne shall be entitled to produce groundwater from the Two Basins Area in addition to its equitable share of the Four Basins Operating Safe Yield, as provided in accordance with the terms of this Judgment.

7. **Portability Between the Two Basins and Four Basins Areas.** A Party's right to produce, store or recover groundwater accruing under this Judgment in the Four Basins Area may not be transferred, exchanged or exercised in the Two Basins Area. A Party's right to produce, store or

recover groundwater accruing under this Judgment in the Two Basins Area may not be transferred, exchanged or exercised in the Four Basins Area.

B. Rights of the Parties to Produce Groundwater from the Four Basins.

1. Declaration of Rights. The Parties listed in Exhibit "D" are the owners of appropriative rights, including rights by prescription, and exercised and unexercised overlying rights of equal priority, and each Party shall be entitled to produce groundwater under the Physical Solution and to share in the Operating Safe Yield of the Four Basins according to the percentages set forth in Exhibit "D" as Base Annual Production Rights in a manner consistent with the provisions of this Judgment.

2. Carryover Rights. Any Party that produces less than its share of the Operating Safe Yield in any Year shall have the right to carry the unproduced portion forward to be produced in the following year subject to the following limitations: (a) the first water produced in any Year shall be deemed to be an exercise of any Carryover Right; (b) a Party's Carryover Right cannot exceed 25 (twenty-five) per cent of such Party's share of the current Operating Safe Yield for the prior Year; and (c) Carryover Rights may be lost in the event replenishment is discontinued or curtailed as provided below in Article IIIB, Section 7.

3. Transferability of Rights. Subject to the limitations set forth in his Judgment, a Base Annual Production Right and its associated percentage of the Operating Safe Yield, as well as any Carryover Rights and water stored under a Storage and Recovery Agreement, may be transferred, in whole or in part, among existing Parties or to any other person that becomes a Party on either a temporary or permanent basis provided that no Party is substantially injured by the Transfer. Production pursuant to any such Transfer shall be subject to the limitations on carryover and portability set forth in Article IIIB, Section 4. Any such Transfer shall become effective upon being recorded with Watermaster. Watermaster shall revise Exhibit "D" annually, to reflect any permanent Transfers. The permanent Transfer of any Party's full Base Annual Production Right shall require Watermaster approval. Upon Watermaster approval the permanent Transfer of a Party's full Base Annual Production Right may require an adjustment in the Party representatives to the Watermaster

and the number of votes of the Party's representatives as provided in Article V. Notwithstanding the provision of this Article IIIB, Section 3, Pomona shall not be entitled to Transfer 109 acre feet of its Base Annual Production Right and its associated percentage of Operating Safe Yield.

4. **Portability of Rights Among the Four Basins.** Any Party with a Base Annual Production Right, shall have the right to produce its share of the Operating Safe Yield of the Four Basins, including any Carryover Rights or Transfers, from any or all of the Four Basins, subject to the following conditions.

a. **No Substantial Injury** Any groundwater production from a "new" location shall not cause substantial injury to another Party.

b. **Advance Written Notice to Watermaster.** Any Party that intends to undertake any of the following actions shall provide thirty (30) days' advance written notice to the Watermaster: (i) acquire, construct or operate a "new" groundwater production facility in any one of the Four Basins in which it is then producing groundwater, (ii) change the point of extraction from an existing groundwater production facility to a "new" groundwater production facility where the old and the new groundwater production facilities are both within the Canyon or Upper Claremont Heights or Lower Claremont Heights Basins, (iii) change the point of extraction from an existing groundwater production facility on one side of the Indian Hill Fault to a "new" facility on the other side of the Indian Hill Fault.

c. **Prior Watermaster Approval.** Any Party that changes the point of extraction from an existing groundwater production facility on one side of the Indian Hill Fault to a "new" facility located on the other side of the Indian Hill Fault and increases the cumulative rate of annual extraction therefrom by more than 2,000 acre feet per year shall be required to obtain the prior written approval of the Watermaster.

d. **New Facility Defined.** "New" as used in this Section 4 means either (i) an increase or enlargement in the pre-existing design capacity of a groundwater production facility or (ii) a movement in the location of a groundwater extraction facility by more than three hundred (300) feet or from one legal parcel to another legal parcel.

e. **Procedure for Resolution of Disputes.** The Watermaster shall make all necessary determinations and resolve all disputes arising under this Article IIIB, Section 4 in accordance with the provisions of Article VIII

5. **Rights to Unused Groundwater Storage Capacity.** From time to time there may exist in the Four Basins, unused storage capacity Parties holding Base Annual Production Rights pursuant to this Judgment and TVMWD for the sole purpose of storing Imported Water, shall have the exclusive rights to use such storage capacity, and subject to the complete discretion of the Watermaster, may sink, spread or inject water into the Four Basins Area pursuant to a Storage and Recovery Agreement.

6. **Priorities for Use of Groundwater Storage Capacity.** In directing spreading and controlling the use of groundwater storage capacity, the Watermaster shall give first priority to Replenishment Water; second priority to Carryover Rights; third priority to Storage and Recovery of water which is naturally tributary to the Six Basins Area; fourth priority to Storage and Recovery of Imported Water, and fifth priority to Storage and Recovery of other water.

7. **Loss of Stored and Carryover Water.** After providing notice and opportunity to be heard to any affected Party pursuant to Article IXA, if the Watermaster reasonably determines that Replenishment had to be terminated or curtailed in any year, or that Replenishment Water was rejected because of insufficient storage capacity, some or all of a Party's unproduced Carryover Rights or Storage and Recovery rights may be deemed lost. The amount of water subject to loss shall be equal to that quantity of Replenishment Water which was curtailed or rejected solely because of insufficient storage capacity in the Four Basins.

The burden of a determination by Watermaster that rejected recharge has occurred and that there shall be a loss of stored and Carryover water, shall be shared proportionately by each Party to the extent the quantity of water held by each Party at the time of the loss bears to the total quantity of water within each of the classification. Any losses shall be charged first to the storage of other water, then to the storage of Imported Water, then to the storage of Native Water, then to Carryover Water as expressly set forth below.

a. Highest priority shall be given to Replenishment Water.

b. Second priority against loss shall be given to Carryover Water.

c. Third priority against loss shall be given to storage of Native Water.

d. Fourth priority against loss shall be given to storage of Imported Water.

e. Fifth priority against loss shall be given to storage of other water.

8. **Consideration of Groundwater Levels.** Watermaster shall make every reasonable effort to establish water operations limits so that the spreading of Replenishment or Replacement water, groundwater storage pursuant to a Storage and Recovery Agreement, or the determination of Operating Safe Yield shall not cause high groundwater levels that result in material damage to overlying property (not including sand and gravel excavations or operations) or cause groundwater to surface above the undisturbed natural terrain

C. **The Parties' Rights to Groundwater and Storage in the Two Basins.**

1. **Declaration of Rights.** In recognition of the remediation efforts that are likely to be necessary to maximize groundwater production from the Two Basins; because of the detected high nitrate concentrations and in recognition that La Verne is uniquely situated to remedy these water quality conditions and exploit future opportunities; because of the minimal hydrologic communication between the Four Basins and Two Basins, and in furtherance of a complete and total physical solution for the Six Basins Area, La Verne shall have the right to produce as much groundwater as it may reasonably withdraw from the Two Basins Area on an annual basis so long as it does not substantially injure the rights of any other Party.

2. **Storage and Recovery.** La Verne has the sole right to use available storage capacity in the Two Basins in its complete discretion for the Storage and Recovery of groundwater so long as it does not cause substantial injury to any other Party. La Verne shall not be required to obtain a Storage and Recovery Agreement from the Watermaster for Storage and Recovery programs carried out within the Two Basins Area provided that (i) such production or use of storage capacity shall not cause substantial injury to any other Party and (ii) La Verne provides 60 (sixty) days' advance written notice to Watermaster before initiating such a Storage and Recovery program.

3. **Transferability of Rights.** Subject to the limitations set forth in Article III A, Section 7, La Verne's right to produce groundwater from the Two Basins Area may be transferred, in whole or in part, among existing Parties or to any other person that becomes a Party, on either a temporary or permanent basis provided that no Party is substantially injured by the Transfer. The permanent Transfer of the right to produce groundwater from the Two Basins Area shall not be effective until approved by Watermaster.

D. **Rights and Responsibilities of PVPA.**

1. **Spreading Operations.** PVPA and the other Parties have negotiated a Supplemental Memorandum of Agreement, attached hereto as Exhibit "C" This Supplemental Memorandum of Agreement and all modifications or amendments thereto shall include a provision for Watermaster's indemnity of PVPA for all Replenishment activities undertaken by PVPA at the direction of the Watermaster. Within sixty (60) days of entry of this Judgment, Watermaster and PVPA shall execute the Agreement. Upon execution, the Agreement shall become part of the Physical Solution. PVPA shall not be required to execute a Storage and Recovery Agreement with Watermaster for its Replenishment activities carried out under the direction of the Watermaster. The Spreading operations conducted by PVPA may result in incidental Replenishment to the Two Basins Area and none of the Parties have a right to object thereto. This Replenishment is authorized under the Judgment

2. **Waiver of Claims Against PVPA .** The Parties expressly waive any and all claims against PVPA arising from facts, conditions or occurrences in existence before the Effective Date and arising from PVPA's spreading operations including but not limited to water quality degradation, subsurface infiltration, high groundwater or groundwater Overdraft within the Six Basins Area.

E. **Non-parties.**

1. **Minimal Producers.** Minimal producers are not bound or affected by this Judgment. No person may produce twenty-five acre feet or more in any Year without becoming a Party.

2. **Parties' Rights Versus Non-parties Reserved.** The Parties expressly reserve all rights, without limitation, concerning any and all claims raised by persons not a Party to this Judgment as provided in Article IV C Section 1

IV. REMEDIES

A. Injunctions.

1. **Injunction Against Unauthorized Production.** Each and every Party, its officers, agents, employees, successors and assigns is enjoined and restrained from producing water from the Six Basins except as authorized herein.

2. **Injunction Against Unauthorized Storage.** Each and every Party, its officers, agents, employees, successors and assigns is enjoined and restrained from storing water in the Six Basin Area except as authorized herein.

3. **Injunction Against Unauthorized Replenishment.** Each and every Party, its officers, agents, employees, successors and assigns is enjoined and restrained from replenishing water in the Six Basin Area except as authorized herein.

B. Continuing Jurisdiction

1. **Jurisdiction Reserved.** Full jurisdiction, power and authority are retained by and reserved to the Court upon the application of any Party, by a motion noticed in accordance with the review procedures of Article XIA, Section 6 hereof, to make such further or supplemental order or directions as may be necessary or appropriate for interpretation, enforcement or implementation of this Judgment, and to modify, amend or amplify any of the provisions of this Judgment or to add to the provisions thereof consistent with the rights herein decreed; provided that nothing in this paragraph shall authorize a reduction of the Base Annual Production Right of any Party except pursuant to a Transfer.

2. **Intervention After Judgment.** Any Non-party who proposes to produce Groundwater from the Six Basins Area in an amount equal to or greater than 25 acre feet per Year, may seek to become a Party to this Judgment through (a) a stipulation for intervention entered into with Watermaster or (b) any Party or Watermaster filing a complaint against the Non-party requesting

that the Non-party be joined in and bound by this Judgment. Watermaster may execute said Stipulation on behalf of the other Parties herein, but such stipulation shall not preclude a Party from opposing such intervention at the time of the Court hearing thereon. A stipulation for intervention must thereupon be filed with the Court, which will consider an order confirming said intervention following thirty (30) days' notice to the Parties. Thereafter, if approved by the Court, such intervenor shall be a Party bound by this Judgment and entitled to the rights and privileges accorded under the Physical Solution herein, including a Base Annual Production Right in an amount equal to its average annual production in the twelve-year period beginning on January 1, of 1985 and ending on December 31, 1996, or any Base Annual Production Right it may obtain by a transfer.

C. **Reservation of Other Remedies.**

1. **Claims By and Against Non-parties.** Nothing in this Judgment shall expand or restrict the rights, remedies or defenses available to any Party in raising or defending against claims made by any Non-party. Any Party shall have the right to initiate an action against any Non-party to enforce or compel compliance with the provisions of this Judgment.

2. **Claims Between Parties on Matters Unrelated to the Judgment.** Nothing in this Judgment shall either expand or restrict the rights or remedies of the Parties concerning subject matter which is unrelated to the quantity and quality of groundwater allocated and equitably managed pursuant to this Judgment other than as provided in Article IIIA, Section 1.

3. **Groundwater Levels.** Except as expressly provided herein, nothing in this Judgment shall either expand or restrict the rights or remedies at law that any Party may have against any other Party for money damages to real or personal property resulting from high groundwater or defenses thereto for events or occurrences after the Effective Date.

V. WATERMASTER

A. **Composition, Voting and Compensation.** The Watermaster shall be a committee composed of one representative of each of the following Parties, and each representative shall have the authority to cast the indicated number of votes on any question before the committee.

City of La Verne	5 votes

City of Pomona	5 votes
City of Upland	5 votes
Southern California Water Company	5 votes
City of Claremont	2 votes
TVMWD	2 votes
PVPA	2 votes
Simpson Paper	1 vote
Pomona College	1 vote
San Antonio	1 vote

Committee representatives having the combined authority to cast twenty votes shall constitute a quorum for the transaction of affairs of Watermaster and seventeen affirmative votes shall be required to constitute action by Watermaster. Representatives shall be compensated for their services by their respective appointing authorities. Representatives may be reimbursed by Watermaster for out of pocket expenses incurred on authorized Watermaster business.

B. **Nomination and Appointment Process.** Each of the Parties named in Article VA, above, shall within thirty (30) days of entry of this Judgment submit to the Court its nominees for its representative member of the Watermaster Committee and one alternate and the Court shall in the ordinary course confirm the same by an appropriate order of appointment. Once appointed representatives and their alternates shall normally serve until a replacement is designated by the Party or until removed by the Court. If a representative or alternate is no longer willing or able to serve for any reason the Party represented by such member or alternate shall promptly submit a replacement for the member or their alternate. There shall be no need for replacement representative members or alternates to be approved by the Court. In its annual report to the Court, Watermaster shall update the list of its representative members and alternates.

C. **Succession.** For the purpose of determining whether a permanent Transfer of a Base Annual Production Right shall affect whether a Party shall have a Representative on the Watermaster Committee and the number of votes held by the representative, the following guidelines shall apply

1. **Partial Succession.** The permanent Transfer of less than any Party's full Base Annual Production Right shall be considered a "partial" succession. A partial succession shall not create any new or additional voting rights in the successor Party or require any modifications to the rules and procedures under this Article V. The full Base Annual Production Right of any Party shall be equal to the entire quantity of the Base Annual Production Right for that Party set forth in Exhibit D on the Effective Date.

2. **Non-Party Successor.** A permanent Transfer of the full Base Annual Production Right of any Party to a Non-Party shall automatically include the authority to cast the number of votes held by the Party. In addition, the Non-Party shall succeed to all other rights and responsibilities of their predecessor Party under this Judgment.

3. **Party Successor.** A permanent Transfer of the full Base Annual Production Right between Parties shall automatically include the authority to cast a number of votes equal to the greater of: (a) the number of votes indicated for the acquiring Party on the Effective Date or (b) the number of votes indicated for the Party whose Base Annual Production Right has been acquired at the time the Transfer is approved by the Watermaster. The number of votes equal to the lesser of 3(a) or 3(b) shall be extinguished. The acquisition of one Party's full Base Annual Production Right by another Party shall not cause a change in the number of votes required to constitute a quorum or to take an action under this Article. However, in the event more than two votes are eliminated, any Party or the Watermaster upon its own motion, may petition the Court to revise the required number of votes to constitute a quorum or to take action under this Judgment.

D. **Powers and Duties.** Subject to the continuing supervision and control of the Court and the limitations set forth in this Judgment, Watermaster shall have and may exercise the following express powers, and shall perform the following duties, together with any specific powers, authority and duties granted or imposed elsewhere in this Judgment or hereafter ordered or authorized by the Court in the exercise of its continuing jurisdiction:

1 Developing, Maintaining and Implementing the Operating Plan.

2 Adopting Rules, Regulations, Procedures, Criteria and Time Schedules.

3. Acquiring or Investing in Facilities or Facility Improvements.

4 Acquiring or Investing in Monitoring Facilities

5 Inspecting and Testing Measuring Devices

6. Levying Assessments

7. Requiring the Acquisition of and Recharge of Replacement Water.

8 Contracting for Necessary Services. (Including the execution of agreements regarding spreading and groundwater modeling.)

9 Employing Agents, Experts and Legal Counsel provided that Watermaster shall not contract with or otherwise engage a Party with a Base Annual Production Right to perform directly or indirectly, administrative services. However, this limitation shall not apply to spreading services under Exhibit C, and meter reading.

10 Adopting an annual budget for monitoring and reporting legal and administrative costs.

11 Managing Watermaster Funds.

12. Cooperating with Federal, State and Local Agencies.

13. Entering and Administering Storage and Recovery Agreements.

14 Maintaining a Notice List.

15 Reporting Annually to the Court.

16. Engaging in Dispute Resolution.

17. Prosecuting litigation against Non-parties in furtherance of the Judgment.

18. Limiting groundwater production to Operating Safe Yield during a Water Shortage Emergency.

E. **Organization and Meetings.** At its first meeting in each Year Watermaster shall elect a chair, vice chair, secretary and treasurer and such other officers as may be appropriate. Watermaster shall hold regular meetings at places and times specified in its rules and regulations, and may hold such special meetings as may be required. Watermaster shall provide notices of all regular and special meetings to all parties and any person requesting notice in writing. Any meeting may be adjourned

to a time and place specified in the order of adjournment. Meetings shall be conducted to the extent practicable in accordance with the provisions of the California Open Meetings Law ("Brown Act") *California Government Code Section 54950*, et seq as it may be amended from time to time.

F. **Limits on Assessments.** Watermaster shall not have the authority to levy assessments beyond those specifically described herein.

VI. PHYSICAL SOLUTION FOR THE SIX BASINS AREA

A. General Purposes and Objectives.

1. Physical Solution is Consistent With the Public Interest. The Physical Solution is consistent with each Party's full enjoyment and the reasonable exercise of its respective water rights will not materially injure the interests of any Parties and will promote coordinated groundwater management with due regard for the environment and it is therefore consistent with the public interest and the reasonable and beneficial use of water

2. Balance of Equities. This Physical Solution constitutes a legal and practical means for balancing the needs of the Parties for a reliable water supply, providing an appropriate incentive for remediation of poor water quality conditions, managing the available groundwater storage capacity to protect against loss of available groundwater and against damage from high groundwater levels with due regard for the environment.

3. Flexibility. It is essential that this Physical Solution provides maximum flexibility so that the Watermaster and the Court may be free to adapt and accommodate future changed conditions or new institutional or technological considerations. To that end the Court's retained jurisdiction may be utilized to augment or adjust the Physical Solution without adjustment to a Party's Base Annual Production Right.

B. Guidelines for Operation of Four Basins Area.

All production, replenishment, replacement, and Storage and Recovery of water in the Four Basins Area must be conducted pursuant to the Operating Plan adopted by Watermaster in accordance with the principles and procedures contained in this Judgment. The following general pattern of operations is contemplated:

1. **Replenishment.** Groundwater will be replenished pursuant to Exhibit "E" or under any other replenishment program or activity to the extent water which is naturally tributary to the Six Basin Area, is available for that purpose and can safely be spread

2. **Storage and Recovery.** Other Native Water, imported water or other water may be stored and recovered pursuant to Storage and Recovery Agreements

3. **Operating Safe Yield.** Watermaster will annually, not later than September 15, establish the Operating Safe Yield for the Four Basins for the following Year, taking into consideration the amount of water in storage and the need to control water table elevations Watermaster shall review the condition of the Four Basins at least quarterly during the Year and may make any appropriate adjustments of the Operating Safe Yield.

4. **Production.** In any Year, each Party will be free to produce its share of the Operating Safe Yield, including any Carryover Rights or Transfers, plus any water authorized to be recovered pursuant to a Storage and Recovery Agreement. Except upon Transfer, no change shall be made to any Party's Base Annual Production Rights.

5. **Replacement Water.** Notwithstanding any limitation contained in this Judgment, a Party may produce and export water from the Four Basins in excess of its Base Annual Production Right and its share of the Operating Safe Yield, plus unused Carryover rights and recoverable groundwater pursuant to an approved Storage and Recovery Agreement, subject to the requirement to provide Replacement Water in the manner set forth herein.

a. **Obligation to Provide Replacement Water.** To the extent a Party's production in the Four Basins or in any basin exceeds that Party's share of the Operating Safe Yield, plus unused Carryover rights and recoverable groundwater pursuant to an approved Storage and Recovery Agreement, the Party shall arrange for delivery of Replacement Water in an amount equal to the Party's excess production by any of the following: (i) acquiring Replacement Water directly from TVMWD except Upland which may also acquire Replacement Water from the Inland Empire Utilities Agency ("the Empire"); (ii) arranging for delivery of a Native water supply other than Replenishment Water; or (iii) paying a Replacement Water Assessment to Watermaster for the

purpose of acquiring Replacement Water directly from TVMWD except as to Upland for which Watermaster may acquire replacement water from the Empire.

b. In Lieu Procedures. Replacement Water may be supplied through In-Lieu Procedures, spreading or other method at a place, time and manner, acceptable to Watermaster, for a price and upon terms to be determined by TVMWD except as to Upland for which the price and terms may be determined by the Empire.

c. Replacement Water Assessment. Watermaster will use Replacement Water Assessment proceeds to acquire Replacement Water from TVMWD, or as to Upland, the Empire

6. Development, Maintenance and Implementation of the Operating Plan. Watermaster is directed to maintain and implement the Operating Plan such that Production, Replenishment and Storage and Recovery of water are consistent with and implement the purpose and objectives of the Physical Solution herein. The Operating Plan shall include rules, regulations, procedures, criteria and time schedules, as appropriate, for at least the following elements:

a. Establishing and adjusting the Operating Safe Yield.

b. Replenishment

c. Execution of supplemental agreements with PVPA regarding spreading grounds and the funding thereof.

d. Acquisition and delivery of Replacement Water.

e. Standard terms and conditions of Storage Agreements.

f. Replenishment, replacement and storage limits needed to protect against high groundwater levels

g. Remediation of water quality problems.

h. Monitoring systems and protocols, including such for groundwater levels.

i. Monitoring, reporting and verification programs.

j. Transfers.

k. Annual budgets

l. Financial management

m Reporting to the Court

n Levying Assessments

7. **Initial Operating Plan.** Within six months of the effective date of this Judgment Watermaster shall submit to the Court for approval an initial Operating Plan. An outline of the Initial Operating Plan is attached as Exhibit "G "

8. **Annual Review of the Operating Plan.** Watermaster shall review the Operating Plan at least annually and, subsequent to each such review, submit to the Court for its approval any proposed amendments or revisions.

9. **Replenishment.** PVPA and Pomona historically augmented the Native Safe Yield within the Four Basins Area through replenishment programs or activities. For many years these replenishment programs or activities have resulted in the spreading and percolation of native waters originating in the San Antonio Canyon and Evey Canyon. To the extent such waters have been historically spread, they comprise a portion of the Safe Yield and Operating Safe Yield subject to management under this Physical Solution.

a. All Replenishment shall be at the direction of the Watermaster

b. At the direction and sole discretion of the Watermaster PVPA shall, pursuant to the Memorandum of Agreement set forth in Exhibit "C" or any subsequent amendments thereto, continue to spread such native waters as it receives.

c. Unless it is acting for the benefit of another Party pursuant to a Storage and Recovery Agreement approved by the Watermaster, except for Replacement Water, all water PVPA spreads, sinks or injects shall be considered Replenishment and shall comprise a portion of the Operating Safe Yield

d. Although Pomona has no continuing obligation to spread or replenish, all waters spread in excess of its "historical replenishment" shall not be considered Replenishment and a part of the Operating Safe Yield of the Four Basins Area. The "historical replenishment" of Pomona shall be equal to a twelve (12) year annual average for the twelve (12) years immediately preceding the filing of the complaint

(1985-1996), which is determined to be one-hundred and thirty) acre feet. All water Pomona spreads, sinks or injects, or causes to be spread, sunk or injected (collectively augmentation) in excess of the historical replenishment shall not be considered a portion of the Operating Safe Yield, and shall not be allocated among the Parties pursuant to their Base Annual Production Rights. Pomona shall be entitled to produce such excess quantity in addition to its Base Annual Production Right under a pre-approved Storage and Recovery Agreement as provided in Article VIA, Section 10 in a form substantially similar to Exhibit F hereto, which is ordered to be executed by Watermaster and Pomona within sixty (60) days from the Effective Date. Measurement of Pomona's rights to recover water under any Storage and Recovery Agreement shall be administered as follows:

i. Pomona shall be entitled to recover the amount by which its augmentation of water over the twelve (12) year period ending with the current year exceeds 1,560 acre feet.

ii. If less than twelve (12) years have elapsed since the effective date of this Judgment, Pomona shall have the right to recover the amount by which the total number of acre feet of groundwater augmented by Pomona exceeds one hundred thirty (130) acre feet times the number of years elapsed.

iii. The amount in excess of Pomona's historical replenishment may be recovered by Pomona as provided in the Storage and Recovery Agreement.

10. **Storage and Recovery Pursuant to Storage and Recovery Agreements.** Watermaster may enter a Storage and Recovery Agreement with any Party holding a Base Annual Production Right or TVMWD so long as the Storage and Recovery of groundwater will not cause an unreasonably high groundwater table and physical damage. A Storage and Recovery Agreement shall contain uniform terms and conditions as set forth in the Operating Plan and may also contain

special terms and conditions as deemed appropriate by Watermaster Water that may be stored pursuant to a Storage Agreement includes any water other than Replenishment Water including augmentation in excess of historical replenishment as expressly set forth under Article VIB, Section 9

11. **Special Projects.** Any Party may propose for Watermaster approval, special projects including projects for controlling water levels or for remediation of water quality problems. Any such proposal shall be accompanied by an analysis that identifies the benefits of the project as well as any potential adverse impacts on any Party and any proposed mitigation measures. After notice to all Parties, if any Party files a written objection to the proposed project, Watermaster shall hold a hearing to determine whether the objections to the proposed project can be resolved. If there are no objections or if objections are resolved to the satisfaction of the Parties or if Watermaster determines that the objections are without merit, then Watermaster shall approve the proposed project. Groundwater produced under authorization as a Special Project shall not be eligible for the accrual of Carryover Rights unless authorized by Watermaster.

12. **Temporary Surplus Groundwater.** From time to time it may be in the best interest of the Parties, for the control of high groundwater, water quality remediation or other reasons, to produce groundwater over and above the then declared Operating Safe Yield. Therefore, from time to time, the Watermaster may declare a Temporary Surplus of groundwater to be available for production. The Parties' rights to the Temporary Surplus shall be in the same percentages as the Base Annual Production Right bears to the Operating Safe Yield. A Party's rights to temporary surplus shall not be eligible for the accrual of Carryover Rights set forth in Article IIIB, Section 2.

C. **Guidelines for Operation of the Two Basins Area.** All Production, Replenishment and Storage and Recovery rights for groundwater in the Two Basins Area are reserved to La Verne. However, La Verne's Production, Replenishment and Storage and Recovery of groundwater must not substantially injure other Parties.

1. **Replenishment.** La Verne shall have sole and complete discretion in the operation of Replenishment programs in the Two Basins Area provided that no other Party is substantially

injured by the program. La Verne shall provide written notice to Watermaster sixty (60) days in advance of any Replenishment program being undertaken

2. **Storage and Recovery.** La Verne shall have sole and complete discretion in the operation of a Storage and Recovery program in the Two Basins Area provided that no other Party is substantially injured by the program. La Verne shall provide written notice to Watermaster sixty (60) days in advance of any Storage and Recovery program being undertaken. La Verne shall annually report the quantity of groundwater stored pursuant to a Storage and Recovery Program in the Two Basins Area.

3. **Production.** La Verne shall have sole and complete discretion to produce groundwater from the Two Basins Area provided that no other Party is substantially injured by such production. La Verne shall report its groundwater production to the Watermaster on a monthly basis.

VII. ASSESSMENTS

A. Ground Rules

1. **Authorization.** Subject to the continuing supervision of the Court and the limitations set forth in the Judgment, Watermaster is authorized to levy assessments to fund Replacement Water acquisition costs, administrative costs and other costs determined by Watermaster to be necessary for the implementation of the physical solution.

2. **Assessment Spread.** Excluding Replacement Water Assessments, all assessments levied by the Watermaster shall be spread such that Claremont, Pomona College and TVMWD (collectively, the "Minor Parties") shall each individually be assessed three and one half (3.5) percent of the total assessment , and eighty-nine and one half (89.5) percent of the total assessment is spread among La Verne, Pomona, Upland, San Antonio, West End, Simpson and SCWC (collectively, the "Major Parties") in proportion to their then-current holdings of Base Annual Production Rights, provided that for assessments other than for Replacement Water or administration (a) the total amount spread among Minor Parties shall not exceed sixty-thousand $60,000, escalated, in any year without their unanimous consent and (b) the total amount spread among the Major Parties in any year shall not exceed ten dollars ($10.00), escalated, per acre foot of their Base Annual Production Rights

without their unanimous consent. "Escalated" shall mean an annual adjustment in the specified dollar value based upon the Consumer Price Index for Southern California in the immediately preceding Year. No escalation adjustment shall be made until the Judgment has been in effect for twelve consecutive calendar months. PVPA shall not have any obligation to pay any assessments.

3. **Administrative Assessment.** Watermaster is authorized to levy an annual assessment that is sufficient to fund the costs of administering the Judgment. The administrative assessment shall not exceed the cost of Watermaster's administrative budget and shall be due and payable according to a schedule established by Watermaster. The administrative assessment for the first Year following entry of Judgment shall be $8.00 and shall be due and payable on January 15, 1999. Late payment shall bear an interest penalty to be established annually by Watermaster.

4. **Replacement Water Assessments.** To the extent Watermaster must acquire and recharge the groundwater with Replacement Water pursuant to the terms of this Judgment, in order to fund the costs thereof, Watermaster is authorized to levy Replacement Water Assessments. Replacement Water Assessments levied against any Party shall be sufficient to pay the costs to replace such Party's production in excess of the sum of such Party's share of the Operating Safe Yield, any Carryover Right or Transfers and any storage recovery, Production of Temporary Surplus or pursuant to Special Project authorization, during the prior Year, minus any Replacement Water provided to Watermaster by the Party. Any Replacement Water Assessment shall be paid within sixty (60) days from the date of the written invoice from Watermaster.

VIII. DISPUTE RESOLUTION

A. **Entity for Resolution of Dispute.** All disputes arising under this Judgment initially shall be submitted to Watermaster for resolution in accordance with the provisions of this Article.

B. **Determination Regarding Substantial Injury.** Any Party having a right to be protected against "substantial injury" caused by any other Party; the right to proceed so long as not causing substantial injury to another party; or any other claim, right or remedy against any other Party arising under the provisions of this Judgment may file a written request with the Watermaster to hold a hearing.

C. **Notice and Hearing.** Upon receipt of the written request, Watermaster shall provide written notice to each Party which generally describes the nature of the dispute. Thereafter, Watermaster shall cause an item to be placed on the agenda for the next regularly scheduled meeting of the Watermaster or if requested by the moving Party, call a special meeting for the purpose of providing a full hearing of the dispute and providing the interested Parties with notice and opportunity to be heard. No later than 30 days following the conclusion of the hearing(s) Watermaster shall issue a written decision which is dispositive of the dispute and which is supported by written findings. Any Party may seek review of an adverse decision of the Watermaster in accordance with the provisions of Article IX.

IX. ADDITIONAL PROVISIONS

A. Procedure

1. **Designation of Address for Notice and Service.** Each Party shall designate the name and address to be used for purposes of all subsequent notices and service herein, either by its endorsement on the Stipulation for Judgment or by a separate designation to be filed within thirty (30) days after Judgment has been entered. Said designation may be changed from time to time by filing a written notice of such change with Watermaster. Any Party desiring to be relieved of receiving notices of Watermaster activity may file a waiver of notice on a form to be provided by Watermaster. Watermaster shall maintain at all times a current list of Parties to whom notices are to be sent and their address for purposes of service. Watermaster shall also maintain a full current list of names and addresses of all Parties or their successors, as filed herein. Copies of such lists shall be available to any person. If no designation is made, a Party's designee shall be deemed to be, in order of priority: (i) the Party's attorney of record; (ii) if the Party does not have an attorney of record, the Party itself at the address on the Watermaster list.

2. **Service of Documents.** Delivery to or service upon any Party by Watermaster, by any other Party, or by the Court, of any document required to be served upon or delivered to a Party under or pursuant to this Judgment shall be deemed made if made by deposit thereof (or by copy thereof)

in the mail, first class postage prepaid, addressed to the designee of the Party and at the address shown in the latest designation filed by that Party

3. **Recordation of Notice.** Within sixty (60) days following entry of this Judgment, Watermaster shall record in the office of the County Recorder of the Los Angeles and San Bernardino Counties a notice substantially complying with the notice content requirements set forth in *Section 2529 of the California Water Code* as it exists on the Effective Date.

4. **Judgment Binding on Successors.** Subject to specific provisions hereinbefore contained, this Judgment and all provisions thereof are applicable to and binding upon and inure to the benefit of not only the Parties to this action, but also to their respective heirs, executors, administrators, successors, assigns, lessees, licensees and to the agents, employees and attorneys in fact of any such Persons.

5. **Costs.** No Party stipulating to this Judgment shall recover any costs or attorneys fees in this proceeding from another stipulating Party. In any future proceedings, the costs of notice or service, shall be levied in accordance with the provisions of Article XIA, Section 6.

6. **Review Procedures.** Any action, decision, rule or procedure of Watermaster pursuant to this Judgment shall be subject to review by the Court on its own motion or on timely motion by any Party, as follows:

a. **Effective Date of Watermaster Action.** Any order, decision or action of Watermaster pursuant to this Judgment on noticed specific agenda items shall be deemed to have occurred on the date of the order, decision or action.

b. **Notice of Motion.** Any Party may, by a regularly noticed motion, petition the Court for review of Watermaster's action or decision pursuant to this Judgment. The motion shall be deemed to be filed when a copy, conformed as filed with the Court, has been delivered to Watermaster together with the service fee established by Watermaster sufficient to cover the cost to photocopy and mail the motion to each Party. Watermaster shall prepare copies and mail a copy of the motion to each Party or its designee according to the official service list which shall be maintained by Watermaster according to Article XIA, Section 1, a Party's obligation to serve notice

of a motion upon the Parties is deemed to be satisfied by filing the motion as provided herein. Unless ordered by the Court, any such petition shall not operate to stay the effect of any Watermaster action or decision which is challenged.

c. **Time for Motion.** A motion to review any Watermaster action or decision shall be filed within ninety (90) days after such Watermaster action or decision, except that motions to review Watermaster Assessments hereunder shall be filed within thirty (30) days of mailing of notice of the Assessment.

d. **De Novo Nature of Proceeding.** Upon filing of a petition to review Watermaster action, the Watermaster shall notify the Parties of a date when the Court will take evidence and hear argument. The Court's review shall be de novo and the Watermaster decision or action shall have no evidentiary weight in such proceeding.

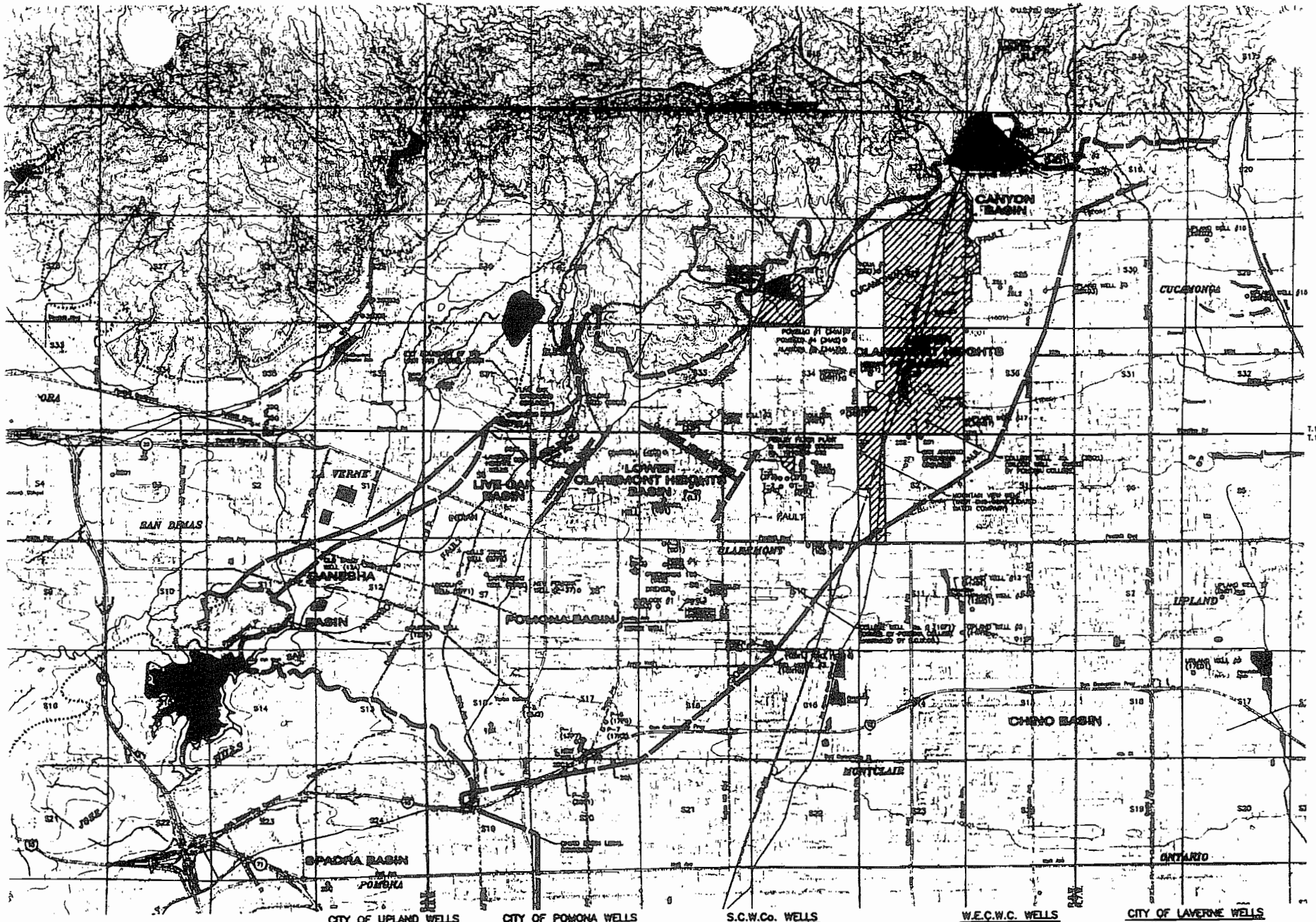
e. **Payment of Assessments.** Payment of Assessments levied by Watermaster hereunder shall be made when due, notwithstanding any motion for review of Watermaster action, decision, rules or procedures, including review of Watermaster Assessments.

B. **Entry of Judgment.** The Clerk shall enter this Judgment.

Dated: DEC 18 1998, 1998

Judge of the Superior Court

WILLIAM J. McVITTIE



LEGEND

- THOMPSON CREEK WATERSHED BOUNDARY
- LIVE OAK WATERSHED BOUNDARY
- SAN ANTONIO WATERSHED BOUNDARY
- FAULT LINE
- LEGAL BOUNDARY OF ADJUDGED BASIN
- GEOLOGIC FEATURE
- ALLUVIUM BOUNDARY
- MAIN SAN GABRIEL BASIN WATERSHED BOUNDARY
- MAIN SAN GABRIEL BASIN
- GROUNDWATER RECHARGE FACILITY

SCALE: 1" = 2000'

CITY OF UPLAND WELLS

16/02 WELL AND NUMBER

STATE ID #	CITY ID #
34E02	UPLAND WELL #1A
34E01	UPLAND WELL #2
12N01	UPLAND WELL #3 (INACTIVE)
33N03	UPLAND WELL #4
2N01	UPLAND WELL #5
11R1	UPLAND WELL #6 (INACTIVE)
17E01	UPLAND WELL #7
11J01	UPLAND WELL #8 (INACTIVE)
33P01	UPLAND WELL #9
28E02	UPLAND WELL #16
35E01	UPLAND WELL #17

CITY OF POMONA WELLS

16/02 WELL AND NUMBER

STATE ID #	CITY ID #
17F7	P-1
18L2	P-2
17J2	P-3
17J5	P-5
18C2	P-6
18J1	P-7
17J1	P-8
18J3	P-9
17J3	P-10
18J2	P-11
17J4	P-12
18J4	P-13
17J6	P-14

S.C.W.Co. WELLS

16/02 WELL AND NUMBER

STATE ID #	COMPANY ID #
34E3	ARANDA #2
2E3	BERKELEY
34E4	BERNARD
34E1	BOULDER
2E2	CAMPBELL
33E3	COLLEGE WELL
18E1	DEL MONTE #1
18E2	DEL MONTE #2
18E16	DEL MONTE #3
18E15	DEL MONTE #4
9F	DRIVER
12E1	DURFEE WELL
16E1	FAIR OAKS
2E2	FORD #1
2E3	GARLOCK #1
9F1	GIDEON
2E3	HARRISON #1
2E2	HARRISON #2

STATE ID #	COMPANY ID #
3E3	MONT HILL #2
34E1	MORLAND
3E2	MILLS #1
33E1	MORRIS #3
34E1	MORRIS #2
33E1	PIOTA #1
34A1	POMELLO #1
34E2	POMELLO #4
3E9	POMEROY
6E8	RICHARDS 160

W.E.C.W.C. WELLS

16/02 WELL AND NUMBER

STATE ID #	COMPANY ID #
10E3	LEMON HEIGHTS #4
2E1	MT. VIEW #1
3E1	MT. VIEW #4
12E1	WEST END WELL #1 (INACTIVE)
2E1	WEST END WELL #3
3E2	WEST END WELL #4
33E1,2	UPLAND-FOOTHILL #3

CITY OF LAVERNE WELLS

16/02 WELL AND NUMBER

STATE ID #	CITY ID #
9F02	CHATSWORTH
9F01	LINCOLN
9F03	MALONE 2 (INACTIVE)
9F02	MILLS TRACT
10E1	OLD BALDY
9E05	LAVERNE HEIGHTS 1
9E01	LAVERNE HEIGHTS 2
9E03	LAVERNE HEIGHTS 3

S.A.W.C. WELLS

WELL AND NUMBER

SIMPSON PAPER CO.

16/02 WELL AND NUMBER

POMONA COLLEGE

16/02 WELL AND NUMBER

PREPARED BY

SIX BASINS AREA

EXHIBIT B

DESCRIPTION OF SIX BASINS AREA

The Six Basins Area lies between the San Jose Hills on the south, the Chino Basin on the east, the San Gabriel Mountains on the north and the Main San Gabriel Basin on the west. The boundaries of the Main San Gabriel Basin are set forth in the Judgment in the case of the *Upper San Gabriel Valley Municipal Water District vs. City of Alhambra, et al.*, Superior Court of the State of California, Los Angeles County, Case No. 924128, and the boundaries of the Chino Basin are set forth in the Judgment in the case of *Chino Basin Municipal Water District vs. City of Chino, et al, Superior Court for the State of California*, San Bernardino County, Case No. 164327. The Area consists of six interconnected groundwater basins. Each basin consists of all alluvium or other water-bearing formations lying beneath the surface of the basin. The approximate boundaries of the surface of each basin are shown on EXHIBIT A and are described generally as follows:

Canyon Basin. The surface of the Canyon Basin is bounded on the south and east by the surface trace of the Sierra Madre/Cucamonga Fault and on the north and west by the surface trace of the bedrock/alluvium interface between(a) the point of intersection in Township 1 North, Range 8 West, Section 31, SBB&M, of the Sierra Madre/Cucamonga Fault with easterly boundary of the Main San Gabriel Basin and (b) the point of intersection in Township 1 North, Range 8 West, Section 20, SBB&M, of the Sierra Madre/Cucamonga Fault with the San Gabriel Mountains. The northernmost extent of the bedrock/alluvium interface is assumed to be at the southern boundary of Township 1 North, Range 8 West, Section 13, SBB&M in San Antonio Canyon.

Upper Claremont Heights Basin. The surface of the Upper Claremont Heights Basin is bounded on the south by the surface trace of the Indian Hill Fault, on the east by the westerly boundary of the Chino Basin, on the north by the surface trace of the Sierra Madre/Cucamonga Fault and on the west by the surface trace of the Claremont Heights Barrier.

Lower Claremont Heights Basin. The surface of the Lower Claremont Heights Basin is bounded on the south by the surface trace of the Indian Hill Fault, on the east by the surface trace of the Claremont Heights Barrier, on the north by the surface trace of the Sierra Madre/Cucamonga Fault on the west by the surface trace of the Thompson Wash Barrier.

Live Oak Basin. The surface of the Live Oak Basin is bounded on the south by the surface trace of the Indian Hill Fault, on the east by the surface trace of the Thompson Wash Barrier, on the north by the surface trace of the Sierra Madre/Cucamonga Fault and on the west by the easterly boundary of the Main San Gabriel Basin.

Ganesha Basin. The surface of the Ganesha Basin is bounded on the south and east by the surface of the San Antonio Fault, on the north surface trace of the Indian Hill Fault, and on the west by easterly boundary of the Main San Gabriel Basin and by the surface trace of the bedrock/alluvium interface between (a) the point of intersection in Township 1 South, Range 9 West, Section 11, SBB&M, of the easterly boundary of the Main San Gabriel Basin with the San Jose Hills and (b)

the point of intersection in Township 1 South, Range 9 West, Section 14, SBB&M, of the surface trace of the San Antonio Fault with the San Jose Hills.

Pomona Basin. The surface of the Pomona Basin is bounded on the south by the surface trace of the bedrock/alluvium boundary between (a) the intersection in Township 1 South, Range 9 West, Section 14, SBB&M, of the surface trace of the San Antonio Fault with the San Jose Hills and (b) the intersection in Township 1 South, Range 8 West, Section 19, SBB&M, of the boundary of the Chino Basin, on the north by the surface trace of the Indian Hill Fault on the west by the surface of the San Antonio Fault.

MEMORANDUM OF AGREEMENT

BETWEEN THE POMONA VALLEY PROTECTIVE ASSOCIATION

AND WATERMASTER OF THE SIX BASINS RELATING TO

WATER SPREADING AND RELATED ACTIVITIES

THE AGREEMENT, made, entered into, and executed as of this ___ day of _____, 1999, by and between the Pomona Valley Protective Association ("PVPA"), and Watermaster of the Six Basins ("Watermaster"), relating to water spreading and related activities in connection with the Canyon Basin, the Upper Claremont Height Basin, the Lower Claremont Heights Basin, the Live Oak Basin, the Ganesha Basin and the Pomona Basin (collectively, the "Six Basins").

RECITALS

WHEREAS, the rights to groundwater in connection with the Six Basins were adjudicated by the court in an action entitled "*Southern California Water Company v. City of La Verne, et al,*" Case No KC029152 in the Superior Court of the State of California, County of Los Angeles, (the "Judgment"); and

WHEREAS, the Judgment requires the Watermaster to determine annually an Operating Safe Yield of the Six Basins and to develop an Operating Plan, which will include the monitoring and direction of all production, replenishment, replacement and storage of groundwater in the Six Basins, and

WHEREAS, PVPA, a California corporation, formed in 1910 by various water interests in Pomona Valley, engages in water conservation activities for the benefit of its shareholders, which include the City of Upland, Southern California Water Company, the City of Pomona, Simpson Paper Co , Pomona College, the San Antonio Water Company, and the West End Water Company, and

WHEREAS, PVPA owns certain real property in and around the Six Basins area primarily consisting of two spreading grounds: the San Antonio Spreading Grounds and the Thompson Creek Spreading Grounds together with appurtenant diversion and conveyance facilities (the "Spreading Grounds" herein); and

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WHEREAS, in connection with its water conservation activities, PVPA has conducted several technical studies of the Six Basins including the development of a numerical groundwater model which assists in the prediction of the Six Basins' response to PVPA's spreading activities, and is used to control the groundwater resources for the Six Basins and to mitigate high groundwater in the Six Basins, and

WHEREAS, the parties to the Judgment have conducted additional studies including the enhancement and refinement of the PVPA groundwater model.

NOW, THEREFORE, in consideration of mutual promises, agreements, and covenants of Watermaster and PVPA collectively referred to herein as "the Parties" agree as follows:

I. DEFINITIONS

A. The Judgment defines certain important terms. Except as to the definitions provided in this Agreement, the terms used in this Agreement which have been defined in the Judgment shall have the meaning set forth in the Judgment and the definitions set forth in the Judgment are incorporated herein by this reference.

B. "Emergency" shall mean a sudden event which threatens life or property.

C. "Models" shall mean the spreadsheet and the basin wide models used by PVPA in development of an Operating Plan and any subsequent version or improvement thereof.

D. "Parties" written with an upper case P, refer to the Watermaster and to PVPA. Parties written with a lower case p, refer to the parties to the Judgment as defined therein.

II. SPREADING GROUNDS AND SPREADING OPERATIONS

A. Watermaster Direction and PVPA Reservation. PVPA shall use and operate the Spreading Grounds primarily for the spreading of replenishment, replacement and storage water under the direction of the Watermaster Plan. PVPA reserves the right to use the Spreading Grounds for other lawful activities consistent with its water spreading activities so long as doing so does not impair PVPA's ability to spread replenishment water in quantities substantially comparable to historic quantities.

B. Impossibility and related defenses. PVPA shall not be liable, in breach or in default of the Agreement if PVPA is unable, either temporarily or permanently, to perform its obligations

under the Agreement for reasons beyond PVPA's reasonable control, including but not limited to, acts of God, eminent domain, impossibility or impracticability of performance, interference of a third party and natural disasters, including without limitation, floods, earthquakes, and fires

C. PVPA Discretion. PVPA shall have discretion to make operational decisions in discharging its obligation hereunder within the scope of Watermaster direction

D. Common conditions of spreading. In addition to the direction of Watermaster PVPA shall spread replenishment, replacement or storage waters subject to the following conditions.

1. Cessation of Spreading for Emergencies. PVPA reserves the right to cease spreading at any time, without prior notice to Watermaster if, in the discretion of PVPA, such action shall be warranted by, and in connection with, any emergency condition. PVPA will give Watermaster immediate notice of any such cessation

2. Water Quality. PVPA bears no responsibility for the quality of replenishment, replacement or storage water or the impacts of spreading such water upon water quality of the Six Basins.

3 High Groundwater. PVPA bears no responsibility for high groundwater due to any spreading of replenishment, replacement or storage water.

4. Rejected water. PVPA bears no responsibility for loss of replenishment, replacement or storage water which is rejected or otherwise lost

5. Measurement and Reporting. Watermaster shall provide adequate measuring devices to measure the spreading of replenishment, replacement and storage waters and any such water rejected or lost. PVPA will keep, maintain and furnish to Watermaster on a monthly basis, records of the quantities of replenishment waters spread and rejected.

6 Record of Deliveries and Spreading. Watermaster shall keep, maintain and furnish to PVPA records of the quantities and quality of replacement or storage waters delivered within 30 days following delivery of such waters. PVPA shall keep, maintain, and furnish to Watermaster the quantities of replacement and storage waters spread within 30 days following delivery of such water together with an estimate of the quantities of water bypassing the spreading facilities, if any

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7 Compensation. Subject to review by the court under its continuing jurisdiction in Case No KC029152, Watermaster shall pay PVPA's actual, reasonable and necessary costs incurred by PVPA in spreading replenishment, replacement and storage water PVPA will bill Watermaster such costs on a quarterly basis and such bill will include a reasonably detailed accounting of such costs under generally accepted accounting principles (GAAP). Payment is due upon billing. PVPA's costs may be subject to review or audit by an outside accounting firm selected and paid by Watermaster (within thirty days following billing). Within thirty (30) days following billing, Watermaster shall either contest the billing or accept said billing.

E. Replenishment water. In addition to the above, PVPA shall spread replenishment water as it becomes available. PVPA has no control over the availability of replenishment waters and is under no obligation to spread any specific quantity of replenishment water.

F Replacement Water. In addition to the above, PVPA shall spread Replacement Water on the Spreading Grounds under the following terms and conditions. Pursuant to the Judgment, only qualified parties under the Judgment may store water in the Six Basins upon entry into a Storage and Recovery Agreement with Watermaster. Upon request, PVPA shall spread storage water under the following terms and conditions:

1. Terms of Delivery. Watermaster shall deliver and PVPA shall spread storage water under the same terms and conditions as replacement waters.

2. Replacement Water Flows. PVPA will assist Watermaster in determining the allowable daily rates and the duration of replacement water deliveries, based upon conditions existing from time to time, including any unused capacity available at and in PVPA spreading facilities.

3. Notice of New or Changed Replacement Water Flows. Watermaster, at least seven (7) days prior to any anticipated delivery of replacement water, shall notify PVPA that water will be available for transport and spreading and shall give PVPA at least forty-eight (48) hours notice of any anticipated change in previously established flow rates of delivery for such water.

4. Spreading Grounds Limitations. PVPA may require changes in delivery flow rates when, in PVPA's opinion, continued spreading (in whole or in part) cannot be carried out

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hereunder due to operational and/or maintenance problems, including, but not limited to, trespassing, insect infestations, scarification, weed abatement, and/or construction in or at PVPA's conveyance and spreading facilities. When it is reasonable to do so, PVPA will give Watermaster at least twenty-four (24) hours' notice of any such changes.

III. OWNERSHIP AND IMPROVEMENTS OF SPREADING GROUNDS

A. No Dedication. Nothing in this Agreement shall be construed as a dedication of the PVPA Spreading Grounds or its facilities to Watermaster, the other parties to the Judgment, or to the public use or benefit. The spreading grounds and appurtenant facilities are, and remain, the sole property of PVPA. PVPA may sell, lease, or otherwise dispose of portions of its spreading grounds at its own discretion but not inconsistent with this Agreement.

B Spreading Grounds Improvements. Nothing in this Agreement obligates or otherwise requires PVPA to construct new or additional facilities in connection with its spreading operations. PVPA may at its discretion construct new or additional facilities. Watermaster may propose improvements to PVPA's spreading grounds and facilities at its own expense.

C. Condemnation. Watermaster agrees to and does waive and disclaim any interest in any award or settlement which may be made in any proceeding in eminent domain concerning all or part of the Spreading Grounds whether the taking be total or partial, or for easement purposes. If the taking be such as to render the Spreading Grounds totally unfit and unsuitable for the above use, then, pursuant to Paragraph II,A, PVPA is not in default or breach.

IV. GROUNDWATER MODEL

A. License for use. PVPA grants Watermaster a license to use its Spreadsheet Models pursuant to the terms and conditions of this agreement for the development of an Operating Plan. In developing the initial operating plan, Watermaster has used PVPA's Groundwater Models. In developing subsequent operating plans or revising such plans, Watermaster shall use PVPA's Groundwater Models and any subsequent version or improvement thereof, or other criteria at Watermaster's discretion.

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1 Custody of the PVPA's Groundwater Models. Watermaster shall have physical custody of a copy of the model However, PVPA shall have the right to access the Models for any purpose which is not inconsistent with the Judgment or the direction of the Watermaster

2 Updates to Model.

Said license shall include, following consultation with PVPA, the right to make changes, modifications, improvements, updates, or refinements in or to PVPA's Groundwater Model at the sole expense of Watermaster and without any contribution from PVPA.

B. Terms and Conditions For daily operations, Watermaster shall be responsible for keeping, maintaining and reporting on the data base necessary for use of PVPA's Groundwater Models Watermaster shall collect water level and quality data necessary, including key well levels and rainfall data, to use the Groundwater Models to implement the Physical Solution. Watermaster shall provide this data to PVPA by the fifteenth day of each month. PVPA shall provide Watermaster readings of replenishment water spread, on a daily basis. PVPA then shall provide Watermaster with a monthly report on available storage and water levels of monitoring wells.

1 Compensation. PVPA grants Watermaster this license at no cost other than the continuing costs which may be incurred by PVPA as a result of Watermaster operating the Models

2. No Warranty. PVPA makes no warranty and disclaims all warranties regarding PVPA's Groundwater Model and its subsequent updates or improvements.

3. Field Conditions. PVPA shall report to Watermaster any field conditions that may have an impact on Spreading Operations.

V. INDEMNIFICATION

A. Watermaster Obligations To the extent which is allowed by law, Watermaster shall indemnify and hold harmless, PVPA, its officers, directors, employees, agents, and representatives against any and all claims, demands, costs, and/or liabilities due to, or arising from any act or omission by PVPA, its officers, directors, employees, or agents arising from any activities not connected with the spreading of water under the direction of Watermaster

VI. INSURANCE

A. Subject to the above, PVPA shall obtain and maintain during the term of this Agreement the following insurance policies

1. General Liability Insurance. PVPA shall maintain general liability insurance for bodily injury, property damage, personal injury, errors and omissions, and if practicable, flooding. The insurance shall be on an occurrence basis. The policy limits shall be at least $1,000,000.

2. Property. PVPA shall obtain insurance to provide for replacement of real and personal property owned by PVPA in the event of loss by fire, flood or vandalism. This insurance shall be provided on an occurrence basis and the policy limits shall be at least $1,000,000.

VII. MISCELLANEOUS PROVISIONS

A. Effective Date. This Agreement shall not be effective until executed by the Parties and approved by the court upon motion of Watermaster in said action in Case No. KC029152.

B. Written Amendments. This Agreement may only be modified, amended, or supplemented by a subsequent writing executed by each Party hereto and approved by the Court with jurisdiction in Case No. KC029152.

C. Choice of Law. This Agreement shall be governed by and interpreted under the laws of the State of California.

D. Delivery of Notices. All notices permitted or required under this Agreement shall be addressed to the representative Parties at the following address, or such other address as the respective Parties may provide in writing for this purpose:

PVPA:	President Pomona Valley Protective Association 414 Yale Avenue, Suite H Claremont, California 91711
Six Basins Watermaster	As may be designated by Watermaster

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Such Notices shall be deemed made when personally delivered or, when mailed, forty-eight (48) hours after deposit in the U S mail, first class postage pre-paid and addressed to the Party at its applicable address

E Successors and Assigns. This Agreement is binding on and shall inure to the benefit of the Parties, their respective successors in interest and assigns.

F Assignment. No Party shall have the right to assign it rights or delegate any of its obligations hereunder without the express written consent of the other Party.

G. Construction. Each Party and/or its respective counsel has taken part in the negotiation, drafting, and preparation of this Agreement, and, therefore, any ambiguity or uncertainty in this Agreement shall not be construed against any Party. To ensure that this Agreement is not construed against any Party, the Parties expressly agree that any common law or statutory provision providing that an ambiguous or uncertain term will be construed against the drafter of an Agreement is waived and shall not apply to the construction of this Agreement.

H. Entire Agreement. This Agreement embodies the entire and final Agreement and understanding of the Parties pertaining to the subject matter of this Agreement, and supersedes all prior Agreements, understandings, negotiations, representations, and discussions pertaining to that subject matter, whether verbal or written, of the Parties The Parties acknowledge that there are no representations, promises, warrantees, conditions, or obligations of any Party, or counsel (or any Party), pertaining to that subject matter other than is contained in this Agreement, and that no Party has executed this agreement in reliance on any representation, promise, warranty, condition, or obligation, other than is contained in this Agreement.

I. Execution. The Parties to this Agreement acknowledge that they have executed this Agreement voluntarily and without any duress or undue influence. The Parties further acknowledge that they (1) have been represented by counsel of their own choice in connection with the negotiation and execution of this Agreement, or have been advised to seek independent counsel of their own choice prior to executing this agreement; (2) have read this Agreement in its entirety; and (3) have entered into this Agreement of their own volition and not as a result of any representations or advice by other Party or counsel for any other Party.

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J. Counter Parts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. This agreement shall become effective and binding immediately upon its execution by both Parties. This Agreement consists of nine (9) pages, including the signature page.

K. Termination. Upon motion made by either Party to this Agreement in accordance with the procedures set forth in Article IX, Section A of the Judgment and approval of the Court, this Agreement shall be terminated.

DATED: _____ WATERMASTER

_____

By:

DATED: _____ POMONA VALLEY PROTECTIVE ASSOCIATION

_____

By

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EXHIBIT D

BASE ANNUAL GROUNDWATER PRODUCTION IN EACH BASIN, 1985- 1996
AND TOTAL BASE ANNUAL GROUNDWATER PRODUCTION, 1985- 1996
FOR EACH PARTY, AND EACH PARTY'S PERCENTAGE OF THE AGGREGATE OPERATING SAFE
YIELD FOR THE CANYON, UPPER CLAREMONT HEIGHTS, LOWER CLAREMONT HEIGHTS AND POMONA BASINS

Party	Base Annual Production, Acre Feet per Year					Percentage of Aggregate Operating Safe Yield
	Canyon Basin Basin	Upper Claremont Heights Basin	Lower Claremont Heights Basin	Pomona Basin	Total	
City of La Verne	0	0	0	1,492	1,492	7.731
City of Pomona*	0	1,234	961	1,128	3,323	17.218
Simpson Paper	0	0	0	691	691	3.580
Southern Cal. Water Co.	56	2,895	107	3,647	6,705	34.741
City of Claremont	0	267	0	268	535	2.772
Pomona College	0	357	0	0	357	1.850
City of Upland	408	1,434	0	0	1,842	9.544
West End Consolidated Water Company	0	2,972	0	0	2,972	15.399
San Antonio Water Company	0	1,383	0	0	1,383	7.166
TOTAL	464	10,542	1,068	7,226	19,300	100.000%

* Pomona shall have the right to produce an additional 109 acre feet of groundwater per year subject to the following:

(a) Pomona shall provide at least 436 acre feet of recycled water to the property presently designated by the Los Angeles County Assessor as Assessor's Parcel Nos. 834-800-8001, 834-800-8002, 834-800-8009, 834-800-5013 and 834-800-6001

(b) Pomona's additional production right shall be added to its Base Annual Production Right and shall be subject to all provisions of the Judgment relating to Base Annual Production Rights; provided however, such additional right shall not be subject to transfer or the water produced delivered for use outside the Pomona service area.

(c) To the extent in any year Pomona provides less than 436 acre feet of recycled water to the above described property, the additional right of Pomona shall be reduced to an amount equal to one fourth (1/4) of the amount of recycled water provided. However, no reduction shall occur to the extent the failure to deliver recycled water is the result of sudden occurrences such as storms, floods, fires, earthquakes, accidents or unexpected equipment outage) or acts or omissions of the Los Angeles County Sanitation District which impair the ability of Pomona to make recycled water deliveries.

EXHIBIT E

DESCRIPTION OF REPLENISHMENT PROGRAMS

San Antonio Spreading Grounds

Owned and operated by the Pomona Valley Protective Association (PVPA), this private facility is comprised of 600 acres of spreading grounds on both the east and west sides of San Antonio channel. The grounds consist of ditches, check levees, gates, metering stations, shallow basins and deep basins. The primary source of water for this facility is from San Antonio Creek by way of controlled releases from San Antonio Dam which is owned and operated by the U.S. Army Corps of Engineers. Water is released from the dam directly into San Antonio Flood Control Channel. Upon entering the channel, water is diverted into an underground basin where control gates allow regulated flow onto the spreading grounds. Additional sources of water include uncontrolled surface flows from adjacent properties in San Bernardino and Los Angeles Counties. The Corps coordinates its releases with PVPA. Four metering stations are used for flow measurements, and a series of ditches, check levees, gates and appurtenances allow the water to be directed into shallow and deep basins. Since 1896, PVPA has regularly spread water at its facility.

Thompson Creek Spreading Grounds

Owned and maintained by PVPA, this private facility is comprised of approximately 53 acres of spreading grounds south of Thompson Creek Dam and east of Thompson Creek. PVPA operates this facility with the cooperation of the Los Angeles County Flood Control District. The grounds consist of ditches, check levees, gates, shallow and deep basins. The sources of water for this facility are Cobal, Williams, Palmer, and Padua Creeks which are diverted to the grounds by PVPA with the cooperation of the Los Angeles County Department of Public Works through the Palmer Diversion. Surface runoff is diverted onto the grounds by way of Chicken Creek through a diversion located directly north of the grounds. PVPA's facility can also receive water from Thompson Creek Dam when the reservoir exceeds the elevation of 1625 feet above sea level. Since 1918, PVPA has spread water at this facility.

Pomona Spreading Grounds

Owned and operated by the City of Pomona, this facility is comprised of 8 acres of spreading grounds adjacent to the City's Pedley Water Treatment Plant. The City acquired this property in October 1926. The present deep basin configuration of the facility was completed in 1957. The source of water for this facility is San Antonio Creek water delivered through the Loop Merserve Canyon Water Company pipeline and Evey Canyon water. This facility also receives some local runoff. Water has been spread in this vicinity on and off since about 1897.

Live Oak Spreading Grounds

Owned and operated by the Los Angeles County Department of Public Works, this facility consists of approximately 5 acres of spreading grounds. Approximately 1.5 acres north of Baseline Road and 3.5 acres south of route 30 freeway extension. The source of water for this facility is controlled releases from Live Oak Dam and Live Oak Debris Basin. This facility was first used in the 1961-62 water year.

WATER STORAGE AND RECOVERY AGREEMENT

1. IDENTIFICATION

THIS AGREEMENT dated _____ by and between the CITY OF POMONA, a chartered municipal corporation (Pomona), and the SIX BASINS WATERMASTER, a court appointed entity established by the Los Angeles County Superior Court (Watermaster), and is based upon the following recitals.

2 RECITALS

2.1 Water rights have been adjudicated in the Six Basins Area according to the Judgment in Los Angeles County Superior Court Case No. KC 029152, entitled Southern California Water Company v. the City of La Verne.

2.2 Said Judgment establishes the Watermaster as the court empowered entity responsible for managing the Six Basins Area. Under the provisions of Paragraph VI.B.10 of the Judgment, Watermaster is authorized to enter into Storage and Recovery Agreements with any party holding a base annual production right.

2.3 Pomona is a party holding a base annual production right. In addition, Pomona has historically replenished the Six Basins Area. While Pomona is under no obligation to replenish the Six Basins Area, to the extent that it does augment groundwater supplies in excess of its historical replenishment as provided in Paragraph VI.B.9 of the Judgment, Pomona is authorized to recover such water.

2.4 Spreading and injecting or otherwise recharging groundwater in the Six Basins Area is restricted according to Paragraph IV B of the Judgment; however, pursuant to Paragraph VI.B.10,

Watermaster is authorized to enter into storage and recovery agreements for the utilization of groundwater storage capacity and for subsequent recovery use or credit by the storing entity.

2.5 Pomona and Water master desire to enter into an agreement for the storage and recovery of water

3 AGREEMENTS

In consideration for the mutual promises and conditions contained herein and for other valuable consideration, the parties agree as follows:

3.1 Pomona may, subject to the conditions hereinafter set forth, spread and cause to be spread water which would be stored for Pomona's account. The amount of water stored and recovered shall be all amounts it has spread or caused to be spread in the Six Basins Area in excess of 130 acre feet annually as specifically provided in Paragraph VI.B.9 of the Judgment. Without limitation on accumulations, Pomona shall acquire and retain ownership of all such storage in excess of the historical replenishment of 130 acre feet per year until such water is produced by Pomona or transferred as a credit toward any Replacement Water obligation.

3.2 Pomona shall issue a report to Watermaster on a quarterly basis indicating the amount of water which Pomona has spread. The report shall be due the last day of the month next following the end of the relevant quarter.

3.3 Recovery of water by Pomona shall be accounted for as follows:

3.3.1 The first water Pomona produces in a calendar year shall be the carryover of unused rights in accordance with Paragraph III.B.2.

3.3.2 The next such water produced shall be Pomona's Base Annual Production Right.

3.3.3 The next such water produced shall be water stored pursuant to this storage and Recovery Agreement.

3.4 This Agreement shall be effective upon court approval of the Judgment in the above-referenced case.

3.5 Any notices required hereunder may be given by mail postage prepaid and addressed as follows:

TO WATERMASTER:

TO CITY OF POMONA:

Henry Pepper, Director of Utilities
Public Works Department
City of Pomona
505 S. Garey Avenue
Pomona, CA 91769-0660

EXECUTED this _____ day of _____, 1998, at _____, CA.

CITY OF POMONA

By: _____

WATERMASTER

By: _____

EXHIBIT G

INITIAL OPERATING PLAN

1. **Replenishment.** PVPA shall continue to replenish the basin as it has historically done. PVPA shall curtail replenishment when the Index Water Level is at 1455 or higher, where the Index Water Level is the average of the water level elevations above Mean Sea Level for the following five Key Wells:

Upland-Foothill No. 3 (Owner: WECWC)
Mountain View No. 4 (Owner: WECWC)
Miramar No. 3 (Owner: SCWC)
College No. 1 (Owner: Pomona College)
Tunnel Well No. 3 (Owner: Pomona)

On the second Monday of each month owners of the Key Wells shall measure and report to Watermaster and to PVPA the water level elevations in the Key Wells. Water level elevations shall be measured using protocols specified by Watermaster.

2. **Production Measurement and Reporting.** Within 180 days following Entry of Judgment each producer shall have installed on all of its producing wells a calibrated device to measure production. Such devices shall conform to, and be regularly calibrated in accordance with, specifications developed by Watermaster. Each producer shall record the monthly production from each well in acre feet and shall report such monthly production for each well and the total for all wells for the month and for the year to date to Watermaster by not later than the third working day following the end of the month.

3. **Operating Safe Yield.** The initial Operating Safe Yield of the Four Basins is 24,000 acre feet per year.

PROOF OF SERVICE

I am a resident of the State of California, over the age of eighteen years, and not a party to the within action. My business address is 21 East Carrillo Street, Santa Barbara, California 93101-2782. On December 21, 1998, I served the within document:

NOTICE OF ENTRY OF JUDGMENT

☐ by transmitting via facsimile the document(s) listed above to the fax number(s) set forth below on this date before 5:00 p.m.

☒ by placing the document listed above in a sealed envelope with postage thereon fully prepaid, in the United States mail at Santa Barbara, California as set forth below.

☐ by causing personal delivery by _____ of the document(s) listed above to the person(s) at the address(es) set forth below.

☐ by personally delivering the document(s) listed above to the person(s) at the address(es) set forth below.

SEE ATTACHED LIST

I am readily familiar with the firm's practice of collection and processing correspondence for mailing. Under that practice it would be deposited with the U.S. Postal Service on that same day with postage thereon fully prepaid in the ordinary course of business. I am aware that on motion of the party served, service is presumed invalid if postal cancellation date or postage meter date is more than one day after date of deposit for mailing in affidavit.

☒ *(State)* I declare under penalty of perjury under the laws of the State of California that the above is true and correct.

Executed on December 21, 1998, at Santa Barbara, California.

Gina Lane

GINA M. LANE

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SUPERIOR COURT OF THE STATE OF CALIFORNIA

FOR THE COUNTY OF SAN BERNARDINO

CHINO BASIN MUNICIPAL WATER DISTRICT, Plaintiff, v. CITY OF CHINO, et al. Defendants	No. RCV 51010[1]

JUDGMENT

UNOFFICIAL REFERENCE VERSION

[1] Original Judgment signed January 27, 1978, Case # 164327 by Judge Howard B. Weiner. File transferred August 1989, by order of the Court and assigned new case number RCV 51010.

JUDGMENT
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SUPERIOR COURT OF THE STATE OF CALIFORNIA
FOR THE COUNTY OF SAN BERNARDINO

CHINO BASIN MUNICIPAL WATER DISTRICT, Plaintiff, v. CITY OF CHINO, et al. Defendants	No. RCV 51010[1] JUDGMENT[2]

I. INTRODUCTION

1. Pleadings, Parties and Jurisdiction. The complaint herein was filed on January 2, 1975, seeking an adjudication of water rights, injunctive relief and the imposition of a physical solution. A first amended complaint was filed on July 16, 1976. The defaults of certain defendants have been entered, and certain other defendants dismissed. Other than defendants who have been dismissed or whose defaults have been entered, all defendants have appeared herein. By answers and order of this Court, the issues have been made those of a full inter se adjudication between the parties. This Court has jurisdiction of the subject matter of this action and of the parties herein.

[1] Original Judgment signed January 27, 1978, Case # 164327 by Judge Howard B. Weiner. File transferred August 1989, by order of the Court and assigned new case number RCV 51010.
[2] This is an unofficial reference copy of the Judgment, with amendments made between 1978 and September 30, 2001 inclusive.

2. Stipulation For Judgment. Stipulation for entry of judgment has been filed by and on behalf of a majority of the parties, representing a majority of the quantitative rights herein adjudicated.

3. Trial; Findings and Conclusions. Trial was commenced on December 16, 1977, as to the non-stipulating parties, and findings of fact and conclusions of law have been entered disposing of the issues in the case.

4. Definitions. As used in this Judgment, the following terms shall have the meanings herein set forth:

(a) Active Parties. All parties other than those who have filed with Watermaster a written waiver of service of notices, pursuant to Paragraph 58.

(b) Annual or Year — A fiscal year, July 1 through June 30, following, unless the context shall clearly indicate a contrary meaning.

(c) Appropriative Right — The annual production right of a producer from the Chino Basin other than pursuant to an overlying right.

(d) Basin Water — Ground water within Chino Basin which is part of the Safe Yield, Operating Safe Yield, or replenishment water in the Basin as a result of operations under the Physical Solution decreed herein. Said term does not include Stored Water.

(e) CBMWD[3] — Plaintiff Chino Basin Municipal Water District.

(f) Chino Basin or Basin — The ground water basin underlying the area shown as such on Exhibit "B" and within the boundaries described in Exhibit "K".

(g) Chino Basin Watershed — The surface drainage area tributary to and overlying Chino Basin.

(h) Ground Water — Water beneath the surface of the ground and within the zone of saturation, i.e., below the existing water table.

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[3]CBMWD became Inland Empire Utilities Agency (IEUA) in July 1999.

(i) Ground Water Basin — An area underlain by one or more permeable formations capable of furnishing substantial water storage.

(j) Minimal Producer[4] — Any producer whose production does not exceed ten acre-feet per year.

(k) MWD — The Metropolitan Water District of Southern California.

(l) Operating Safe Yield — The annual amount of ground water which Watermaster shall determine, pursuant to criteria specified in Exhibit "I", can be produced from Chino Basin by the Appropriative Pool parties free of replenishment obligation under the Physical Solution herein.

(m) Overdraft — A condition wherein the total annual production from the Basin exceeds the Safe Yield thereof.

(n) Overlying Right — The appurtenant right of an owner of lands overlying Chino Basin to produce water from the Basin for overlying beneficial use on such lands.

(o) Person. -- Any individual, partnership, association, corporation, governmental entity or agency, or other organization.

(p) PVMWD[5] — Defendant Pomona Valley Municipal Water District.

(q) Produce or Produced — To pump or extract ground water from Chino Basin.

(r) Producer — Any person who produces water from Chino Basin.

(s) Production — Annual quantity, stated in acre feet, of water produced.

(t) Public Hearing — A hearing after notice to all parties and to any other person legally entitled to notice.

(u) Reclaimed Water[6] — Water which, as a result of processing of waste water, is suitable for a controlled use.

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[4] On September 27, 2001, the Watermaster amended the Judgment defining a minimal producer as any producer whose production does not exceed 10 AF per year.

[5] PVMWD became Three Valleys Municipal Water District (TVMWD) in 1986.

[6] Reclaimed water is referred to as recycled water in the Peace Agreement.

(v) Replenishment Water — Supplemental water used to recharge the Basin pursuant to the Physical Solution, either directly by percolating the water into the Basin or indirectly by delivering the water for use in lieu of production and use of safe yield or Operating Safe Yield.

(w) Responsible Party — The owner, co-owner, lessee or other person designated by multiple parties interested in a well as the person responsible for purposes of filing reports hereunder.

(x) Safe Yield — The long-term average annual quantity of ground water (excluding replenishment or stored water but including return flow to the Basin from use of replenishment or stored water) which can be produced from the Basin under cultural conditions of a particular year without causing an undesirable result.

(y) SBVMWD — San Bernardino Valley Municipal Water District.

(z) State Water — Supplemental Water imported through the State Water Resources Development System, pursuant to Chapter 8, Division 6, Part 6 of the Water Code.

(aa) Stored Water — Supplemental water held in storage, as a result of direct spreading, in lieu delivery, or otherwise, for subsequent withdrawal and use pursuant to agreement with Watermaster.

(bb) Supplemental Water — Includes both water imported to Chino Basin from outside Chino Basin Watershed, and reclaimed water.

(cc) WMWD —Defendant Western Municipal Water District of Riverside County.

5. List of Exhibits[7]. The following exhibits are attached to this Judgment and made a part hereof:

"A" -- "Location Map of Chino Basin".

"B" -- "Hydrologic Map of Chino Basin".

"C" -- Parties with Overlying Agricultural Pool Rights.

[7] Exhibits C-1, D-1 & E-1 added to reflect rights for the Agricultural, Non-Agricultural and Appropriative Pool parties as of September 2001.

"C-1" -- New Parties Intervening In Overlying Agricultual Pool From 1978 To 2000

"D" -- Parties with Overlying Non-Agricultural Pool Rights.

"D-1" -- Parties with Overlying Non-Agricultural Pool Rights as of September 20, 2001.

"E" -- Appropriative Rights.

"E-1" -- Appropriative Rights as of as of September 30, 2001.

"F" -- Overlying Agricultural Pooling Plan.

"G" -- Overlying Non-Agricultural Pooling Plan.

"H" -- Appropriative Pooling Plan[6].

"I" -- Engineering Appendix.

"J" -- Map of In Lieu Area No. 1.

"K" -- Legal Description of Chino Basin.

Attachment 1- Appendix 1 to Land Use Conversion Amendment.

Attachment 2 – Rotation Schedule *(See Footnote # 10).*

Attachment 3 – Resolution No. 99-03 re Public Meetings, Hearings, Confidential Sessions and Notice Requirements *(See Footnotes 15 and 16).*

II. DECLARATION OF RIGHTS

A. HYDROLOGY

6. Safe Yield. The Safe Yield of Chino Basin is 140,000 acre feet per year.

7. Overdraft and Prescriptive Circumstances. In each year for a period in excess of five years prior to filing of the First Amended Complaint herein, the Safe Yield of the Basin has been exceeded by the annual production therefrom, and Chino Basin is and has been for more than five years in a continuous

[6] Attachment 1 - Appendix 1 to November 17, 1995 Land Use Conversion Amendment to Exhibit H, Paragraph 10(b) of the Judgment.

state of over draft. The production constituting said overdraft has been open, notorious, continuous, adverse, hostile and under claim of right. The circumstances of said overdraft have given notice to all parties of the adverse nature of such aggregate over-production.

B. WATER RIGHTS IN SAFE YIELD

8. Overlying Rights. The parties listed in Exhibits "C" and "D", ("C-1" and "D-1") *(See Footnote # 7)* are the owners or in possession of lands which overlie Chino Basin. As such, said parties have exercised overlying water rights in Chino Basin. All overlying rights owned or exercised by parties listed in Exhibits "C" and "D", ("C-1" and "D-1") *(See Footnote # 7)* have, in the aggregate, been limited by prescription except to the extent such rights have been preserved by self-help by said parties. Aggregate preserved overlying rights in the Safe Yield for agricultural pool use, including the rights of the State of California, total 82,800 acre feet per year. Overlying rights for non-agricultural pool use total 7,366 acre feet per year and are individually decreed for each affected party in Exhibit "D" ("D-1") *(See Footnote # 7)*. No portion of the Safe Yield of Chino Basin exists to satisfy unexercised overlying rights, and such rights have all been lost by prescription. However, uses may be made of Basin Water on overlying lands which have no preserved overlying rights pursuant to the Physical Solution herein. All overlying rights are appurtenant to the land and cannot be assigned or conveyed separate or apart therefrom [9] ***for the term of the Peace Agreement except that the members of the Overlying Non-Agricultural Pool shall have the right to Transfer or lease their quantified production rights within the Overlying Non-Agricultural Pool or to Watermaster in conformance with the procedures described in the Peace Agreement between the Parties therein, dated June 29, 2000.***

9. Appropriative Rights. The parties listed in Exhibit "E" ("E-1") *(See Footnote # 7)* are the owners of appropriative rights, including rights by prescription, in the unadjusted amounts therein set forth, and by reason thereof are entitled under the Physical Solution to share in the remaining Safe Yield, after

[9] On June 29, 2000 Watermaster approved a "Peace Agreement" which more clearly defined the Parties' commitment to implement and Optimum Basin Management Program (OBMP) Implementation Plan. Pursuant to the Judgment at Paraggraph 41 and February 19, 1998 Court ruling. The Court approved the Peace Agreement on July 13, 2000. The Peace Agreement Paragraph 4.4(a). Order dated September 28, 2000 amended Paragraph 8 as shown above. Order dated April 19, 2001 confirmed Judgment modifications.

satisfaction of overlying rights and rights of the State of California, and in the Operating Safe Yield in Chino Basin, in the annual shares set forth in Exhibit "E" ("E-1") *(See Footnote # 7)* .

(a) Loss of Priorities. By reason of the long continued overdraft in Chino Basin, and in light of the complexity of determining appropriative priorities and the need for conserving and making maximum beneficial use of the water resources of the State, each and all of the parties listed in Exhibit "E" ("E-1") *(See Footnote # 7)* are estopped and barred from asserting special priorities or preferences, inter se. All of said appropriative rights are accordingly deemed and considered of equal priority.

(b) Nature and Quantity. All rights listed in Exhibit "E" ("E-1") *(See Footnote # 7)* are appropriative and prescriptive in nature. By reason of the status of the parties, and the provisions of Section 1007 of the Civil Code, said rights are immune from reduction or limitation by prescription.

10. Rights of the State of California. The State of California, by and through its Department of Corrections, Youth Authority and Department of Fish and Game, is a significant producer of ground water from and the State is the largest owner of land overlying Chino Basin. The precise nature and scope of the claims and rights of the State need not be, and are not, defined herein. The State, through said departments, has accepted the Physical Solution herein decreed, in the interests of implementing the mandate of Section 2 of Article X of the California Constitution. For all purposes of this Judgment, all future production by the State or its departments or agencies for overlying use on State-owned lands shall be considered as agricultural pool use.

C. RIGHTS TO AVAILABLE GROUND WATER STORAGE CAPACITY

11. Available Ground Water Storage Capacity. There exists in Chino Basin a substantial amount of available ground water storage capacity which is not utilized for storage or regulation of Basin Waters. Said reservoir capacity can appropriately be utilized for storage and conjunctive use of supplemental water with Basin Waters. It is essential that said reservoir capacity utilization for storage and conjunctive use of supplemental water be undertaken only under Watermaster control and regulation, in

order to protect the integrity of both such Stored Water and Basin Water in storage and the Safe Yield of Chino Basin.

12. Utilization of Available Ground Water Capacity. Any person or public entity, whether a party to this action or not, may make reasonable beneficial use of the available ground water storage capacity of Chino Basin for storage of supplemental water; provided that no such use shall be made except pursuant to written agreement with Watermaster, as authorized by Paragraph 28. In the allocation of such storage capacity, the needs and requirements of lands overlying Chino Basin and the owners of rights in the Safe Yield or Operating Safe Yield of the Basin shall have priority and preference over storage for export.

III. INJUNCTION

13. Injunction Against Unauthorized Production of Basin Water. Each party in each of the respective pools is enjoined, as follows:

(a) Overlying Agricultural Pool. Each party in the Overlying Agricultural Pool, its officers, agents, employees, successors and assigns, is and they each are ENJOINED AND RESTRAINED from producing ground water from Chino Basin in any year hereafter in excess of such party's correlative share of the aggregate of 82,800 acre feet allocated to said Pool, except pursuant to the Physical Solution or a storage water agreement.

(b) Overlying Non-Agricultural Pool. Each party in the Overlying Non-Agricultural Pool, its officers, agents, employees, successors and assigns, is and they each are ENJOINED AND RESTRAINED from producing ground water of Chino Basin in any year hereafter in excess of such party's decreed rights in the Safe Yield, except pursuant to the provisions of the Physical Solution or a storage water agreement.

(c) Appropriative Pool. Each party in the Appropriative Pool, its officers, agents, employees, successors and assigns, is and they are each ENJOINED AND RESTRAINED from producing ground water of Chino Basin in any year hereafter in excess of such party's decreed

share of Operating Safe Yield, except pursuant to the provisions of the Physical Solution or a storage water agreement.

14. Injunction Against Unauthorized Storage or Withdrawal of Stored Water. Each party, its officers, agents, employees, successors and assigns is and they each are ENJOINED AND RESTRAINED from storing supplemental water in Chino Basin for withdrawal, or causing withdrawal of, water stored by that party, except pursuant to the terms of a written agreement with Watermaster and in accordance with Watermaster regulations. Any supplemental water stored or recharged in the Basin, except pursuant to such a Watermaster agreement, shall be deemed abandoned and not classified as Stored Water. This paragraph has no application, as such, to supplemental water spread or provided in lieu by Watermaster pursuant to the Physical Solution.

IV. CONTINUING JURISDICTION

15. Continuing Jurisdiction. Full jurisdiction, power and authority are retained and reserved to the Court as to all matters contained in this judgment, except:

(a) The redetermination of Safe Yield, as set forth in Paragraph 6, during the first ten (10) years of operation of the Physical Solution;

(b) The allocation of Safe Yield as between the several pools as set forth in Paragraph 44 of the Physical Solution;

(c) The determination of specific quantitative rights and shares in the declared Safe Yield or Operating Safe Yield herein declared in Exhibits "D" and "E" ("D-1") and ("E-1") *(See Footnote # 7)* and

(d) The amendment or modification of Paragraphs 7 (a) and (b) of Exhibit "H", during the first ten (10) years of operation of the Physical Solution, and thereafter only upon affirmative recommendation of at least 67% of the voting power (determined pursuant to the formula described in Paragraph 3 of Exhibit "H"), but not less than one-third of the members of the Appropriative Pool Committee representatives of parties who produce water within IEUA or WMWD; after said tenth

year the formula set forth in said Paragraph 7 (a) and 7 (b) of Exhibit "H" for payment of the costs of replenishment water may be changed to 100% gross or net, or any percentage split thereof, but only in response to recommendation to the Court by affirmative vote of at least 67% of said voting power of the Appropriative Pool representatives of parties who produce ground water within IEUA or WMWD, but not less than one-third of their number. In such event, the Court shall act in conformance with such recommendation unless there are compelling reasons to the contrary; and provided, further, that the fact that the allocation of Safe Yield or Operating Safe Yield shares may be rendered moot by a recommended change in the formula for replenishment assessments shall not be deemed to be such a "compelling reason."

Said continuing jurisdiction is provided for the purpose of enabling the Court, upon application of any party, the Watermaster, the Advisory Committee or any Pool Committee, by motion and, upon at least 30 days' notice thereof, and after hearing thereon, to make such further or supplemental orders or directions as may be necessary or appropriate for interpretation, enforcement or carrying out of this Judgment, and to modify, amend or amplify any of the provisions of this Judgment.

V. WATERMASTER

A. APPOINTMENT

16. Watermaster Appointment[10]. CBMWD, acting by and through a majority of its board of directors, is hereby appointed Watermaster, to administer and enforce the provisions of this Judgment and any subsequent instructions or orders of the Court hereunder. The term of appointment of Watermaster shall be for five (5) years. The Court will by subsequent orders provide for successive terms or for a successor Watermaster. Watermaster may be changed at any time by subsequent order of the Court, on its own motion, or on the motion of any party after notice and hearing. Unless there are compelling reasons to

[10] Pursuant to a recommendation by the Advisory Committee, a Nine-Member Board approved by the Court on February 19, 1998 replaced CBMWD as Watermaster. This Board is comprised of 3 representatives from municipal water districts (IUEA, TVMWD, WMWD), 3 Appropriative Pool representatives, 2 Agricultural Pool representatives and a Non-Agricultural Pool representative. Members are appointed by the entities they represent. Terms of service and a perpetual rotation schedule for the producer representatives were established in October, 2000 and is attached as Attachment 2.

the contrary, the Court shall act in conformance with a motion requesting the Watermaster be changed if such motion is supported by a majority of the voting power of the Advisory Committee.

B. POWERS AND DUTIES

17. Powers and Duties. Subject to the continuing supervision and control of the Court, Watermaster shall have and may exercise the express powers, and shall perform the duties, as provided in this Judgment or hereafter ordered or authorized by the Court in the exercise of the Court's continuing jurisdiction.

18. Rules and Regulations. Upon recommendation by the Advisory Committee, Watermaster shall make and adopt, after public hearing, appropriate rules and regulations for conduct of Watermaster affairs, including, meeting schedules and procedures, and compensation of members of Watermaster. Thereafter, Watermaster may amend the rules from time to time upon recommendation, or with approval of the Advisory Committee after hearing noticed to active parties, [11]***except that compensation of Watermaster members shall be subject to Court Approval***. A copy of the rules and regulations, and of amendments, shall be mailed to each active party.

19. Acquisition of Facilities. Watermaster may purchase, lease, acquire and hold all necessary facilities and equipment; provided, that it is not the intent of the Court that Watermaster acquire any interest in real property or substantial capital assets.

20. Employment of Experts and Agents. Watermaster may employ or retain such administrative, engineering, geologic, accounting, legal or other specialized personnel and consultants as may be deemed appropriate in the carrying out of its powers and shall require appropriate bonds from all officers and employees handling Watermaster funds. Watermaster shall maintain records for purposes of allocation of costs of such services as well as of all other expenses of Watermaster administration as between the several pools established by the Physical Solution.

[11] Order dated March 31, 1999 amended Paragraph 18 regarding compensation, as shown above.

21. Measuring Devices. Watermaster shall cause parties, pursuant to uniform rules, to install and maintain in good operating condition, at the cost of each party, such necessary measuring devices or meters as Watermaster may deem appropriate. Such measuring devices shall be inspected and tested as deemed necessary by Watermaster, and the cost thereof shall constitute an expense of Watermaster.

22. Assessments. Watermaster is empowered to levy and collect all assessments provided for in the pooling plans and Physical Solution.

23. Investment of Funds. Watermaster may hold and invest any and all Watermaster funds in investments authorized from time to time for public agencies of the State of California.

24. Borrowing. Watermaster may borrow from time to time amounts not exceeding the annual anticipated receipts of Watermaster during such year.

25. Contracts. Watermaster may enter into contracts for the performance of any powers herein granted; provided, however, that Watermaster may not contract with or purchase materials, supplies or services from IEUA, except upon the prior recommendation and approval of the Advisory Committee and pursuant to written order of the Court.

26. Cooperation With Other Agencies. Subject to prior recommendation or approval of the Advisory Committee, Watermaster may act jointly or cooperate with agencies of the United States and the State of California or any political subdivisions, municipalities or districts or any person to the end that the purpose of the Physical Solution may be fully and economically carried out.

27. Studies. Watermaster may, with concurrence of the Advisory Committee or affected Pool Committee and in accordance with Paragraph 54 (b), undertake relevant studies of hydrologic conditions, both quantitative and qualitative, and operating aspects of implementation of the management program for Chino Basin.

28. Ground Water Storage Agreements[12]. Watermaster shall adopt, with the approval of the Advisory Committee, uniformly applicable rules and a standard form of agreement for storage of supplemental water, pursuant to criteria therefore set forth in Exhibit "I". Upon appropriate application by any person, Watermaster shall enter into such a storage agreement; provided that all such storage agreements shall first be approved by written order of the Court, and shall by their terms preclude operations which will have a substantial adverse impact on other producers.

29. Accounting for Stored Water. Watermaster shall calculate additions, extractions and losses and maintain an annual account of all Stored Water in Chino Basin, and any losses of water supplies or Safe Yield of Chino Basin resulting from such Stored Water.

30. Annual Administrative Budget. Watermaster shall submit to Advisory Committee an administrative budget and recommendation for each fiscal year on or before March 1. The Advisory Committee shall review and submit said budget and their recommendations to Watermaster on or before April 1, following. Watermaster shall hold a public hearing on said budget at its April quarterly meeting and adopt the annual administrative budget which shall include the administrative items for each pool committee. The administrative budget shall set forth budgeted items in sufficient detail as necessary to make a proper allocation of the expense among the several pools, together with Watermaster's proposed allocation. The budget shall contain such additional comparative information or explanation as the Advisory Committee may recommend from time to time. Expenditures within budgeted items may thereafter be made by Watermaster in the exercise of powers herein granted, as a matter of course. Any budget transfer in excess of 20% of a budget category during any budget year or modification of such administrative budget during any year shall be first submitted to the Advisory Committee for review and recommendation.

31. Review Procedures. All actions, decisions or rules of Watermaster shall be subject to review by the Court on its own motion or on timely motion by any party, the Watermaster (in the case of a mandated action), the Advisory Committee, or any Pool Committee, as follows:

[12] July 19, 2001 Court Approved New Watermaster Rules & Regulations including Appendix 1 Forms.

(a) Effective Date of Watermaster Action. Any action, decision or rule of Watermaster shall be deemed to have occurred or been enacted on the date on which written notice thereof is mailed. Mailing of copies of approved Watermaster minutes to the active parties shall constitute such notice to all parties.

(b) Noticed Motion[13]. Any party, the Watermaster (as to any mandated action), the Advisory Committee, or any Pool Committee may, by a regularly noticed motion, apply to the Court for review of any Watermaster's action, decision or rule. Notice of such motion shall be served personally or mailed to Watermaster and to all active parties. Unless otherwise ordered by the Court, such motion shall not operate to stay the effect of such Watermaster action, decision or rule.

(c) Time for Motion. Notice of motion to review any Watermaster action, decision or rule shall be served and filed within ninety (90) days after such Watermaster action, decision or rule, except for budget actions, in which event said notice period shall be sixty (60) days.

(d) De Novo Nature of Proceedings. Upon the filing of any such motion, the Court shall require the moving party to notify the active parties, the Watermaster, the Advisory Committee, and each Pool Committee, of a date for taking evidence and argument, and on the date so designated shall review de novo the question at issue. Watermaster's findings or decision, if any, may be received in evidence at said hearing, but shall not constitute presumptive or prima facie proof of any fact in issue.

(e) Decision. The decision of the Court in such proceeding shall be an appealable supplemental order in this case. When the same is final, it shall be binding upon the Watermaster and all parties.

C. ADVISORY AND POOL COMMITTEES

[13] Order dated December 13, 1978 set forth procedures for notice upon parties.

32. Authorization. Watermaster is authorized and directed to cause committees of producer representatives to be organized to act as Pool Committees for each of the several pools created under the Physical solution. Said Pool Committees shall, in turn, jointly form an Advisory Committee to assist Watermaster in performance of its functions under this judgment. Pool Committees shall be composed as specified in the respective pooling plans, and the Advisory Committee shall be composed of voting representatives from each pool, as designated by the respective Pool Committee [14] ***in accordance with each pool's pooling plan.*** WMWD***, Three Valleys Municipal Water District (TVMWD)*** and SBVMWD shall each be entitled to one non-voting representative on said Advisory Committee.

33. Term and Vacancies. Members of any Pool Committee, shall serve for the term, and vacancies shall be filled, as specified in the respective pooling plan. Members of the Advisory Committee shall serve at the will of their respective Pool Committee.

34. Voting Power. The voting power on each Pool Committee shall be allocated as provided in the respective pooling plan. The voting power on the Advisory Committee shall be one hundred (100) votes allocated among the three pools in proportion to the total assessments paid to Watermaster during the preceding year; provided, that the minimum voting power of each pool shall be

(a) Overlying Agricultural Pool 20,

(b) Overlying Non-Agricultural Pool 5, and

(c) Appropriative Pool 20.

In the event any pool is reduced to its said minimum vote, the remaining votes shall be allocated between the remaining pools on said basis of assessments paid to Watermaster by each such remaining pool during the preceding year. The method of exercise of each pool's voting power on the Advisory Committee shall be as determined by the respective pool committees.

[14] Order dated September 18, 1996 amended Paragraph 32 as shown above.

35. Quorum. A majority of the voting power of the Advisory Committee or any Pool Committee shall constitute a quorum for the transaction of affairs of such Advisory or Pool Committee; provided, that at least one representative of each Pool Committee shall be required to constitute a quorum of the Advisory Committee. No Pool Committee representative may purposely absent himself or herself, without good cause, from an Advisory Committee meeting to deprive it of a quorum. Action by affirmative vote of a majority of the entire voting power of any Pool Committee or the Advisory Committee shall constitute action by such committee. Any action or recommendation of a Pool Committee or the Advisory Committee shall be transmitted to Watermaster in writing, together with a report of any dissenting vote or opinion.

36. Compensation. Pool or Advisory Committee members may receive compensation, to be established by the respective pooling plan, but not to exceed twenty-five dollars ($25.00) for each meeting of such Pool or Advisory Committee attended, and provided that no member of a Pool or Advisory Committee shall receive compensation of more than three hundred ($300.00) dollars for service on any such committee during any one year. All such compensation shall be a part of Watermaster administrative expense. No member of any Pool or Advisory Committee shall be employed by Watermaster or compensated by Watermaster for professional or other services rendered to such Pool or Advisory Committee or to Watermaster, other than the fee for attendance at meetings herein provided, plus reimbursement of reasonable expenses related to activities within the Basin.

37. Organization.

(a) Organizational Meeting. At its first meeting in each year, each Pool Committee and the Advisory Committee shall elect a chairperson and a vice chairperson from its membership. It shall also select a secretary, a treasurer and such assistant secretaries and treasurers as may be appropriate, any of whom may, but need not, be members of such Pool or Advisory Committee.

(b) Regular Meetings[15]. All Pool Committees and the Advisory Committee shall hold regular meetings at a place and time to be specified in the rules to be adopted by each Pool and

[15] Attachment #3 - Resolution No. 99-03 adopted by WM Board on May 13, 1999 re Public Meetings, Hearings, Confidential Sessions and Notice Requirements affects Paragraph 37 (b) & (c) of the Judgment.

Advisory Committee. Notice of regular meetings of any Pool or Advisory Committee, and of any change in time or place thereof, shall be mailed to all active parties in said pool or pools.

(c) Special Meetings[16]. Special meetings of any Pool or Advisory Committee may be called at any time by the Chairperson or by any three (3) members of such Pool or Advisory Committee by delivering notice personally or by mail to each member of such Pool or Advisory Committee and to each active party at least 24 hours before the time of each such meeting in the case of personal delivery, and 96 hours in the case of mail. The calling notice shall specify the time and place of the special meeting and the business to be transacted. No other business shall be considered at such meeting.

(d) Minutes. Minutes of all Pool Committee, Advisory Committee and Watermaster meetings shall be kept at Watermaster's offices. Copies thereof shall be mailed or otherwise furnished to all active parties in the pool or pools concerned. Said copies of minutes shall constitute notice of any Pool or Advisory Committee action therein reported, and shall be available for inspection by any party.

(e) Adjournments. Any meeting of any Pool or Advisory Committee may be adjourned to a time and place specified in the order of adjournment. Less than a quorum may so adjourn from time to time. A copy of the order or notice of adjournment shall be conspicuously posted forthwith on or near the door of the place where the meeting was held.

38. Powers and Functions. The powers and functions of the respective Pool Committees and the Advisory Committee shall be as follows:

(a) Pool Committees. Each Pool Committee shall have the power and responsibility for developing policy recommendations for administration of its particular pool, as created under the Physical Solution. All actions and recommendations of any Pool Committee which require Watermaster implementation shall first be noticed to the other two pools. If no objection is received

[16] Attachment #3 - Resolution No. 99-03 adopted by WM Board on May 13, 1999 re Public Meetings, Hearings, Confidential Sessions and Notice Requirements affects Paragraph 37 (b) & (c) of the Judgment.

in writing within thirty (30) days, such action or recommendation shall be transmitted directly to Watermaster for action. If any such objection is received, such action or recommendation shall be reported to the Advisory Committee before being transmitted to Watermaster.

(b) Advisory Committee. The Advisory Committee shall have the duty to study, and the power to recommend, review and act upon all discretionary determinations made or to be made hereunder by Watermaster.

[1] Committee Initiative. When any recommendation or advice of the Advisory Committee is received by Watermaster, action consistent therewith may be taken by Watermaster; provided, that any recommendation approved by 80 votes or more in the Advisory Committee shall constitute a mandate for action by Watermaster consistent therewith. If Watermaster is unwilling or unable to act pursuant to recommendation or advice from the Advisory Committee (other than such mandatory recommendations), Watermaster shall hold a public hearing, which shall be followed by written findings and decision. Thereafter, Watermaster may act in accordance with said decision, whether consistent with or contrary to said Advisory Committee recommendation. Such action shall be subject to review by the Court, as in the case of all other Watermaster determinations.

[2] Committee Review. In the event Watermaster proposes to take discretionary action, other than approval or disapproval of a Pool Committee action or recommendation properly transmitted, or execute any agreement not theretofore within the scope of an Advisory Committee recommendation, notice of such intended action shall be served on the Advisory Committee and its members at least thirty (30) days before the Watermaster meeting at which such action is finally authorized.

(c) Review of Watermaster Actions. Watermaster (as to mandated action), the Advisory Committee or any Pool Committee shall be entitled to employ counsel and expert assistance in the event Watermaster or such Pool or Advisory Committee seeks Court review of any

Watermaster action or failure to act. The cost of such counsel and expert assistance shall be Watermaster expense to be allocated to the affected pool or pools.

VI. PHYSICAL SOLUTION

A. GENERAL

39. Purpose and Objective. Pursuant to the mandate of Section 2 of Article X of the California Constitution, the Court hereby adopts and orders the parties to comply with a Physical Solution. The purpose of these provisions is to establish a legal and practical means for making the maximum reasonable beneficial use of the waters of Chino Basin by providing the optimum economic, long-term, conjunctive utilization of surface waters, ground waters and supplemental water, to meet the requirements of water users having rights in or dependent upon Chino Basin.

40. Need for Flexibility. It is essential that this Physical solution provide maximum flexibility and adaptability in order that Watermaster and the Court may be free to use existing and future technological, social, institutional and economic options, in order to maximize beneficial use of the waters of Chino Basin. To that end, the Court's retained jurisdiction will be utilized, where appropriate, to supplement the discretion herein granted to the Watermaster.

41. Watermaster Control. Watermaster, with the advice of the Advisory and Pool Committees, is granted discretionary powers in order to develop an optimum basin management program for Chino Basin, including both water quantity and quality considerations. Withdrawals and supplemental water replenishment of Basin Water, and the full utilization of the water resources of Chino Basin, must be subject to procedures established by and administered through Watermaster with the advice and assistance of the Advisory and Pool Committees composed of the affected producers. Both the quantity and quality of said water resources may thereby be preserved and the beneficial utilization of the Basin maximized.

42. General Pattern of Operations. It is contemplated that the rights herein decreed will be divided into three (3) operating pools for purposes of Watermaster administration. A fundamental premise of the Physical Solution is that all water users dependent upon Chino Basin will be allowed to pump

sufficient waters from the Basin to meet their requirements. To the extent that pumping 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 enable Watermaster to replace such overproduction. The method of assessment in each pool shall be as set forth in the applicable pooling plan.

B. POOLING

43. Multiple Pools Established. There are hereby established three (3) pools for Watermaster administration of, and for the allocation of responsibility for, and payment of, costs of replenishment water and other aspects of this Physical Solution.

(a) Overlying Agricultural Pool. The first pool shall consist of the State of California and all overlying producers who produce water for other than industrial or commercial purposes. The initial members of the pool are listed in Exhibit "C" ("C-1")[17].

(b) Overlying Non-Agricultural Pool The second pool shall consist of overlying producers who produce water for industrial or commercial purposes. The initial members of this pool are listed in Exhibit "D" ("D-1") [18].

(c) Appropriative Pool. A third and separate pool shall consist of owners of appropriative rights. The initial members of the pool are listed in Exhibit "E" ("E-1") [19].

Any party who changes the character of his use may, by subsequent order of the Court, be reassigned to the proper pool; but the allocation of Safe Yield under Paragraph 44 hereof shall not be changed. Any non-party producer or any person who may hereafter commence production of water from Chino Basin, and who may become a party to this physical solution by intervention, shall be assigned to the proper pool by the order of the Court authorizing such intervention.

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[17] Exhibit C-1 lists interventions that were approved for the Overlying Agricultural Pool since 1978.

[18] Exhibit D-1 lists Overlying Non-Agricultural Pool Members as of September 2001.

[19] Exhibit E-1 lists Appropriative Pool Members as of September 2001.

44. Determination and Allocation of Rights to Safe Yield of Chino Basin. The declared Safe Yield of Chino Basin is hereby allocated as follows:

Pool	Allocation
Overlying Agricultural Pool	414,000 acre-feet in any five (5) consecutive years.
Overlying Non-Agricultural Pool	7,366 acre-feet per year.
Appropriative Pool	49,834 acre-feet per year.

The foregoing acre foot allocations to the overlying pools are fixed. Any subsequent change in the Safe Yield shall be debited or credited to the Appropriative Pool. Basin Water available to the Appropriative Pool without replenishment obligation may vary from year to year as the Operating Safe Yield is determined by Watermaster pursuant to the criteria set forth in Exhibit "I".

45. Annual Replenishment. Watermaster shall levy and collect assessments in each year, pursuant to the respective pooling plans, in amounts sufficient to purchase replenishment water to replace production by any pool during the preceding year which exceeds that pool's allocated share of Safe Yield in the case of the overlying pools, or Operating Safe Yield in the case of the Appropriative Pool. It is anticipated that supplemental water for replenishment of Chino Basin may be available at different rates to the various pools to meet their replenishment obligations. If such is the case, each pool will be assessed only that amount necessary for the cost of replenishment water to that pool, at the rate available to the pool, to meet its replenishment obligation.

46. Initial Pooling Plans. The initial pooling plans, which are hereby adopted, are set forth in Exhibits "F", "G" and "H", respectively. Unless and until modified by amendment of the judgment pursuant to the Court's continuing jurisdiction, each such plan shall control operation of the subject pool.

C. REPORTS AND ACCOUNTING

47. Production Reports. Each party or responsible party shall file periodically with Watermaster, pursuant to Watermaster rules, a report on a form to be prescribed by Watermaster showing the total

production of such party during the preceding reportage period, and such additional information as Watermaster may require, including any information specified by the affected Pool Committee.

48. Watermaster Report and Accounting. Watermaster's annual report, which shall be filed on or before ***January 31***[20] of each year and shall apply to the preceding year's operation, shall contain details as to operation of each of the pools and a certified audit of all assessments and expenditures pursuant to this Physical Solution and a review of Watermaster activities.

D. REPLENISHMENT

49. Sources of Supplemental Water. Supplemental water may be obtained by Watermaster from any available source. Watermaster shall seek to obtain the best available quality of supplemental water at the most reasonable cost for recharge in the Basin. To the extent that costs of replenishment water may vary between pools, each pool shall be liable only for the costs attributable to its required replenishment. Available sources may include, but are not limited to:

(a) Reclaimed Water. There exist a series of agreements generally denominated the Regional Waste Water Agreements between IEUA and owners of the major municipal sewer systems within the basin. Under those agreements, which are recognized hereby but shall be unaffected and unimpaired by this judgment, substantial quantities of reclaimed water may be made available for replenishment purposes. There are additional sources of reclaimed water which are, or may become, available to Watermaster for said purposes. Maximum beneficial use of reclaimed water shall be given high priority by Watermaster.

(b) State Water. State water constitutes a major available supply of supplemental water. In the case of State Water, Watermaster purchases shall comply with the water service provisions of the State's water service contracts. More specifically, Watermaster shall purchase State Water from MWD for replenishment of excess production within IEUA, WMWD and TVMWD, and from SBVMWD to replenish excess production within SBVMWD's boundaries in Chino Basin,

[20] Order dated March 31, 1999, amended Paragraph 48 as shown above.

except to the extent that MWD and SBVMWD give their consent as required by such State water service contracts.

(c) Local Import. There exists facilities and methods for importation of surface and ground water supplies from adjacent basins and watersheds.

(d) Colorado River Supplies. MWD has water supplies available from its Colorado River Aqueduct.

50. Methods of Replenishment. Watermaster may accomplish replenishment of overproduction from the Basin by any reasonable method, including:

(a) Spreading and percolation or Injection of water in existing or new facilities, subject to the provisions of Paragraphs 19, 25 and 26 hereof.

(b) In Lieu Procedures. Watermaster may make, or cause to be made, deliveries of water for direct surface use, in lieu of ground water production.

E. REVENUES

51. Production Assessment. Production assessments, on whatever basis, may be levied by Watermaster pursuant to the pooling plan adopted for the applicable pool.

52. Minimal Producers. Minimal Producers shall be exempted from payment of production assessments, upon filing of production reports as provided in Paragraph 47 of this Judgment, and payment of an annual five dollar ($5.00) administrative fee as specified by Watermaster rules.

53. Assessment Proceeds — Purposes. Watermaster shall have the power to levy assessments against the parties (other than minimal pumpers) based upon production during the preceding period of assessable production, whether quarterly, semi-annually or annually, as may be determined most practical by Watermaster or the affected Pool Committee.

54. Administrative Expenses. The expenses of administration of this Physical Solution shall be categorized as either (a) general Watermaster administrative expense, or (b) special project expense.

(a) General Watermaster Administrative Expense shall include office rental, general personnel expense, supplies and office equipment, and related incidental expense and general overhead.

(b) Special Project Expense shall consist of special engineering, economic or other studies, litigation expense, meter testing or other major operating expenses. Each such project shall be assigned a Task Order number and shall be separately budgeted and accounted for. General Watermaster administrative expense shall be allocated and assessed against the respective pools based upon allocations made by the Watermaster, who shall make such allocations based upon generally accepted cost accounting methods. Special Project Expense shall be allocated to a specific pool, or any portion thereof, only upon the basis of prior express assent and finding of benefit by the Pool Committee, or pursuant to written order of the Court.

55. Assessments -- Procedure. Assessments herein provided for shall be levied and collected as follows:

(a) Notice of Assessment. Watermaster shall give written notice of all applicable assessments to each party on or before ninety (90) days after the end of the production period to which such assessment is applicable.

(b) Payment. Each assessment shall be payable on or before thirty (30) days after notice, and shall be the obligation of the party or successor owning the water production facility at the time written notice of assessment is given, unless prior arrangement for payment by others has been made in writing and filed with Watermaster.

(c) Delinquency. Any delinquent assessment shall bear interest at 10% per annum (or such greater rate as shall equal the average current cost of borrowed funds to the Watermaster) from the due date thereof. Such delinquent assessment and interest may be collected in a show-cause proceeding herein instituted by the Watermaster, in which case the Court may allow Watermaster its reasonable costs of collection, including attorney's fees.

56. Accumulation of Replenishment Water Assessment Proceeds. In order to minimize fluctuation in assessment and to give Watermaster flexibility in purchase and spreading of replenishment water, Watermaster may make reasonable accumulations of replenishment water assessment proceeds. Interest earned on such retained funds shall be added to the account of the pool from which the funds were collected and shall be applied only to the purchase of replenishment water.

57. Effective Date. The effective date for accounting and operation under this Physical Solution shall be July 1, 1977, and the first production assessments hereunder shall be due after July 1, 1978. Watermaster shall, however, require installation of meters or measuring devices and establish operating procedures immediately, and the cost of such Watermaster activity (not including the cost of such meters and measuring devices) may be recovered in the first administrative assessment in 1978.

VII. MISCELLANEOUS PROVISIONS

58. Designation of Address for Notice and Service. Each party shall designate the name and address to be used for purposes of all subsequent notices and service herein, either by its endorsement on the Stipulation for Judgment or by a separate designation to be filed within thirty (30) days after Judgment has been served. Said designation may be changed from time to time by filing a written notice of such change with the Watermaster. Any party desiring to be relieved of receiving notices of Watermaster or committee activity may file a waiver of notice on a form to be provided by Watermaster. Thereafter such party shall be removed from the Active Party list. Watermaster shall maintain at all times a current list of all active parties and their addresses for purposes of service. Watermaster shall also maintain a full current list of names and addresses of all parties or their successors, as filed herein. Copies of such lists shall be available, without cost, to any party, the Advisory Committee or any Pool Committee upon written request therefor.

59. Service of Documents. Delivery to or service upon any party or active party by the Watermaster, by any other party, or by the Court, of any item required to be served upon or delivered to such party or active party under or pursuant to the Judgment shall be made personally or by deposit in the

United States mail, first class, postage prepaid, addressed to the designee and at the address in the latest designation filed by such party or active party.

60. Intervention After Judgment[21]. Any non-party assignee of the adjudicated appropriative rights of any appropriator, or any other person newly proposing to produce water from Chino Basin, may become a party to this Judgment upon filing a petition in intervention. Said intervention must be confirmed by order of this Court. Such intervenor shall thereafter be a party bound by this judgment and entitled to the rights and privileges accorded under the Physical Solution herein, through the pool to which the Court shall assign such intervenor.

61. Loss of Rights. Loss, whether by abandonment, forfeiture or otherwise, of any right herein adjudicated shall be accomplished only (1) by a written election by the owner of the right filed with Watermaster, or (2) by order of the Court upon noticed motion and after hearing.

62. Scope of Judgment. Nothing in this Judgment shall be deemed to preclude or limit any party in the assertion against a neighboring party of any cause of action now existing or hereafter arising based upon injury, damage or depletion of water supply available to such party, proximately caused by nearby pumping which constitutes an unreasonable interference with such complaining party's ability to extract ground water.

63. Judgment Binding on Successors. This Judgment and all provisions thereof are applicable to and binding upon not only the parties to this action, but also upon their respective heirs, executors, administrators, successors, assigns, lessees and 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.

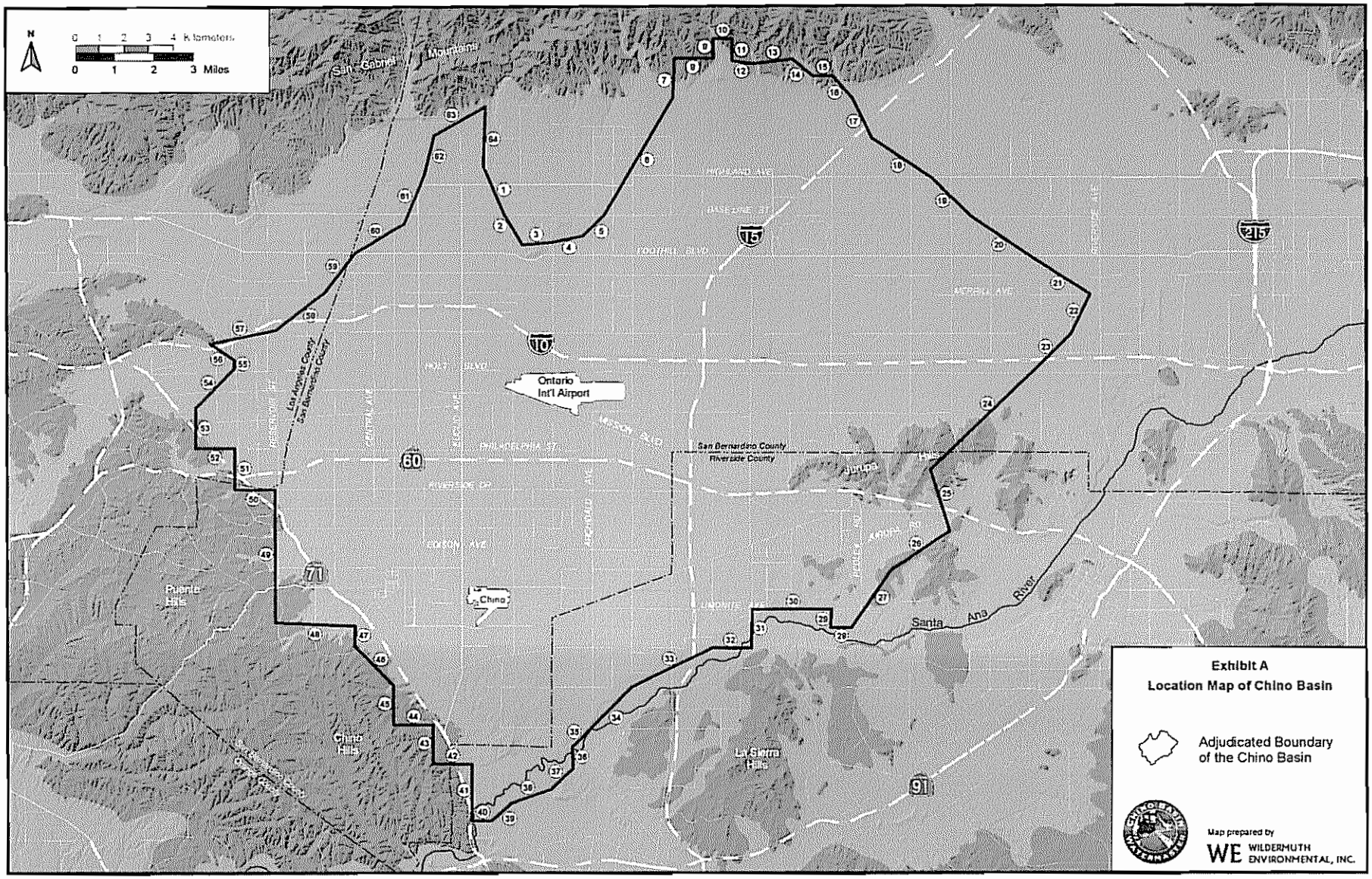
[21] Order dated July 14, 1978 re Intervention Procedures.

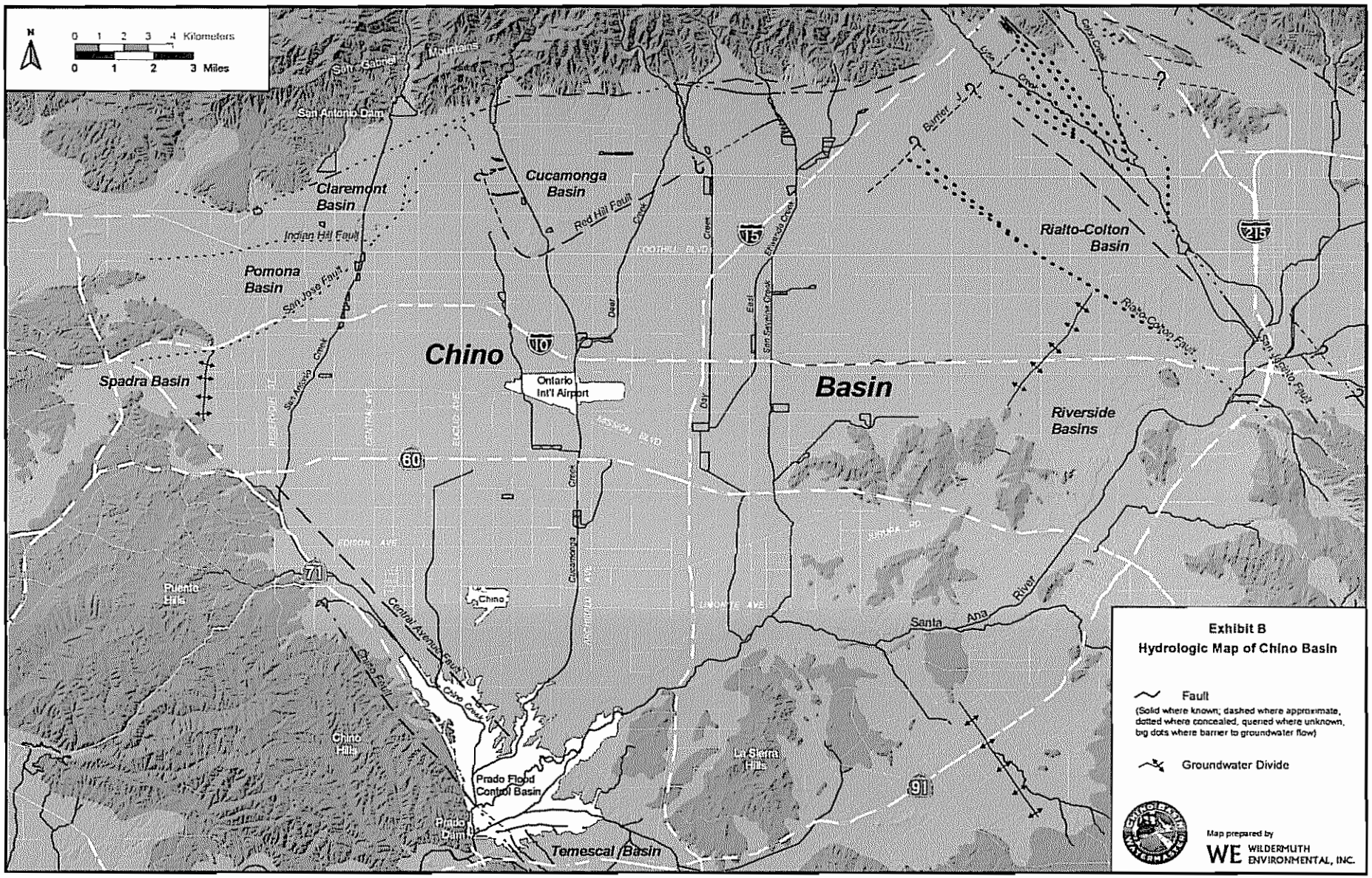
Dated: January 1, 1978

Howard B. Weiner

Howard B. Weiner[22]

[22] Judge J. Michael Gunn became the presiding Judge in February 1996.


N
0 1 2 3 4 Kilometers
0 1 2 3 Miles
San Gabriel Mountains
Ontario Int'l Airport
San Bernardino County
Riverside County
Los Angeles County
San Bernardino County
Puente Hills
Chino Hills
La Sierra Hills
Santa Ana River
Exhibit A
Location Map of Chino Basin
Adjudicated Boundary of the Chino Basin
Map prepared by
WE WILDERMUTH ENVIRONMENTAL, INC.


N
0 1 2 3 4 Kilometers
0 1 2 3 Miles
San Gabriel Mountains
San Antonio Dam
Claremont Basin
Cucamonga Basin
Red Hill Fault
Indian Hill Fault
Pomona Basin
San Jose Fault
Chino
Basin
Spadra Basin
Ontario Int'l Airport
Rialto-Colton Basin
Riverside Basins
Rialto-Colton Fault
San Jacinto Fault
Puente Hills
Chino Hills
Central Avenue Basin
Chino Creek
Prado Flood Control Basin
Prado Dam
Temescal Basin
La Sierra Hills
Santa Ana River
Exhibit B
Hydrologic Map of Chino Basin
Fault
(Solid where known; dashed where approximate, dotted where concealed, queried where unknown, big dots where barrier to groundwater flow)
Groundwater Divide
Map prepared by
WE WILDERMUTH ENVIRONMENTAL, INC.

STIPULATING OVERLYING AGRICULTURAL PRODUCERS

STATE OF CALIFORNIA

COUNTY OF SAN BERNARDINO

Abacherli, Dairy, Inc.

Abacherli, Frank

Abacherli, Shirley

Abbona, Anna

Abbona, James

Abbona, Jim

Abbona, Mary

Agliani, Amelia H.

Agman, Inc.

Aguerre, Louis B.

Ahmanson Trust Co.

Akiyama, Shizuye

Akiyama, Tomoo

Akkerman, Dave

Albers, J.N.

Albers, Nellie

Alewyn, Jake J.

Alewyn, Normalee

Alger, Mary D.

Alger, Raymond

Allen, Ben F.

Allen, Jane F.

Alta-Dena Dairy

Anderson Farms

Anguiano, Sarah L.S.

Anker, Gus

Aphessetche, Xavier

Arena Mutual Water Assn.

Armstrong Nurseries, Inc.

Arretche, Frank

Arretche, Jean Pierre

Arvidson, Clarence F.

Arvidson, Florence

Ashley, George W.

Ashley, Pearl E.

Atlas Farms

Atlas Ornamental Iron Works, Inc.

Aukeman, Carol

Aukeman, Lewis

Ayers, Kenneth C., aka
Kelley Ayers

Bachoc, Raymond

Baldwin, Edgar A.

Baldwin, Lester

Banbury, Carolyn

Bangma Dairy

Bangma, Arthur

Bangma, Ida

Bangma, Martin

Bangma, Sam

Barba, Anthony B.

Barba, Frank

Barcellos, Joseph

Barnhill, Maurine W.

Barnhill, Paul	Boersma, Angie
Bartel, Dale	Boersma, Berdina
Bartel, Ursula	Boersma, Frank
Bartel, Willard	Boersma, Harry
Barthelemy, Henry	Boersma, Paul
Barthelemy, Roland	Boersma, Sam
Bassler, Donald V., M.D.	Boersma, William L.
Bates, Lowell R.	Bohlander & Holmes, Inc.
Bates, Mildred L.	Bokma, Peter
Beahm, James W.	Bollema, Jacob
Beahm, Joan M.	Boonstoo, Edward
Bekendam, Hank	Bootsma, Jim
Bekendam, Pete	Borba, Dolene
Bello, Eugene	Borba, Dolores
Bello, Olga	Borba, Emily
Beltman, Evelyn	Borba, George
Beltman, Tony	Borba, John
Bergquist Properties, Inc.	Borba, John & Sons
Bevacqua, Joel A.	Borba, John Jr.
Bevacqua, Marie B.	Borba, Joseph A.
Bidart, Bernard	Borba, Karen E.
Bidart, Michael J.	Borba, Karen M.
Binnell, Wesley	Borba, Pete, Estate of
Black, Patricia E.	Borba, Ricci
Black, Victor	Borba, Steve
Bodger, John & Sons Co.	Borba, Tom
Boer, Adrian	Bordisso, Alleck
Boersma and Wind Dairy	Borges, Angelica M.

Borges, Bernadette
Borges, John O.
Borges, Linda L.
Borges, Manual Jr.
Borges, Tony
Bos, Aleid
Bos, Gerrit
Bos, John
Bos, John
Bos, Margaret
Bos, Mary
Bos, Mary Beth
Bos, Tony
Bosch, Henrietta
Bosch, Peter T.
Boschma, Betty
Boschma, Frank
Boschma, Greta
Boschma, Henry
Bosma, Dick
Bosma, Florence G.
Bosma, Gerrit
Bosma, Jacob J.
Bosma, Jeanette Thea
Bosman, Frank
Bosman, Nellie
Bosnyak, Goldie M.
Bosnyak, Martin
Bothof, Roger W.
Bouma, Cornie
Bouma, Emma
Bouma, Henry P.
Bouma, Martin
Bouma, Peter G. & Sons Dairy
Bouma, Ted
Bouman, Helen
Bouman, Sam
Bower, Mabel E.
Boys Republic
Breedyk, Arie
Breedyk, Jessie
Briano Brothers
Briano, Albert
Briano, Albert Trustee for
Briano, Albert Frank
Briano, Lena
Brink, Russell N.
Brinkerhoff, Margaret
Brinkerhoff, Robert L.
Britschgi, Florence
Britschgi, Magdalena Garetto
Britschgi, Walter P.
Brommer, Marvin
Brookside Enterprizes, dba
Brookside Vineyard Co.
Brothers Three Dairy

Brown, Eugene
Brun, Martha M.
Brun, Peter Robert
Buma, Duke
Buma, Martha
Bunse, Nancy
Bunse, Ronnie L.
Caballero, Bonnie L.
Caballero, Richard F.
Cable Airport Inc.
Cadlini, Donald
Cadlini, Jesse R.
Cadlini, Marie Edna
Cambio, Anna
Cambio, Charles, Estate of
Cambio, William V.
Cardoza, Florence
Cardoza, Olivi
Cardoza, Tony
Carnesi, Tom
Carver, Robt M., Trustee
Cauffman, John R.
Chacon Bros.
Chancon, Elvera P.
Chacon, Joe M.
Chacon, Robert M.
Chacon, Virginia L.
Chez, Joseph C.
Chino Corona Investment
Chino Water Co.
Christensen, Leslie
Christensen, Richard G.
Christian, Ada R.
Christian, Harold F.
Christy, Ella J.
Christy, Ronald S.
Cihigoyenetche, Jean
Cihigoyenetche, Leona
Cihigoyenetche, Martin
Clarke, Arthur B.
Clarke, Nancy L.
Clarke, Phyllis J.
Coelho, Isabel
Coelho, Joe A. Jr.
Collins, Howard E.
Collins, Judith F.
Collinsworth, Ester L.
Collinsworth, John E.
Collinsworth, Shelby
Cone Estate (05-2-00648/649)
Consolidated Freightways Corp.
of Delaware
Corona Farms Co.
Corra, Rose
Costa, Dimas S.
Costa, Laura

Costa, Myrtle	De Boer, L.H.
Costamagna, Antonio	De Boer, Sidney
Costamagna, Joseph	De Bos, Andrew
Cousyn, Claus B.	De Graaf, Anna Mae
Cramer, Carole F.	De Graaf, Gerrit
Cramer, William R.	De Groot, Dick
Crossroads Auto Dismantlers, Inc.	De Groot, Dorothy
Crouse, Beatrice I.	De Groot, Ernest
Crouse, Roger	De Groot, Henrietta
Crowley, Juanita C.	De Groot, Jake
Crowley, Ralph	De Groot, Pete Jr.
Cucamonga Vintners	De Haan, Bernadena
D'Astici, Teresa	De Haan, Henry
Da Costa, Cecilia B.	De Hoog, Adriana
Da Costa, Joaquim F.	De Hoog, Joe
Daloisio, Norman	De Hoog, Martin
De Berard Bros.	De Hoog, Martin L.
De Berard, Arthur, Trustee	De Hoog, Mitch
De Berard, Charles	De Hoog, Tryntje
De Berard, Chas., Trustee	De Jager, Cobi
De Berard, Helan J.	De Jager, Edward D.
De Berard, Robert	De Jong Brothers Dairy
De Berard, Robert Trustee	De Jong, Cornelis
De Bie, Adrian	De Jong, Cornelius
De Bie, Henry	De Jong, Grace
De Bie, Margaret M.	De Jong, Jake
De Bie, Marvin	De Jong, Lena
De Boer, Fred	De Leeuw, Alice

De Leeuw, Sam
De Soete, Agnes
De Soete, Andre
De Vries, Abraham
De Vries, Case
De Vries, Dick
De Vries, Evelyn
De Vries, Henry, Estate of
De Vries, Hermina
De Vries, Jack H.
De Vries, Jane
De Vries, Janice
De Vries, John
De Vries, John J.
De Vries, Neil
De Vries, Ruth
De Vries, Theresa
De Wit, Gladys
De Wit, Peter S.
De Wyn, Evert
De Zoete, Hattie V.
Do Zoete, Leo A.
Decker, Hallie
Decker, Henry A.
Demmer, Ernest
Di Carlo, Marie
Di Carlo, Victor
Di Tommaso, Frank
Dirkse, Catherine
Dirkse, Charles C.
Dixon, Charles E.
Dixon, Geraldine A.
Doesberg, Hendrica
Doesburg, Theodorus, P.
Dolan, Marion
Dolan, Michael H.
Dominguez, Helen
Dominguez, Manual
Donkers, Henry A.
Donkers, Nellie G.
Dotta Bros.
Douma Brothers Dairy
Douma, Betty A.
Douma, Fred A.
Douma, Hendrika
Douma, Herman G.
Douma, Narleen J.
Douma, Phillip M.
Dow Chemical Co.
Dragt, Rheta
Dragt, William
Driftwood Dairy Farm
Droogh, Case
Duhalde, Marian
Duhalde, Lauren
Duits, Henrietta

Duits, John	Excelsior Farms
Dunlap, Edna Kraemer,	F.D.I.C. Fagundes, Frank M.
Estate of	Fagundes, Mary
Durrington, Glen	Fernandes, Joseph Jr.
Durrington, William F.	Fernandes, Velma C.
Dusi, John Sr.	Ferraro, Ann
Dykstra, Dick	Ferreira, Frank J.
Dykstra, John	Ferreira, Joe C. Jr.
Dykstra, John & Sons	Ferreira, Narcie
Dykstra, Wilma	Fillippi, J. Vintage Co.
Dyt, Cor	Filippi, Joseph
Dyt, Johanna	Filippi, Joseph A.
E and S Grape Growers	Filippi, Mary E.
Eaton, Thomas, Estate of	Fitzgerald, John R.
Echeverria, Juan	Flameling Dairy Inc.
Echeverria, Carlos	Flamingo Dairy
Echeverria, Pablo	Foss, Douglas E.
Eilers, E. Myrle	Foss, Gerald R.
Eilers, Henry W.	Foss, Russel
El Prado Golf Course	Fred & John Troost No. 1 Inc.
Ellsworth, Rex C.	Fred & Maynard Troost No. 2 Inc.
Engelsma, Jake	Freitas, Beatriz
Engelsma, Susan	Freitas, Tony T.
Escojeda, Henry	Gakle, Louis L.
Etiwanda Grape Products Co.	Galleano Winery, Inc.
Euclid Ave. Investment One	Galleano, Bernard D.
Euclid Ave. Investment Four	Galleano, D.
Euclid Ave. Three Investment	Galleano, Mary M.

Garcia, Pete
Gardner, Leland V.
Gardner, Lola M.
Garrett, Leonard E.
Garrett, Patricia T.
Gastelluberry, Catherine
Gastelluberry, Jean
Gilstrap, Glen E.
Gilstrap, Marjorie J.
Godinho, John
Godinho, June
Gonsalves, Evelyn
Gonsalves, John
Gorzeman, Geraldine
Gorzeman, Henry A.
Gorzeman, Joe
Govea, Julia
Goyenetche, Albert
Grace, Caroline E.
Grace, David J.
Gravatt, Glenn W.
Gravatt, Sally Mae
Greydanus Dairy, Inc.
Greydanus, Rena
Griffin Development Co.
Haagsma, Dave
Haagsma, John
Hansen, Mary D.
Hansen, Raymond F.
Hanson, Ardeth W.
Harada, James T.
Harada, Violet A.
Haringa, Earl and Sons
Haringa, Herman
Haringa, Rudy
Haringa, William
Harper, Cecilia de Mille
Harrington, Winona
Harrison, Jacqueline A.
Hatanaka, Kenichi
Heida, Annie
Heida, Don
Heida, Jim
Heida, Sam
Helms, Addison D.
Helms, Irma A.
Hermans, Alma I.
Hermans, Harry
Hettinga, Arthur
Hettinga, Ida
Hettinga, Judy
Hettinga, Mary
Hettinga, Wilbur
Heublein, Inc., Grocery Products Group
Hibma, Catherine M.

Hibma, Sidney
Hicks, Kenneth I.
Hicks, Minnie M.
Higgins Brick Co.
Highstreet, Alfred V.
Highstreet, Evada V.
Hilarides, Bertha as Trustee
Hilarides, Frank
Hilarides, John as Trustee
Hindelang, Tillie
Hindelang, William
Hobbs, Bonnie C.
Hobbs, Charles W.
Hobbs, Hazel I.
Hobbs, Orlo M.
Hoekstra, Edward
Hoekstra, George
Hoekstra, Grace
Hoekstra, Louie
Hofer, Paul B.
Hofer, Phillip F.
Hofstra, Marie
Hogeboom, Jo Ann M.
Hogeboom, Maurice D.
Hogg, David V.
Hogg, Gene P.
Hogg, Warren G.
Hohberg, Edith J.
Hohberg, Harold C.
Hohberg, Harold W.
Holder, Arthur B.
Holder, Dorothy F.
Holmes, A. Lee
Holmes, Frances P.
Hoogeboom, Gertrude
Hoogeboom, Pete
Hoogendam, John
Hoogendam, Tena
Houssels, J. K. Thoroughbred Farm
Hunt Industries
Idsinga, Ann
Idsinga, William W.
Imbach Ranch, Inc.
Imbach, Kenneth E.
Imbach, Leonard K.
Imbach, Oscar K.
Imbach, Ruth M.
Indaburu, Jean
Indaburu, Marceline
Iseli, Kurt H.
Ito, Kow
J & B Dairy Inc.
Jaques, Johnny C. Jr.
Jaques, Mary
Jaques, Mary Lou

Jay Em Bee Farms	Knevelbaard, John
Johnson Bro's Egg Ranches, Inc.	Knudsen, Ejnar
Johnston, Ellwood W.	Knudsen, Karen M.
Johnston, George F. Co.	Knudsen, Kenneth
Johnston, Judith H.	Knudson, Robert
Jones, Leonard P.	Knudson, Darlene
Jongsma & Sons Dairy	Koel, Helen S.
Jongsma, Diana A.	Koetsier, Gerard
Jongsma, Dorothy	Koetsier, Gerrit J.
Jongsma, George	Koetsier, Jake
Jongsma, Harold	Koning, Fred W.
Jongsma, Henry	Koning, Gloria
Jongsma, John	Koning, J. W. Estate
Jongsma, Nadine	Koning, James A.
Jongsma, Tillie	Koning, Jane
Jordan, Marjorie G.	Koning, Jane C.
Jordan, Troy O.	Koning, Jennie
Jorritsma, Dorothy	Koning, John
Juliano, Albert	Koning, Victor A.
Kamper, Cornelis	Kooi Holstein Corporation
Kamstra, Wilbert	Koolhaas, Kenneth E.
Kaplan, Lawrence J.	Koolhaas, Simon
Kasbergen, Martha	Koolhaas, Sophie Grace
Kasbergen, Neil	Koopal, Grace
Kazian, Angelen Estate of	Koopal, Silas
Kingsway, Const. Corp.	Koopman, Eka
Klapps Market	Koopman, Gene T.
Kline, James K.	Koopman, Henry G.

Koopman, Ted

Koopman, Tena

Koot, Nick

Koster, Aart

Koster, Frances

Koster, Henry B.

Koster, Nellie

Kroes, Jake R.

Kroeze, Bros

Kroeze, Calvin E.

Kroeze, John

Kroeze, Wesley

Kruckenberg, Naomi

Kruckenberg, Perry

L. D. S. Welfare Ranch

Labrucherie, Mary Jane

Labrucherie, Raymond F.

Lako, Samuel

Landman Corp.

Lanting, Broer

Lanting, Myer

Lass, Jack

Lass, Sandra L.

Lawrence, Cecelia, Estate of

Lawrence, Joe H., Estate of

Leal, Bradley W.

Leal, John C.

Leal, John Craig

Leck, Arthur A.

Leck, Evelyn M.

Lee, Harold E.

Lee, Helen J.

Lee, Henrietta C.

Lee, R. T. Construction Co.

Lekkerkerk, Adriana

Lekkerkerk, L. M.

Lekkerkerker, Nellie

Lekkerkerker, Walt

Lewis Homes of California

Livingston, Dorothy M.

Livingston, Rex E.

Lokey, Rosemary Kraemer

Lopes, Candida A.

Lopes, Antonio S.

Lopez, Joe D.

Lourenco, Carlos, Jr.

Lourenco, Carmelina P.

Lourenco, Jack C.

Lourenco, Manual H.

Lourenco, Mary

Lourenco, Mary

Luiten, Jack

Luiz, John M.

Luna, Christine I.

Luna, Ruben T.

Lusk, John D. and Sons A California Corporation

Lyon, Gregory E.	Mickel, Louise
Lyon, Paula E.	Miersma, Dorothy
M & W Co. #2	Meirsma, Harry C.
Madole, Betty M.	Minaberry, Arnaud
Madole, Larry B.	Minaberry, Marie
Marquez, Arthur	Mistretta, Frank J.
Marquine, Jean	Mocho and Plaa Inc.
Martin, Lelon O.	Mocho, Jean
Martin, Leon O.	Mocho, Noeline
Martin, Maria D.	Modica, Josephine
Martin, Tony J.	Montes, Elizabeth
Martins, Frank	Montes, Joe
Mathias, Antonio	Moons, Beatrice
Mc Cune, Robert M.	Moons, Jack
Mc Masters, Gertrude	Moramarco, John A. Enterprise
Mc Neill, J. A.	Moreno, Louis W.
Mc Neill, May F.	Moss, John R.
Mees, Leon	Motion Pictures Associates, Inc.
Mello and Silva Dairy	Moynier, Joe
Mello and Sousa Dairy	Murphy, Frances V.
Mello, Emilia	Murphy, Myrl L.
Mello, Enos C.	Murphy, Naomi
Mello, Mercedes	Nanne, Martin Estate of
Mendiondo, Catherine	Nederend, Betty
Mendiondo, Dominique	Nederend, Hans
Meth. Hosp. – Sacramento	Norfolk, James
Metzger, R. S.	Norfolk, Martha
Metzger, Winifred	Notrica, Louis

Nyberg, Lillian N.
Nyenhuis, Annie
Nyenhuis, Jim
Occidental Land Research
Okumura, Marion
Okumura, Yuiche
Oldengarm, Effie
Oldengarm, Egbert
Oldengarm, Henry
Oliviera, Manuel L.
Oliviera, Mary M.
Olson, Albert
Oltmans Construction Co.
Omlin, Anton
Omlin, Elsie L.
Ontario Christian School Assn.
Oord, John
Oostdam, Jacoba
Oostdam, Pete
Oosten, Agnes
Oosten, Anthonia
Oosten, Caroline
Oosten, John
Oosten, Marinus
Oosten, Ralph
Orange County Water District
Ormonde, Manuel
Ormonde, Pete, Jr.
Ormonde, Viva
Ortega, Adeline B.
Ortega, Bernard Dino
Osterkamp, Joseph S.
Osterkamp, Margaret A.
P I E Water Co.
Palmer, Eva E.
Palmer, Walter E.
Parente, Luis S.
Parente, Mary Borba
Parks, Jack B.
Parks, Laura M.
Patterson, Lawrence E. Estate of
Payne, Clyde H.
Payne, Margo
Pearson, Athelia K.
Pearson, William C.
Pearson, William G.
Pene, Robert
Perian, Miller
Perian, Ona E.
Petrissans, Deanna
Petrissans, George
Petrissans, Jean P.
Petrissans, Marie T.
Pickering, Dora M.
(Mrs. A. L. Pickering)
Pierce, John

Pierce, Sadie
Pietszak, Sally
Pine, Joe
Pine, Virginia
Pires, Frank
Pires, Marie
Plaa, Jeanne
Plaa, Michel
Plantenga, Agnes
Plantenga, George
Poe, Arlo D.
Pomona Cemetery Assn.
Porte, Cecelia, Estate of
Porte, Garritt, Estate of
Portsmouth, Vera McCarty
Ramella, Mary M.
Ramirez, Concha
Rearick, Hildegard H.
Rearick, Richard R.
Reinalda, Clarence
Reitsma, Greta
Reitsma, Louis
Rice, Bernice
Rice, Charlie E.
Richards, Karin
(Mrs. Ronnie Richards)
Richards, Ronald L.
Ridder, Jennie Wassenaar
Righetti, A. T.
Riley, George A.
Riley, Helen C.
Robbins, Jack K.
Rocha, John M.
Rocha, Jose C.
Rodrigues, John
Rodrigues, Manuel
Rodrigues, Manuel, Jr.
Rogrigues, Mary L.
Rodriquez, Daniel
Rogers, Jack D.
Rohrer, John A.
Rohrer, Theresa D.
Rohrs, Elizabeth H.
Rossetti, M. S.
Roukema, Angeline
Roukema, Ed.
Roukema, Nancy
Roukema, Siebren
Ruderian, Max J.
Russell, Fred J.
Rusticus, Ann
Rusticus, Charles
Rynsburger, Arie
Rynsburger, Berdena, Trust
Rynsburger, Joan Adele
Rynsburger, Thomas

S. P. Annex, Inc.

Salisbury, Elinor J.

Sanchez, Edmundo

Sanchez, Margarita O.

Santana, Joe Sr.

Santana, Palmira

Satragni, John B. Jr.

Scaramella, George P.

Schaafsma Bros.

Schaafsma, Jennie

Schaafsma, Peter

Schaafsma, Tom

Schaap, Andy

Schaap, Ids

Schaap, Maria

Schacht, Sharon C.

Schakel, Audrey

Schakel, Fred

Schmid, Olga

Schmidt, Madeleine

Schoneveld, Evert

Schoneveld, Henrietta

Schoneveld, John

Schoneveld, John Allen

Schug, Donald E.

Schug, Shirley A.

Schuh, Bernatta M.

Schuh, Harold H.

Scott, Frances M.

Scott, Linda F.

Scott, Stanley A.

Scritsmier, Lester J.

Serl, Charles A.

Serl, Rosalie P.

Shady Grove Dairy, Inc.

Shamel, Burt A.

Shelby, Harold E.

Shelby, John A.

Shelby, Velma M.

Shelton, Alice A.

Sherwood, Robert W.

Sherwood, Sheila J.

Shue, Eva

Shue, Gilbert

Sieperda, Anne

Sieperda, James

Sigrist, Hans

Sigrist, Rita

Silveira, Arline L.

Silveira, Frank

Silveira, Jack

Silveira, Jack P. Jr.

Simas, Dolores

Simas, Joe

Singleton, Dean

Singleton, Elsie R.

Sinnott, Jim	Staal, John
Sinnott, Mildred B.	Stahl, Zippora P.
Slegers, Dorothy	Stampfl, Berta
Slegers, Hubert J.	Stampfl, William
Slegers, Jake	Stanley, Robert E.
Slegers, Jim	Stark, Everett
Slegers, Lenwood M.	Stellingwerf, Andrew
Slegers, Martha	Stellingwerf, Henry
Slegers, Tesse J.	Stellingwerf, Jenette
Smith, Edward S.	Stellingwerf, Shana
Smith, Helen D.	Stellingwerf, Stan
Smith, James E.	Stelzer, Mike C.
Smith, Keith J.	Sterk, Henry
Smith, Lester W.	Stiefel, Winifred
Smith, Lois Maxine	Stiefel, Jack D.
Smith, Marjorie W.	Stigall, Richard L.
Soares, Eva	Stigall, Vita
Sogioka, Mitsuyoshi	Stockman's Inn
Sogioka, Yoshimato	Stouder, Charlotte A.
Sousa, Sam	Stouder, William C.
Southern Pacific Land Co.	Struikmans, Barbara
Southfield, Eddie	Struikmans, Gertie
Souza, Frank M.	Struikmans, Henry Jr.
Souza, Mary T.	Struikmans, Henry Sr.
Spickerman, Alberta	Struikmans, Nellie
Spickerman, Florence	Swager, Edward
Spickerman, Rudolph	Swager, Gerben
Spyksma, John	Swager, Johanna

Swager, Marion
Swierstra, Donald
Swierstra, Fanny
Sybrandy, Ida
Sybrandy, Simon
Sytsma, Albert
Sytsma, Edith
Sytsma, Jennie
Sytsma, Louie
Te Velde, Agnes
Te Velde, Bay
Te Velde, Bernard A.
Te Velde, Bonnie
Te Velde, Bonnie G.
Te Velde, George
Te Velde, George, Jr.
Te Velde, Harm
Te Velde, Harriet
Te Velde, Henry J.
Te Velde, Jay
Te Velde, Johanna
Te Velde, John H.
Te Velde, Ralph A.
Te Velde, Zwaantina, Trustee
Ter Maaten, Case
Ter Maaten, Cleone
Ter Maaten, Steve
Terpstra, Carol
Terpstra, Theodore G.
Teune, Tony
Teunissen, Bernard
Teunissen, Jane
Thomas, Ethel M.
Thommen, Alice
Thommen, Fritz
Tillema, Allie
Tillema, Harold
Tillema, Klaas D.
Timmons, William R.
Tollerup, Barbara
Tollerup, Harold
Trapani, Louis A.
Trimlett, Arlene R.
Trimlett, George E.
Tristant, Pierre
Tuinhout, Ale
Tuinhout, Harry
Tuinhout, Hilda
Tuls, Elizabeth
Tuls, Jack S.
Tuls, Jake
Union Oil Company of California
United Dairyman's Co-op.
Urquhart, James G.
Usle, Cathryn
Usle, Faustino

V & Y Properties	Van Hofwegen, Clara
Vaile, Beryl M.	Van Hofwegen, Jessie
Valley Hay Co.	Van Klaveren, A.
Van Beek Dairy Inc.	Van Klaveren, Arie
Van Canneyt Dairy	Van Klaveren, Wilhelmina
Van Canneyt, Maurice	Van Klaveren, William
Van Canneyt, Wilmer	Van Leeuwen, Arie C.
Van Dam, Bas	Van Leeuwen, Arie C.
Van Dam, Isabelle	Van Leeuwen, Arlan
Van Dam, Nellie	Van Leeuwen, Clara G.
Van Den Berg, Gertrude	Van Leeuwen, Cornelia L.
Van Den Berg, Joyce	Van Leeuwen, Harriet
Van Den Berg, Marinus	Van Leeuwen, Jack
Van Den Berg, Marvin	Van Leeuwen, John
Van Der Linden, Ardith	Van Leeuwen, Letie
Van Der Linden, John	Van Leeuwen, Margie
Van Der Linden, Stanley	Van Leeuwen, Paul
Van Der Veen, Kenneth	Van Leeuwen, William A.
Van Diest, Anna T.	Van Ravenswaay, Donald
Van Diest, Cornelius	Van Ryn Dairy
Van Diest, Ernest	Van Ryn, Dick
Van Diest, Rena	Van Surksum, Anthonetta
Van Dyk, Bart	Van Surksum, John
Van Dyk, Jeanette	Van Veen, John
Van Foeken, Martha	Van Vliet, Effie
Van Foeken, William	Van Vliet, Hendrika
Van Hofwegen, Steve	Van Vliet, Hugo
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

Vanderham, Cornelius	Vestal, J. Howard
Vanderham, Cornelius P.	Visser, Gerrit
Vanderham, Cory	Visser, Grace
Vanderham, E. Jane	Visser, Henry
Vanderham, Marian	Visser, Jess
Vanderham, Martin	Visser, Louie
Vanderham, Pete C.	Visser, Neil
Vanderham, Wilma	Visser, Sam
Vasquez, Eleanor	Visser, Stanley
Veenendaal, Evert	Visser, Tony D.
Veenendaal, John H.	Visser, Walter G.
Veiga, Dominick, Sr.	Von Der Ahe, Fredric T.
Verbree, Jack	Von Euw, George
Verbree, Tillie	Von Euw, Majorie
Verger, Bert	Von Lusk, a limited partnership
Verger, Betty	Voortman, Anna Marie
Verhoeven, Leona	Voortman, Edward
Verhoeven, Martin	Voortman, Edwin J.
Verhoeven, Wesley	Voortman, Gertrude Dena
Vermeer, Dick	Wagner, Richard H.
Vermeer, Jantina	Walker, Carole R.
Vernola Ranch	Walker, Donald E.
Vernola, Anthonietta	Walker, Wallace W.
Vernola, Anthony	Wardle, Donald M.
Vernola, Frank	Warner, Dillon B.
Vernola, Mary Ann	Warner, Minnie
Vernola, Pat F.	Wassenaar, Peter W.
Vestal, Frances Lorraine	Waters, Michael

Weeda, Adriana
Weeda, Daniel
Weeks, O. L.
Weeks, Verona E.
Weidman, Maurice
Weidman, Virginia
Weiland, Adaline I.
Weiland, Peter J.
Wesselink, Jules
West, Katharine R.
West, Russel
West, Sharon Ann
Western Horse Property
Westra, Alice
Westra, Henry
Westra, Hilda
Westra, Jake J.
Weststeyn, Freida
Weststeyn, Pete
Whitehurst, Louis G.
Whitehurst, Pearl L.
Whitmore, David L.
Whitmore, Mary A.
Whitney, Adolph M.
Wiersema, Harm
Wiersema, Harry
Wiersma, Ellen H.
Wiersma, Gladys J.
Wiersma, Jake
Wiersma, Otto
Wiersma, Pete
Winchell, Verne H., Trustee
Wind, Frank
Wind, Fred
Wind, Hilda
Wind, Johanna
Woo, Frank
Woo, Sem Gee
Wybenga, Clarence
Wybenga, Gus
Wybenga, Gus K.
Wybenga, Sylvia
Wynja, Andy
Wynja, Iona F.
Yellis, Mildred
Yellis, Thomas E.
Ykema-Harmsen Dairy
Ykema, Floris
Ykema, Harriet
Yokley, Betty Jo
Yokley, Darrell A.
Zak, Zan
Zivelonghi, George
Zivelonghi, Margaret
Zwaagstra, Jake
Zwaagstra, Jessie M.
Zwart, Case

EXHIBIT "C"

NON-PRODUCER WATER DISTRICTS

Chino Basin Municipal Water District[A]

Chino Basin Water Conservation District

Pomona Valley Municipal Water District[B]

Western Municipal Water District of Riverside County

[A] CBMWD became IEUA in 1999.

[B] PVMWD became TVMWD in 1986.

DEFAULTING OVERLYING AGRICULTURAL PRODUCERS

Cheryl L. Bain
Warren Bain
John M. Barcelona
Letty Bassler
John Brazil
John S. Briano
Lupe Briano
Paul A. Briano
Tillie Briano
Arnie B. Carlson
John Henry Fikse
Phyllis S. Fikse
Lewellyn Flory
Mary I. Flory
L. H. Glazer
Dorothy Goodman
Sidney D. Goodman
Frank Grossi
Harada Brothers
Ellen Hettinga
Hein Hettinga
Dick Hofstra, Jr.
Benjamin M. Hughey
Frieda L. Hughey
Guillaume Indart
Ellwood B. Johnston, Trustee
Perry Kruckenberg, Jr.
Roy W. Lantis
Sharon I. Lantis
Frank Lorenz
Dagney H. MacDonald
Frank E. Martin
Ruth C. Martin
Connie S. Mello
Naldiro J. Mello
Felice Miller
Ted Miller
Masao Nerio
Tom K. Nerio
Toyo Nerio
Yuriko Nerio
Harold L. Rees
Alden G. Rose
Claude Rouleau, Jr.
Patricia M. Rouleau
Schultz Enterprises
Albert Shaw
Lila Shaw
Cathy M. Stewart
Marvin C. Stewart
Betty Ann Stone
John B. Stone
Vantoll Cattle Co., Inc.
Catherine Verburg

EXHIBIT "C"

Martin Verburg

Donna Vincent

Larry Vincent

Cliff Wolfe & Associates

Ada M. Woll

Zarubica Co.

EXHIBIT "C-1"

NEW PARTIES INTERVENING IN OVERLYING AGRICULTUAL POOL FROM 1978 TO 2000

Frans Aardema	Frank Jacques
Cornelia Aardema	Richard Lambeth
Ray Albers	Carol A. Larsen
Louis Badders	Chin Lee, Ambrosia Farms
Robert Barth	Albert Levinson – Tomlev, Inc.
Marvin H. Belville	Frank Lizzaraga
Pete Boersma	Richard Lorenz
Pete Borba & Sons	Los Serranos Golf Club
Dick Bosma	Mira Loma Thoroughbred Farm
Gene and Geneva Burbridge	Mobile Home Partners of California
Jim Carroll	John R. Moore
Linda Carroll	Claudell Moore
David Chez	Manual Moreno
Chino Grain & Mill, Inc.	Rick and Debbie Mouw
Chino Valley Investment	Jim Nace
Judith Collins	George Noble
Eric Daale	Ontario Planned Residential Joint Venture
Bob DeJager	Anthony H. Osterkamp
Dutchmen Properties	Darlene Olive Osterkamp
Andy Dyt	Carlos Palacio
Everett/Charles, Inc.	Ronald and Kristine Pietersma
Que Fullmer	Jack Pinheiro
Richard Haagsma	A.C. Pinheiro
Joe Heim	Mary Pinheiro
James Idsinga	Mary L. Rawitser
Intex Corporation	R.C. Land Company
Francisco Islas	Phyllis T. Rexius

Ted L. Rexius
Elizabeth H. Rohrs
Paul Russavage
Linda C. Sackin
Paul C. Sackin
Fred Scane
Sharon Schact
Sky Country Development Co./
Magnolia Farms
J.D. Smith
S.N.S. Dairy
Amil Steiner
Helen Steiner
Louis Struikman
Andy Sytsma
Charlie Tadema
Gary Teed
Limon D and Louise Thrall
Alfred B. Tourigny
Sandra Tourigny
Maynard Troost
Turn Key Associates, Inc.
August Vandenberg
Andrew W. Vandenberg
Geoffrey Vanden Heuvel
John Vander Poel
Arlene Vander Tuig
Sylvester Vander Tuig
Richard Van Loon
Abel Villapando
Leon Weaver
Ralph D. Wenger
Whispering Lakes Community Church
Wineside 45
Walter W. Wurster
George Yamamoto
Theodore Zwicker

EXHIBIT "C-1"

EXHIBIT "D"

OVERLYING NON-AGRICULTURAL RIGHTS

Party	Total Overlying Share of Non-Agricultural Safe Yield Rights (Acre-Feet)	Acre-Feet
Ameron Steel Producers, Inc.	125	97.858
County of San Bernardino (Airport)	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 Growers, Inc.	2,393	1,873.402
Carlsberg Mobile Home Properties, Ltd '73	593	464.240
Union Carbide Corporation	546	427.446
Quaker Chemical Co.	0	0.000
Totals	9,409	7,366.000

EXHIBIT "D-1"[A]

OVERLYING NON-AGRICULTURAL RIGHTS

Party	Total Overlying Share of Non-Agricultural Safe Yield Rights (Acre-Feet)	Acre-Feet
Ameron Steel Producers, Inc.	125	97.858
County of San Bernardino (Airport)	171	133.870
Vulcan Materials Company[B]	406	317.844
CCG Ontario LLC[C]	805	630.274
West Venture Development Co.[D]	20	15.657
Southern California Edison Co.[E]	37	27.959
Reliant Energy, Etiwanda[F]	1,219	954.540
Space Center, Mira Loma	133	104.121
Angelica Rental Service[G]	24	18.789
Sunkist Growers, Inc	2,393	1,873.402
Swan Lake Mobile Home Park[H]	593	464.240
California Steel Industries[I]	1,660	1,300.000
Praxair[J]	546	427.446
General Electric Corporation[K]	0	0.000
California Speedway[L]	1,277	1,000.000
Loving Savior of the Hills Lutheran Church[M]	0	0.000
Totals	9,409	7,366.000

[A] Exhibit D-1 lists Non-Agricultural Pool Members as of September, 2001.
[B] Conrock became Calmat and in FY 99-00 became Vulcan Materials Co.
[C] Kaiser Steel Corporation became Kaiser Resources and then Kaiser Venture, Inc. Kaiser sold portions of its property to CSI & Speedway and its last property holdings and all its remaining water rights to CCG Ontario LLP on 8-16-00.
[D] Anaheim Citrus became Red Star Fertilizer, then West Venture Development. West Venture went out of business in 91-92.
[E] A portion of SCE was sold in FY 98-99. SCE retained 27.959 AF OSY.
[F] Mountain Vista Power Generating Company (MVPG) purchased the Etiwanda Generating Facility owned by SCE in FY 98-99. MVPG became Reliant Energy, Etiwanda with 954.540 AF OSY.
[G] Southern Service Company became Angelica Rental Service.
[H] Carlsberg Mobile Home Properties became Mobile Community Management and is known as Swan Lake Mobile Home Park.
[I] California Steel Industries (CSI) intervened in FY 91-92 after purchasing land from Kaiser.
[J] Union Carbide Corp. became Praxair, Inc.
[K] General Electric Company intervened in FY 95-96.
[L] California Speedway intervened in FY 96-97 after purchasing land from Kaiser. On August 16, 2000 Catellus permanently transferred 525 AF OSY to Speedway.
[M] Loving Savior of the Hills Lutheran Church intervened in FY 00-01.

EXHIBIT "E"

APPROPRIATIVE RIGHTS

Party	Appropriative Right (Acre Feet)	Share of Initial Operating Safe Yield (Acre-Feet)	Share of Operating Safe Yield (Percent)
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 Services 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
Feldspar Gardens Mutual Water Company	68.3	47.549	0.087
Fontana Union Water Company	9,188.3	6,396.736	11.666
Marygold Mutual Water Company	941.3	655.317	1.195
Mira Loma Water Company	1,116.0	776.940	1.417
Monte Vista Irrigation Company	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 Company	3,106.3	2,162.553	3.944
San Antonio Water Company	2,164.5	2,506.888	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	1,361.3	947.714	1.728
TOTAL	78,763.8	55,834.000	100.000

EXHIBIT "E-1"[N]

APPROPRIATIVE RIGHTS

Party	Appropriative Right (Acre Feet)	Share of Initial Operating Safe Yield (OSY) (Acre-Feet)	Share of Operating Safe Yield (Percent)
City of Chino[O]	5,794.6	4,033.857	7.357
City of Chino Hills[P]	3,033.2	2,111.422	3.851
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[Q]	5,199.2	3,619.454	6.601
Jurupa Community Services District[R]	2,960.7	2,061.118	3.759
Monte Vista Water District[S]	6,928.8	4,823.954	8.797
West San Bernardino County Water District	925.5	644.317	1.175
Fontana Union Water Company	9,188.3	6,396.736	11.666
Fontana Water Company[T]	0.0	0.0	0.0
Los Serranos Country Club[U]	0.0	0.0	0.0
Marygold Mutual Water Company	941.3	655.317	1.195
Monte Vista Irrigation Company	972.1	676.759	1.234
San Antonio Water Company	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[V]	590.7	411.476	0.750
West End Consolidated Water Company	1,361.3	947.714	1.728
San Bernardino County (Shooting Park)[W]	0.0	0.0	0.0
Arrowhead Mountain Springs Water Company[X]	0.0	0.0	0.0
Department of Toxic Substances Control[Y]	0.0	0.0	0.0
City of Fontana[Z]	0.0	0.0	0.0
TOTAL	78,763.8	54,834.000	100.000

[N] Exhibit E-1 lists Appropriative Pool members as of September, 2001.
[O] In 1990 Chino received a portion of San Bernardino County Water Works #8 (WW#8) OSY (363.790 AF) as a result of a permanent transfer.
[P] City of Chino Hills incorporated in 1991 and assumed the responsibility for providing the public services formerly provided by WW#8. WW#8 acquired a portion of the rights of Park and Pomona Valley Water Companies in 1983.
[Q] CCWD acquired the rights to Etiwanda Water Company (upon dissolution) in 1986.
[R] JCSD acquired the rights of Mira Loma Water Company (776.940 AF), Feldspar Gardens (47.549AF) and Mutual Water Company of Glen Avon Heights (467.974 AF)
[S] In 1990, MVWD received 675.610 AF of WW#8 OSY as a result of a permanent transfer.
[T] FWC intervened in FY 91-92.
[U] Los Serranos intervened in FY83-84.
[V] SCWC permanently transferred 823.900 AF of OSY to Park Water Company in 1980. Park Water Co was acquired by WW#8 which was subsequently acquired by the City of Chino Hills.
[W] San Bernardino County Prado Tiro (now known as Prado Shooting Park) was involuntarily reassigned to the Appropriative Pool from the Ag Pool in 1985.
[X] Arrowhead intervened in FY 92-93.
[Y] DTSC was formerly managed by the Pyrite Canyon Group. Pyrite intervened in FY 92-93.
[Z] Fontana intervened in FY 98-99.

EXHIBIT "F"

OVERLYING AGRICULTURAL POOL

POOLING PLAN

1. Membership in Pool. The State of California and all producers listed in Exhibit "C"[27] ("C-1") shall be the initial members of this pool, which shall include all producers of water for overlying uses other than industrial or commercial purposes.

2. Pool Meetings. The members of the pool shall meet annually, in person or by proxy, at a place and time to be designated by Watermaster for purposes of electing members of the Pool Committee and conducting any other business of the pool. Special meetings of the membership of the pool may be called and held as provided in the rules of the pool.

3. Voting. All voting at meetings of pool members shall be on the basis of one vote for each 100 acre feet or any portion thereof of production from Chino Basin during the preceding year, as shown by the records of Watermaster.

4. Pool Committee. The Pool Committee for this pool shall consist of not less than nine (9) representatives selected at large by members of the pool. The exact number of members of the Pool Committee in any year shall be as determined by majority vote of the voting power of members of the pool in attendance at the annual pool meeting. Each member of the Pool Committee shall have one vote and shall serve for a two-year term. The members first elected shall classify themselves by lot so that approximately one-half serve an initial one-year term. Vacancies during any term shall be filled by a majority of the remaining members of the Pool Committee.

5. Advisory Committee Representatives. The number of representatives of the Pool Committee on the Advisory Committee shall be as provided in the rules of the pool from time to time but not exceeding ten (10). The voting power of the pool on the Advisory Committee shall be apportioned and exercised as determined from time to time by the Pool Committee.

6. Replenishment Obligation. The pool shall provide funds for replenishment of any production by persons other than members of the Overlying Non-Agricultural Pool or Appropriator Pool,

[27] Exhibit C-1 lists interventions that were approved for the Agricultural Pool since 1978.

in excess of the pool's share of Safe Yield. During the first five (5) years of operations of the Physical Solution, reasonable efforts shall be made by the Pool Committee to equalize annual assessments.

7. Assessments. All assessments in this pool (whether for replenishment water cost or for pool administration or the allocated share of Watermaster administration) shall be in an amount uniformly applicable to all production in the pool during the preceding year or calendar quarter. Provided, however, that the Agricultural Pool Committee, may recommend to the Court modification of the method of assessing pool members, inter se, if the same is necessary to attain legitimate basin management objectives, including water conservation and avoidance of undesirable socio-economic consequences. Any such modification shall be initiated and ratified by one of the following methods:

(a) Excess Production. - In the event total pool production exceeds 100,000 acre feet in any year, the Pool Committee shall call and hold a meeting, after notice to all pool members, to consider remedial modification of the assessment formula.

(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.

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EXHIBIT "G"

OVERLYING (NON-AGRICULTURAL) POOL

POOLING PLAN

1. Membership in Pool. The initial members of the pool, together with the decreed share of the Safe Yield of each, are listed in Exhibit "D" ("D-1")[28]". Said pool includes producers of water for overlying industrial or commercial non-agricultural purposes, or such producers within the Pool who may hereafter take water pursuant to Paragraph 8 hereof.

2. Pool Committee. The Pool Committee for this pool shall consist of one representative designated by each member of the pool. Voting on the committee shall be on the basis of one vote for each member, unless a volume vote is demanded, in which case votes shall be allocated as follows:

The volume voting power on the Pool Committee shall be 1,484 votes. Of these, 742 votes shall be allocated on the basis of one vote for each ten (10) acre feet or fraction thereof of decreed shares in Safe Yield. (See Exhibit "D" ("D-1")).[29]

The remaining 742 votes shall be allocated proportionally on the basis of assessments paid to Watermaster during the preceding year.*

3. Advisory Committee Representatives. At least three (3) members of the Pool Committee shall be designated by said committee to serve on the Advisory Committee. The exact number of such representatives at any time shall be as determined by the Pool Committee. The voting power of the pool shall be exercised in the Advisory Committee as a unit, based upon the vote of a majority of said representatives.

4. Replenishment Obligation. The pool shall provide funds for replenishment of any production in excess of the pool's share of Safe Yield in the preceding year.

5. Assessment. Each member of this pool shall pay an assessment equal to the cost of replenishment water times the number of acre feet of production by such producer during the preceding

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[28] See Also, Exhibit "D-1"
[29] See Also, Exhibit "D-1"
* Or production assessments paid under Water Code Section 72140 et seq., as to years prior to the second year of operation under the Physical Solution hereunder.

year in excess of (a) his decreed share of the Safe Yield, plus (b) any carry-over credit under Paragraph 7 hereof. In addition, the cost of the allocated share of Watermaster administration expense shall be recovered on an equal assessment against each acre foot of production in the pool during such preceding fiscal year or calendar quarter; and in the case of Pool members who take substitute ground water as set forth in Paragraph 8 hereof, such producer shall be liable for its share of administration assessment, as if the water so taken were produced, up to the limit of its decreed share of Safe Yield.

6. Assignment. Rights herein decreed are appurtenant to ~~the~~ ***that*** land and are only assignable with the land for overlying use thereon; provided, however, [30]**(a)** that any appropriator who may, directly or indirectly, undertake to provide water service to such overlying lands may, by an appropriate agency agreement on a form approved by Watermaster, exercise said overlying right to the extent, but only to the extent necessary to provide water service to said overlying lands**,** and ***(b) the members of the pool shall have the right to Transfer or lease their quantified production rights within the pool or to Watermaster in conformance with the procedures described in the Peace Agreement between the Parties therein, dated June 29, 2000 for the term of the Peace Agreement.***

7. Carry-over. Any member of the pool who produces less than its assigned water share of Safe Yield may carry such unexercised right forward for exercise in subsequent years. The first water produced during any such subsequent year shall be deemed to be an exercise of such carry-over right. In the event the aggregate carry-over by any pool member exceeds its share of Safe Yield, such member shall, as a condition of preserving such surplus carryover, execute a storage agreement with Watermaster.

8. Substitute Supplies. To the extent that any Pool member, at the request of Watermaster and with the consent of the Advisory Committee, takes substitute surface water in lieu of producing ground water otherwise subject to production as an allocated share of Safe Yield, said party shall nonetheless remain a member of this Pool.

9. Rules. The Pool Committee shall adopt rules for administering its program and in amplification of the provisions, but not inconsistent with, this pooling plan.

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[30] Peace Agreement Article 4.4(b). Order dated September 28, 2000 amended Paragraph 6 as shown above and Order dated April 19, 2001 confirmed Judgment modifications.

EXHIBIT "H"

APPROPRIATIVE POOL

POOLING PLAN

1. Qualification for Pool. Any city, district or other public entity and public utility -- either regulated under Public Utilities Commission jurisdiction, or exempt therefrom as a non-profit mutual water company (other than those assigned to the Overlying (Agricultural) Pool) -- shall be a member of this pool. All initial members of the pool are listed in Exhibit "E" ("E-1")[31], together with their respective appropriative rights and acre foot allocation and percentage shares of the initial and subsequent Operating Safe Yield.

2. Pool Committee. The Pool Committee shall consist of one (1) representative appointed by each member of the Pool.

3. Voting. The total voting power on the Pool Committee shall be 1,000 votes. Of these, 500 votes shall be allocated in proportion to decreed percentage shares in Operating Safe Yield. The remaining 500 votes shall be allocated proportionally on the basis of assessments paid to Watermaster during the preceding year. *Routine business of the Pool Committee may be conducted on the basis of one vote per member, but upon demand of any member a weighted vote shall be taken. Affirmative action of the Committee shall require a majority of the voting power of members in attendance, provided that it includes concurrence by at least one-third of its total members.

4. Advisory Committee Representatives. [32] ~~Ten (10)m~~ Members of the Pool Committee shall be designated to represent this pool on the Advisory Committee ***on the following basis***: Each major appropriator, i.e., the owner of an adjudicated appropriative right in excess of 3,000 acre feet, ***or each appropriator that produces in excess of 3,000 acre feet based upon the prior year's production,*** shall be entitled to one representative. ~~The remaining members representing~~ ***Two additional representatives*** of the Appropriative Pool on the Advisory Committee shall be elected at large

*Or production assessments paid under Water Code Section 72140 et seq., as to years prior to the second year of operation under the Physical Solution hereunder.

[31] See Also, Exhibit "E-1"
[32] Order dated September 18, 1996 amended Paragraph 4 as shown above.

by the remaining members of the pool. The voting power of the Appropriative Pool on the Advisory Committee shall be apportioned between the major appropriator representatives in proportion to their respective voting power in the Pool Committee. The two representatives of the remaining appropriators shall exercise equally the voting power proportional to the Pool Committee voting power of said remaining appropriators; provided, however, that if any representative fails to attend an Advisory Committee meeting, the voting power of that representative shall be allocated among the representatives of the Appropriative Pool in attendance in the same proportion as their respective voting powers.

5. Replenishment Obligation. The pool shall provide funds for purchase of replenishment water to replace any production by the pool in excess of Operating Safe Yield during the preceding year.

6. Administrative Assessment. Costs of administration of this pool and its share of general Watermaster expense shall be recovered by a uniform assessment applicable to all production during the preceding year.

7. Replenishment Assessment. The cost of replenishment water required to replace production from Chino Basin in excess of Operating Safe Yield in the preceding year shall be allocated and recovered as follows:

(a) For production, other than for increased export, within IEUA[33] or WMWD:

(1) Gross Assessment. 15% of such replenishment water costs shall be recovered by a uniform assessment against all production of each appropriator producing in said area during the preceding year.

(2) Net Assessment. The remaining 85% of said costs shall be recovered by a uniform assessment on each acre foot of production from said area by each such appropriator in excess of his allocated share of Operating Safe Yield during said preceding year.

(b) For production which is exported for use outside Chino Basin in excess of maximum export in any year through 1976, such increased export production shall be assessed

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[33] CBMWD became IEUA.

against the exporting appropriator in an amount sufficient to purchase replenishment water from IEUA[34] or WMWD in the amount of such excess.

(c) For production within SBVMWD or TVMWD[35]:

By an assessment on all production in excess of an appropriator's share of Operating Safe Yield in an amount sufficient to purchase replenishment water through SBVMWD or MWD in the amount of such excess.

8. Socio-Economic Impact Review. The parties have conducted certain preliminary socio-economic impact studies. Further and more detailed socio-economic impact studies of the assessment formula and its possible modification shall be undertaken for the Appropriator Pool by Watermaster no later than ten (10) years from the effective date of this Physical Solution, or whenever total production by this pool has increased by 30% or more over the decreed appropriative rights, whichever is first.

9. Facilities Equity Assessment. Watermaster may, upon recommendation of the Pool Committee, institute proceedings for levy and collection of a Facilities Equity Assessment for the purposes and in accordance with the procedures which follow:

(a) Implementing Circumstances. - There exist several sources of supplemental water available to Chino Basin, each of which has a differential cost and quantity available. The optimum management of the entire Chino Basin water resource favors the maximum use of the lowest cost supplemental water to balance the supplies of the Basin, in accordance with the Physical Solution. The varying sources of supplemental water include importations from MWD and SBVMWD, importation of surface and ground water supplies from other basins in the immediate vicinity of Chino Basin, and utilization of reclaimed water. In order to fully utilize any of such alternate sources of supply, it will be essential for particular appropriators having access to one or more of such supplies to have invested, or in the future to invest, directly or indirectly, substantial funds in facilities to obtain and deliver such water to an appropriate point of use. To the extent that the use of less expensive alternative sources of supplemental water can be maximized by the inducement of a Facilities Equity Assessment, as herein provided, it is to the

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[34] CBMWD became IEUA
[35] PVMWD became TVMWD

long-term benefit of the entire basin that such assessment be authorized and levied by Watermaster.

(b) Study and Report. - At the request of the Pool Committee, Watermaster shall undertake a survey study of the utilization of alternate supplemental supplies by members of the Appropriative Pool which would not otherwise be utilized and shall prepare a report setting forth the amount of such alternative supplies being currently utilized, the amount of such supplies which could be generated by activity within the pool, and the level of cost required to increase such uses and to optimize the total supplies available to the basin. Said report shall contain an analysis and recommendation for the levy of a necessary Facilities Equity Assessment to accomplish said purpose.

(c) Hearing. - If the said report by Watermaster contains a recommendation for imposition of a Facilities Equity Assessment, and the Pool Committee so requests, Watermaster shall notice and hold a hearing not less than 60 days after distribution of a copy of said report to each member of the pool, together with a notice of the hearing date. At such hearing, evidence shall be taken with regard to the necessity and propriety of the levy of a Facilities Equity Assessment and full findings and decision shall be issued by Watermaster.

(d) Operation of Assessment. - If Watermaster determines that it is appropriate that a Facilities Equity Assessment be levied in a particular year, the amount of additional supplemental supplies which should be generated by such assessment shall be estimated. The cost of obtaining such supplies, taking into consideration the investment in necessary facilities shall then be determined and spread equitably among the producers within the pool in a manner so that those producers not providing such additional lower cost supplemental water, and to whom a financial benefit will result, may bear a proportionate share of said costs, not exceeding said benefit; provided that any producer furnishing such supplemental water shall not thereby have its average cost of water in such year reduced below such producer's average cost of pumping from the Basin. In so doing, Watermaster shall establish a percentage of the total production by each party which may be produced without imposition of a Facilities Equity Assessment. Any member of the pool producing more water than said percentage shall pay such

Facilities Equity Assessment on any such excess production. Watermaster is authorized to transmit and pay the proceeds of such Facilities Equity Assessment to those producers who take less than their share of Basin water by reason of furnishing a higher percentage of their requirements through use of supplemental water.

10. Unallocated Safe Yield Water. To the extent that, in any five years, any portion of the share of Safe Yield allocated to the Overlying (Agricultural) Pool is not produced, such water shall be available for reallocation to members of the Appropriative Pool, as follows:

(a) Priorities. - Such allocation shall be made in the following sequence:

(1) to supplement, in the particular year, water available from Operating Safe Yield to compensate for any reduction in the Safe Yield by reason of recalculation thereof after the tenth year of operation hereunder.

(2) pursuant to conversion claims as defined in Subparagraph (b) hereof.

(3) as a supplement to Operating Safe Yield, without regard to reductions in Safe Yield.

(b) Conversion Claims. - [36] The following procedures may be utilized by any appropriator:

1) Record of Unconverted Agricultural Acreage. Watermaster shall maintain on an ongoing basis a record with appropriate related maps of all agricultural acreage within the Chino Basin subject to being converted to appropriative water use pursuant to the provisions of this subparagraph. An initial identification of such acreage as of June 30, 1995 is attached hereto as Appendix 1 (See Exhibit L).

(2). Record of ~~Land Use~~ ***Water Service*** ~~Conversion~~. Any appropriator who undertakes~~, directly or indirectly, during any year,~~ to permanently provide water service to lands ***subject to conversion*** ~~which during the immediate preceding five (5) consecutive years was devoted to irrigated agriculture~~ may report such intent to change

[36] Order dated November 17, 1995 amended Exhibit H Paragraph 10 (b) as shown above.

~~in land use or~~ water service to Watermaster. Watermaster ~~shall~~ ***should*** thereupon verify such change in water service and shall maintain a record and account for each appropriator of the total acreage involved. ~~and the average annual water use during said five year period~~. ***Should, at any time, converted acreage return to water service from the Overlying (Agricultural) Pool, Watermaster shall return such acreage to unconverted status and correspondingly reduce or eliminate any allocation accorded to the appropriator involved.***

(~~2~~ *3*) ~~Establishment of~~ Allocation ~~Percentage~~ ***of Safe Yield Rights***

(i) [37]***For the term of the Peace Agreement in*** any year in which ***sufficient*** unallocated Safe Yield ~~water~~ from the Overlying (Agricultural) Pool is available for such conversion claims, Watermaster shall ~~establish~~ alloca***te*** ~~ble percentages for~~ ***to*** each appropriator with a conversion claim ~~1.3~~ [38]***2.0*** acre feet of unallocated Safe Yield water for each ~~based upon the total of such~~ converted ***acre for which conversion has been approved and recorded by the Watermaster.*** ~~acreage recorded to each such appropriator's account.~~

(ii) In any year in which the unallocated Safe Yield water from the Overlying (Agricultural) Pool is not sufficient to satisfy all outstanding conversion claims pursuant to subparagraph (i) herein above, Watermaster shall establish allocation percentages for each appropriator with conversion claims. The percentages shall be based upon the ratio of the total of such converted acreage approved and recorded for each appropriators's account in comparison to the total of converted acreage approved and

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[37] Peace Agreement Article 4.4(c) and Order dated September 28, 2000 amended Paragraph 10(b)(3)(i) as shown above. Order dated April 19, 2001 confirmed Judgment modifications.
[38] See Footnote 37.

recorded for all appropriators. Watermaster shall apply such allocation percentage for each appropriator to the total unallocated Safe Yield water available for conversion claims to derive the amount allocable to each appropriator.

(~~3~~ ***4***) Allocation and Notice ***and Allocation***. ~~Watermaster shall thereafter apply the allocated percentage to the total unallocated Safe Yield water available for special allocation to derive the amount thereof allocable to each appropriator; provided that in no event shall the allocation to any appropriator as a result of such conversion claim exceed 50% of the average annual amount of water actually applied to the areas converted by such appropriator prior to such conversion. Any excess water by reason of such limitation on any appropriator's right shall be added to Operating Safe Yield~~. Notice of ~~such~~ ***the*** special allocation of Safe Yield water pursuant to conversion claims shall be given to each appropriator and shall be treated for purposes of this Physical Solution as an addition to such appropriator's share of the Operating Safe Yield for the particular year only.

(~~4~~ ***5***) Administrative Costs. *Any costs of Watermaster attributable to* ***the*** *administration of such special allocations and conversion claims shall be assessed against* ***the*** *appropriators participating in such reporting,* ***apportioned in accordance with the total amount of converted acreage held by each appropriator participating in the conversion program.***

11. In Lieu Procedures. There are, or any develop, certain areas within Chino Basin where good management practices dictate that recharge of the basin be accomplished, to the extent practical, by taking surface supplies of supplemental water in lieu of ground water otherwise subject to production as an allocated share of Operating Safe Yield.

(a) Method of Operation. - An appropriator producing water within such designated in lieu area who is willing to abstain for any reason from producing any portion of such producer's share of Operating Safe Yield in any year may offer such unpumped water to Watermaster. In

such event, Watermaster shall purchase said water in place,in lieu of spreading replenishment water, which is otherwise required to make up for over production. The purchase price for in lieu water shall be the lesser of:

(1) Watermaster's current cost of replenishment water, whether or not replenishment water is currently then obtainable, plus the cost of spreading; or

(2) The cost of supplemental surface supplies to the appropriator, less

a. said appropriator's average cost of ground water production, and

b. the applicable production assessment were the water produced.

Where supplemental surface supplies consist of MWD or SBVMWD supplies, the cost of treated, filtered State water from such source shall be deemed the cost of supplemental surface supplies to the appropriator for purposes of such calculation.

In any given year in which payments may be made pursuant to a Facilities Equity Assessment, as to any given quantity of water the party will be entitled to payment under this section or pursuant to the Facilities Equity Assessment, as the party elects, but not under both.

(b) Designation of In Lieu Areas[39]. - The first in lieu area is designated as the "In Lieu Area No. 1" and consists of an area wherein nitrate levels in the ground water generally exceed 45 mg/l, and is shown on Exhibit "J" hereto. Other in lieu areas may be designated by subsequent order of Watermaster upon recommendation or approval by Advisory Committee. Said in lieu areas may be enlarged, reduced or eliminated by subsequent orders; provided, however, that designation of In Lieu Areas shall be for a minimum fixed term sufficient to justify necessary capital investment. In Lieu Area No. 1 may be enlarged, reduced or eliminated in the same manner, except that any reduction of its original size or elimination thereof shall require the prior order of Court.

12. Carry-over. Any appropriator who produces less than his assigned share of Operating Safe Yield may carry such unexercised right forward for exercise in subsequent years. The first water produced during any such subsequent year shall be deemed to be an exercise of such carry-over right. In the event the aggregate carry-over by any appropriator exceeds its share of Operating Safe Yield, such

[39] Resolution No. 78-4 dated February 22, 1978 established In-Lieu Area #2 and included the entire Chino Basin.

appropriator shall, as a condition of preserving such surplus carry-over, execute a storage agreement with Watermaster. Such appropriator shall have the option to pay the gross assessment applicable to such carry-over in the year in which it accrued.

13. Assignment, Transfer and Lease. Appropriative rights, and corresponding shares of Operating Safe Yield, may be assigned or may be leased or licensed to another appropriator for exercise in a given year. Any transfer, lease or license shall be ineffective until written notice thereof is furnished to and approved as to form by Watermaster, in compliance with applicable Watermaster rules. Watermaster shall not approve transfer, lease or license of a right for exercise in an area or under conditions where such production would be contrary to sound basin management or detrimental to the rights or operations of other producers.

14. Rules. The Pool Committee shall adopt rules for administering its program and in amplification of the provisions, but not inconsistent with, this pooling plan.

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ENGINEERING APPENDIX

1. Basin Management Parameters. In the process of implementing the physical solution for Chino Basin, Watermaster shall consider the following parameters:

(a) Pumping Patterns. - Chino Basin is a common supply for all persons and agencies utilizing its waters. It is an objective in management of the Basin's waters that no producer be deprived of access to said waters by reason of unreasonable pumping patterns, nor by regional or localized recharge of replenishment water, insofar as such result may be practically avoided.

(b) Water Quality. - Maintenance and improvement of water quality is a prime consideration and function of management decisions by Watermaster.

(c) Economic Considerations. - Financial feasibility, economic impact and the cost and optimum utilization of the Basin's resources and the physical facilities of the parties are objectives and concerns equal in importance to water quantity and quality parameters.

2. Operating Safe Yield. Operating Safe Yield in any year shall consist of the Appropriative Pool's hare of Safe Yield of the Basin, plus any controlled overdraft of the Basin which Watermaster may authorize. In adopting the Operating Safe Yield for any year, Watermaster shall be limited as follows:

(a) Accumulated Overdraft. - During the operation of this Judgment and Physical Solution, the overdraft accumulated from and after the effective date of the Physical Solution and resulting from an excess of Operating Safe Yield over Safe Yield shall not exceed 200,000 acre feet.

(b) Quantitative Limits. - In no event shall Operating Safe Yield in any year be less than the Appropriative Pool's share of Safe Yield, nor shall it exceed such share of Safe Yield by more than 10,000 acre feet. The initial Operating Safe Yield is hereby set at 54,834 acre feet per year. Operating Safe Yield shall not be changed upon less than five (5) years' notice by Watermaster. Nothing contained in this paragraph shall be deemed to authorize, directly or indirectly, any modification of the allocation of shares in Safe Yield to the overlying pools, as set forth in Paragraph 44 of the Judgment.

3. Ground Water Storage Agreements. Any agreements authorized by Watermaster for storage of supplemental water in the available ground water storage capacity of Chino Basin shall include, but not be limited to:

(a) The quantities and term of the storage right.

(b) A statement of the priority or relation of said right, as against overlying or Safe Yield uses, and other storage rights.

(c) The procedure for establishing delivery rates, schedules and procedures which may include:

[1] spreading or injection, or

[2] in lieu deliveries of supplemental water for direct use.

(d) The procedures for calculation of losses and annual accounting for water in storage by Watermaster.

(e) The procedures for establishment and administration of withdrawal schedules, locations and methods.

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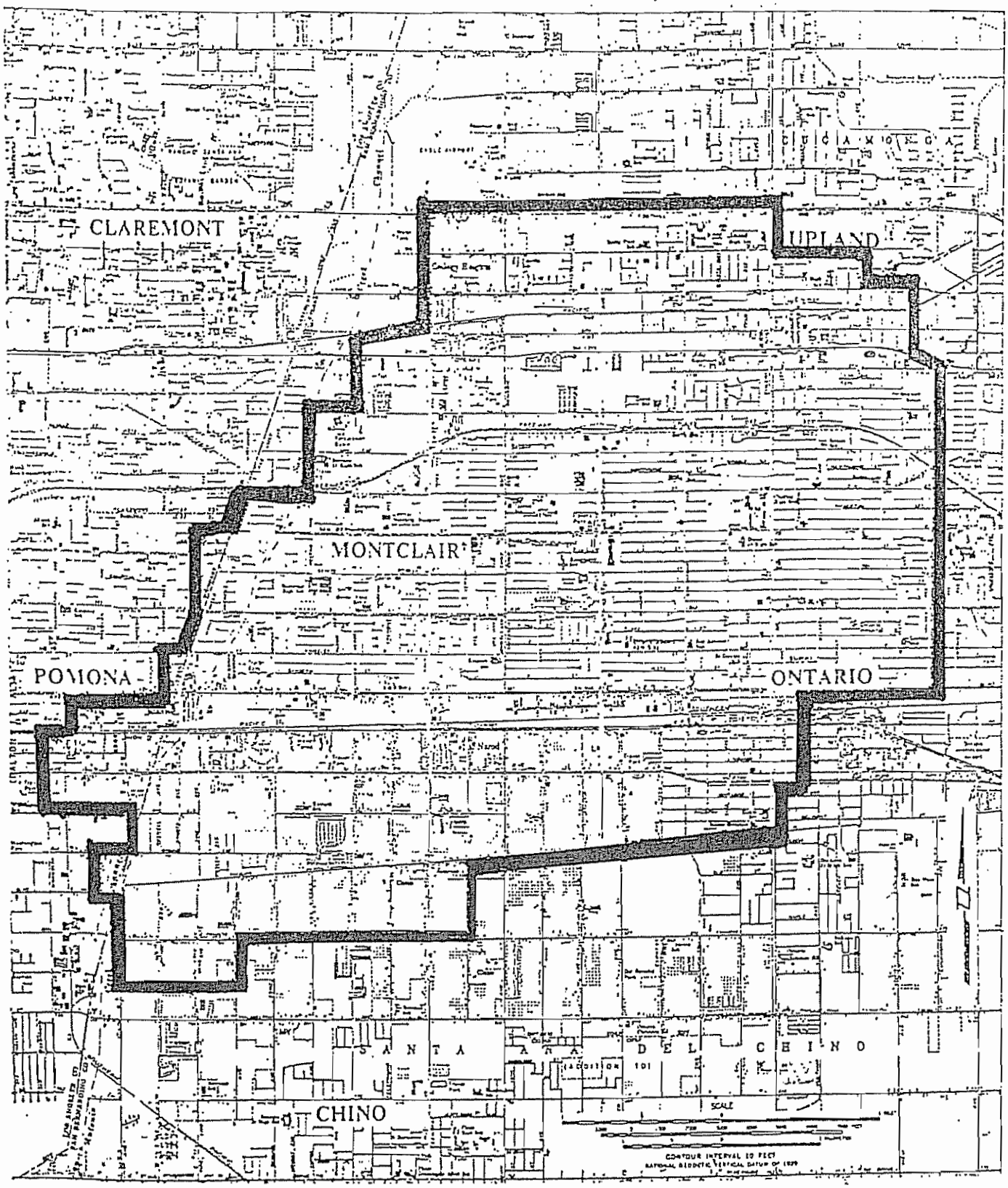

CHINO BASIN

IN LIEU AREA NO. 1 (MAP)

EXHIBIT "J"

EXHIBIT "K"

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:

EXHIBIT "K"

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;

EXHIBIT "K"

32. Thence Westerly to the Southeast corner of Section 30, T2S, R6W;

33. Thence Southwesterly to the Southwest corner of Section 36, T2S, R7W;

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;

EXHIBIT "K"

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 - Sections: 1.

Appendix 1
To Chino Basin Watermaster
Amendment Regarding Land Use Conversions[1]

The purpose of the amendment is to simplify the methodology and procedure for land use conversions under the 1978 Judgment. The basic nature of the commitment undertaken by the parties who negotiated the Judgment is not intended to be changed. The methodology used to develop the recommended 2.0 [2] per acre (af/ac) conversion factor can best be described as a gross water duty method. Essentially, the total water use was divided by the total acreage remaining to be converted to develop the gross average water use per acre.

At the Land Use Conversion Workshop held on January 10, 1995, there was a consensus among the parties to the Judgment that the large agricultural acreage within the purveyor service areas must still be converted. To depict the large southern area remaining to be converted, Watermaster staff proposed the establishment of Conversion Area No. 1 (see attached map). This area can generally be described as the area that is south of the 60 Freeway, outside the current city boundaries of Chino, Chino Hills and Ontario and for the most part, the portion of Jurupa Community Services District (JCSD) that is west of Etiwanda. The southernmost boundary of the area is taken as the Army Corps of Engineers' Prado Basin take line, unless a specific agricultural well exists inside the take line. To obtain the acreage for Conversion Area No. 1, the Santa Ana Watershed Project Authority (SAWPA), used its Geographic Information System (GIS) and determined the total acreage shown in Conversion Area No. 1 to be approximately 27,133 acres.

Also at the January 10 Land Use Conversion Workshop, the appropriators were asked to submit the proposed remaining convertible acreage inside their established service areas. Submissions of the parcels proposed as eligible for conversion, both inside and outside Conversion area No. 1 began arriving in early March 1995, and were received as late as June 29, 1995. Watermaster staff worked with each appropriator to identify the proposed acreage by assessor's parcel number. The lists of parcels and the approximate acreage of each parcel, by appropriator, are included with Appendix 1 as Tables 2A - 2G for reference. The maps corresponding to these lists are on file with the Watermaster. The eligibility of most of the parcels submitted has been determined; however, the specific eligibility of some parcels is still in question. The eligibility criteria utilized by staff requires that the land:

1. has not been receiving water provided by an appropriator;
2. was not already included in the establishment of the appropriator's production rights; and
3. has been used for irrigated agriculture within the last five years if it is located outside Conversion Area No. 1

The appropriators were also asked which parcels they were proposing to convert for the production year 1994/95. The parcels proposed for conversion in FY 94/95 are included with Appendix 1 as Tables 3A - 3C. Any parcels converted for production year 1994/95 will affect the assessments and available unallocated safe yield from that production year in fiscal year 1995/96. Table 1 is a summary of the total acreage submitted by each appropriator as being eligible for conversion and of the acreage requested by that appropriator for conversion in FY 94/95, if any. Staff has evaluated the parcels requested for conversion in FY 94/95 and finds that all of those requested, or a total of 2,185 acres, are eligible for conversion based on the above criteria.

When the 27,133 acres in Conversion Area No. 1 is added to the 5,209 acres (Table 1) proposed for conversion that is outside Conversion Area No. 1, there is a total of 32,343 acres remaining to be converted in the Chino Basin.

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[1] Order dated November 17, 1995, approving Amendments to Judgment re Land Use Conversion.
[2] Amended from 1.3 af/ac by Order dated September 28, 2000.

The 1978 agricultural water use was 84,095 acre-feet. When this is divided by the 32,343 acres, it results in a use of 2.6 af/ac. The value is still approximately 2.6 af/ac if the average annual post-judgment allocation of 82,800 af is divided and all acres were able to be converted as currently prescribed in the judgment, 50% of this per acre use would be allocated to an appropriator, and the appropriator would receive 1.3 acre-feet per acre. This would be a maximum use per acre. In 1994, the agricultural water use was reported as 44,092 acre-feet per acre. If this use is divided by the 32, 343 acres, it results in a present average use of 1.36 acre-feet per acre.

There was a consensus at the workshops and at the pool committee meetings that many of the conversions that potentially could have taken place since 1978, were not submitted by the appropriators. This is probably because of a lack of the right type of information to make the appropriate use-per-parcel determinations and because of the time and money that would be required if they were pursued extensively. Because of this, there was a consensus that the 1.3 af/ac conversion water use determinations were based only on 50% of the current average use.

Watermaster staff anticipates that each appropriator with remaining convertible acreage will request conversion on that acreage each year that they undertake to serve the land. If the service is anticipated to be permanent, they can request permanent conversion. For the acreage outside Conversion Area No. 1, the above criteria will be applied annually to make an eligibility determination. Also, an appropriator will be required to certify that the land is not currently using water that is being reported as agricultural pool production and Watermaster staff will field verify that agricultural activities have ceased, or that the appropriator is actually satisfying the agricultural use.

Chino Basin Watermaster

Unconverted Acreage

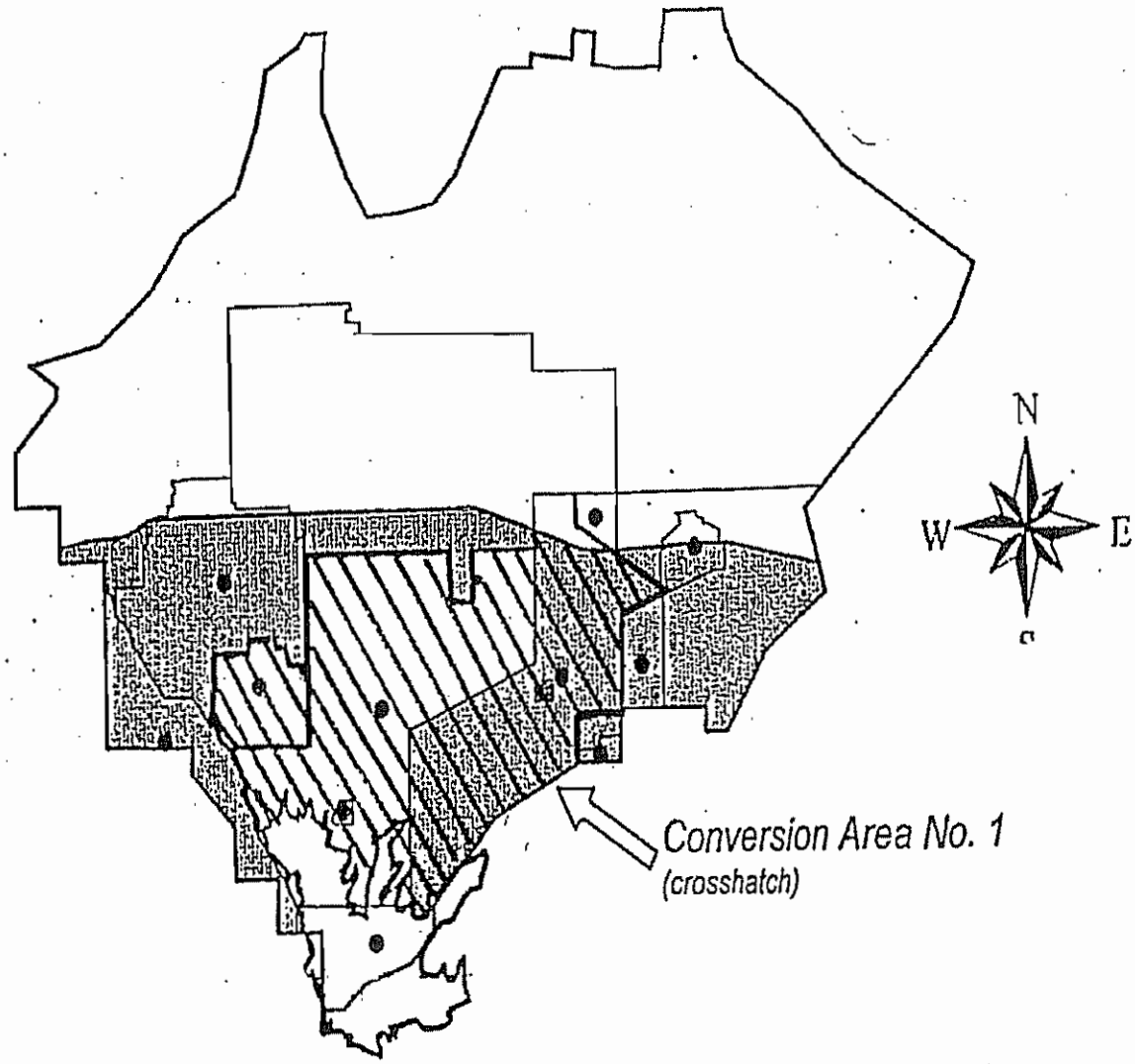

TABLE 1

Chino Basin Watermaster
Proposed Conversion Acres
Revised August 3, 1995

Appropriator	Outside Conversion Area #1		Inside Conversion Area #1	Total FY 94/95 Acres Proposed
	Total Acres Submitted	*Acres Proposed FY 94/95*	*Acres Proposed FY 94/95*	
Chino, City of	1923	519	0	519
Chino Hills, City of	1053	0	0	0
Cucamonga CWD	460	0	0	0
Fontana WC	417	0	0	0
Jurupa CSD	835	327	758	1085
Monte Vista WD	43	0	0	0
Ontario, City of	544	544	37	581
Total	5209	1390	795	2185

Chino
AGRICULTURAL LAND - WATER SUPPLY STUDY
OUTSIDE CONVERSION AREA NO. 1 LIST B

Property No.	Acreage	ADDRESS N/S - E/W	APN	GENERAL NOTES
1	11	4800/12150	1016-121-4,5,6,7,8	ROSES RESIDENCE ON CITY WATER
2	16	4700/12200	1016-131-1,2,3	ROSES CROP ACREAGE SUPPLIED BY PVT.WELL ON No.2
3	10	5350/11750	1014-381-1,2,3,4	BERRY
4	21	5600/12400	1015-261-2,3	TRUCK FARMING MISCELLANEOUS VEGETABLES
			1015-253-9	
5	6	5400/12450	1015-281-21	BERRY
6	7	4000/13000	1019-071-20,21	CHRISTMAS TREE GROWER
	-		1019-081-2,11	
7	38	4800/13250	1019-191-1,2,5	RANCHING DOMESTIC SERVICE ONLY - OTHER USES WELL
			1019-201-1,3	
8	10	3600/13650	1019-611-28,39,40	RANCHING DOMESTIC SERVIE ONLY UNDER DEVELOPMENT
			1019-611-41,42,43,49	
9	21	3700/13750	1022-041-4	LANDSCAPE NURSERY
			1022-05-3,4	
10	31	3900/14000	1022-031-2	GREEN FEED
			1022-26-4	
			1022-27-4	
			1022-082-1,2,8,9,10	
11	58	4000/14200	1022-38-3	GREEN FEED
			1022-39-4	
			1022-40-3	
			1022-58-2	
12	54	4150/13900	1022-10-5,6,7,8	DAIRY
			1022-24-3	
13	142	4300/14300	1022-42-6,7,8	GREEN FEED
			1022-41-5	
			1022-58-2	
			1022-53-11,12,13	
			1022-431-8	
			1022-441-8	
			1022-541-3	
14	18	4200/14550	1022-55-3	GREEN FEED
			1025-10-5,7,8,9	
15	51	4350/14700	1025-09-1	GREEN FEED
			1025-12-1,2,5,6,7	
			1025-21-8,9,12 thru 23	
16	40	4800/14400	1022-50-1,2,3	DAIRY DOMESTIC SERVICE ONLY
			1022-49-1,3,4	
17	320	4900/14700	1025-13-1 thru 6	DAIRY & FARMING GREEN FEED
			1025-20-5,6	
			1025-19-6,7	
			1025-15-1 thru 8	
			1021-471-3,4,6,8	
			1021-461-2,3,4,6,7,8	
			1021-481-1,2,3	
			1024-491-1,2	
			1021-511-1,2,3	
			1021-501-1,2	
			1021-521-1,2,3,4	
			1021-531-1,2	
18	70	5300/15400	1028-201-13,17	DOMESTIC SERVICE ONLY
			1028-511-1 thru 20	
			1028-501-1 thru 25	
			1028-491-1 thru 9	
19	10	6200/12800	1015-511-27	BERRY
20	29	6200/13000	1020-131-1,2	BERRY
			1020-121-21,24	
21	18	6000/14050	1021-291-1,2	GREEN FEED
22	38	6200/14000	1021-261-1,2,3,4	RANCHING DOMESTIC SERVICE ONLY
			1021-231-2	
			1021-101-2,3,4	
23	26	6400/13900	1021-251-1,20	DAIRY
			1021-241-2,3	
24	17	6850/12850	1051-502-31	CORN/BERRY
			1051-631-2	

Chino
AGRICULTURAL LAND - WATER SUPPLY STUDY
OUTSIDE CONVERSION AREA NO. 1 - LIST B

Property No.	Acreage	ADDRESS N/S - E/W	APN	GENERAL NOTES
25	11	6800/13200	1052-301-1,3,4	DAIRY
26	64	6600/13500	1052-331-1,2,3	DAIRY
			1052-341-1,2,3,4	
			1052-631-1,2,3	
27	28	6800/13500	1052-611-1,2	GREEN FEED
			1052-601-2	
28	15	6800/13900	1053-261-3,4,41,71	GREEN FEED
			1053-231-4,31	
29	39.5	6600/13900	1053-251-1,2,3,4	NURSERY
			1053-241-68	
			1053-011-2 thru 5	
30	99	5700/14150	1021-351-1,2	AYALA PARK
			1021-321-1,2	
			1021-311-1,2	
			1021-281-1	
			1026-011-1	
31	80	6800/14300	1053-621-1,2	DAIRY
			1053-491-1 thru 11.13.14.17	
			1053-461-1,2,3	
			1053-451-1,2	
32	61	6950/13100	1052-051-1 thru 18	DOMESTIC SERVICE ONLY
			1052-051-20 thru 25	
33	61	6950/13500	1052-361-1,2,3,4	DAIRY
			1052-371-1,2,3	
			1052-591-1,2	
			1052-581-1,2	
34	61	6950/13900	1053-051-3,4	DAIRY
			1053-061-3,4	
			1053-221-1,2	
			1053-271-1 thru 8	
35	61	6950/14300	1053-441-1 thru 9,12,13	DAIRY
			1053-431-1,2	
			1053-501-1,2,3,4	
			1053-611-1,2,3	
36	10	5250/11550	1014-301-3,4,5	NURSERY & CHRISTMAS TREES
37	20	5350/11600	1014-271-1	NURSERY & CHRISTMAS TREES
			1014-281-4	
40	32	4400/13000	1019-111-27 thru 73	RECENTLY CONVERTED BERRY FARMING TO RESIDENTIAL
			1019-122-1 thru 48	
			1019-123-1 thru 54	
41	30	4600/13500	1019-441-3,4	RANCHING
			1019-511-6,7	
			1019-501-1	
42	10	5250/14150	1021-361-21,22	NURSERY
43	18	5350/13600	1020-571-3,4,6	BERRY
			1020-461-1,2,3	
44	80	5600/13900	1021-041-1 thru 4,6,9	DAIRY DOMESTIC SERVICE ONLY - OTHER USES WELL
			1021-131-1,2	
			1021-201-1,2	
			1021-331-1	
			1021-301-1	
45	10	5950/13750	1021-061-1,2	DAIRY
46	5	6450-13350	1021-381-5	BERRY
TOTAL	1857.5			

THE CITY OF CHINO HILLS PROPOSED PARCELS FOR LAND USE CONVERSION

THE CITY OF CHINO HILLS
PUBLIC WORKS DEPARTMENT
GEOGRAPHIC INFORMATION SYSTEM
101 GRAND AVENUE
CHINO HILLS CA 91711
(909)

ID	APN	OWNER	ACREAGE
1	1022-291-09	Boys Republic	4.63
2	1022-291-10	Boys Republic	44.49
3	1022-291-05	Boys Republic	2.32
4	1022-591-02	Boys Republic	28.46
5	1022-291-08	Boys Republic	118.04
6	1025-461-01	De Groot	8.92
7	1025-461-02	De Groot	2.01
8	1025-461-03	De Groot	7.12
9	1025-481-02	De Groot	8.23
10	1025-471-04	De Groot	4.12
11	1025-471-03	De Groot	1.72
12	1025-481-01	De Groot	9.62
13	1025-511-01	De Groot	6.66
14	1025-471-01	City of Chino Hills	6.38
15	1025-471-02	Greening	1.00
16	1025-561-04	Greening	47.24
17	1028-471-01	Greening	66.82
18	1028-351-01	Kramer	1.54
20	1028-351-13	Higgins	4.04
21	1028-351-23	Higgins	38.24
22	1028-351-11	Higgins	7.64
23	1028-201-03	Von Lusk	1.91
24	1028-201-02	Von Lusk	77.57
25	1028-201-74	Von Lusk	54.77
26	1028-201-75	Von Lusk	37.57
27	1028-351-07	Bahan	28.27
28	1017-231-21	Amato	1.79
29	1017-231-22	Trapani	5.65
30	1017-241-14	Richland Pinehurst LP	82.37
31	1017-491-01	Richland Pinehurst LP	78.63
32	1027-492-01	Richland Pinehurst LP	43.31
33	1027-121-07	Richland Pinehurst LP	15.94
34	1057-261-06	Abacherli	128.26
35	1057-261-05	Abercherli	10.00
36	1021-561-01	Van Klavern	13.62
	1021-591-01	Van Klavern	9.50
	1021-591-03	Van Klavern	11.60
	1021-601-04	Van Klavern	8.28
	1021-601-01	Van Klavern	9.16
37	1028-351-16	Higgins	2.60
38	1028-351-14	Higgins	11.21
39	1028-351-18	Weeda	12.16
		TOTAL:	**1053.40**

CONVERSION

CUCAMONGA COUNTY WATER DISTRICT
West gate specific plan property west of Cherry

APN		Acreage	
226-112-08		7.07	
228-012-05		108.62	
06		7.54	
00	(adjacent to Cherry)	110.00	(estimated)
228-092-03		37.36	
14		9.61	
15		9.61	
16		9.61	
17		7.57	
20		11.54	
19		9.73	
22		25.40	
228-091-12		18.68	
24		5.43	
25		9.00	
28		35.51	
07		38.00	(estimated)
	Totals	460.28	

APN maps attached

JT:dc(CCWDCOVS.DOC)
6/26/95

CONVERSION

FONTANA WATER COMPANY
West gate specific plan property east of Cherry

APN		Acreage
228-021-28		142.35
27		8.50
226-121-21		12.50
18		137.83
226-091-46		45.78
62		70.04
	Total	417.00

JT:dc(FWCCONVR.DOC)
6/26/95

Jurupa Community Services District
LAND CONVERSION REQUESTS FY 94-95
OUTSIDE OF CONVERSION AREA NO. 1

PARCEL NUMBER	PARCEL ADDRESS		NUMBER OF ACRES	MAP NO	LOT NO
156020026	12400	PHILADELPHIA	10.25	A	1
156020027	12350	PHILADELPHIA	15.41	A	2
156020030			8.79	A	3
156160018	3791	DE FOREST	10.75	B	1
156160035	3065	DULLES	5.21	B	2
156160036	3058	DULLES	9.42	B	3
156160037			7.31	B	4
156160038			5.03	B	5
156160039	3178	DULLES	5.11	B	6
156160046	3431	DE FOREST	5.10	B	7
156160058			2.45	B	8
156160059			1.60	B	9
156160060			0.19	B	10
156160061			0.22	B	11
156160065	3450	DULLES	5.50	B	12
156160066	3204	DE FOREST	5.20	B	13
156160067			5.37	B	14
156160068			5.00	B	15
156160069	3384	DE FOREST	5.00	B	16
156160070			5.21	B	17
156160071	3725	NOBEL	7.88	B	18
156160072			3.55	B	19
156160073	3444	DE FOREST	1.20	B	20
156160074	3590	DE FOREST	10.66	B	21
156160080			5.16	B	22
156160081			6.25	B	23
156160082	10885	INLAND	11.43	B	24
156160084	10980	INLAND	2.51	B	25
156160087	3305	DULLES	20.47	B	26
156160088	3305	DULLES	44.37	B	27
156160089	3305	DULLES	8.40	B	28
156160095	3038	DEERE	12.94	B	29
156160096	3371	DE FOREST	25.03	B	30
156160097			23.97	B	31
183030007	7545	JURUPA	9.90	C	3
183030008	7585	JURUPA	1.99	C	2
183030033	7491	JURUPA	5.69	C	1
183080010	7371	JURUPA	7.55	D	1
		TOTAL ACRES	327.07		

Jurupa Community Services District
LAND CONVERSION REQUESTS FY 95-96
AFTER WATERMASTER VERIFICATION

PARCEL NUMBER	PARCEL ADDRESS		NUMBER OF ACRES	MAP NO	LOT NO
162200006	9894	60TH	5.00	A	1
162200007		60TH	5.00	A	2
162200008		LIMONITE	5.00	A	3
162200009		LIMONITE	4.95	A	4
162200010	9951	LIMONITE	9.65	A	5
162210011	10001	LIMONITE	9.76	A	6
162210001	9709	60TH	5.00	B	1
162210002	6067	BEACH	5.00	B	2
162210003		LIMONITE	5.00	B	3
162210004		LIMONITE	5.00	B	4
165050001	8618	54TH	2.50	C	1
165050002	8646	54TH	2.50	C	2
165050005	5424	PEDLEY	5.00	C	3
165050006	5494	PEDLEY	5.00	C	4
165060001	5419	PEDLEY	5.00	D	1
165060002	5455	PEDLEY	2.86	D	2
165060003	5489	PEDLEY	2.86	D	3
165060013	5511	PEDLEY	3.01	D	4
165080003	5723	PEDLEY	3.25	E	1
165080004	5733	PEDLEY	3.25	E	2
165080005	5793	PEDLEY	7.00	E	3
165080007	5760	PEDLEY	3.00	E	4
165080009	8705	58TH	5.00	E	5
165080010	8695	58TH	2.39	E	6
165080012	8696	56TH	5.00	E	7
165091015	5685	PEDLEY	3.85	F	1
165092004	5690	5685	1.82	F	2
165140008	5935	5685	5.89	G	1
165140029	5831	5685	4.50	G	2
165140030	5853	5685	2.16	G	3
165160001	8626	58TH	3.82	H	1
165160002	8662	58TH	2.50	H	2
165160003	8710	58TH	2.50	H	3
166030025	8238	JURUPA	9.22	I	1
166030023	4800	STONE	14.52	I	2
166030011	4992	STONE	4.63	I	3
166050008	4695	TYROLITE	3.36	J	1
166060005	4911	TYROLITE	8.93	K	1
166060006	4799	TYROLITE	6.19	K	2
166070001	5040	AGATE	4.85	L	1
166070030	5070	AGATE	2.33	L	2
166070009	5025	STONE	2.69	L	3
166070011	5065	STONE	3.63	L	4
166090001	5289	STONE	9.82	M	1
166090002	5250	STONE	5.28	M	2
166090004	5256	AGATE	12.88	M	3
166090023	8440	54TH	2.26	M	4
166090026	5340	AGATE	4.67	M	5
166190017	8600	58TH	10.00	N	1
167020002		GALENA	33.71	O	1

Jurupa Community Services District
LAND USE CONVERSION REQUESTS FY 95-96
AFTER WATERMASTER VERIFICATION

PARCEL NUMBER	PARCEL ADDRESS		NUMBER OF ACRES	MAP NO	LOT NO
167020006		GALENA	9.70	O	2
167020007		GALENA	29.20	O	3
167020008		GALENA	33.70	O	4
167110008	9440	GALENA	10.93	P	1
167160042	4777	FELSPAR	9.37	Q	1
169070006	8705	MISSION	2.57	R	1
169210008	8721	GALENA	1.40	S	1
169270018	4930	AGATE	4.71	T	1
169280020	4945	PEDLEY	2.45	U	1
169280022	8864	PEDLEY	2.71	U	2
169290011	5015	PEDLEY	5.00	V	1
169290020	5071	PEDLEY	4.77	V	2
169290021	5151	PEDLEY	4.77	V	3
169300003	5339	PEDLEY	7.50	W	1
169300005	5355	PEDLEY	8.35	W	2
169300007	5335	PEDLEY	2.39	W	3
169300008	5261	PEDLEY	2.39	W	4
169300009	5235	PEDLEY	2.39	W	5
169300010	5205	PEDLEY	2.38	W	6
169310002	5074	PEDLEY	3.01	X	1
169310003	5071	AGATE	2.72	X	2
169310026	5329	AGATE	2.48	X	3
169310028	5271	AGATE	2.48	X	4
170310041	9200	MISSION	4.14	X	1
171040027	3851	PYRITE	15.41	Y	1
171050013	4100	AGATE	7.69	Z	1
171090011	8531	MISSION	3.22	AA	1
171190004	7868	MISSION	10.96	BB	1
171220002	7837	GALENA	9.64	CC	1
173160020	9150	GRANITE HILL	4.03	DD	1
173160024	8931	GRANITE HILL	2.06	DD	2
173160032	8951	HIGHWAY	4.13	DD	3
183030014	7586	JURUPA	6.92	EE	1
		TOTAL ACRES	508.56		

Monte Vista Water District
P.O. Box 71
Montclair, CA 91763-0071

Proposed Conversion Acres
Submitted by Gil Martinez, August 2, 1995

Property No.	Approximate Acreage	APN (Lot No.)
A	4.3	1013-131-15,17,19
A1	2.4	1013-131-15,17,19 (Lot 1 & 6)
C	8.0	1013-171-1 thru 5
E	9.6	1013-271-1
		1013-531-5
G	9.0	1013-291- 6 & 7
I	10.0	1013-521-4 (Lot 1)
N	.5	1016-101-1
	43.66	

Prepared by J.R. Theirl
August 14, 1995
Based on information provided by Gil Martinez of MVWD on August 2, 1995.

City of Ontario
Existing Agricultural Uses
Exhibit A

Identification	APN	Address	Acreage
1	11335102	1348 S GROVE AV	11.500
2	11336103	1550 S PARCO AV	7.231
3	11336104	1460 S PARCO AV	0.904
4	11336105	1442 S PARCO AV	0.454
5	11336106	1436 S PARCO AV	0.232
6	11336107	1410 S PARCO AV	5.518
7	11336116	1551 S GROVE AV	12.255
8	11336118	1405 S GROVE AV	11.642
9	11341421	1704 S VINEYARD AV	3.677
10	11343105	1160 S MILDRED AV	51.026
11	11351208	O E AIRPORT--OIA	8.524
12	11351210	O E AIRPORT --OIA	7.400
13	21019210	572 N TURNER AV	22.343
14	21121104	3000 E JURUPA ST	20.039
15	21121109	1200 S ARCHIBALD AV	19.395
16	21121111	2900 E JURUPA ST	65.765
17	21131203	O E MISSION BL	4.020
18	21131204	O E MISSION BL	2.022
19	21134101	O S SEAGULL AV	0.615
20	21134102	O E JURUPA ST	0.782
21	21134103	O E JURUPA ST	0.534
22	21134104	O E JURUPA ST	0.530
23	21134105	O E JURUPA ST	0.532
24	21134106	O S AVIATION DR	0.786
25	21134107	O S AVIATION DR	1.016
26	21808103	2300 S MILLIKEN AV	46.266
27	21808105	O E MISSION BL	0.263
28	21808108	O E MISSION BL	49.657
61	21809124	O S MILLIKEN AV	15.280
29	23801131	1000 N ROCHESTER AV	2.270
30	23801219	O E INLAND EMPIRE BL	10.664
31	23801223	O E FOURTH ST	13.856
32	23808140	O S WINEVILLE AV	2.655
33	23824110	5010 E AIRPORT DR	0.000
34	101120109	1241 W STATE ST	0.000
35	101120110	1211 W STATE ST	2.434
36	101120111	520 S MAGNOLIA AV	2.409
37	101122102	616 OAKS AV	0.000
38	101142109	O S ELDERBERRY AV	0.942
39	101142111	O S ELDERBERRY AV	1.942
40	101152112	O S ELDERBERRY AV	1.005
41	101153103	O S BENSON AV	2.566
42	101153104	O S BENSON AV	1.860
43	101143105	O S BENSON AV	4.781
44	101412103	O S OAKS AV	0.063
45	101412104	O S OAKS AV	1.705
46	101421112	1320 W FRANCIS ST	7.281
47	104921105	720 E SUNKIST ST	0.000
48	104930105	752 W PARK ST	2.668
49	104930106	720 W PARKS ST	2.685
50	104942104	1310 S CUCAMONGA AV	4.694
51	104950102	1125 S SULTANA AV	0.207

City of Ontario
Existing Agricultural Uses
Exhibit A

Identification	APN	Address	Acreage
52	105013102	1518 S CUCAMONGA AV	0.000
53	105013103	1558 S CUCAMONGA AV	6.028
53	105016103	1556 S GRPVE AV	0.000
55	105017102	1642 S GROVE AV	9.563
56	105018103	1743 S CUCAMONGA AV	8.970
57	105020101	1687 S BON VIEW AV	9.547
58	105036108	1844 S FERN AV	0.000
59	105045104	1921 S BON VIEW AV	4.740
60	105046109	1056 E FRANCIS ST	9.064
61	011340102	1533 S PARCO AVE	29.000
62	101121106	1300 W MISSION BLVD	1.000
63	101138204	1055 W MISSION BLVD	1.000
64	101446205	1951 S PALMETTO AVE	1.000
65	105115103	1256 E PHILADELPHIA ST	6.000
66	105157177	NW CORNER GROVE AVE & RIVERSIDE DR	1.000
67	104947204	CAMPUS (N OF FRANCIS, S OF PHILLIPS)	6.000
68	011008107	1633 E HOLT BLVD	5.000
69	105144103	NW CORNER EUCLID AVE & RIVERSIDE DR	10.000
		Total	**544 Acres**

City of Chino
CHINO BASIN LAND USE CONVERSION
PARCELS TO BE CONVERTED IN FY 94/95

PROPERTY No.	ACREAGE	ADDRESS N/S - E/S	APN	GENERAL NOTES
8	10	3600/13650	1019-611-28,39,40	IRRIGATED LANDSCAPE/UNDER DEVELOPMENT
			1019-611-41,42,43,49	
10	31	3900/14000	1022-031-2	ENTERTAINMENT COMPLEX
			1022-26-4	
			1022-27-4	
			1022-082-1,2,8,9,10	
13	142	4300/14300	1022-42-6,7,8	COMM/IND - WAREHOUSE
			1022-41-5	
			1022-56-2	
			1022-53-11,12,13	
			1022-431-8	
			1022-441-8	
			1022-541-3	
18	70	5300-15400	1028-201-13,17	COMM/IND (MISSION LAUNDRY)
			1028-511-1 thru 20	
			1028-501-1 thru 25	
			1028-491-1 thru 9	
23	26	6400/13900	1021-251-1,20	RESIDENTIAL DEVELOPMENT/COMMERCIAL PARK
			1021-241-2,3	
29	39.5	6600/13900	1053-251-1,2,3,4	RESIDENTIAL DEVELOPMENT
			1053-241-68	
			1053-011-2 thru 5	
30	99	5700/14150	1021-351-1,2	AYALA PARK
			1021-321-1,2	
			1021-311-1,2	
			1021-281-1	
			1026-011-1	
32	61	6950/13100	1052-051-1 thru 18	DOMESTIC SERVICE ONLY/RESIDENTIAL
			1052-051-20 thru 25	
*	41	3950/13900	1022-082-1 thru 11	COMMERCIAL DEVELOPMENT
			1022-251-3 thru 14	
TOTAL	519.5			

*** acreage above property number 11 (MAJESTIC SPECTRUM POWER CENTER)**

Jurupa Community Services District
LAND CONVERSION REQUESTS FY 94-95
OUTSIDE OF CONVERSION AREA NO. 1

PARCEL NUMBER	PARCEL ADDRESS		NUMBER OF ACRES	MAP NO	LOT NO
156020026	12400	PHILADELPHIA	10.25	A	1
156020027	12350	PHILADELPHIA	15.41	A	2
156020030			8.79	A	3
156160018	3791	DE FOREST	10.75	B	1
156160035	3065	DULLES	5.21	B	2
156160036	3058	DULLES	9.42	B	3
156160037			7.31	B	4
156160038			5.03	B	5
156160039	3178	DULLES	5.11	B	6
156160046	3431	DE FOREST	5.10	B	7
156160058			2.45	B	8
156160059			1.60	B	9
156160060			0.19	B	10
156160061			0.22	B	11
156160065	3450	DULLES	5.50	B	12
156160066	3204	DE FOREST	5.20	B	13
156160067			5.37	B	14
156160068			5.00	B	15
156160069	3384	DE FOREST	5.00	B	16
156160070			5.21	B	17
156160071	3725	NOBEL	7.88	B	18
156160072			3.55	B	19
156160073	3444	DE FOREST	1.20	B	20
156160074	3590	DE FOREST	10.66	B	21
156160080			5.16	B	22
156160081			6.25	B	23
156160082	10885	INLAND	11.43	B	24
156160084	10980	INLAND	2.51	B	25
156160087	3305	DULLES	20.47	B	26
156160088	3305	DULLES	44.37	B	27
156160089	3305	DULLES	8.40	B	28
156160095	3038	DEERE	12.94	B	29
156160096	3371	DE FOREST	25.03	B	30
156160097			23.97	B	31
183030007	7545	JURUPA	9.90	C	3
183030008	7585	JURUPA	1.99	C	2
183030033	7491	JURUPA	5.69	C	1
183080010	7371	JURUPA	7.55	D	1
		TOTAL ACRES	327.07		

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33	23824110	5010 E AIRPORT DR	0.000
34	101120109	1241 W STATE ST	0.000
35	101120110	1211 W STATE ST	2.434
36	101120111	520 S MAGNOLIA AV	2.409
37	101122102	616 OAKS AV	0.000
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68	011008107	1633 E HOLT BLVD	5.000
69	105144103	NW CORNER EUCLID AVE & RIVERSIDE DR	10.000
		Total	544 Acres

ROTATION SCHEDULE FOR REPRESENTATIVES TO WATERMASTER

Existing and Proposed Representation of the Parties to the Judgment

Interim	Appropriators			NON-AG	Agricultural Pool		Municipals		
34-month	[24]			[13 Ind.]	[3 Groups]		[3 Overlying Districts]		
Mar-98	Ontario	MVWD	CCWD	Industry	Dairy	Crops	IEUA	TVMWD	WMWD
1999	Ontario	MVWD	CCWD	Industry	Dairy	Crops	IEUA	TVMWD	WMWD
2000	Ontario	MVWD	CCWD	Industry	Dairy	Crops	IEUA	TVMWD	WMWD
Term cycles	(2 yr)	(2 yr)	(2 yr)						
Reappoint	*Big*	*Medium*	*Small*						
Jan-01	FWC	MVWD	CCWD	Industry	Dairy	Crop	IEUA	TVMWD	WMWD
Jan-02	FWC	Chino	Ontario	Industry	Dairy	State	IEUA	TVMWD	WMWD
Jan-03	Pomona	Chino	Minor Rep	Industry	Crop	State	IEUA	TVMWD	WMWD
Jan-04	Pomona	FUWC	Chino Hills	Industry	Crop	State	IEUA	TVMWD	WMWD
Jan-05	Jurupa	FUWC	Chino Hills	Industry	Crop	Dairy	IEUA	TVMWD	WMWD
Jan-06	Jurupa	MVWD	Minor Rep	Industry	State	Dairy	IEUA	TVMWD	WMWD
Jan-07	Ontario	MVWD	Minor Rep	Industry	State	Dairy	IEUA	TVMWD	WMWD
Jan-08	Ontario	CCWD	Upland	Industry	State	Crop	IEUA	TVMWD	WMWD
Jan-09	FWC	CCWD	Upland	Industry	Dairy	Crop	IEUA	TVMWD	WMWD
Jan-10	FWC	Chino	Minor Rep	Industry	Dairy	Crop	IEUA	TVMWD	WMWD
Jan-11	Pomona	Chino	Minor Rep	Industry	Dairy	State	IEUA	TVMWD	WMWD
Jan-12	Pomona	FUWC	Chino Hills	Industry	Crop	State	IEUA	TVMWD	WMWD
Jan-13	Jurupa	FUWC	Chino Hills	Industry	Crop	State	IEUA	TVMWD	WMWD
Jan-14	Jurupa	MVWD	Minor Rep	Industry	Crop	Dairy	IEUA	TVMWD	WMWD
Jan-15	Ontario	MVWD	Minor Rep	Industry	State	Dairy	IEUA	TVMWD	WMWD

The noted rotation sequence perpetuates indefinitely until and unless there is a Court approved change

RESOLUTION NO. 99-03

RESOLUTION OF THE CHINO BASIN WATERMASTER CONCERNING WATERMASTER PUBLIC MEETINGS, HEARINGS AND CONFIDENTIAL SESSIONS

BE IT RESOLVED BY THE CHINO BASIN WATERMASTER that this resolution amends the Chino Basin Watermaster Rules and Regulations governing Watermaster operations.

Section 1. Purpose
This resolution amends the Chino Basin Watermaster Rules and Regulations governing Watermaster operations.

Section 2. Amendment
Section 2.06 and 2.07 of the Watermaster Rules are amended and will now read as follows:

2.06 Public Meetings/Hearings/Confidential Sessions

(a) Public Meetings. All meetings, whether regular or special, shall be open to the public except as provided in (c) below.

(b) Hearings. Whenever a public hearing shall be required herein, written notice of such public hearing containing the time, date and place of hearing, together with the matters to be heard thereat, shall be given to all Active Parties and each such person who has requested, in writing, notice of such hearing at least (10) ten days prior to said public hearing.

At such hearing, evidence shall be taken with regard to only the matters noticed, unless a sufficient urgency shall exist to the contrary, and full findings and decisions shall be issued and made available for public inspection.

(c) Confidential Sessions. All meetings of the Watermaster shall be open to the public as provided in (a) and (b) above, unless a confidential session is authorized by this rule or the Advisory Committee. A confidential session may be held by the Watermaster and the chair of the three Pools (Appropriative, Agricultural and Non-Agricultural) to:

Meet with counsel to discuss or act on pending or threatened litigation;
Discuss personnel matters involving individual employees.

Minutes shall not be taken for confidential sessions, but a confidential memorandum shall be prepared to describe attendance and votes on decisions.

2.07 Notice

(a) Meetings. Notices of meetings and confidential sessions shall be given in writing to all Active Parties and each such person who has requested notice in writing, and shall specify the time and place of the meeting or session and the business to be transacted thereat. Hearing notices shall be made as provided in 2.06 (b) above. [Based on Judgment, page 20, Paragraph 37(c).]

(b) Delivery of Notice. Delivery of notice for meetings and confidential sessions shall be deemed made on the date personally given or within ninety-six (96) hours of deposit in the United States mail, first class, postage prepaid, addressed to the designee and at the address in the latest designation filed by such person."

Section 3. Other.
Except as provided herein, the Chino Basin Watermaster Rules and Regulations, along with any prior amendments thereto, are reaffirmed.

NOW, FURTHER, BE IT RESOLVED that this Resolution shall become effective upon adoption.

RESOLUTION 99-03, approved by the Chino Basin Watermaster Advisory Committee on the 13th day of May 1999, is hereby **ADOPTED** by the Chino Basin Watermaster Board on this 13th day of May 1999.

CHINO BASIN WATERMASTER BOARD

Robert Neufeld

Robert Neufeld, Chairman

ATTEST:

Josephine Johnson

Josephine Johnson, Secretary/Treasurer
Chino Basin Watermaster Board

APPROVED:

Robert DeLoach

Robert DeLoach, Chairman
Watermaster Advisory Committee

DONALD D. STARK
A Professional Corporation
Suite 201 Airport Plaza
2061 Business Center Drive
Irvine, California 92715
Telephone: (714) 752-8971

CLAYSON, ROTHROCK & MANN
601 South Main Street
Corona, California 91720
Telephone: (714) 737-1910
Attorneys for Plaintiff

SUPERIOR COURT OF THE STATE OF CALIFORNIA

FOR THE COUNTY OF SAN BERNARDINO

CHINO BASIN MUNICIPAL WATER DISTRICT, Plaintiff, v. CITY OF CHINO, et al. Defendants	No. RCV 51010[1]

JUDGMENT

UNOFFICIAL REFERENCE VERSION

[1] Original Judgment signed January 27, 1978, Case # 164327 by Judge Howard B. Weiner. File transferred August 1989, by order of the Court and assigned new case number RCV 51010.

JUDGMENT
TABLE OF CONTENTS

DONALD D. STARK
A Professional Corporation
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CLAYSON, ROTHROCK & MANN
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Corona, California 91720
Telephone: (714) 737-1910
Attorneys for Plaintiff

SUPERIOR COURT OF THE STATE OF CALIFORNIA
FOR THE COUNTY OF SAN BERNARDINO

CHINO BASIN MUNICIPAL WATER DISTRICT, Plaintiff, v. CITY OF CHINO, et al. Defendants	No. RCV 51010[1] JUDGMENT[2]

I. INTRODUCTION

1. Pleadings, Parties and Jurisdiction. The complaint herein was filed on January 2, 1975, seeking an adjudication of water rights, injunctive relief and the imposition of a physical solution. A first amended complaint was filed on July 16, 1976. The defaults of certain defendants have been entered, and certain other defendants dismissed. Other than defendants who have been dismissed or whose defaults have been entered, all defendants have appeared herein. By answers and order of this Court, the issues have been made those of a full inter se adjudication between the parties. This Court has jurisdiction of the subject matter of this action and of the parties herein.

[1] Original Judgment signed January 27, 1978, Case # 164327 by Judge Howard B. Weiner. File transferred August 1989, by order of the Court and assigned new case number RCV 51010.
[2] This is an unofficial reference copy of the Judgment, with amendments made between 1978 and September 30, 2001 inclusive.

2. Stipulation For Judgment. Stipulation for entry of judgment has been filed by and on behalf of a majority of the parties, representing a majority of the quantitative rights herein adjudicated.

3. Trial; Findings and Conclusions. Trial was commenced on December 16, 1977, as to the non-stipulating parties, and findings of fact and conclusions of law have been entered disposing of the issues in the case.

4. Definitions. As used in this Judgment, the following terms shall have the meanings herein set forth:

(a) Active Parties. All parties other than those who have filed with Watermaster a written waiver of service of notices, pursuant to Paragraph 58.

(b) Annual or Year — A fiscal year, July 1 through June 30, following, unless the context shall clearly indicate a contrary meaning.

(c) Appropriative Right — The annual production right of a producer from the Chino Basin other than pursuant to an overlying right.

(d) Basin Water — Ground water within Chino Basin which is part of the Safe Yield, Operating Safe Yield, or replenishment water in the Basin as a result of operations under the Physical Solution decreed herein. Said term does not include Stored Water.

(e) CBMWD[3] — Plaintiff Chino Basin Municipal Water District.

(f) Chino Basin or Basin — The ground water basin underlying the area shown as such on Exhibit "B" and within the boundaries described in Exhibit "K".

(g) Chino Basin Watershed — The surface drainage area tributary to and overlying Chino Basin.

(h) Ground Water — Water beneath the surface of the ground and within the zone of saturation, i.e., below the existing water table.

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[3]CBMWD became Inland Empire Utilities Agency (IEUA) in July 1999.

(i) Ground Water Basin — An area underlain by one or more permeable formations capable of furnishing substantial water storage.

(j) Minimal Producer[4] — Any producer whose production does not exceed ten acre-feet per year.

(k) MWD — The Metropolitan Water District of Southern California.

(l) Operating Safe Yield — The annual amount of ground water which Watermaster shall determine, pursuant to criteria specified in Exhibit "I", can be produced from Chino Basin by the Appropriative Pool parties free of replenishment obligation under the Physical Solution herein.

(m) Overdraft — A condition wherein the total annual production from the Basin exceeds the Safe Yield thereof.

(n) Overlying Right — The appurtenant right of an owner of lands overlying Chino Basin to produce water from the Basin for overlying beneficial use on such lands.

(o) Person. -- Any individual, partnership, association, corporation, governmental entity or agency, or other organization.

(p) PVMWD[5] — Defendant Pomona Valley Municipal Water District.

(q) Produce or Produced — To pump or extract ground water from Chino Basin.

(r) Producer — Any person who produces water from Chino Basin.

(s) Production — Annual quantity, stated in acre feet, of water produced.

(t) Public Hearing — A hearing after notice to all parties and to any other person legally entitled to notice.

(u) Reclaimed Water[6] — Water which, as a result of processing of waste water, is suitable for a controlled use.

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[4] On September 27, 2001, the Watermaster amended the Judgment defining a minimal producer as any producer whose production does not exceed 10 AF per year.

[5] PVMWD became Three Valleys Municipal Water District (TVMWD) in 1986.

[6] Reclaimed water is referred to as recycled water in the Peace Agreement.

(v) Replenishment Water — Supplemental water used to recharge the Basin pursuant to the Physical Solution, either directly by percolating the water into the Basin or indirectly by delivering the water for use in lieu of production and use of safe yield or Operating Safe Yield.

(w) Responsible Party — The owner, co-owner, lessee or other person designated by multiple parties interested in a well as the person responsible for purposes of filing reports hereunder.

(x) Safe Yield — The long-term average annual quantity of ground water (excluding replenishment or stored water but including return flow to the Basin from use of replenishment or stored water) which can be produced from the Basin under cultural conditions of a particular year without causing an undesirable result.

(y) SBVMWD — San Bernardino Valley Municipal Water District.

(z) State Water — Supplemental Water imported through the State Water Resources Development System, pursuant to Chapter 8, Division 6, Part 6 of the Water Code.

(aa) Stored Water — Supplemental water held in storage, as a result of direct spreading, in lieu delivery, or otherwise, for subsequent withdrawal and use pursuant to agreement with Watermaster.

(bb) Supplemental Water — Includes both water imported to Chino Basin from outside Chino Basin Watershed, and reclaimed water.

(cc) WMWD —Defendant Western Municipal Water District of Riverside County.

5. List of Exhibits[7]. The following exhibits are attached to this Judgment and made a part hereof:

"A" -- "Location Map of Chino Basin".

"B" -- "Hydrologic Map of Chino Basin".

"C" -- Parties with Overlying Agricultural Pool Rights.

[7] Exhibits C-1, D-1 & E-1 added to reflect rights for the Agricultural, Non-Agricultural and Appropriative Pool parties as of September 2001.

"C-1" -- New Parties Intervening In Overlying Agricultual Pool From 1978 To 2000

"D" -- Parties with Overlying Non-Agricultural Pool Rights.

"D-1" -- Parties with Overlying Non-Agricultural Pool Rights as of September 20, 2001.

"E" -- Appropriative Rights.

"E-1" -- Appropriative Rights as of as of September 30, 2001.

"F" -- Overlying Agricultural Pooling Plan.

"G" -- Overlying Non-Agricultural Pooling Plan.

"H" -- Appropriative Pooling Plan[6].

"I" -- Engineering Appendix.

"J" -- Map of In Lieu Area No. 1.

"K" -- Legal Description of Chino Basin.

Attachment 1- Appendix 1 to Land Use Conversion Amendment.

Attachment 2 – Rotation Schedule *(See Footnote # 10).*

Attachment 3 – Resolution No. 99-03 re Public Meetings, Hearings, Confidential Sessions and Notice Requirements *(See Footnotes 15 and 16).*

II. DECLARATION OF RIGHTS

A. HYDROLOGY

6. Safe Yield. The Safe Yield of Chino Basin is 140,000 acre feet per year.

7. Overdraft and Prescriptive Circumstances. In each year for a period in excess of five years prior to filing of the First Amended Complaint herein, the Safe Yield of the Basin has been exceeded by the annual production therefrom, and Chino Basin is and has been for more than five years in a continuous

[6] Attachment 1 - Appendix 1 to November 17, 1995 Land Use Conversion Amendment to Exhibit H, Paragraph 10(b) of the Judgment.

state of over draft. The production constituting said overdraft has been open, notorious, continuous, adverse, hostile and under claim of right. The circumstances of said overdraft have given notice to all parties of the adverse nature of such aggregate over-production.

B. WATER RIGHTS IN SAFE YIELD

8. Overlying Rights. The parties listed in Exhibits "C" and "D", ("C-1" and "D-1") *(See Footnote # 7)* are the owners or in possession of lands which overlie Chino Basin. As such, said parties have exercised overlying water rights in Chino Basin. All overlying rights owned or exercised by parties listed in Exhibits "C" and "D", ("C-1" and "D-1") *(See Footnote # 7)* have, in the aggregate, been limited by prescription except to the extent such rights have been preserved by self-help by said parties. Aggregate preserved overlying rights in the Safe Yield for agricultural pool use, including the rights of the State of California, total 82,800 acre feet per year. Overlying rights for non-agricultural pool use total 7,366 acre feet per year and are individually decreed for each affected party in Exhibit "D" ("D-1") *(See Footnote # 7)*. No portion of the Safe Yield of Chino Basin exists to satisfy unexercised overlying rights, and such rights have all been lost by prescription. However, uses may be made of Basin Water on overlying lands which have no preserved overlying rights pursuant to the Physical Solution herein. All overlying rights are appurtenant to the land and cannot be assigned or conveyed separate or apart therefrom [9] ***for the term of the Peace Agreement except that the members of the Overlying Non-Agricultural Pool shall have the right to Transfer or lease their quantified production rights within the Overlying Non-Agricultural Pool or to Watermaster in conformance with the procedures described in the Peace Agreement between the Parties therein, dated June 29, 2000.***

9. Appropriative Rights. The parties listed in Exhibit "E" ("E-1") *(See Footnote # 7)* are the owners of appropriative rights, including rights by prescription, in the unadjusted amounts therein set forth, and by reason thereof are entitled under the Physical Solution to share in the remaining Safe Yield, after

[9] On June 29, 2000 Watermaster approved a "Peace Agreement" which more clearly defined the Parties' commitment to implement and Optimum Basin Management Program (OBMP) Implementation Plan. Pursuant to the Judgment at Paraggraph 41 and February 19, 1998 Court ruling. The Court approved the Peace Agreement on July 13, 2000. The Peace Agreement Paragraph 4.4(a). Order dated September 28, 2000 amended Paragraph 8 as shown above. Order dated April 19, 2001 confirmed Judgment modifications.

satisfaction of overlying rights and rights of the State of California, and in the Operating Safe Yield in Chino Basin, in the annual shares set forth in Exhibit "E" ("E-1") *(See Footnote # 7)* .

(a) Loss of Priorities. By reason of the long continued overdraft in Chino Basin, and in light of the complexity of determining appropriative priorities and the need for conserving and making maximum beneficial use of the water resources of the State, each and all of the parties listed in Exhibit "E" ("E-1") *(See Footnote # 7)* are estopped and barred from asserting special priorities or preferences, inter se. All of said appropriative rights are accordingly deemed and considered of equal priority.

(b) Nature and Quantity. All rights listed in Exhibit "E" ("E-1") *(See Footnote # 7)* are appropriative and prescriptive in nature. By reason of the status of the parties, and the provisions of Section 1007 of the Civil Code, said rights are immune from reduction or limitation by prescription.

10. Rights of the State of California. The State of California, by and through its Department of Corrections, Youth Authority and Department of Fish and Game, is a significant producer of ground water from and the State is the largest owner of land overlying Chino Basin. The precise nature and scope of the claims and rights of the State need not be, and are not, defined herein. The State, through said departments, has accepted the Physical Solution herein decreed, in the interests of implementing the mandate of Section 2 of Article X of the California Constitution. For all purposes of this Judgment, all future production by the State or its departments or agencies for overlying use on State-owned lands shall be considered as agricultural pool use.

C. RIGHTS TO AVAILABLE GROUND WATER STORAGE CAPACITY

11. Available Ground Water Storage Capacity. There exists in Chino Basin a substantial amount of available ground water storage capacity which is not utilized for storage or regulation of Basin Waters. Said reservoir capacity can appropriately be utilized for storage and conjunctive use of supplemental water with Basin Waters. It is essential that said reservoir capacity utilization for storage and conjunctive use of supplemental water be undertaken only under Watermaster control and regulation, in

order to protect the integrity of both such Stored Water and Basin Water in storage and the Safe Yield of Chino Basin.

12. Utilization of Available Ground Water Capacity. Any person or public entity, whether a party to this action or not, may make reasonable beneficial use of the available ground water storage capacity of Chino Basin for storage of supplemental water; provided that no such use shall be made except pursuant to written agreement with Watermaster, as authorized by Paragraph 28. In the allocation of such storage capacity, the needs and requirements of lands overlying Chino Basin and the owners of rights in the Safe Yield or Operating Safe Yield of the Basin shall have priority and preference over storage for export.

III. INJUNCTION

13. Injunction Against Unauthorized Production of Basin Water. Each party in each of the respective pools is enjoined, as follows:

(a) Overlying Agricultural Pool. Each party in the Overlying Agricultural Pool, its officers, agents, employees, successors and assigns, is and they each are ENJOINED AND RESTRAINED from producing ground water from Chino Basin in any year hereafter in excess of such party's correlative share of the aggregate of 82,800 acre feet allocated to said Pool, except pursuant to the Physical Solution or a storage water agreement.

(b) Overlying Non-Agricultural Pool. Each party in the Overlying Non-Agricultural Pool, its officers, agents, employees, successors and assigns, is and they each are ENJOINED AND RESTRAINED from producing ground water of Chino Basin in any year hereafter in excess of such party's decreed rights in the Safe Yield, except pursuant to the provisions of the Physical Solution or a storage water agreement.

(c) Appropriative Pool. Each party in the Appropriative Pool, its officers, agents, employees, successors and assigns, is and they are each ENJOINED AND RESTRAINED from producing ground water of Chino Basin in any year hereafter in excess of such party's decreed

share of Operating Safe Yield, except pursuant to the provisions of the Physical Solution or a storage water agreement.

14. Injunction Against Unauthorized Storage or Withdrawal of Stored Water. Each party, its officers, agents, employees, successors and assigns is and they each are ENJOINED AND RESTRAINED from storing supplemental water in Chino Basin for withdrawal, or causing withdrawal of, water stored by that party, except pursuant to the terms of a written agreement with Watermaster and in accordance with Watermaster regulations. Any supplemental water stored or recharged in the Basin, except pursuant to such a Watermaster agreement, shall be deemed abandoned and not classified as Stored Water. This paragraph has no application, as such, to supplemental water spread or provided in lieu by Watermaster pursuant to the Physical Solution.

IV. CONTINUING JURISDICTION

15. Continuing Jurisdiction. Full jurisdiction, power and authority are retained and reserved to the Court as to all matters contained in this judgment, except:

(a) The redetermination of Safe Yield, as set forth in Paragraph 6, during the first ten (10) years of operation of the Physical Solution;

(b) The allocation of Safe Yield as between the several pools as set forth in Paragraph 44 of the Physical Solution;

(c) The determination of specific quantitative rights and shares in the declared Safe Yield or Operating Safe Yield herein declared in Exhibits "D" and "E" ("D-1") and ("E-1") *(See Footnote # 7)* and

(d) The amendment or modification of Paragraphs 7 (a) and (b) of Exhibit "H", during the first ten (10) years of operation of the Physical Solution, and thereafter only upon affirmative recommendation of at least 67% of the voting power (determined pursuant to the formula described in Paragraph 3 of Exhibit "H"), but not less than one-third of the members of the Appropriative Pool Committee representatives of parties who produce water within IEUA or WMWD; after said tenth

year the formula set forth in said Paragraph 7 (a) and 7 (b) of Exhibit "H" for payment of the costs of replenishment water may be changed to 100% gross or net, or any percentage split thereof, but only in response to recommendation to the Court by affirmative vote of at least 67% of said voting power of the Appropriative Pool representatives of parties who produce ground water within IEUA or WMWD, but not less than one-third of their number. In such event, the Court shall act in conformance with such recommendation unless there are compelling reasons to the contrary; and provided, further, that the fact that the allocation of Safe Yield or Operating Safe Yield shares may be rendered moot by a recommended change in the formula for replenishment assessments shall not be deemed to be such a "compelling reason."

Said continuing jurisdiction is provided for the purpose of enabling the Court, upon application of any party, the Watermaster, the Advisory Committee or any Pool Committee, by motion and, upon at least 30 days' notice thereof, and after hearing thereon, to make such further or supplemental orders or directions as may be necessary or appropriate for interpretation, enforcement or carrying out of this Judgment, and to modify, amend or amplify any of the provisions of this Judgment.

V. WATERMASTER

A. APPOINTMENT

16. Watermaster Appointment[10]. CBMWD, acting by and through a majority of its board of directors, is hereby appointed Watermaster, to administer and enforce the provisions of this Judgment and any subsequent instructions or orders of the Court hereunder. The term of appointment of Watermaster shall be for five (5) years. The Court will by subsequent orders provide for successive terms or for a successor Watermaster. Watermaster may be changed at any time by subsequent order of the Court, on its own motion, or on the motion of any party after notice and hearing. Unless there are compelling reasons to

[10] Pursuant to a recommendation by the Advisory Committee, a Nine-Member Board approved by the Court on February 19, 1998 replaced CBMWD as Watermaster. This Board is comprised of 3 representatives from municipal water districts (IUEA, TVMWD, WMWD), 3 Appropriative Pool representatives, 2 Agricultural Pool representatives and a Non-Agricultural Pool representative. Members are appointed by the entities they represent. Terms of service and a perpetual rotation schedule for the producer representatives were established in October, 2000 and is attached as Attachment 2.

the contrary, the Court shall act in conformance with a motion requesting the Watermaster be changed if such motion is supported by a majority of the voting power of the Advisory Committee.

B. POWERS AND DUTIES

17. Powers and Duties. Subject to the continuing supervision and control of the Court, Watermaster shall have and may exercise the express powers, and shall perform the duties, as provided in this Judgment or hereafter ordered or authorized by the Court in the exercise of the Court's continuing jurisdiction.

18. Rules and Regulations. Upon recommendation by the Advisory Committee, Watermaster shall make and adopt, after public hearing, appropriate rules and regulations for conduct of Watermaster affairs, including, meeting schedules and procedures, and compensation of members of Watermaster. Thereafter, Watermaster may amend the rules from time to time upon recommendation, or with approval of the Advisory Committee after hearing noticed to active parties, [11]***except that compensation of Watermaster members shall be subject to Court Approval***. A copy of the rules and regulations, and of amendments, shall be mailed to each active party.

19. Acquisition of Facilities. Watermaster may purchase, lease, acquire and hold all necessary facilities and equipment; provided, that it is not the intent of the Court that Watermaster acquire any interest in real property or substantial capital assets.

20. Employment of Experts and Agents. Watermaster may employ or retain such administrative, engineering, geologic, accounting, legal or other specialized personnel and consultants as may be deemed appropriate in the carrying out of its powers and shall require appropriate bonds from all officers and employees handling Watermaster funds. Watermaster shall maintain records for purposes of allocation of costs of such services as well as of all other expenses of Watermaster administration as between the several pools established by the Physical Solution.

[11] Order dated March 31, 1999 amended Paragraph 18 regarding compensation, as shown above.

21. Measuring Devices. Watermaster shall cause parties, pursuant to uniform rules, to install and maintain in good operating condition, at the cost of each party, such necessary measuring devices or meters as Watermaster may deem appropriate. Such measuring devices shall be inspected and tested as deemed necessary by Watermaster, and the cost thereof shall constitute an expense of Watermaster.

22. Assessments. Watermaster is empowered to levy and collect all assessments provided for in the pooling plans and Physical Solution.

23. Investment of Funds. Watermaster may hold and invest any and all Watermaster funds in investments authorized from time to time for public agencies of the State of California.

24. Borrowing. Watermaster may borrow from time to time amounts not exceeding the annual anticipated receipts of Watermaster during such year.

25. Contracts. Watermaster may enter into contracts for the performance of any powers herein granted; provided, however, that Watermaster may not contract with or purchase materials, supplies or services from IEUA, except upon the prior recommendation and approval of the Advisory Committee and pursuant to written order of the Court.

26. Cooperation With Other Agencies. Subject to prior recommendation or approval of the Advisory Committee, Watermaster may act jointly or cooperate with agencies of the United States and the State of California or any political subdivisions, municipalities or districts or any person to the end that the purpose of the Physical Solution may be fully and economically carried out.

27. Studies. Watermaster may, with concurrence of the Advisory Committee or affected Pool Committee and in accordance with Paragraph 54 (b), undertake relevant studies of hydrologic conditions, both quantitative and qualitative, and operating aspects of implementation of the management program for Chino Basin.

28. Ground Water Storage Agreements[12]. Watermaster shall adopt, with the approval of the Advisory Committee, uniformly applicable rules and a standard form of agreement for storage of supplemental water, pursuant to criteria therefore set forth in Exhibit "I". Upon appropriate application by any person, Watermaster shall enter into such a storage agreement; provided that all such storage agreements shall first be approved by written order of the Court, and shall by their terms preclude operations which will have a substantial adverse impact on other producers.

29. Accounting for Stored Water. Watermaster shall calculate additions, extractions and losses and maintain an annual account of all Stored Water in Chino Basin, and any losses of water supplies or Safe Yield of Chino Basin resulting from such Stored Water.

30. Annual Administrative Budget. Watermaster shall submit to Advisory Committee an administrative budget and recommendation for each fiscal year on or before March 1. The Advisory Committee shall review and submit said budget and their recommendations to Watermaster on or before April 1, following. Watermaster shall hold a public hearing on said budget at its April quarterly meeting and adopt the annual administrative budget which shall include the administrative items for each pool committee. The administrative budget shall set forth budgeted items in sufficient detail as necessary to make a proper allocation of the expense among the several pools, together with Watermaster's proposed allocation. The budget shall contain such additional comparative information or explanation as the Advisory Committee may recommend from time to time. Expenditures within budgeted items may thereafter be made by Watermaster in the exercise of powers herein granted, as a matter of course. Any budget transfer in excess of 20% of a budget category during any budget year or modification of such administrative budget during any year shall be first submitted to the Advisory Committee for review and recommendation.

31. Review Procedures. All actions, decisions or rules of Watermaster shall be subject to review by the Court on its own motion or on timely motion by any party, the Watermaster (in the case of a mandated action), the Advisory Committee, or any Pool Committee, as follows:

[12] July 19, 2001 Court Approved New Watermaster Rules & Regulations including Appendix 1 Forms.

(a) Effective Date of Watermaster Action. Any action, decision or rule of Watermaster shall be deemed to have occurred or been enacted on the date on which written notice thereof is mailed. Mailing of copies of approved Watermaster minutes to the active parties shall constitute such notice to all parties.

(b) Noticed Motion[13]. Any party, the Watermaster (as to any mandated action), the Advisory Committee, or any Pool Committee may, by a regularly noticed motion, apply to the Court for review of any Watermaster's action, decision or rule. Notice of such motion shall be served personally or mailed to Watermaster and to all active parties. Unless otherwise ordered by the Court, such motion shall not operate to stay the effect of such Watermaster action, decision or rule.

(c) Time for Motion. Notice of motion to review any Watermaster action, decision or rule shall be served and filed within ninety (90) days after such Watermaster action, decision or rule, except for budget actions, in which event said notice period shall be sixty (60) days.

(d) De Novo Nature of Proceedings. Upon the filing of any such motion, the Court shall require the moving party to notify the active parties, the Watermaster, the Advisory Committee, and each Pool Committee, of a date for taking evidence and argument, and on the date so designated shall review de novo the question at issue. Watermaster's findings or decision, if any, may be received in evidence at said hearing, but shall not constitute presumptive or prima facie proof of any fact in issue.

(e) Decision. The decision of the Court in such proceeding shall be an appealable supplemental order in this case. When the same is final, it shall be binding upon the Watermaster and all parties.

C. ADVISORY AND POOL COMMITTEES

[13] Order dated December 13, 1978 set forth procedures for notice upon parties.

32. Authorization. Watermaster is authorized and directed to cause committees of producer representatives to be organized to act as Pool Committees for each of the several pools created under the Physical solution. Said Pool Committees shall, in turn, jointly form an Advisory Committee to assist Watermaster in performance of its functions under this judgment. Pool Committees shall be composed as specified in the respective pooling plans, and the Advisory Committee shall be composed of voting representatives from each pool, as designated by the respective Pool Committee [14] ***in accordance with each pool's pooling plan.*** WMWD***, Three Valleys Municipal Water District (TVMWD)*** and SBVMWD shall each be entitled to one non-voting representative on said Advisory Committee.

33. Term and Vacancies. Members of any Pool Committee, shall serve for the term, and vacancies shall be filled, as specified in the respective pooling plan. Members of the Advisory Committee shall serve at the will of their respective Pool Committee.

34. Voting Power. The voting power on each Pool Committee shall be allocated as provided in the respective pooling plan. The voting power on the Advisory Committee shall be one hundred (100) votes allocated among the three pools in proportion to the total assessments paid to Watermaster during the preceding year; provided, that the minimum voting power of each pool shall be

(a) Overlying Agricultural Pool 20,

(b) Overlying Non-Agricultural Pool 5, and

(c) Appropriative Pool 20.

In the event any pool is reduced to its said minimum vote, the remaining votes shall be allocated between the remaining pools on said basis of assessments paid to Watermaster by each such remaining pool during the preceding year. The method of exercise of each pool's voting power on the Advisory Committee shall be as determined by the respective pool committees.

[14] Order dated September 18, 1996 amended Paragraph 32 as shown above.

35. Quorum. A majority of the voting power of the Advisory Committee or any Pool Committee shall constitute a quorum for the transaction of affairs of such Advisory or Pool Committee; provided, that at least one representative of each Pool Committee shall be required to constitute a quorum of the Advisory Committee. No Pool Committee representative may purposely absent himself or herself, without good cause, from an Advisory Committee meeting to deprive it of a quorum. Action by affirmative vote of a majority of the entire voting power of any Pool Committee or the Advisory Committee shall constitute action by such committee. Any action or recommendation of a Pool Committee or the Advisory Committee shall be transmitted to Watermaster in writing, together with a report of any dissenting vote or opinion.

36. Compensation. Pool or Advisory Committee members may receive compensation, to be established by the respective pooling plan, but not to exceed twenty-five dollars ($25.00) for each meeting of such Pool or Advisory Committee attended, and provided that no member of a Pool or Advisory Committee shall receive compensation of more than three hundred ($300.00) dollars for service on any such committee during any one year. All such compensation shall be a part of Watermaster administrative expense. No member of any Pool or Advisory Committee shall be employed by Watermaster or compensated by Watermaster for professional or other services rendered to such Pool or Advisory Committee or to Watermaster, other than the fee for attendance at meetings herein provided, plus reimbursement of reasonable expenses related to activities within the Basin.

37. Organization.

(a) Organizational Meeting. At its first meeting in each year, each Pool Committee and the Advisory Committee shall elect a chairperson and a vice chairperson from its membership. It shall also select a secretary, a treasurer and such assistant secretaries and treasurers as may be appropriate, any of whom may, but need not, be members of such Pool or Advisory Committee.

(b) Regular Meetings[15]. All Pool Committees and the Advisory Committee shall hold regular meetings at a place and time to be specified in the rules to be adopted by each Pool and

[15] Attachment #3 - Resolution No. 99-03 adopted by WM Board on May 13, 1999 re Public Meetings, Hearings, Confidential Sessions and Notice Requirements affects Paragraph 37 (b) & (c) of the Judgment.

Advisory Committee. Notice of regular meetings of any Pool or Advisory Committee, and of any change in time or place thereof, shall be mailed to all active parties in said pool or pools.

(c) Special Meetings[16]. Special meetings of any Pool or Advisory Committee may be called at any time by the Chairperson or by any three (3) members of such Pool or Advisory Committee by delivering notice personally or by mail to each member of such Pool or Advisory Committee and to each active party at least 24 hours before the time of each such meeting in the case of personal delivery, and 96 hours in the case of mail. The calling notice shall specify the time and place of the special meeting and the business to be transacted. No other business shall be considered at such meeting.

(d) Minutes. Minutes of all Pool Committee, Advisory Committee and Watermaster meetings shall be kept at Watermaster's offices. Copies thereof shall be mailed or otherwise furnished to all active parties in the pool or pools concerned. Said copies of minutes shall constitute notice of any Pool or Advisory Committee action therein reported, and shall be available for inspection by any party.

(e) Adjournments. Any meeting of any Pool or Advisory Committee may be adjourned to a time and place specified in the order of adjournment. Less than a quorum may so adjourn from time to time. A copy of the order or notice of adjournment shall be conspicuously posted forthwith on or near the door of the place where the meeting was held.

38. Powers and Functions. The powers and functions of the respective Pool Committees and the Advisory Committee shall be as follows:

(a) Pool Committees. Each Pool Committee shall have the power and responsibility for developing policy recommendations for administration of its particular pool, as created under the Physical Solution. All actions and recommendations of any Pool Committee which require Watermaster implementation shall first be noticed to the other two pools. If no objection is received

[16] Attachment #3 - Resolution No. 99-03 adopted by WM Board on May 13, 1999 re Public Meetings, Hearings, Confidential Sessions and Notice Requirements affects Paragraph 37 (b) & (c) of the Judgment.

in writing within thirty (30) days, such action or recommendation shall be transmitted directly to Watermaster for action. If any such objection is received, such action or recommendation shall be reported to the Advisory Committee before being transmitted to Watermaster.

(b) Advisory Committee. The Advisory Committee shall have the duty to study, and the power to recommend, review and act upon all discretionary determinations made or to be made hereunder by Watermaster.

[1] Committee Initiative. When any recommendation or advice of the Advisory Committee is received by Watermaster, action consistent therewith may be taken by Watermaster; provided, that any recommendation approved by 80 votes or more in the Advisory Committee shall constitute a mandate for action by Watermaster consistent therewith. If Watermaster is unwilling or unable to act pursuant to recommendation or advice from the Advisory Committee (other than such mandatory recommendations), Watermaster shall hold a public hearing, which shall be followed by written findings and decision. Thereafter, Watermaster may act in accordance with said decision, whether consistent with or contrary to said Advisory Committee recommendation. Such action shall be subject to review by the Court, as in the case of all other Watermaster determinations.

[2] Committee Review. In the event Watermaster proposes to take discretionary action, other than approval or disapproval of a Pool Committee action or recommendation properly transmitted, or execute any agreement not theretofore within the scope of an Advisory Committee recommendation, notice of such intended action shall be served on the Advisory Committee and its members at least thirty (30) days before the Watermaster meeting at which such action is finally authorized.

(c) Review of Watermaster Actions. Watermaster (as to mandated action), the Advisory Committee or any Pool Committee shall be entitled to employ counsel and expert assistance in the event Watermaster or such Pool or Advisory Committee seeks Court review of any

Watermaster action or failure to act. The cost of such counsel and expert assistance shall be Watermaster expense to be allocated to the affected pool or pools.

VI. PHYSICAL SOLUTION

A. GENERAL

39. Purpose and Objective. Pursuant to the mandate of Section 2 of Article X of the California Constitution, the Court hereby adopts and orders the parties to comply with a Physical Solution. The purpose of these provisions is to establish a legal and practical means for making the maximum reasonable beneficial use of the waters of Chino Basin by providing the optimum economic, long-term, conjunctive utilization of surface waters, ground waters and supplemental water, to meet the requirements of water users having rights in or dependent upon Chino Basin.

40. Need for Flexibility. It is essential that this Physical solution provide maximum flexibility and adaptability in order that Watermaster and the Court may be free to use existing and future technological, social, institutional and economic options, in order to maximize beneficial use of the waters of Chino Basin. To that end, the Court's retained jurisdiction will be utilized, where appropriate, to supplement the discretion herein granted to the Watermaster.

41. Watermaster Control. Watermaster, with the advice of the Advisory and Pool Committees, is granted discretionary powers in order to develop an optimum basin management program for Chino Basin, including both water quantity and quality considerations. Withdrawals and supplemental water replenishment of Basin Water, and the full utilization of the water resources of Chino Basin, must be subject to procedures established by and administered through Watermaster with the advice and assistance of the Advisory and Pool Committees composed of the affected producers. Both the quantity and quality of said water resources may thereby be preserved and the beneficial utilization of the Basin maximized.

42. General Pattern of Operations. It is contemplated that the rights herein decreed will be divided into three (3) operating pools for purposes of Watermaster administration. A fundamental premise of the Physical Solution is that all water users dependent upon Chino Basin will be allowed to pump

sufficient waters from the Basin to meet their requirements. To the extent that pumping 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 enable Watermaster to replace such overproduction. The method of assessment in each pool shall be as set forth in the applicable pooling plan.

B. POOLING

43. Multiple Pools Established. There are hereby established three (3) pools for Watermaster administration of, and for the allocation of responsibility for, and payment of, costs of replenishment water and other aspects of this Physical Solution.

(a) Overlying Agricultural Pool. The first pool shall consist of the State of California and all overlying producers who produce water for other than industrial or commercial purposes. The initial members of the pool are listed in Exhibit "C" ("C-1")[17].

(b) Overlying Non-Agricultural Pool The second pool shall consist of overlying producers who produce water for industrial or commercial purposes. The initial members of this pool are listed in Exhibit "D" ("D-1") [18].

(c) Appropriative Pool. A third and separate pool shall consist of owners of appropriative rights. The initial members of the pool are listed in Exhibit "E" ("E-1") [19].

Any party who changes the character of his use may, by subsequent order of the Court, be reassigned to the proper pool; but the allocation of Safe Yield under Paragraph 44 hereof shall not be changed. Any non-party producer or any person who may hereafter commence production of water from Chino Basin, and who may become a party to this physical solution by intervention, shall be assigned to the proper pool by the order of the Court authorizing such intervention.

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[17] Exhibit C-1 lists interventions that were approved for the Overlying Agricultural Pool since 1978.

[18] Exhibit D-1 lists Overlying Non-Agricultural Pool Members as of September 2001.

[19] Exhibit E-1 lists Appropriative Pool Members as of September 2001.

44. Determination and Allocation of Rights to Safe Yield of Chino Basin. The declared Safe Yield of Chino Basin is hereby allocated as follows:

Pool	Allocation
Overlying Agricultural Pool	414,000 acre-feet in any five (5) consecutive years.
Overlying Non-Agricultural Pool	7,366 acre-feet per year.
Appropriative Pool	49,834 acre-feet per year.

The foregoing acre foot allocations to the overlying pools are fixed. Any subsequent change in the Safe Yield shall be debited or credited to the Appropriative Pool. Basin Water available to the Appropriative Pool without replenishment obligation may vary from year to year as the Operating Safe Yield is determined by Watermaster pursuant to the criteria set forth in Exhibit "I".

45. Annual Replenishment. Watermaster shall levy and collect assessments in each year, pursuant to the respective pooling plans, in amounts sufficient to purchase replenishment water to replace production by any pool during the preceding year which exceeds that pool's allocated share of Safe Yield in the case of the overlying pools, or Operating Safe Yield in the case of the Appropriative Pool. It is anticipated that supplemental water for replenishment of Chino Basin may be available at different rates to the various pools to meet their replenishment obligations. If such is the case, each pool will be assessed only that amount necessary for the cost of replenishment water to that pool, at the rate available to the pool, to meet its replenishment obligation.

46. Initial Pooling Plans. The initial pooling plans, which are hereby adopted, are set forth in Exhibits "F", "G" and "H", respectively. Unless and until modified by amendment of the judgment pursuant to the Court's continuing jurisdiction, each such plan shall control operation of the subject pool.

C. REPORTS AND ACCOUNTING

47. Production Reports. Each party or responsible party shall file periodically with Watermaster, pursuant to Watermaster rules, a report on a form to be prescribed by Watermaster showing the total

production of such party during the preceding reportage period, and such additional information as Watermaster may require, including any information specified by the affected Pool Committee.

48. Watermaster Report and Accounting. Watermaster's annual report, which shall be filed on or before ***January 31***[20] of each year and shall apply to the preceding year's operation, shall contain details as to operation of each of the pools and a certified audit of all assessments and expenditures pursuant to this Physical Solution and a review of Watermaster activities.

D. REPLENISHMENT

49. Sources of Supplemental Water. Supplemental water may be obtained by Watermaster from any available source. Watermaster shall seek to obtain the best available quality of supplemental water at the most reasonable cost for recharge in the Basin. To the extent that costs of replenishment water may vary between pools, each pool shall be liable only for the costs attributable to its required replenishment. Available sources may include, but are not limited to:

(a) Reclaimed Water. There exist a series of agreements generally denominated the Regional Waste Water Agreements between IEUA and owners of the major municipal sewer systems within the basin. Under those agreements, which are recognized hereby but shall be unaffected and unimpaired by this judgment, substantial quantities of reclaimed water may be made available for replenishment purposes. There are additional sources of reclaimed water which are, or may become, available to Watermaster for said purposes. Maximum beneficial use of reclaimed water shall be given high priority by Watermaster.

(b) State Water. State water constitutes a major available supply of supplemental water. In the case of State Water, Watermaster purchases shall comply with the water service provisions of the State's water service contracts. More specifically, Watermaster shall purchase State Water from MWD for replenishment of excess production within IEUA, WMWD and TVMWD, and from SBVMWD to replenish excess production within SBVMWD's boundaries in Chino Basin,

[20] Order dated March 31, 1999, amended Paragraph 48 as shown above.

except to the extent that MWD and SBVMWD give their consent as required by such State water service contracts.

(c) Local Import. There exists facilities and methods for importation of surface and ground water supplies from adjacent basins and watersheds.

(d) Colorado River Supplies. MWD has water supplies available from its Colorado River Aqueduct.

50. Methods of Replenishment. Watermaster may accomplish replenishment of overproduction from the Basin by any reasonable method, including:

(a) Spreading and percolation or Injection of water in existing or new facilities, subject to the provisions of Paragraphs 19, 25 and 26 hereof.

(b) In Lieu Procedures. Watermaster may make, or cause to be made, deliveries of water for direct surface use, in lieu of ground water production.

E. REVENUES

51. Production Assessment. Production assessments, on whatever basis, may be levied by Watermaster pursuant to the pooling plan adopted for the applicable pool.

52. Minimal Producers. Minimal Producers shall be exempted from payment of production assessments, upon filing of production reports as provided in Paragraph 47 of this Judgment, and payment of an annual five dollar ($5.00) administrative fee as specified by Watermaster rules.

53. Assessment Proceeds — Purposes. Watermaster shall have the power to levy assessments against the parties (other than minimal pumpers) based upon production during the preceding period of assessable production, whether quarterly, semi-annually or annually, as may be determined most practical by Watermaster or the affected Pool Committee.

54. Administrative Expenses. The expenses of administration of this Physical Solution shall be categorized as either (a) general Watermaster administrative expense, or (b) special project expense.

(a) General Watermaster Administrative Expense shall include office rental, general personnel expense, supplies and office equipment, and related incidental expense and general overhead.

(b) Special Project Expense shall consist of special engineering, economic or other studies, litigation expense, meter testing or other major operating expenses. Each such project shall be assigned a Task Order number and shall be separately budgeted and accounted for. General Watermaster administrative expense shall be allocated and assessed against the respective pools based upon allocations made by the Watermaster, who shall make such allocations based upon generally accepted cost accounting methods. Special Project Expense shall be allocated to a specific pool, or any portion thereof, only upon the basis of prior express assent and finding of benefit by the Pool Committee, or pursuant to written order of the Court.

55. Assessments -- Procedure. Assessments herein provided for shall be levied and collected as follows:

(a) Notice of Assessment. Watermaster shall give written notice of all applicable assessments to each party on or before ninety (90) days after the end of the production period to which such assessment is applicable.

(b) Payment. Each assessment shall be payable on or before thirty (30) days after notice, and shall be the obligation of the party or successor owning the water production facility at the time written notice of assessment is given, unless prior arrangement for payment by others has been made in writing and filed with Watermaster.

(c) Delinquency. Any delinquent assessment shall bear interest at 10% per annum (or such greater rate as shall equal the average current cost of borrowed funds to the Watermaster) from the due date thereof. Such delinquent assessment and interest may be collected in a show-cause proceeding herein instituted by the Watermaster, in which case the Court may allow Watermaster its reasonable costs of collection, including attorney's fees.

56. Accumulation of Replenishment Water Assessment Proceeds. In order to minimize fluctuation in assessment and to give Watermaster flexibility in purchase and spreading of replenishment water, Watermaster may make reasonable accumulations of replenishment water assessment proceeds. Interest earned on such retained funds shall be added to the account of the pool from which the funds were collected and shall be applied only to the purchase of replenishment water.

57. Effective Date. The effective date for accounting and operation under this Physical Solution shall be July 1, 1977, and the first production assessments hereunder shall be due after July 1, 1978. Watermaster shall, however, require installation of meters or measuring devices and establish operating procedures immediately, and the cost of such Watermaster activity (not including the cost of such meters and measuring devices) may be recovered in the first administrative assessment in 1978.

VII. MISCELLANEOUS PROVISIONS

58. Designation of Address for Notice and Service. Each party shall designate the name and address to be used for purposes of all subsequent notices and service herein, either by its endorsement on the Stipulation for Judgment or by a separate designation to be filed within thirty (30) days after Judgment has been served. Said designation may be changed from time to time by filing a written notice of such change with the Watermaster. Any party desiring to be relieved of receiving notices of Watermaster or committee activity may file a waiver of notice on a form to be provided by Watermaster. Thereafter such party shall be removed from the Active Party list. Watermaster shall maintain at all times a current list of all active parties and their addresses for purposes of service. Watermaster shall also maintain a full current list of names and addresses of all parties or their successors, as filed herein. Copies of such lists shall be available, without cost, to any party, the Advisory Committee or any Pool Committee upon written request therefor.

59. Service of Documents. Delivery to or service upon any party or active party by the Watermaster, by any other party, or by the Court, of any item required to be served upon or delivered to such party or active party under or pursuant to the Judgment shall be made personally or by deposit in the

United States mail, first class, postage prepaid, addressed to the designee and at the address in the latest designation filed by such party or active party.

60. Intervention After Judgment[21]. Any non-party assignee of the adjudicated appropriative rights of any appropriator, or any other person newly proposing to produce water from Chino Basin, may become a party to this Judgment upon filing a petition in intervention. Said intervention must be confirmed by order of this Court. Such intervenor shall thereafter be a party bound by this judgment and entitled to the rights and privileges accorded under the Physical Solution herein, through the pool to which the Court shall assign such intervenor.

61. Loss of Rights. Loss, whether by abandonment, forfeiture or otherwise, of any right herein adjudicated shall be accomplished only (1) by a written election by the owner of the right filed with Watermaster, or (2) by order of the Court upon noticed motion and after hearing.

62. Scope of Judgment. Nothing in this Judgment shall be deemed to preclude or limit any party in the assertion against a neighboring party of any cause of action now existing or hereafter arising based upon injury, damage or depletion of water supply available to such party, proximately caused by nearby pumping which constitutes an unreasonable interference with such complaining party's ability to extract ground water.

63. Judgment Binding on Successors. This Judgment and all provisions thereof are applicable to and binding upon not only the parties to this action, but also upon their respective heirs, executors, administrators, successors, assigns, lessees and 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.

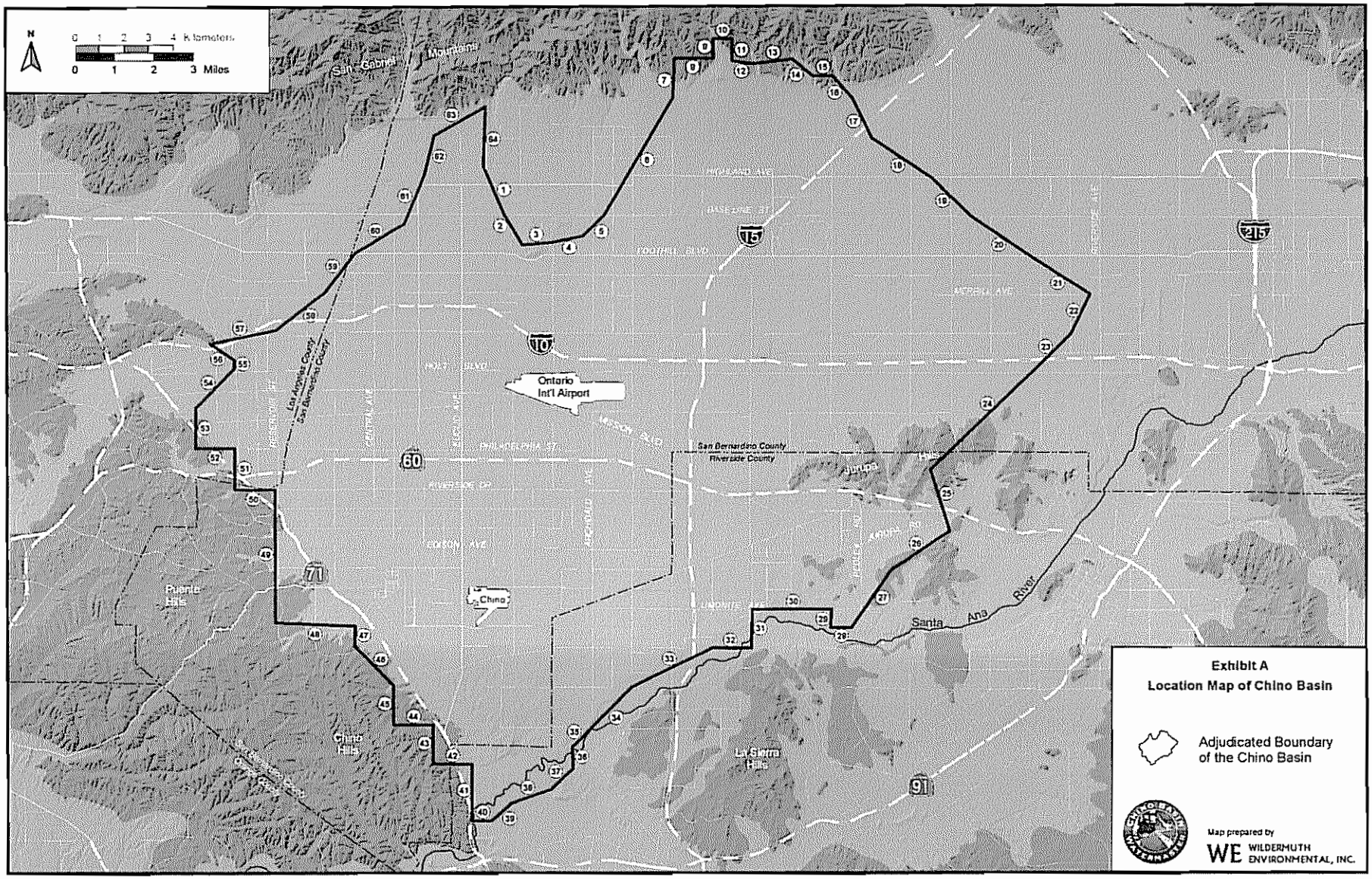
[21] Order dated July 14, 1978 re Intervention Procedures.

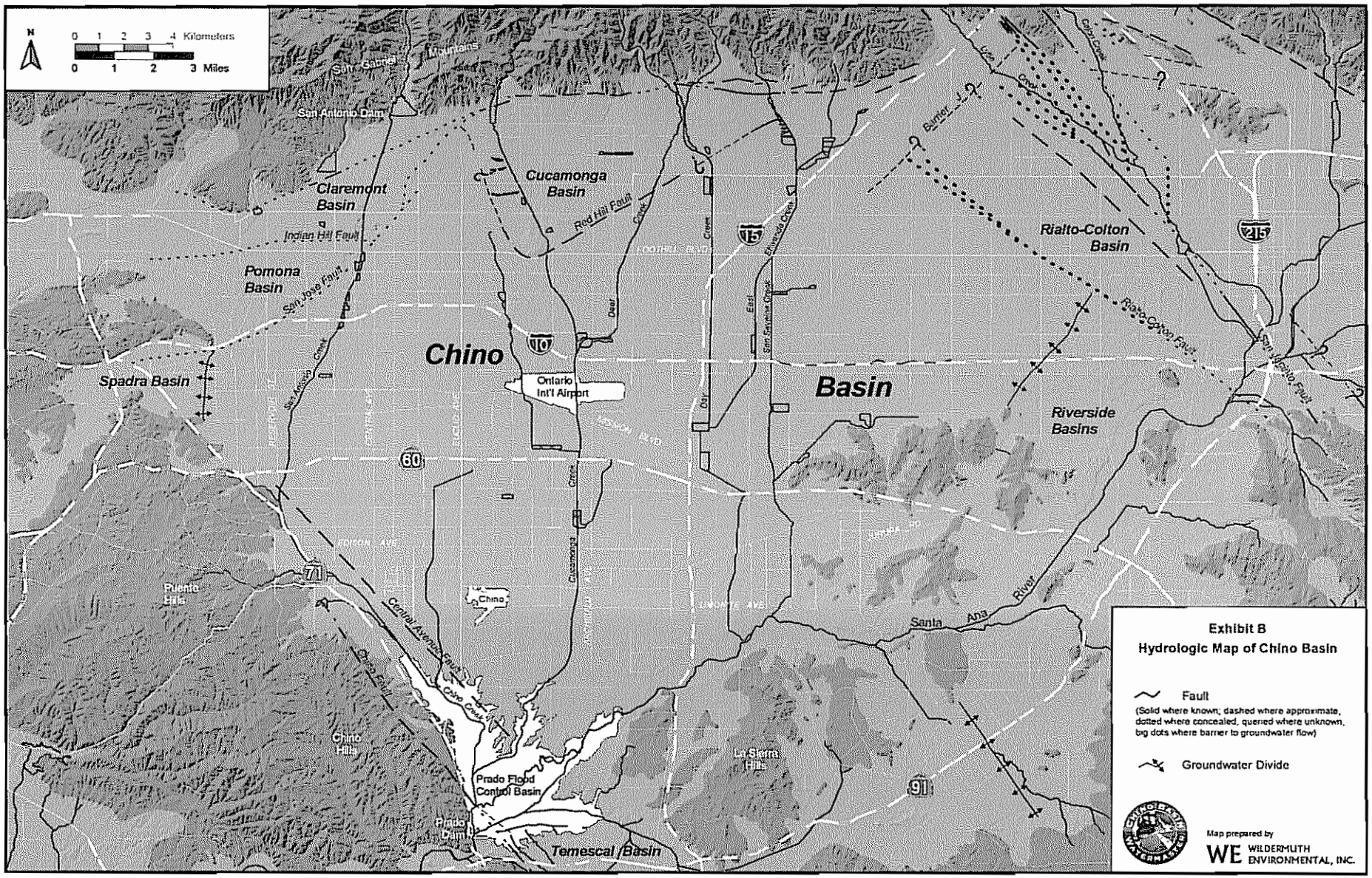
Dated: January 1, 1978

Howard B. Weiner

Howard B. Weiner[22]

[22] Judge J. Michael Gunn became the presiding Judge in February 1996.


N
0 1 2 3 4 Kilometers
0 1 2 3 Miles
San Gabriel Mountains
Ontario Int'l Airport
San Bernardino County
Riverside County
Los Angeles County
San Bernardino County
Puente Hills
Chino Hills
La Sierra Hills
Santa Ana River
Exhibit A
Location Map of Chino Basin
Adjudicated Boundary of the Chino Basin
Map prepared by
WE WILDERMUTH ENVIRONMENTAL, INC.


N
0 1 2 3 4 Kilometers
0 1 2 3 Miles
San Gabriel Mountains
San Antonio Dam
Claremont Basin
Cucamonga Basin
Red Hill Fault
Indian Hill Fault
Pomona Basin
San Jose Fault
Chino
Basin
Spadra Basin
Ontario Int'l Airport
Rialto-Colton Basin
Riverside Basins
Rialto-Colton Fault
San Jacinto Fault
Puente Hills
Chino Hills
Central Avenue Basin
Chino Creek
Prado Flood Control Basin
Prado Dam
Temescal Basin
La Sierra Hills
Santa Ana River
Exhibit B
Hydrologic Map of Chino Basin
Fault
(Solid where known; dashed where approximate, dotted where concealed, queried where unknown, big dots where barrier to groundwater flow)
Groundwater Divide
Map prepared by
WE WILDERMUTH ENVIRONMENTAL, INC.

STIPULATING OVERLYING AGRICULTURAL PRODUCERS

STATE OF CALIFORNIA

COUNTY OF SAN BERNARDINO

Abacherli, Dairy, Inc.

Abacherli, Frank

Abacherli, Shirley

Abbona, Anna

Abbona, James

Abbona, Jim

Abbona, Mary

Agliani, Amelia H.

Agman, Inc.

Aguerre, Louis B.

Ahmanson Trust Co.

Akiyama, Shizuye

Akiyama, Tomoo

Akkerman, Dave

Albers, J.N.

Albers, Nellie

Alewyn, Jake J.

Alewyn, Normalee

Alger, Mary D.

Alger, Raymond

Allen, Ben F.

Allen, Jane F.

Alta-Dena Dairy

Anderson Farms

Anguiano, Sarah L.S.

Anker, Gus

Aphessetche, Xavier

Arena Mutual Water Assn.

Armstrong Nurseries, Inc.

Arretche, Frank

Arretche, Jean Pierre

Arvidson, Clarence F.

Arvidson, Florence

Ashley, George W.

Ashley, Pearl E.

Atlas Farms

Atlas Ornamental Iron Works, Inc.

Aukeman, Carol

Aukeman, Lewis

Ayers, Kenneth C., aka
Kelley Ayers

Bachoc, Raymond

Baldwin, Edgar A.

Baldwin, Lester

Banbury, Carolyn

Bangma Dairy

Bangma, Arthur

Bangma, Ida

Bangma, Martin

Bangma, Sam

Barba, Anthony B.

Barba, Frank

Barcellos, Joseph

Barnhill, Maurine W.

Barnhill, Paul	Boersma, Angie
Bartel, Dale	Boersma, Berdina
Bartel, Ursula	Boersma, Frank
Bartel, Willard	Boersma, Harry
Barthelemy, Henry	Boersma, Paul
Barthelemy, Roland	Boersma, Sam
Bassler, Donald V., M.D.	Boersma, William L.
Bates, Lowell R.	Bohlander & Holmes, Inc.
Bates, Mildred L.	Bokma, Peter
Beahm, James W.	Bollema, Jacob
Beahm, Joan M.	Boonstoo, Edward
Bekendam, Hank	Bootsma, Jim
Bekendam, Pete	Borba, Dolene
Bello, Eugene	Borba, Dolores
Bello, Olga	Borba, Emily
Beltman, Evelyn	Borba, George
Beltman, Tony	Borba, John
Bergquist Properties, Inc.	Borba, John & Sons
Bevacqua, Joel A.	Borba, John Jr.
Bevacqua, Marie B.	Borba, Joseph A.
Bidart, Bernard	Borba, Karen E.
Bidart, Michael J.	Borba, Karen M.
Binnell, Wesley	Borba, Pete, Estate of
Black, Patricia E.	Borba, Ricci
Black, Victor	Borba, Steve
Bodger, John & Sons Co.	Borba, Tom
Boer, Adrian	Bordisso, Alleck
Boersma and Wind Dairy	Borges, Angelica M.

Borges, Bernadette
Borges, John O.
Borges, Linda L.
Borges, Manual Jr.
Borges, Tony
Bos, Aleid
Bos, Gerrit
Bos, John
Bos, John
Bos, Margaret
Bos, Mary
Bos, Mary Beth
Bos, Tony
Bosch, Henrietta
Bosch, Peter T.
Boschma, Betty
Boschma, Frank
Boschma, Greta
Boschma, Henry
Bosma, Dick
Bosma, Florence G.
Bosma, Gerrit
Bosma, Jacob J.
Bosma, Jeanette Thea
Bosman, Frank
Bosman, Nellie
Bosnyak, Goldie M.
Bosnyak, Martin
Bothof, Roger W.
Bouma, Cornie
Bouma, Emma
Bouma, Henry P.
Bouma, Martin
Bouma, Peter G. & Sons Dairy
Bouma, Ted
Bouman, Helen
Bouman, Sam
Bower, Mabel E.
Boys Republic
Breedyk, Arie
Breedyk, Jessie
Briano Brothers
Briano, Albert
Briano, Albert Trustee for
Briano, Albert Frank
Briano, Lena
Brink, Russell N.
Brinkerhoff, Margaret
Brinkerhoff, Robert L.
Britschgi, Florence
Britschgi, Magdalena Garetto
Britschgi, Walter P.
Brommer, Marvin
Brookside Enterprizes, dba
Brookside Vineyard Co.
Brothers Three Dairy

Brown, Eugene
Brun, Martha M.
Brun, Peter Robert
Buma, Duke
Buma, Martha
Bunse, Nancy
Bunse, Ronnie L.
Caballero, Bonnie L.
Caballero, Richard F.
Cable Airport Inc.
Cadlini, Donald
Cadlini, Jesse R.
Cadlini, Marie Edna
Cambio, Anna
Cambio, Charles, Estate of
Cambio, William V.
Cardoza, Florence
Cardoza, Olivi
Cardoza, Tony
Carnesi, Tom
Carver, Robt M., Trustee
Cauffman, John R.
Chacon Bros.
Chancon, Elvera P.
Chacon, Joe M.
Chacon, Robert M.
Chacon, Virginia L.
Chez, Joseph C.
Chino Corona Investment
Chino Water Co.
Christensen, Leslie
Christensen, Richard G.
Christian, Ada R.
Christian, Harold F.
Christy, Ella J.
Christy, Ronald S.
Cihigoyenetche, Jean
Cihigoyenetche, Leona
Cihigoyenetche, Martin
Clarke, Arthur B.
Clarke, Nancy L.
Clarke, Phyllis J.
Coelho, Isabel
Coelho, Joe A. Jr.
Collins, Howard E.
Collins, Judith F.
Collinsworth, Ester L.
Collinsworth, John E.
Collinsworth, Shelby
Cone Estate (05-2-00648/649)
Consolidated Freightways Corp.
of Delaware
Corona Farms Co.
Corra, Rose
Costa, Dimas S.
Costa, Laura

Costa, Myrtle	De Boer, L.H.
Costamagna, Antonio	De Boer, Sidney
Costamagna, Joseph	De Bos, Andrew
Cousyn, Claus B.	De Graaf, Anna Mae
Cramer, Carole F.	De Graaf, Gerrit
Cramer, William R.	De Groot, Dick
Crossroads Auto Dismantlers, Inc.	De Groot, Dorothy
Crouse, Beatrice I.	De Groot, Ernest
Crouse, Roger	De Groot, Henrietta
Crowley, Juanita C.	De Groot, Jake
Crowley, Ralph	De Groot, Pete Jr.
Cucamonga Vintners	De Haan, Bernadena
D'Astici, Teresa	De Haan, Henry
Da Costa, Cecilia B.	De Hoog, Adriana
Da Costa, Joaquim F.	De Hoog, Joe
Daloisio, Norman	De Hoog, Martin
De Berard Bros.	De Hoog, Martin L.
De Berard, Arthur, Trustee	De Hoog, Mitch
De Berard, Charles	De Hoog, Tryntje
De Berard, Chas., Trustee	De Jager, Cobi
De Berard, Helan J.	De Jager, Edward D.
De Berard, Robert	De Jong Brothers Dairy
De Berard, Robert Trustee	De Jong, Cornelis
De Bie, Adrian	De Jong, Cornelius
De Bie, Henry	De Jong, Grace
De Bie, Margaret M.	De Jong, Jake
De Bie, Marvin	De Jong, Lena
De Boer, Fred	De Leeuw, Alice

De Leeuw, Sam
De Soete, Agnes
De Soete, Andre
De Vries, Abraham
De Vries, Case
De Vries, Dick
De Vries, Evelyn
De Vries, Henry, Estate of
De Vries, Hermina
De Vries, Jack H.
De Vries, Jane
De Vries, Janice
De Vries, John
De Vries, John J.
De Vries, Neil
De Vries, Ruth
De Vries, Theresa
De Wit, Gladys
De Wit, Peter S.
De Wyn, Evert
De Zoete, Hattie V.
Do Zoete, Leo A.
Decker, Hallie
Decker, Henry A.
Demmer, Ernest
Di Carlo, Marie
Di Carlo, Victor
Di Tommaso, Frank
Dirkse, Catherine
Dirkse, Charles C.
Dixon, Charles E.
Dixon, Geraldine A.
Doesberg, Hendrica
Doesburg, Theodorus, P.
Dolan, Marion
Dolan, Michael H.
Dominguez, Helen
Dominguez, Manual
Donkers, Henry A.
Donkers, Nellie G.
Dotta Bros.
Douma Brothers Dairy
Douma, Betty A.
Douma, Fred A.
Douma, Hendrika
Douma, Herman G.
Douma, Narleen J.
Douma, Phillip M.
Dow Chemical Co.
Dragt, Rheta
Dragt, William
Driftwood Dairy Farm
Droogh, Case
Duhalde, Marian
Duhalde, Lauren
Duits, Henrietta

Duits, John	Excelsior Farms
Dunlap, Edna Kraemer,	F.D.I.C. Fagundes, Frank M.
Estate of	Fagundes, Mary
Durrington, Glen	Fernandes, Joseph Jr.
Durrington, William F.	Fernandes, Velma C.
Dusi, John Sr.	Ferraro, Ann
Dykstra, Dick	Ferreira, Frank J.
Dykstra, John	Ferreira, Joe C. Jr.
Dykstra, John & Sons	Ferreira, Narcie
Dykstra, Wilma	Fillippi, J. Vintage Co.
Dyt, Cor	Filippi, Joseph
Dyt, Johanna	Filippi, Joseph A.
E and S Grape Growers	Filippi, Mary E.
Eaton, Thomas, Estate of	Fitzgerald, John R.
Echeverria, Juan	Flameling Dairy Inc.
Echeverria, Carlos	Flamingo Dairy
Echeverria, Pablo	Foss, Douglas E.
Eilers, E. Myrle	Foss, Gerald R.
Eilers, Henry W.	Foss, Russel
El Prado Golf Course	Fred & John Troost No. 1 Inc.
Ellsworth, Rex C.	Fred & Maynard Troost No. 2 Inc.
Engelsma, Jake	Freitas, Beatriz
Engelsma, Susan	Freitas, Tony T.
Escojeda, Henry	Gakle, Louis L.
Etiwanda Grape Products Co.	Galleano Winery, Inc.
Euclid Ave. Investment One	Galleano, Bernard D.
Euclid Ave. Investment Four	Galleano, D.
Euclid Ave. Three Investment	Galleano, Mary M.

Garcia, Pete
Gardner, Leland V.
Gardner, Lola M.
Garrett, Leonard E.
Garrett, Patricia T.
Gastelluberry, Catherine
Gastelluberry, Jean
Gilstrap, Glen E.
Gilstrap, Marjorie J.
Godinho, John
Godinho, June
Gonsalves, Evelyn
Gonsalves, John
Gorzeman, Geraldine
Gorzeman, Henry A.
Gorzeman, Joe
Govea, Julia
Goyenetche, Albert
Grace, Caroline E.
Grace, David J.
Gravatt, Glenn W.
Gravatt, Sally Mae
Greydanus Dairy, Inc.
Greydanus, Rena
Griffin Development Co.
Haagsma, Dave
Haagsma, John
Hansen, Mary D.
Hansen, Raymond F.
Hanson, Ardeth W.
Harada, James T.
Harada, Violet A.
Haringa, Earl and Sons
Haringa, Herman
Haringa, Rudy
Haringa, William
Harper, Cecilia de Mille
Harrington, Winona
Harrison, Jacqueline A.
Hatanaka, Kenichi
Heida, Annie
Heida, Don
Heida, Jim
Heida, Sam
Helms, Addison D.
Helms, Irma A.
Hermans, Alma I.
Hermans, Harry
Hettinga, Arthur
Hettinga, Ida
Hettinga, Judy
Hettinga, Mary
Hettinga, Wilbur
Heublein, Inc., Grocery Products Group
Hibma, Catherine M.

Hibma, Sidney
Hicks, Kenneth I.
Hicks, Minnie M.
Higgins Brick Co.
Highstreet, Alfred V.
Highstreet, Evada V.
Hilarides, Bertha as Trustee
Hilarides, Frank
Hilarides, John as Trustee
Hindelang, Tillie
Hindelang, William
Hobbs, Bonnie C.
Hobbs, Charles W.
Hobbs, Hazel I.
Hobbs, Orlo M.
Hoekstra, Edward
Hoekstra, George
Hoekstra, Grace
Hoekstra, Louie
Hofer, Paul B.
Hofer, Phillip F.
Hofstra, Marie
Hogeboom, Jo Ann M.
Hogeboom, Maurice D.
Hogg, David V.
Hogg, Gene P.
Hogg, Warren G.
Hohberg, Edith J.
Hohberg, Harold C.
Hohberg, Harold W.
Holder, Arthur B.
Holder, Dorothy F.
Holmes, A. Lee
Holmes, Frances P.
Hoogeboom, Gertrude
Hoogeboom, Pete
Hoogendam, John
Hoogendam, Tena
Houssels, J. K. Thoroughbred Farm
Hunt Industries
Idsinga, Ann
Idsinga, William W.
Imbach Ranch, Inc.
Imbach, Kenneth E.
Imbach, Leonard K.
Imbach, Oscar K.
Imbach, Ruth M.
Indaburu, Jean
Indaburu, Marceline
Iseli, Kurt H.
Ito, Kow
J & B Dairy Inc.
Jaques, Johnny C. Jr.
Jaques, Mary
Jaques, Mary Lou

Jay Em Bee Farms	Knevelbaard, John
Johnson Bro's Egg Ranches, Inc.	Knudsen, Ejnar
Johnston, Ellwood W.	Knudsen, Karen M.
Johnston, George F. Co.	Knudsen, Kenneth
Johnston, Judith H.	Knudson, Robert
Jones, Leonard P.	Knudson, Darlene
Jongsma & Sons Dairy	Koel, Helen S.
Jongsma, Diana A.	Koetsier, Gerard
Jongsma, Dorothy	Koetsier, Gerrit J.
Jongsma, George	Koetsier, Jake
Jongsma, Harold	Koning, Fred W.
Jongsma, Henry	Koning, Gloria
Jongsma, John	Koning, J. W. Estate
Jongsma, Nadine	Koning, James A.
Jongsma, Tillie	Koning, Jane
Jordan, Marjorie G.	Koning, Jane C.
Jordan, Troy O.	Koning, Jennie
Jorritsma, Dorothy	Koning, John
Juliano, Albert	Koning, Victor A.
Kamper, Cornelis	Kooi Holstein Corporation
Kamstra, Wilbert	Koolhaas, Kenneth E.
Kaplan, Lawrence J.	Koolhaas, Simon
Kasbergen, Martha	Koolhaas, Sophie Grace
Kasbergen, Neil	Koopal, Grace
Kazian, Angelen Estate of	Koopal, Silas
Kingsway, Const. Corp.	Koopman, Eka
Klapps Market	Koopman, Gene T.
Kline, James K.	Koopman, Henry G.

Koopman, Ted

Koopman, Tena

Koot, Nick

Koster, Aart

Koster, Frances

Koster, Henry B.

Koster, Nellie

Kroes, Jake R.

Kroeze, Bros

Kroeze, Calvin E.

Kroeze, John

Kroeze, Wesley

Kruckenberg, Naomi

Kruckenberg, Perry

L. D. S. Welfare Ranch

Labrucherie, Mary Jane

Labrucherie, Raymond F.

Lako, Samuel

Landman Corp.

Lanting, Broer

Lanting, Myer

Lass, Jack

Lass, Sandra L.

Lawrence, Cecelia, Estate of

Lawrence, Joe H., Estate of

Leal, Bradley W.

Leal, John C.

Leal, John Craig

Leck, Arthur A.

Leck, Evelyn M.

Lee, Harold E.

Lee, Helen J.

Lee, Henrietta C.

Lee, R. T. Construction Co.

Lekkerkerk, Adriana

Lekkerkerk, L. M.

Lekkerkerker, Nellie

Lekkerkerker, Walt

Lewis Homes of California

Livingston, Dorothy M.

Livingston, Rex E.

Lokey, Rosemary Kraemer

Lopes, Candida A.

Lopes, Antonio S.

Lopez, Joe D.

Lourenco, Carlos, Jr.

Lourenco, Carmelina P.

Lourenco, Jack C.

Lourenco, Manual H.

Lourenco, Mary

Lourenco, Mary

Luiten, Jack

Luiz, John M.

Luna, Christine I.

Luna, Ruben T.

Lusk, John D. and Sons A California Corporation

Lyon, Gregory E.	Mickel, Louise
Lyon, Paula E.	Miersma, Dorothy
M & W Co. #2	Meirsma, Harry C.
Madole, Betty M.	Minaberry, Arnaud
Madole, Larry B.	Minaberry, Marie
Marquez, Arthur	Mistretta, Frank J.
Marquine, Jean	Mocho and Plaa Inc.
Martin, Lelon O.	Mocho, Jean
Martin, Leon O.	Mocho, Noeline
Martin, Maria D.	Modica, Josephine
Martin, Tony J.	Montes, Elizabeth
Martins, Frank	Montes, Joe
Mathias, Antonio	Moons, Beatrice
Mc Cune, Robert M.	Moons, Jack
Mc Masters, Gertrude	Moramarco, John A. Enterprise
Mc Neill, J. A.	Moreno, Louis W.
Mc Neill, May F.	Moss, John R.
Mees, Leon	Motion Pictures Associates, Inc.
Mello and Silva Dairy	Moynier, Joe
Mello and Sousa Dairy	Murphy, Frances V.
Mello, Emilia	Murphy, Myrl L.
Mello, Enos C.	Murphy, Naomi
Mello, Mercedes	Nanne, Martin Estate of
Mendiondo, Catherine	Nederend, Betty
Mendiondo, Dominique	Nederend, Hans
Meth. Hosp. – Sacramento	Norfolk, James
Metzger, R. S.	Norfolk, Martha
Metzger, Winifred	Notrica, Louis

Nyberg, Lillian N.
Nyenhuis, Annie
Nyenhuis, Jim
Occidental Land Research
Okumura, Marion
Okumura, Yuiche
Oldengarm, Effie
Oldengarm, Egbert
Oldengarm, Henry
Oliviera, Manuel L.
Oliviera, Mary M.
Olson, Albert
Oltmans Construction Co.
Omlin, Anton
Omlin, Elsie L.
Ontario Christian School Assn.
Oord, John
Oostdam, Jacoba
Oostdam, Pete
Oosten, Agnes
Oosten, Anthonia
Oosten, Caroline
Oosten, John
Oosten, Marinus
Oosten, Ralph
Orange County Water District
Ormonde, Manuel
Ormonde, Pete, Jr.
Ormonde, Viva
Ortega, Adeline B.
Ortega, Bernard Dino
Osterkamp, Joseph S.
Osterkamp, Margaret A.
P I E Water Co.
Palmer, Eva E.
Palmer, Walter E.
Parente, Luis S.
Parente, Mary Borba
Parks, Jack B.
Parks, Laura M.
Patterson, Lawrence E. Estate of
Payne, Clyde H.
Payne, Margo
Pearson, Athelia K.
Pearson, William C.
Pearson, William G.
Pene, Robert
Perian, Miller
Perian, Ona E.
Petrissans, Deanna
Petrissans, George
Petrissans, Jean P.
Petrissans, Marie T.
Pickering, Dora M.
(Mrs. A. L. Pickering)
Pierce, John

Pierce, Sadie
Pietszak, Sally
Pine, Joe
Pine, Virginia
Pires, Frank
Pires, Marie
Plaa, Jeanne
Plaa, Michel
Plantenga, Agnes
Plantenga, George
Poe, Arlo D.
Pomona Cemetery Assn.
Porte, Cecelia, Estate of
Porte, Garritt, Estate of
Portsmouth, Vera McCarty
Ramella, Mary M.
Ramirez, Concha
Rearick, Hildegard H.
Rearick, Richard R.
Reinalda, Clarence
Reitsma, Greta
Reitsma, Louis
Rice, Bernice
Rice, Charlie E.
Richards, Karin
(Mrs. Ronnie Richards)
Richards, Ronald L.
Ridder, Jennie Wassenaar
Righetti, A. T.
Riley, George A.
Riley, Helen C.
Robbins, Jack K.
Rocha, John M.
Rocha, Jose C.
Rodrigues, John
Rodrigues, Manuel
Rodrigues, Manuel, Jr.
Rogrigues, Mary L.
Rodriquez, Daniel
Rogers, Jack D.
Rohrer, John A.
Rohrer, Theresa D.
Rohrs, Elizabeth H.
Rossetti, M. S.
Roukema, Angeline
Roukema, Ed.
Roukema, Nancy
Roukema, Siebren
Ruderian, Max J.
Russell, Fred J.
Rusticus, Ann
Rusticus, Charles
Rynsburger, Arie
Rynsburger, Berdena, Trust
Rynsburger, Joan Adele
Rynsburger, Thomas

S. P. Annex, Inc.

Salisbury, Elinor J.

Sanchez, Edmundo

Sanchez, Margarita O.

Santana, Joe Sr.

Santana, Palmira

Satragni, John B. Jr.

Scaramella, George P.

Schaafsma Bros.

Schaafsma, Jennie

Schaafsma, Peter

Schaafsma, Tom

Schaap, Andy

Schaap, Ids

Schaap, Maria

Schacht, Sharon C.

Schakel, Audrey

Schakel, Fred

Schmid, Olga

Schmidt, Madeleine

Schoneveld, Evert

Schoneveld, Henrietta

Schoneveld, John

Schoneveld, John Allen

Schug, Donald E.

Schug, Shirley A.

Schuh, Bernatta M.

Schuh, Harold H.

Scott, Frances M.

Scott, Linda F.

Scott, Stanley A.

Scritsmier, Lester J.

Serl, Charles A.

Serl, Rosalie P.

Shady Grove Dairy, Inc.

Shamel, Burt A.

Shelby, Harold E.

Shelby, John A.

Shelby, Velma M.

Shelton, Alice A.

Sherwood, Robert W.

Sherwood, Sheila J.

Shue, Eva

Shue, Gilbert

Sieperda, Anne

Sieperda, James

Sigrist, Hans

Sigrist, Rita

Silveira, Arline L.

Silveira, Frank

Silveira, Jack

Silveira, Jack P. Jr.

Simas, Dolores

Simas, Joe

Singleton, Dean

Singleton, Elsie R.

Sinnott, Jim	Staal, John
Sinnott, Mildred B.	Stahl, Zippora P.
Slegers, Dorothy	Stampfl, Berta
Slegers, Hubert J.	Stampfl, William
Slegers, Jake	Stanley, Robert E.
Slegers, Jim	Stark, Everett
Slegers, Lenwood M.	Stellingwerf, Andrew
Slegers, Martha	Stellingwerf, Henry
Slegers, Tesse J.	Stellingwerf, Jenette
Smith, Edward S.	Stellingwerf, Shana
Smith, Helen D.	Stellingwerf, Stan
Smith, James E.	Stelzer, Mike C.
Smith, Keith J.	Sterk, Henry
Smith, Lester W.	Stiefel, Winifred
Smith, Lois Maxine	Stiefel, Jack D.
Smith, Marjorie W.	Stigall, Richard L.
Soares, Eva	Stigall, Vita
Sogioka, Mitsuyoshi	Stockman's Inn
Sogioka, Yoshimato	Stouder, Charlotte A.
Sousa, Sam	Stouder, William C.
Southern Pacific Land Co.	Struikmans, Barbara
Southfield, Eddie	Struikmans, Gertie
Souza, Frank M.	Struikmans, Henry Jr.
Souza, Mary T.	Struikmans, Henry Sr.
Spickerman, Alberta	Struikmans, Nellie
Spickerman, Florence	Swager, Edward
Spickerman, Rudolph	Swager, Gerben
Spyksma, John	Swager, Johanna

Swager, Marion
Swierstra, Donald
Swierstra, Fanny
Sybrandy, Ida
Sybrandy, Simon
Sytsma, Albert
Sytsma, Edith
Sytsma, Jennie
Sytsma, Louie
Te Velde, Agnes
Te Velde, Bay
Te Velde, Bernard A.
Te Velde, Bonnie
Te Velde, Bonnie G.
Te Velde, George
Te Velde, George, Jr.
Te Velde, Harm
Te Velde, Harriet
Te Velde, Henry J.
Te Velde, Jay
Te Velde, Johanna
Te Velde, John H.
Te Velde, Ralph A.
Te Velde, Zwaantina, Trustee
Ter Maaten, Case
Ter Maaten, Cleone
Ter Maaten, Steve
Terpstra, Carol
Terpstra, Theodore G.
Teune, Tony
Teunissen, Bernard
Teunissen, Jane
Thomas, Ethel M.
Thommen, Alice
Thommen, Fritz
Tillema, Allie
Tillema, Harold
Tillema, Klaas D.
Timmons, William R.
Tollerup, Barbara
Tollerup, Harold
Trapani, Louis A.
Trimlett, Arlene R.
Trimlett, George E.
Tristant, Pierre
Tuinhout, Ale
Tuinhout, Harry
Tuinhout, Hilda
Tuls, Elizabeth
Tuls, Jack S.
Tuls, Jake
Union Oil Company of California
United Dairyman's Co-op.
Urquhart, James G.
Usle, Cathryn
Usle, Faustino

V & Y Properties	Van Hofwegen, Clara
Vaile, Beryl M.	Van Hofwegen, Jessie
Valley Hay Co.	Van Klaveren, A.
Van Beek Dairy Inc.	Van Klaveren, Arie
Van Canneyt Dairy	Van Klaveren, Wilhelmina
Van Canneyt, Maurice	Van Klaveren, William
Van Canneyt, Wilmer	Van Leeuwen, Arie C.
Van Dam, Bas	Van Leeuwen, Arie C.
Van Dam, Isabelle	Van Leeuwen, Arlan
Van Dam, Nellie	Van Leeuwen, Clara G.
Van Den Berg, Gertrude	Van Leeuwen, Cornelia L.
Van Den Berg, Joyce	Van Leeuwen, Harriet
Van Den Berg, Marinus	Van Leeuwen, Jack
Van Den Berg, Marvin	Van Leeuwen, John
Van Der Linden, Ardith	Van Leeuwen, Letie
Van Der Linden, John	Van Leeuwen, Margie
Van Der Linden, Stanley	Van Leeuwen, Paul
Van Der Veen, Kenneth	Van Leeuwen, William A.
Van Diest, Anna T.	Van Ravenswaay, Donald
Van Diest, Cornelius	Van Ryn Dairy
Van Diest, Ernest	Van Ryn, Dick
Van Diest, Rena	Van Surksum, Anthonetta
Van Dyk, Bart	Van Surksum, John
Van Dyk, Jeanette	Van Veen, John
Van Foeken, Martha	Van Vliet, Effie
Van Foeken, William	Van Vliet, Hendrika
Van Hofwegen, Steve	Van Vliet, Hugo
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

Vanderham, Cornelius	Vestal, J. Howard
Vanderham, Cornelius P.	Visser, Gerrit
Vanderham, Cory	Visser, Grace
Vanderham, E. Jane	Visser, Henry
Vanderham, Marian	Visser, Jess
Vanderham, Martin	Visser, Louie
Vanderham, Pete C.	Visser, Neil
Vanderham, Wilma	Visser, Sam
Vasquez, Eleanor	Visser, Stanley
Veenendaal, Evert	Visser, Tony D.
Veenendaal, John H.	Visser, Walter G.
Veiga, Dominick, Sr.	Von Der Ahe, Fredric T.
Verbree, Jack	Von Euw, George
Verbree, Tillie	Von Euw, Majorie
Verger, Bert	Von Lusk, a limited partnership
Verger, Betty	Voortman, Anna Marie
Verhoeven, Leona	Voortman, Edward
Verhoeven, Martin	Voortman, Edwin J.
Verhoeven, Wesley	Voortman, Gertrude Dena
Vermeer, Dick	Wagner, Richard H.
Vermeer, Jantina	Walker, Carole R.
Vernola Ranch	Walker, Donald E.
Vernola, Anthonietta	Walker, Wallace W.
Vernola, Anthony	Wardle, Donald M.
Vernola, Frank	Warner, Dillon B.
Vernola, Mary Ann	Warner, Minnie
Vernola, Pat F.	Wassenaar, Peter W.
Vestal, Frances Lorraine	Waters, Michael

Weeda, Adriana
Weeda, Daniel
Weeks, O. L.
Weeks, Verona E.
Weidman, Maurice
Weidman, Virginia
Weiland, Adaline I.
Weiland, Peter J.
Wesselink, Jules
West, Katharine R.
West, Russel
West, Sharon Ann
Western Horse Property
Westra, Alice
Westra, Henry
Westra, Hilda
Westra, Jake J.
Weststeyn, Freida
Weststeyn, Pete
Whitehurst, Louis G.
Whitehurst, Pearl L.
Whitmore, David L.
Whitmore, Mary A.
Whitney, Adolph M.
Wiersema, Harm
Wiersema, Harry
Wiersma, Ellen H.
Wiersma, Gladys J.
Wiersma, Jake
Wiersma, Otto
Wiersma, Pete
Winchell, Verne H., Trustee
Wind, Frank
Wind, Fred
Wind, Hilda
Wind, Johanna
Woo, Frank
Woo, Sem Gee
Wybenga, Clarence
Wybenga, Gus
Wybenga, Gus K.
Wybenga, Sylvia
Wynja, Andy
Wynja, Iona F.
Yellis, Mildred
Yellis, Thomas E.
Ykema-Harmsen Dairy
Ykema, Floris
Ykema, Harriet
Yokley, Betty Jo
Yokley, Darrell A.
Zak, Zan
Zivelonghi, George
Zivelonghi, Margaret
Zwaagstra, Jake
Zwaagstra, Jessie M.
Zwart, Case

EXHIBIT "C"

NON-PRODUCER WATER DISTRICTS

Chino Basin Municipal Water District[A]

Chino Basin Water Conservation District

Pomona Valley Municipal Water District[B]

Western Municipal Water District of Riverside County

[A] CBMWD became IEUA in 1999.

[B] PVMWD became TVMWD in 1986.

DEFAULTING OVERLYING AGRICULTURAL PRODUCERS

Cheryl L. Bain
Warren Bain
John M. Barcelona
Letty Bassler
John Brazil
John S. Briano
Lupe Briano
Paul A. Briano
Tillie Briano
Arnie B. Carlson
John Henry Fikse
Phyllis S. Fikse
Lewellyn Flory
Mary I. Flory
L. H. Glazer
Dorothy Goodman
Sidney D. Goodman
Frank Grossi
Harada Brothers
Ellen Hettinga
Hein Hettinga
Dick Hofstra, Jr.
Benjamin M. Hughey
Frieda L. Hughey
Guillaume Indart
Ellwood B. Johnston, Trustee
Perry Kruckenberg, Jr.
Roy W. Lantis
Sharon I. Lantis
Frank Lorenz
Dagney H. MacDonald
Frank E. Martin
Ruth C. Martin
Connie S. Mello
Naldiro J. Mello
Felice Miller
Ted Miller
Masao Nerio
Tom K. Nerio
Toyo Nerio
Yuriko Nerio
Harold L. Rees
Alden G. Rose
Claude Rouleau, Jr.
Patricia M. Rouleau
Schultz Enterprises
Albert Shaw
Lila Shaw
Cathy M. Stewart
Marvin C. Stewart
Betty Ann Stone
John B. Stone
Vantoll Cattle Co., Inc.
Catherine Verburg

EXHIBIT "C"

Martin Verburg

Donna Vincent

Larry Vincent

Cliff Wolfe & Associates

Ada M. Woll

Zarubica Co.

EXHIBIT "C-1"

NEW PARTIES INTERVENING IN OVERLYING AGRICULTUAL POOL FROM 1978 TO 2000

Frans Aardema	Frank Jacques
Cornelia Aardema	Richard Lambeth
Ray Albers	Carol A. Larsen
Louis Badders	Chin Lee, Ambrosia Farms
Robert Barth	Albert Levinson – Tomlev, Inc.
Marvin H. Belville	Frank Lizzaraga
Pete Boersma	Richard Lorenz
Pete Borba & Sons	Los Serranos Golf Club
Dick Bosma	Mira Loma Thoroughbred Farm
Gene and Geneva Burbridge	Mobile Home Partners of California
Jim Carroll	John R. Moore
Linda Carroll	Claudell Moore
David Chez	Manual Moreno
Chino Grain & Mill, Inc.	Rick and Debbie Mouw
Chino Valley Investment	Jim Nace
Judith Collins	George Noble
Eric Daale	Ontario Planned Residential Joint Venture
Bob DeJager	Anthony H. Osterkamp
Dutchmen Properties	Darlene Olive Osterkamp
Andy Dyt	Carlos Palacio
Everett/Charles, Inc.	Ronald and Kristine Pietersma
Que Fullmer	Jack Pinheiro
Richard Haagsma	A.C. Pinheiro
Joe Heim	Mary Pinheiro
James Idsinga	Mary L. Rawitser
Intex Corporation	R.C. Land Company
Francisco Islas	Phyllis T. Rexius

Ted L. Rexius
Elizabeth H. Rohrs
Paul Russavage
Linda C. Sackin
Paul C. Sackin
Fred Scane
Sharon Schact
Sky Country Development Co./
Magnolia Farms
J.D. Smith
S.N.S. Dairy
Amil Steiner
Helen Steiner
Louis Struikman
Andy Sytsma
Charlie Tadema
Gary Teed
Limon D and Louise Thrall
Alfred B. Tourigny
Sandra Tourigny
Maynard Troost
Turn Key Associates, Inc.
August Vandenberg
Andrew W. Vandenberg
Geoffrey Vanden Heuvel
John Vander Poel
Arlene Vander Tuig
Sylvester Vander Tuig
Richard Van Loon
Abel Villapando
Leon Weaver
Ralph D. Wenger
Whispering Lakes Community Church
Wineside 45
Walter W. Wurster
George Yamamoto
Theodore Zwicker

EXHIBIT "C-1"

EXHIBIT "D"

OVERLYING NON-AGRICULTURAL RIGHTS

Party	Total Overlying Share of Non-Agricultural Safe Yield Rights (Acre-Feet)	Acre-Feet
Ameron Steel Producers, Inc.	125	97.858
County of San Bernardino (Airport)	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 Growers, Inc.	2,393	1,873.402
Carlsberg Mobile Home Properties, Ltd '73	593	464.240
Union Carbide Corporation	546	427.446
Quaker Chemical Co.	0	0.000
Totals	9,409	7,366.000

EXHIBIT "D-1"[A]

OVERLYING NON-AGRICULTURAL RIGHTS

Party	Total Overlying Share of Non-Agricultural Safe Yield Rights (Acre-Feet)	Acre-Feet
Ameron Steel Producers, Inc.	125	97.858
County of San Bernardino (Airport)	171	133.870
Vulcan Materials Company[B]	406	317.844
CCG Ontario LLC[C]	805	630.274
West Venture Development Co.[D]	20	15.657
Southern California Edison Co.[E]	37	27.959
Reliant Energy, Etiwanda[F]	1,219	954.540
Space Center, Mira Loma	133	104.121
Angelica Rental Service[G]	24	18.789
Sunkist Growers, Inc	2,393	1,873.402
Swan Lake Mobile Home Park[H]	593	464.240
California Steel Industries[I]	1,660	1,300.000
Praxair[J]	546	427.446
General Electric Corporation[K]	0	0.000
California Speedway[L]	1,277	1,000.000
Loving Savior of the Hills Lutheran Church[M]	0	0.000
Totals	9,409	7,366.000

[A] Exhibit D-1 lists Non-Agricultural Pool Members as of September, 2001.
[B] Conrock became Calmat and in FY 99-00 became Vulcan Materials Co.
[C] Kaiser Steel Corporation became Kaiser Resources and then Kaiser Venture, Inc. Kaiser sold portions of its property to CSI & Speedway and its last property holdings and all its remaining water rights to CCG Ontario LLP on 8-16-00.
[D] Anaheim Citrus became Red Star Fertilizer, then West Venture Development. West Venture went out of business in 91-92.
[E] A portion of SCE was sold in FY 98-99. SCE retained 27.959 AF OSY.
[F] Mountain Vista Power Generating Company (MVPG) purchased the Etiwanda Generating Facility owned by SCE in FY 98-99. MVPG became Reliant Energy, Etiwanda with 954.540 AF OSY.
[G] Southern Service Company became Angelica Rental Service.
[H] Carlsberg Mobile Home Properties became Mobile Community Management and is known as Swan Lake Mobile Home Park.
[I] California Steel Industries (CSI) intervened in FY 91-92 after purchasing land from Kaiser.
[J] Union Carbide Corp. became Praxair, Inc.
[K] General Electric Company intervened in FY 95-96.
[L] California Speedway intervened in FY 96-97 after purchasing land from Kaiser. On August 16, 2000 Catellus permanently transferred 525 AF OSY to Speedway.
[M] Loving Savior of the Hills Lutheran Church intervened in FY 00-01.

EXHIBIT "E"

APPROPRIATIVE RIGHTS

Party	Appropriative Right (Acre Feet)	Share of Initial Operating Safe Yield (Acre-Feet)	Share of Operating Safe Yield (Percent)
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 Services 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
Feldspar Gardens Mutual Water Company	68.3	47.549	0.087
Fontana Union Water Company	9,188.3	6,396.736	11.666
Marygold Mutual Water Company	941.3	655.317	1.195
Mira Loma Water Company	1,116.0	776.940	1.417
Monte Vista Irrigation Company	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 Company	3,106.3	2,162.553	3.944
San Antonio Water Company	2,164.5	2,506.888	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	1,361.3	947.714	1.728
TOTAL	78,763.8	55,834.000	100.000

EXHIBIT "E-1"[N]

APPROPRIATIVE RIGHTS

Party	Appropriative Right (Acre Feet)	Share of Initial Operating Safe Yield (OSY) (Acre-Feet)	Share of Operating Safe Yield (Percent)
City of Chino[O]	5,794.6	4,033.857	7.357
City of Chino Hills[P]	3,033.2	2,111.422	3.851
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[Q]	5,199.2	3,619.454	6.601
Jurupa Community Services District[R]	2,960.7	2,061.118	3.759
Monte Vista Water District[S]	6,928.8	4,823.954	8.797
West San Bernardino County Water District	925.5	644.317	1.175
Fontana Union Water Company	9,188.3	6,396.736	11.666
Fontana Water Company[T]	0.0	0.0	0.0
Los Serranos Country Club[U]	0.0	0.0	0.0
Marygold Mutual Water Company	941.3	655.317	1.195
Monte Vista Irrigation Company	972.1	676.759	1.234
San Antonio Water Company	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[V]	590.7	411.476	0.750
West End Consolidated Water Company	1,361.3	947.714	1.728
San Bernardino County (Shooting Park)[W]	0.0	0.0	0.0
Arrowhead Mountain Springs Water Company[X]	0.0	0.0	0.0
Department of Toxic Substances Control[Y]	0.0	0.0	0.0
City of Fontana[Z]	0.0	0.0	0.0
TOTAL	78,763.8	54,834.000	100.000

[N] Exhibit E-1 lists Appropriative Pool members as of September, 2001.
[O] In 1990 Chino received a portion of San Bernardino County Water Works #8 (WW#8) OSY (363.790 AF) as a result of a permanent transfer.
[P] City of Chino Hills incorporated in 1991 and assumed the responsibility for providing the public services formerly provided by WW#8. WW#8 acquired a portion of the rights of Park and Pomona Valley Water Companies in 1983.
[Q] CCWD acquired the rights to Etiwanda Water Company (upon dissolution) in 1986.
[R] JCSD acquired the rights of Mira Loma Water Company (776.940 AF), Feldspar Gardens (47.549AF) and Mutual Water Company of Glen Avon Heights (467.974 AF)
[S] In 1990, MVWD received 675.610 AF of WW#8 OSY as a result of a permanent transfer.
[T] FWC intervened in FY 91-92.
[U] Los Serranos intervened in FY83-84.
[V] SCWC permanently transferred 823.900 AF of OSY to Park Water Company in 1980. Park Water Co was acquired by WW#8 which was subsequently acquired by the City of Chino Hills.
[W] San Bernardino County Prado Tiro (now known as Prado Shooting Park) was involuntarily reassigned to the Appropriative Pool from the Ag Pool in 1985.
[X] Arrowhead intervened in FY 92-93.
[Y] DTSC was formerly managed by the Pyrite Canyon Group. Pyrite intervened in FY 92-93.
[Z] Fontana intervened in FY 98-99.

EXHIBIT "F"

OVERLYING AGRICULTURAL POOL

POOLING PLAN

1. Membership in Pool. The State of California and all producers listed in Exhibit "C"[27] ("C-1") shall be the initial members of this pool, which shall include all producers of water for overlying uses other than industrial or commercial purposes.

2. Pool Meetings. The members of the pool shall meet annually, in person or by proxy, at a place and time to be designated by Watermaster for purposes of electing members of the Pool Committee and conducting any other business of the pool. Special meetings of the membership of the pool may be called and held as provided in the rules of the pool.

3. Voting. All voting at meetings of pool members shall be on the basis of one vote for each 100 acre feet or any portion thereof of production from Chino Basin during the preceding year, as shown by the records of Watermaster.

4. Pool Committee. The Pool Committee for this pool shall consist of not less than nine (9) representatives selected at large by members of the pool. The exact number of members of the Pool Committee in any year shall be as determined by majority vote of the voting power of members of the pool in attendance at the annual pool meeting. Each member of the Pool Committee shall have one vote and shall serve for a two-year term. The members first elected shall classify themselves by lot so that approximately one-half serve an initial one-year term. Vacancies during any term shall be filled by a majority of the remaining members of the Pool Committee.

5. Advisory Committee Representatives. The number of representatives of the Pool Committee on the Advisory Committee shall be as provided in the rules of the pool from time to time but not exceeding ten (10). The voting power of the pool on the Advisory Committee shall be apportioned and exercised as determined from time to time by the Pool Committee.

6. Replenishment Obligation. The pool shall provide funds for replenishment of any production by persons other than members of the Overlying Non-Agricultural Pool or Appropriator Pool,

[27] Exhibit C-1 lists interventions that were approved for the Agricultural Pool since 1978.

in excess of the pool's share of Safe Yield. During the first five (5) years of operations of the Physical Solution, reasonable efforts shall be made by the Pool Committee to equalize annual assessments.

7. Assessments. All assessments in this pool (whether for replenishment water cost or for pool administration or the allocated share of Watermaster administration) shall be in an amount uniformly applicable to all production in the pool during the preceding year or calendar quarter. Provided, however, that the Agricultural Pool Committee, may recommend to the Court modification of the method of assessing pool members, inter se, if the same is necessary to attain legitimate basin management objectives, including water conservation and avoidance of undesirable socio-economic consequences. Any such modification shall be initiated and ratified by one of the following methods:

(a) Excess Production. - In the event total pool production exceeds 100,000 acre feet in any year, the Pool Committee shall call and hold a meeting, after notice to all pool members, to consider remedial modification of the assessment formula.

(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.

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EXHIBIT "G"

OVERLYING (NON-AGRICULTURAL) POOL

POOLING PLAN

1. Membership in Pool. The initial members of the pool, together with the decreed share of the Safe Yield of each, are listed in Exhibit "D" ("D-1")[28]". Said pool includes producers of water for overlying industrial or commercial non-agricultural purposes, or such producers within the Pool who may hereafter take water pursuant to Paragraph 8 hereof.

2. Pool Committee. The Pool Committee for this pool shall consist of one representative designated by each member of the pool. Voting on the committee shall be on the basis of one vote for each member, unless a volume vote is demanded, in which case votes shall be allocated as follows:

The volume voting power on the Pool Committee shall be 1,484 votes. Of these, 742 votes shall be allocated on the basis of one vote for each ten (10) acre feet or fraction thereof of decreed shares in Safe Yield. (See Exhibit "D" ("D-1")).[29]

The remaining 742 votes shall be allocated proportionally on the basis of assessments paid to Watermaster during the preceding year.*

3. Advisory Committee Representatives. At least three (3) members of the Pool Committee shall be designated by said committee to serve on the Advisory Committee. The exact number of such representatives at any time shall be as determined by the Pool Committee. The voting power of the pool shall be exercised in the Advisory Committee as a unit, based upon the vote of a majority of said representatives.

4. Replenishment Obligation. The pool shall provide funds for replenishment of any production in excess of the pool's share of Safe Yield in the preceding year.

5. Assessment. Each member of this pool shall pay an assessment equal to the cost of replenishment water times the number of acre feet of production by such producer during the preceding

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[28] See Also, Exhibit "D-1"
[29] See Also, Exhibit "D-1"
* Or production assessments paid under Water Code Section 72140 et seq., as to years prior to the second year of operation under the Physical Solution hereunder.

year in excess of (a) his decreed share of the Safe Yield, plus (b) any carry-over credit under Paragraph 7 hereof. In addition, the cost of the allocated share of Watermaster administration expense shall be recovered on an equal assessment against each acre foot of production in the pool during such preceding fiscal year or calendar quarter; and in the case of Pool members who take substitute ground water as set forth in Paragraph 8 hereof, such producer shall be liable for its share of administration assessment, as if the water so taken were produced, up to the limit of its decreed share of Safe Yield.

6. Assignment. Rights herein decreed are appurtenant to ~~the~~ ***that*** land and are only assignable with the land for overlying use thereon; provided, however, [30]**(a)** that any appropriator who may, directly or indirectly, undertake to provide water service to such overlying lands may, by an appropriate agency agreement on a form approved by Watermaster, exercise said overlying right to the extent, but only to the extent necessary to provide water service to said overlying lands**,** and ***(b) the members of the pool shall have the right to Transfer or lease their quantified production rights within the pool or to Watermaster in conformance with the procedures described in the Peace Agreement between the Parties therein, dated June 29, 2000 for the term of the Peace Agreement.***

7. Carry-over. Any member of the pool who produces less than its assigned water share of Safe Yield may carry such unexercised right forward for exercise in subsequent years. The first water produced during any such subsequent year shall be deemed to be an exercise of such carry-over right. In the event the aggregate carry-over by any pool member exceeds its share of Safe Yield, such member shall, as a condition of preserving such surplus carryover, execute a storage agreement with Watermaster.

8. Substitute Supplies. To the extent that any Pool member, at the request of Watermaster and with the consent of the Advisory Committee, takes substitute surface water in lieu of producing ground water otherwise subject to production as an allocated share of Safe Yield, said party shall nonetheless remain a member of this Pool.

9. Rules. The Pool Committee shall adopt rules for administering its program and in amplification of the provisions, but not inconsistent with, this pooling plan.

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[30] Peace Agreement Article 4.4(b). Order dated September 28, 2000 amended Paragraph 6 as shown above and Order dated April 19, 2001 confirmed Judgment modifications.

EXHIBIT "H"

APPROPRIATIVE POOL

POOLING PLAN

1. Qualification for Pool. Any city, district or other public entity and public utility -- either regulated under Public Utilities Commission jurisdiction, or exempt therefrom as a non-profit mutual water company (other than those assigned to the Overlying (Agricultural) Pool) -- shall be a member of this pool. All initial members of the pool are listed in Exhibit "E" ("E-1")[31], together with their respective appropriative rights and acre foot allocation and percentage shares of the initial and subsequent Operating Safe Yield.

2. Pool Committee. The Pool Committee shall consist of one (1) representative appointed by each member of the Pool.

3. Voting. The total voting power on the Pool Committee shall be 1,000 votes. Of these, 500 votes shall be allocated in proportion to decreed percentage shares in Operating Safe Yield. The remaining 500 votes shall be allocated proportionally on the basis of assessments paid to Watermaster during the preceding year. *Routine business of the Pool Committee may be conducted on the basis of one vote per member, but upon demand of any member a weighted vote shall be taken. Affirmative action of the Committee shall require a majority of the voting power of members in attendance, provided that it includes concurrence by at least one-third of its total members.

4. Advisory Committee Representatives. [32] ~~Ten (10)m~~ Members of the Pool Committee shall be designated to represent this pool on the Advisory Committee ***on the following basis***: Each major appropriator, i.e., the owner of an adjudicated appropriative right in excess of 3,000 acre feet, ***or each appropriator that produces in excess of 3,000 acre feet based upon the prior year's production,*** shall be entitled to one representative. ~~The remaining members representing~~ ***Two additional representatives*** of the Appropriative Pool on the Advisory Committee shall be elected at large

*Or production assessments paid under Water Code Section 72140 et seq., as to years prior to the second year of operation under the Physical Solution hereunder.

[31] See Also, Exhibit "E-1"
[32] Order dated September 18, 1996 amended Paragraph 4 as shown above.

by the remaining members of the pool. The voting power of the Appropriative Pool on the Advisory Committee shall be apportioned between the major appropriator representatives in proportion to their respective voting power in the Pool Committee. The two representatives of the remaining appropriators shall exercise equally the voting power proportional to the Pool Committee voting power of said remaining appropriators; provided, however, that if any representative fails to attend an Advisory Committee meeting, the voting power of that representative shall be allocated among the representatives of the Appropriative Pool in attendance in the same proportion as their respective voting powers.

5. Replenishment Obligation. The pool shall provide funds for purchase of replenishment water to replace any production by the pool in excess of Operating Safe Yield during the preceding year.

6. Administrative Assessment. Costs of administration of this pool and its share of general Watermaster expense shall be recovered by a uniform assessment applicable to all production during the preceding year.

7. Replenishment Assessment. The cost of replenishment water required to replace production from Chino Basin in excess of Operating Safe Yield in the preceding year shall be allocated and recovered as follows:

(a) For production, other than for increased export, within IEUA[33] or WMWD:

(1) Gross Assessment. 15% of such replenishment water costs shall be recovered by a uniform assessment against all production of each appropriator producing in said area during the preceding year.

(2) Net Assessment. The remaining 85% of said costs shall be recovered by a uniform assessment on each acre foot of production from said area by each such appropriator in excess of his allocated share of Operating Safe Yield during said preceding year.

(b) For production which is exported for use outside Chino Basin in excess of maximum export in any year through 1976, such increased export production shall be assessed

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[33] CBMWD became IEUA.

against the exporting appropriator in an amount sufficient to purchase replenishment water from IEUA[34] or WMWD in the amount of such excess.

(c) For production within SBVMWD or TVMWD[35]:

By an assessment on all production in excess of an appropriator's share of Operating Safe Yield in an amount sufficient to purchase replenishment water through SBVMWD or MWD in the amount of such excess.

8. Socio-Economic Impact Review. The parties have conducted certain preliminary socio-economic impact studies. Further and more detailed socio-economic impact studies of the assessment formula and its possible modification shall be undertaken for the Appropriator Pool by Watermaster no later than ten (10) years from the effective date of this Physical Solution, or whenever total production by this pool has increased by 30% or more over the decreed appropriative rights, whichever is first.

9. Facilities Equity Assessment. Watermaster may, upon recommendation of the Pool Committee, institute proceedings for levy and collection of a Facilities Equity Assessment for the purposes and in accordance with the procedures which follow:

(a) Implementing Circumstances. - There exist several sources of supplemental water available to Chino Basin, each of which has a differential cost and quantity available. The optimum management of the entire Chino Basin water resource favors the maximum use of the lowest cost supplemental water to balance the supplies of the Basin, in accordance with the Physical Solution. The varying sources of supplemental water include importations from MWD and SBVMWD, importation of surface and ground water supplies from other basins in the immediate vicinity of Chino Basin, and utilization of reclaimed water. In order to fully utilize any of such alternate sources of supply, it will be essential for particular appropriators having access to one or more of such supplies to have invested, or in the future to invest, directly or indirectly, substantial funds in facilities to obtain and deliver such water to an appropriate point of use. To the extent that the use of less expensive alternative sources of supplemental water can be maximized by the inducement of a Facilities Equity Assessment, as herein provided, it is to the

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[34] CBMWD became IEUA
[35] PVMWD became TVMWD

long-term benefit of the entire basin that such assessment be authorized and levied by Watermaster.

(b) Study and Report. - At the request of the Pool Committee, Watermaster shall undertake a survey study of the utilization of alternate supplemental supplies by members of the Appropriative Pool which would not otherwise be utilized and shall prepare a report setting forth the amount of such alternative supplies being currently utilized, the amount of such supplies which could be generated by activity within the pool, and the level of cost required to increase such uses and to optimize the total supplies available to the basin. Said report shall contain an analysis and recommendation for the levy of a necessary Facilities Equity Assessment to accomplish said purpose.

(c) Hearing. - If the said report by Watermaster contains a recommendation for imposition of a Facilities Equity Assessment, and the Pool Committee so requests, Watermaster shall notice and hold a hearing not less than 60 days after distribution of a copy of said report to each member of the pool, together with a notice of the hearing date. At such hearing, evidence shall be taken with regard to the necessity and propriety of the levy of a Facilities Equity Assessment and full findings and decision shall be issued by Watermaster.

(d) Operation of Assessment. - If Watermaster determines that it is appropriate that a Facilities Equity Assessment be levied in a particular year, the amount of additional supplemental supplies which should be generated by such assessment shall be estimated. The cost of obtaining such supplies, taking into consideration the investment in necessary facilities shall then be determined and spread equitably among the producers within the pool in a manner so that those producers not providing such additional lower cost supplemental water, and to whom a financial benefit will result, may bear a proportionate share of said costs, not exceeding said benefit; provided that any producer furnishing such supplemental water shall not thereby have its average cost of water in such year reduced below such producer's average cost of pumping from the Basin. In so doing, Watermaster shall establish a percentage of the total production by each party which may be produced without imposition of a Facilities Equity Assessment. Any member of the pool producing more water than said percentage shall pay such

Facilities Equity Assessment on any such excess production. Watermaster is authorized to transmit and pay the proceeds of such Facilities Equity Assessment to those producers who take less than their share of Basin water by reason of furnishing a higher percentage of their requirements through use of supplemental water.

10. Unallocated Safe Yield Water. To the extent that, in any five years, any portion of the share of Safe Yield allocated to the Overlying (Agricultural) Pool is not produced, such water shall be available for reallocation to members of the Appropriative Pool, as follows:

(a) Priorities. - Such allocation shall be made in the following sequence:

(1) to supplement, in the particular year, water available from Operating Safe Yield to compensate for any reduction in the Safe Yield by reason of recalculation thereof after the tenth year of operation hereunder.

(2) pursuant to conversion claims as defined in Subparagraph (b) hereof.

(3) as a supplement to Operating Safe Yield, without regard to reductions in Safe Yield.

(b) Conversion Claims. - [36] The following procedures may be utilized by any appropriator:

1) Record of Unconverted Agricultural Acreage. Watermaster shall maintain on an ongoing basis a record with appropriate related maps of all agricultural acreage within the Chino Basin subject to being converted to appropriative water use pursuant to the provisions of this subparagraph. An initial identification of such acreage as of June 30, 1995 is attached hereto as Appendix 1 (See Exhibit L).

(2). Record of ~~Land Use~~ ***Water Service*** ~~Conversion~~. Any appropriator who undertakes~~, directly or indirectly, during any year,~~ to permanently provide water service to lands ***subject to conversion*** ~~which during the immediate preceding five (5) consecutive years was devoted to irrigated agriculture~~ may report such intent to change

[36] Order dated November 17, 1995 amended Exhibit H Paragraph 10 (b) as shown above.

~~in land use or~~ water service to Watermaster. Watermaster ~~shall~~ ***should*** thereupon verify such change in water service and shall maintain a record and account for each appropriator of the total acreage involved. ~~and the average annual water use during said five year period~~. ***Should, at any time, converted acreage return to water service from the Overlying (Agricultural) Pool, Watermaster shall return such acreage to unconverted status and correspondingly reduce or eliminate any allocation accorded to the appropriator involved.***

(~~2~~ *3*) ~~Establishment of~~ Allocation ~~Percentage~~ ***of Safe Yield Rights***

(i) [37]***For the term of the Peace Agreement in*** any year in which ***sufficient*** unallocated Safe Yield ~~water~~ from the Overlying (Agricultural) Pool is available for such conversion claims, Watermaster shall ~~establish~~ alloca***te*** ~~ble percentages for~~ ***to*** each appropriator with a conversion claim ~~1.3~~ [38]***2.0*** acre feet of unallocated Safe Yield water for each ~~based upon the total of such~~ converted ***acre for which conversion has been approved and recorded by the Watermaster.*** ~~acreage recorded to each such appropriator's account.~~

(ii) In any year in which the unallocated Safe Yield water from the Overlying (Agricultural) Pool is not sufficient to satisfy all outstanding conversion claims pursuant to subparagraph (i) herein above, Watermaster shall establish allocation percentages for each appropriator with conversion claims. The percentages shall be based upon the ratio of the total of such converted acreage approved and recorded for each appropriators's account in comparison to the total of converted acreage approved and

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[37] Peace Agreement Article 4.4(c) and Order dated September 28, 2000 amended Paragraph 10(b)(3)(i) as shown above. Order dated April 19, 2001 confirmed Judgment modifications.
[38] See Footnote 37.

recorded for all appropriators. Watermaster shall apply such allocation percentage for each appropriator to the total unallocated Safe Yield water available for conversion claims to derive the amount allocable to each appropriator.

(~~3~~ ***4***) Allocation and Notice ***and Allocation***. ~~Watermaster shall thereafter apply the allocated percentage to the total unallocated Safe Yield water available for special allocation to derive the amount thereof allocable to each appropriator; provided that in no event shall the allocation to any appropriator as a result of such conversion claim exceed 50% of the average annual amount of water actually applied to the areas converted by such appropriator prior to such conversion. Any excess water by reason of such limitation on any appropriator's right shall be added to Operating Safe Yield~~. Notice of ~~such~~ ***the*** special allocation of Safe Yield water pursuant to conversion claims shall be given to each appropriator and shall be treated for purposes of this Physical Solution as an addition to such appropriator's share of the Operating Safe Yield for the particular year only.

(~~4~~ ***5***) Administrative Costs. *Any costs of Watermaster attributable to* ***the*** *administration of such special allocations and conversion claims shall be assessed against* ***the*** *appropriators participating in such reporting,* ***apportioned in accordance with the total amount of converted acreage held by each appropriator participating in the conversion program.***

11. In Lieu Procedures. There are, or any develop, certain areas within Chino Basin where good management practices dictate that recharge of the basin be accomplished, to the extent practical, by taking surface supplies of supplemental water in lieu of ground water otherwise subject to production as an allocated share of Operating Safe Yield.

(a) Method of Operation. - An appropriator producing water within such designated in lieu area who is willing to abstain for any reason from producing any portion of such producer's share of Operating Safe Yield in any year may offer such unpumped water to Watermaster. In

such event, Watermaster shall purchase said water in place,in lieu of spreading replenishment water, which is otherwise required to make up for over production. The purchase price for in lieu water shall be the lesser of:

(1) Watermaster's current cost of replenishment water, whether or not replenishment water is currently then obtainable, plus the cost of spreading; or

(2) The cost of supplemental surface supplies to the appropriator, less

a. said appropriator's average cost of ground water production, and

b. the applicable production assessment were the water produced.

Where supplemental surface supplies consist of MWD or SBVMWD supplies, the cost of treated, filtered State water from such source shall be deemed the cost of supplemental surface supplies to the appropriator for purposes of such calculation.

In any given year in which payments may be made pursuant to a Facilities Equity Assessment, as to any given quantity of water the party will be entitled to payment under this section or pursuant to the Facilities Equity Assessment, as the party elects, but not under both.

(b) Designation of In Lieu Areas[39]. - The first in lieu area is designated as the "In Lieu Area No. 1" and consists of an area wherein nitrate levels in the ground water generally exceed 45 mg/l, and is shown on Exhibit "J" hereto. Other in lieu areas may be designated by subsequent order of Watermaster upon recommendation or approval by Advisory Committee. Said in lieu areas may be enlarged, reduced or eliminated by subsequent orders; provided, however, that designation of In Lieu Areas shall be for a minimum fixed term sufficient to justify necessary capital investment. In Lieu Area No. 1 may be enlarged, reduced or eliminated in the same manner, except that any reduction of its original size or elimination thereof shall require the prior order of Court.

12. Carry-over. Any appropriator who produces less than his assigned share of Operating Safe Yield may carry such unexercised right forward for exercise in subsequent years. The first water produced during any such subsequent year shall be deemed to be an exercise of such carry-over right. In the event the aggregate carry-over by any appropriator exceeds its share of Operating Safe Yield, such

[39] Resolution No. 78-4 dated February 22, 1978 established In-Lieu Area #2 and included the entire Chino Basin.

appropriator shall, as a condition of preserving such surplus carry-over, execute a storage agreement with Watermaster. Such appropriator shall have the option to pay the gross assessment applicable to such carry-over in the year in which it accrued.

13. Assignment, Transfer and Lease. Appropriative rights, and corresponding shares of Operating Safe Yield, may be assigned or may be leased or licensed to another appropriator for exercise in a given year. Any transfer, lease or license shall be ineffective until written notice thereof is furnished to and approved as to form by Watermaster, in compliance with applicable Watermaster rules. Watermaster shall not approve transfer, lease or license of a right for exercise in an area or under conditions where such production would be contrary to sound basin management or detrimental to the rights or operations of other producers.

14. Rules. The Pool Committee shall adopt rules for administering its program and in amplification of the provisions, but not inconsistent with, this pooling plan.

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ENGINEERING APPENDIX

1. Basin Management Parameters. In the process of implementing the physical solution for Chino Basin, Watermaster shall consider the following parameters:

(a) Pumping Patterns. - Chino Basin is a common supply for all persons and agencies utilizing its waters. It is an objective in management of the Basin's waters that no producer be deprived of access to said waters by reason of unreasonable pumping patterns, nor by regional or localized recharge of replenishment water, insofar as such result may be practically avoided.

(b) Water Quality. - Maintenance and improvement of water quality is a prime consideration and function of management decisions by Watermaster.

(c) Economic Considerations. - Financial feasibility, economic impact and the cost and optimum utilization of the Basin's resources and the physical facilities of the parties are objectives and concerns equal in importance to water quantity and quality parameters.

2. Operating Safe Yield. Operating Safe Yield in any year shall consist of the Appropriative Pool's hare of Safe Yield of the Basin, plus any controlled overdraft of the Basin which Watermaster may authorize. In adopting the Operating Safe Yield for any year, Watermaster shall be limited as follows:

(a) Accumulated Overdraft. - During the operation of this Judgment and Physical Solution, the overdraft accumulated from and after the effective date of the Physical Solution and resulting from an excess of Operating Safe Yield over Safe Yield shall not exceed 200,000 acre feet.

(b) Quantitative Limits. - In no event shall Operating Safe Yield in any year be less than the Appropriative Pool's share of Safe Yield, nor shall it exceed such share of Safe Yield by more than 10,000 acre feet. The initial Operating Safe Yield is hereby set at 54,834 acre feet per year. Operating Safe Yield shall not be changed upon less than five (5) years' notice by Watermaster. Nothing contained in this paragraph shall be deemed to authorize, directly or indirectly, any modification of the allocation of shares in Safe Yield to the overlying pools, as set forth in Paragraph 44 of the Judgment.

3. Ground Water Storage Agreements. Any agreements authorized by Watermaster for storage of supplemental water in the available ground water storage capacity of Chino Basin shall include, but not be limited to:

(a) The quantities and term of the storage right.

(b) A statement of the priority or relation of said right, as against overlying or Safe Yield uses, and other storage rights.

(c) The procedure for establishing delivery rates, schedules and procedures which may include:

[1] spreading or injection, or

[2] in lieu deliveries of supplemental water for direct use.

(d) The procedures for calculation of losses and annual accounting for water in storage by Watermaster.

(e) The procedures for establishment and administration of withdrawal schedules, locations and methods.

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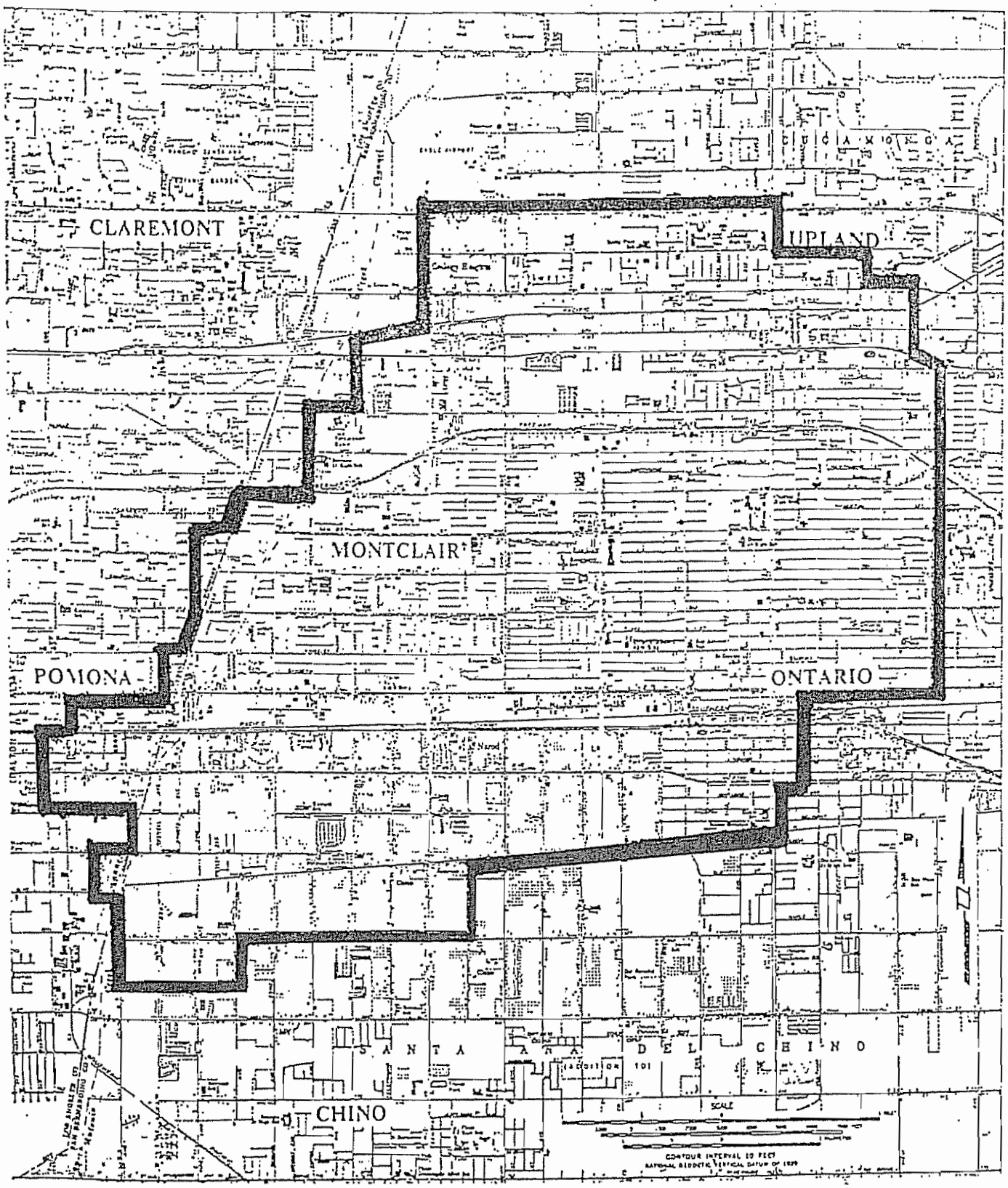

CHINO BASIN

IN LIEU AREA NO. 1 (MAP)

EXHIBIT "J"

EXHIBIT "K"

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:

EXHIBIT "K"

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;

EXHIBIT "K"

32. Thence Westerly to the Southeast corner of Section 30, T2S, R6W;

33. Thence Southwesterly to the Southwest corner of Section 36, T2S, R7W;

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;

EXHIBIT "K"

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 - Sections: 1.

Appendix 1
To Chino Basin Watermaster
Amendment Regarding Land Use Conversions[1]

The purpose of the amendment is to simplify the methodology and procedure for land use conversions under the 1978 Judgment. The basic nature of the commitment undertaken by the parties who negotiated the Judgment is not intended to be changed. The methodology used to develop the recommended 2.0 [2] per acre (af/ac) conversion factor can best be described as a gross water duty method. Essentially, the total water use was divided by the total acreage remaining to be converted to develop the gross average water use per acre.

At the Land Use Conversion Workshop held on January 10, 1995, there was a consensus among the parties to the Judgment that the large agricultural acreage within the purveyor service areas must still be converted. To depict the large southern area remaining to be converted, Watermaster staff proposed the establishment of Conversion Area No. 1 (see attached map). This area can generally be described as the area that is south of the 60 Freeway, outside the current city boundaries of Chino, Chino Hills and Ontario and for the most part, the portion of Jurupa Community Services District (JCSD) that is west of Etiwanda. The southernmost boundary of the area is taken as the Army Corps of Engineers' Prado Basin take line, unless a specific agricultural well exists inside the take line. To obtain the acreage for Conversion Area No. 1, the Santa Ana Watershed Project Authority (SAWPA), used its Geographic Information System (GIS) and determined the total acreage shown in Conversion Area No. 1 to be approximately 27,133 acres.

Also at the January 10 Land Use Conversion Workshop, the appropriators were asked to submit the proposed remaining convertible acreage inside their established service areas. Submissions of the parcels proposed as eligible for conversion, both inside and outside Conversion area No. 1 began arriving in early March 1995, and were received as late as June 29, 1995. Watermaster staff worked with each appropriator to identify the proposed acreage by assessor's parcel number. The lists of parcels and the approximate acreage of each parcel, by appropriator, are included with Appendix 1 as Tables 2A - 2G for reference. The maps corresponding to these lists are on file with the Watermaster. The eligibility of most of the parcels submitted has been determined; however, the specific eligibility of some parcels is still in question. The eligibility criteria utilized by staff requires that the land:

1. has not been receiving water provided by an appropriator;
2. was not already included in the establishment of the appropriator's production rights; and
3. has been used for irrigated agriculture within the last five years if it is located outside Conversion Area No. 1

The appropriators were also asked which parcels they were proposing to convert for the production year 1994/95. The parcels proposed for conversion in FY 94/95 are included with Appendix 1 as Tables 3A - 3C. Any parcels converted for production year 1994/95 will affect the assessments and available unallocated safe yield from that production year in fiscal year 1995/96. Table 1 is a summary of the total acreage submitted by each appropriator as being eligible for conversion and of the acreage requested by that appropriator for conversion in FY 94/95, if any. Staff has evaluated the parcels requested for conversion in FY 94/95 and finds that all of those requested, or a total of 2,185 acres, are eligible for conversion based on the above criteria.

When the 27,133 acres in Conversion Area No. 1 is added to the 5,209 acres (Table 1) proposed for conversion that is outside Conversion Area No. 1, there is a total of 32,343 acres remaining to be converted in the Chino Basin.

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[1] Order dated November 17, 1995, approving Amendments to Judgment re Land Use Conversion.
[2] Amended from 1.3 af/ac by Order dated September 28, 2000.

The 1978 agricultural water use was 84,095 acre-feet. When this is divided by the 32,343 acres, it results in a use of 2.6 af/ac. The value is still approximately 2.6 af/ac if the average annual post-judgment allocation of 82,800 af is divided and all acres were able to be converted as currently prescribed in the judgment, 50% of this per acre use would be allocated to an appropriator, and the appropriator would receive 1.3 acre-feet per acre. This would be a maximum use per acre. In 1994, the agricultural water use was reported as 44,092 acre-feet per acre. If this use is divided by the 32, 343 acres, it results in a present average use of 1.36 acre-feet per acre.

There was a consensus at the workshops and at the pool committee meetings that many of the conversions that potentially could have taken place since 1978, were not submitted by the appropriators. This is probably because of a lack of the right type of information to make the appropriate use-per-parcel determinations and because of the time and money that would be required if they were pursued extensively. Because of this, there was a consensus that the 1.3 af/ac conversion water use determinations were based only on 50% of the current average use.

Watermaster staff anticipates that each appropriator with remaining convertible acreage will request conversion on that acreage each year that they undertake to serve the land. If the service is anticipated to be permanent, they can request permanent conversion. For the acreage outside Conversion Area No. 1, the above criteria will be applied annually to make an eligibility determination. Also, an appropriator will be required to certify that the land is not currently using water that is being reported as agricultural pool production and Watermaster staff will field verify that agricultural activities have ceased, or that the appropriator is actually satisfying the agricultural use.

Chino Basin Watermaster

Unconverted Acreage

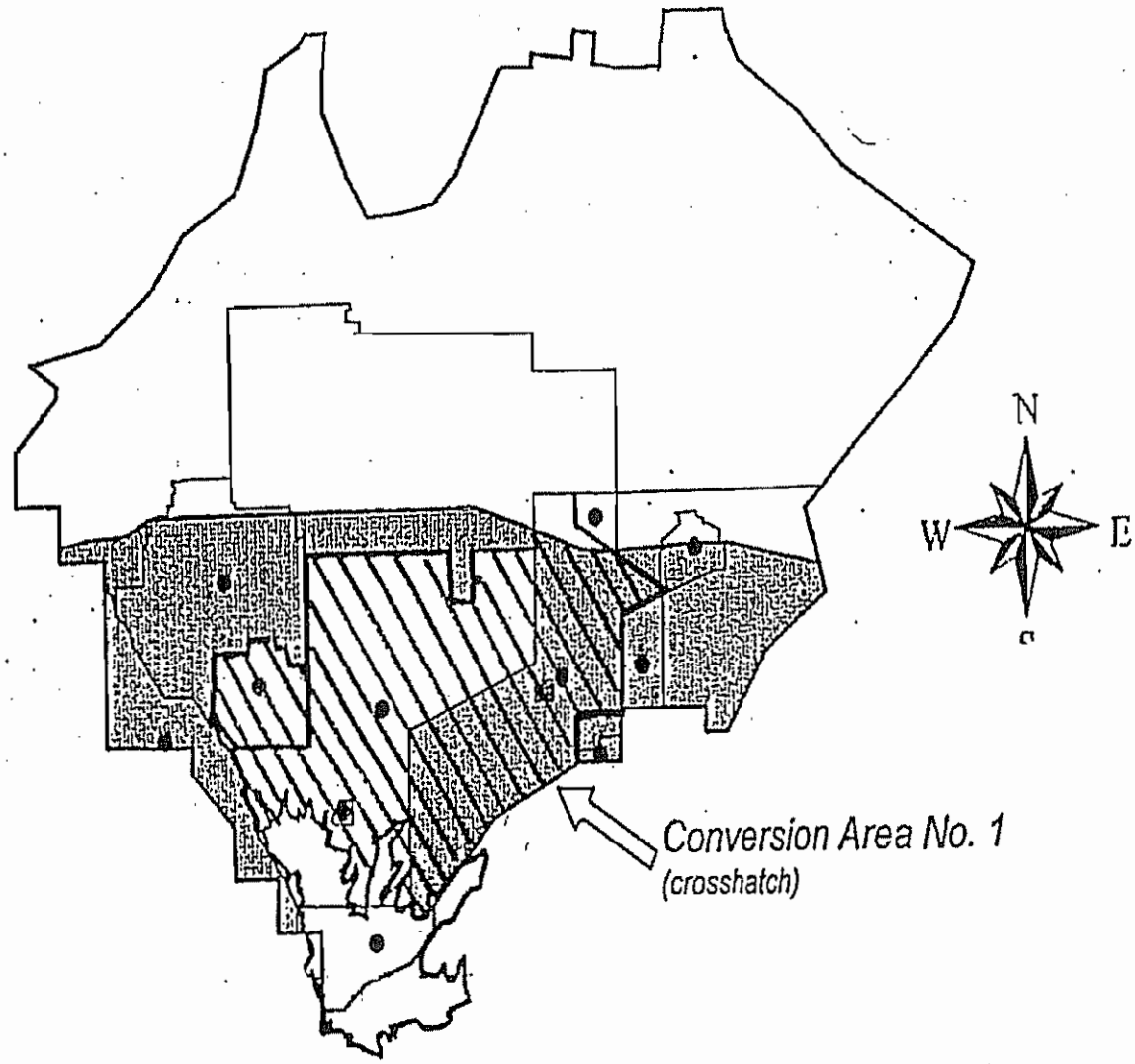

TABLE 1

Chino Basin Watermaster
Proposed Conversion Acres
Revised August 3, 1995

Appropriator	Outside Conversion Area #1		Inside Conversion Area #1	Total FY 94/95 Acres Proposed
	Total Acres Submitted	*Acres Proposed FY 94/95*	*Acres Proposed FY 94/95*	
Chino, City of	1923	519	0	519
Chino Hills, City of	1053	0	0	0
Cucamonga CWD	460	0	0	0
Fontana WC	417	0	0	0
Jurupa CSD	835	327	758	1085
Monte Vista WD	43	0	0	0
Ontario, City of	544	544	37	581
Total	5209	1390	795	2185

Chino
AGRICULTURAL LAND - WATER SUPPLY STUDY
OUTSIDE CONVERSION AREA NO. 1 LIST B

Property No.	Acreage	ADDRESS N/S - E/W	APN	GENERAL NOTES
1	11	4800/12150	1016-121-4,5,6,7,8	ROSES RESIDENCE ON CITY WATER
2	16	4700/12200	1016-131-1,2,3	ROSES CROP ACREAGE SUPPLIED BY PVT.WELL ON No.2
3	10	5350/11750	1014-381-1,2,3,4	BERRY
4	21	5600/12400	1015-261-2,3	TRUCK FARMING MISCELLANEOUS VEGETABLES
			1015-253-9	
5	6	5400/12450	1015-281-21	BERRY
6	7	4000/13000	1019-071-20,21	CHRISTMAS TREE GROWER
	-		1019-081-2,11	
7	38	4800/13250	1019-191-1,2,5	RANCHING DOMESTIC SERVICE ONLY - OTHER USES WELL
			1019-201-1,3	
8	10	3600/13650	1019-611-28,39,40	RANCHING DOMESTIC SERVIE ONLY UNDER DEVELOPMENT
			1019-611-41,42,43,49	
9	21	3700/13750	1022-041-4	LANDSCAPE NURSERY
			1022-05-3,4	
10	31	3900/14000	1022-031-2	GREEN FEED
			1022-26-4	
			1022-27-4	
			1022-082-1,2,8,9,10	
11	58	4000/14200	1022-38-3	GREEN FEED
			1022-39-4	
			1022-40-3	
			1022-58-2	
12	54	4150/13900	1022-10-5,6,7,8	DAIRY
			1022-24-3	
13	142	4300/14300	1022-42-6,7,8	GREEN FEED
			1022-41-5	
			1022-58-2	
			1022-53-11,12,13	
			1022-431-8	
			1022-441-8	
			1022-541-3	
14	18	4200/14550	1022-55-3	GREEN FEED
			1025-10-5,7,8,9	
15	51	4350/14700	1025-09-1	GREEN FEED
			1025-12-1,2,5,6,7	
			1025-21-8,9,12 thru 23	
16	40	4800/14400	1022-50-1,2,3	DAIRY DOMESTIC SERVICE ONLY
			1022-49-1,3,4	
17	320	4900/14700	1025-13-1 thru 6	DAIRY & FARMING GREEN FEED
			1025-20-5,6	
			1025-19-6,7	
			1025-15-1 thru 8	
			1021-471-3,4,6,8	
			1021-461-2,3,4,6,7,8	
			1021-481-1,2,3	
			1024-491-1,2	
			1021-511-1,2,3	
			1021-501-1,2	
			1021-521-1,2,3,4	
			1021-531-1,2	
18	70	5300/15400	1028-201-13,17	DOMESTIC SERVICE ONLY
			1028-511-1 thru 20	
			1028-501-1 thru 25	
			1028-491-1 thru 9	
19	10	6200/12800	1015-511-27	BERRY
20	29	6200/13000	1020-131-1,2	BERRY
			1020-121-21,24	
21	18	6000/14050	1021-291-1,2	GREEN FEED
22	38	6200/14000	1021-261-1,2,3,4	RANCHING DOMESTIC SERVICE ONLY
			1021-231-2	
			1021-101-2,3,4	
23	26	6400/13900	1021-251-1,20	DAIRY
			1021-241-2,3	
24	17	6850/12850	1051-502-31	CORN/BERRY
			1051-631-2	

Chino
AGRICULTURAL LAND - WATER SUPPLY STUDY
OUTSIDE CONVERSION AREA NO. 1 - LIST B

Property No.	Acreage	ADDRESS N/S - E/W	APN	GENERAL NOTES
25	11	6800/13200	1052-301-1,3,4	DAIRY
26	64	6600/13500	1052-331-1,2,3	DAIRY
			1052-341-1,2,3,4	
			1052-631-1,2,3	
27	28	6800/13500	1052-611-1,2	GREEN FEED
			1052-601-2	
28	15	6800/13900	1053-261-3,4,41,71	GREEN FEED
			1053-231-4,31	
29	39.5	6600/13900	1053-251-1,2,3,4	NURSERY
			1053-241-68	
			1053-011-2 thru 5	
30	99	5700/14150	1021-351-1,2	AYALA PARK
			1021-321-1,2	
			1021-311-1,2	
			1021-281-1	
			1026-011-1	
31	80	6800/14300	1053-621-1,2	DAIRY
			1053-491-1 thru 11.13.14.17	
			1053-461-1,2,3	
			1053-451-1,2	
32	61	6950/13100	1052-051-1 thru 18	DOMESTIC SERVICE ONLY
			1052-051-20 thru 25	
33	61	6950/13500	1052-361-1,2,3,4	DAIRY
			1052-371-1,2,3	
			1052-591-1,2	
			1052-581-1,2	
34	61	6950/13900	1053-051-3,4	DAIRY
			1053-061-3,4	
			1053-221-1,2	
			1053-271-1 thru 8	
35	61	6950/14300	1053-441-1 thru 9,12,13	DAIRY
			1053-431-1,2	
			1053-501-1,2,3,4	
			1053-611-1,2,3	
36	10	5250/11550	1014-301-3,4,5	NURSERY & CHRISTMAS TREES
37	20	5350/11600	1014-271-1	NURSERY & CHRISTMAS TREES
			1014-281-4	
40	32	4400/13000	1019-111-27 thru 73	RECENTLY CONVERTED BERRY FARMING TO RESIDENTIAL
			1019-122-1 thru 48	
			1019-123-1 thru 54	
41	30	4600/13500	1019-441-3,4	RANCHING
			1019-511-6,7	
			1019-501-1	
42	10	5250/14150	1021-361-21,22	NURSERY
43	18	5350/13600	1020-571-3,4,6	BERRY
			1020-461-1,2,3	
44	80	5600/13900	1021-041-1 thru 4,6,9	DAIRY DOMESTIC SERVICE ONLY - OTHER USES WELL
			1021-131-1,2	
			1021-201-1,2	
			1021-331-1	
			1021-301-1	
45	10	5950/13750	1021-061-1,2	DAIRY
46	5	6450-13350	1021-381-5	BERRY
TOTAL	1857.5			

THE CITY OF CHINO HILLS PROPOSED PARCELS FOR LAND USE CONVERSION

THE CITY OF CHINO HILLS
PUBLIC WORKS DEPARTMENT
GEOGRAPHIC INFORMATION SYSTEM
101 GRAND AVENUE
CHINO HILLS CA 91711
(909)

ID	APN	OWNER	ACREAGE
1	1022-291-09	Boys Republic	4.63
2	1022-291-10	Boys Republic	44.49
3	1022-291-05	Boys Republic	2.32
4	1022-591-02	Boys Republic	28.46
5	1022-291-08	Boys Republic	118.04
6	1025-461-01	De Groot	8.92
7	1025-461-02	De Groot	2.01
8	1025-461-03	De Groot	7.12
9	1025-481-02	De Groot	8.23
10	1025-471-04	De Groot	4.12
11	1025-471-03	De Groot	1.72
12	1025-481-01	De Groot	9.62
13	1025-511-01	De Groot	6.66
14	1025-471-01	City of Chino Hills	6.38
15	1025-471-02	Greening	1.00
16	1025-561-04	Greening	47.24
17	1028-471-01	Greening	66.82
18	1028-351-01	Kramer	1.54
20	1028-351-13	Higgins	4.04
21	1028-351-23	Higgins	38.24
22	1028-351-11	Higgins	7.64
23	1028-201-03	Von Lusk	1.91
24	1028-201-02	Von Lusk	77.57
25	1028-201-74	Von Lusk	54.77
26	1028-201-75	Von Lusk	37.57
27	1028-351-07	Bahan	28.27
28	1017-231-21	Amato	1.79
29	1017-231-22	Trapani	5.65
30	1017-241-14	Richland Pinehurst LP	82.37
31	1017-491-01	Richland Pinehurst LP	78.63
32	1027-492-01	Richland Pinehurst LP	43.31
33	1027-121-07	Richland Pinehurst LP	15.94
34	1057-261-06	Abacherli	128.26
35	1057-261-05	Abercherli	10.00
36	1021-561-01	Van Klavern	13.62
	1021-591-01	Van Klavern	9.50
	1021-591-03	Van Klavern	11.60
	1021-601-04	Van Klavern	8.28
	1021-601-01	Van Klavern	9.16
37	1028-351-16	Higgins	2.60
38	1028-351-14	Higgins	11.21
39	1028-351-18	Weeda	12.16
		TOTAL:	**1053.40**

CONVERSION

CUCAMONGA COUNTY WATER DISTRICT
West gate specific plan property west of Cherry

APN		Acreage	
226-112-08		7.07	
228-012-05		108.62	
06		7.54	
00	(adjacent to Cherry)	110.00	(estimated)
228-092-03		37.36	
14		9.61	
15		9.61	
16		9.61	
17		7.57	
20		11.54	
19		9.73	
22		25.40	
228-091-12		18.68	
24		5.43	
25		9.00	
28		35.51	
07		38.00	(estimated)
	Totals	460.28	

APN maps attached

JT:dc(CCWDCOVS.DOC)
6/26/95

CONVERSION

FONTANA WATER COMPANY
West gate specific plan property east of Cherry

APN		Acreage
228-021-28		142.35
27		8.50
226-121-21		12.50
18		137.83
226-091-46		45.78
62		70.04
	Total	417.00

JT:dc(FWCCONVR.DOC)
6/26/95

Jurupa Community Services District
LAND CONVERSION REQUESTS FY 94-95
OUTSIDE OF CONVERSION AREA NO. 1

PARCEL NUMBER	PARCEL ADDRESS		NUMBER OF ACRES	MAP NO	LOT NO
156020026	12400	PHILADELPHIA	10.25	A	1
156020027	12350	PHILADELPHIA	15.41	A	2
156020030			8.79	A	3
156160018	3791	DE FOREST	10.75	B	1
156160035	3065	DULLES	5.21	B	2
156160036	3058	DULLES	9.42	B	3
156160037			7.31	B	4
156160038			5.03	B	5
156160039	3178	DULLES	5.11	B	6
156160046	3431	DE FOREST	5.10	B	7
156160058			2.45	B	8
156160059			1.60	B	9
156160060			0.19	B	10
156160061			0.22	B	11
156160065	3450	DULLES	5.50	B	12
156160066	3204	DE FOREST	5.20	B	13
156160067			5.37	B	14
156160068			5.00	B	15
156160069	3384	DE FOREST	5.00	B	16
156160070			5.21	B	17
156160071	3725	NOBEL	7.88	B	18
156160072			3.55	B	19
156160073	3444	DE FOREST	1.20	B	20
156160074	3590	DE FOREST	10.66	B	21
156160080			5.16	B	22
156160081			6.25	B	23
156160082	10885	INLAND	11.43	B	24
156160084	10980	INLAND	2.51	B	25
156160087	3305	DULLES	20.47	B	26
156160088	3305	DULLES	44.37	B	27
156160089	3305	DULLES	8.40	B	28
156160095	3038	DEERE	12.94	B	29
156160096	3371	DE FOREST	25.03	B	30
156160097			23.97	B	31
183030007	7545	JURUPA	9.90	C	3
183030008	7585	JURUPA	1.99	C	2
183030033	7491	JURUPA	5.69	C	1
183080010	7371	JURUPA	7.55	D	1
		TOTAL ACRES	327.07		

Jurupa Community Services District
LAND CONVERSION REQUESTS FY 95-96
AFTER WATERMASTER VERIFICATION

PARCEL NUMBER	PARCEL ADDRESS		NUMBER OF ACRES	MAP NO	LOT NO
162200006	9894	60TH	5.00	A	1
162200007		60TH	5.00	A	2
162200008		LIMONITE	5.00	A	3
162200009		LIMONITE	4.95	A	4
162200010	9951	LIMONITE	9.65	A	5
162210011	10001	LIMONITE	9.76	A	6
162210001	9709	60TH	5.00	B	1
162210002	6067	BEACH	5.00	B	2
162210003		LIMONITE	5.00	B	3
162210004		LIMONITE	5.00	B	4
165050001	8618	54TH	2.50	C	1
165050002	8646	54TH	2.50	C	2
165050005	5424	PEDLEY	5.00	C	3
165050006	5494	PEDLEY	5.00	C	4
165060001	5419	PEDLEY	5.00	D	1
165060002	5455	PEDLEY	2.86	D	2
165060003	5489	PEDLEY	2.86	D	3
165060013	5511	PEDLEY	3.01	D	4
165080003	5723	PEDLEY	3.25	E	1
165080004	5733	PEDLEY	3.25	E	2
165080005	5793	PEDLEY	7.00	E	3
165080007	5760	PEDLEY	3.00	E	4
165080009	8705	58TH	5.00	E	5
165080010	8695	58TH	2.39	E	6
165080012	8696	56TH	5.00	E	7
165091015	5685	PEDLEY	3.85	F	1
165092004	5690	5685	1.82	F	2
165140008	5935	5685	5.89	G	1
165140029	5831	5685	4.50	G	2
165140030	5853	5685	2.16	G	3
165160001	8626	58TH	3.82	H	1
165160002	8662	58TH	2.50	H	2
165160003	8710	58TH	2.50	H	3
166030025	8238	JURUPA	9.22	I	1
166030023	4800	STONE	14.52	I	2
166030011	4992	STONE	4.63	I	3
166050008	4695	TYROLITE	3.36	J	1
166060005	4911	TYROLITE	8.93	K	1
166060006	4799	TYROLITE	6.19	K	2
166070001	5040	AGATE	4.85	L	1
166070030	5070	AGATE	2.33	L	2
166070009	5025	STONE	2.69	L	3
166070011	5065	STONE	3.63	L	4
166090001	5289	STONE	9.82	M	1
166090002	5250	STONE	5.28	M	2
166090004	5256	AGATE	12.88	M	3
166090023	8440	54TH	2.26	M	4
166090026	5340	AGATE	4.67	M	5
166190017	8600	58TH	10.00	N	1
167020002		GALENA	33.71	O	1

Jurupa Community Services District
LAND USE CONVERSION REQUESTS FY 95-96
AFTER WATERMASTER VERIFICATION

PARCEL NUMBER	PARCEL ADDRESS		NUMBER OF ACRES	MAP NO	LOT NO
167020006		GALENA	9.70	O	2
167020007		GALENA	29.20	O	3
167020008		GALENA	33.70	O	4
167110008	9440	GALENA	10.93	P	1
167160042	4777	FELSPAR	9.37	Q	1
169070006	8705	MISSION	2.57	R	1
169210008	8721	GALENA	1.40	S	1
169270018	4930	AGATE	4.71	T	1
169280020	4945	PEDLEY	2.45	U	1
169280022	8864	PEDLEY	2.71	U	2
169290011	5015	PEDLEY	5.00	V	1
169290020	5071	PEDLEY	4.77	V	2
169290021	5151	PEDLEY	4.77	V	3
169300003	5339	PEDLEY	7.50	W	1
169300005	5355	PEDLEY	8.35	W	2
169300007	5335	PEDLEY	2.39	W	3
169300008	5261	PEDLEY	2.39	W	4
169300009	5235	PEDLEY	2.39	W	5
169300010	5205	PEDLEY	2.38	W	6
169310002	5074	PEDLEY	3.01	X	1
169310003	5071	AGATE	2.72	X	2
169310026	5329	AGATE	2.48	X	3
169310028	5271	AGATE	2.48	X	4
170310041	9200	MISSION	4.14	X	1
171040027	3851	PYRITE	15.41	Y	1
171050013	4100	AGATE	7.69	Z	1
171090011	8531	MISSION	3.22	AA	1
171190004	7868	MISSION	10.96	BB	1
171220002	7837	GALENA	9.64	CC	1
173160020	9150	GRANITE HILL	4.03	DD	1
173160024	8931	GRANITE HILL	2.06	DD	2
173160032	8951	HIGHWAY	4.13	DD	3
183030014	7586	JURUPA	6.92	EE	1
		TOTAL ACRES	508.56		

Monte Vista Water District
P.O. Box 71
Montclair, CA 91763-0071

Proposed Conversion Acres
Submitted by Gil Martinez, August 2, 1995

Property No.	Approximate Acreage	APN (Lot No.)
A	4.3	1013-131-15,17,19
A1	2.4	1013-131-15,17,19 (Lot 1 & 6)
C	8.0	1013-171-1 thru 5
E	9.6	1013-271-1
		1013-531-5
G	9.0	1013-291- 6 & 7
I	10.0	1013-521-4 (Lot 1)
N	.5	1016-101-1
	43.66	

Prepared by J.R. Theirl
August 14, 1995
Based on information provided by Gil Martinez of MVWD on August 2, 1995.

City of Ontario
Existing Agricultural Uses
Exhibit A

Identification	APN	Address	Acreage
1	11335102	1348 S GROVE AV	11.500
2	11336103	1550 S PARCO AV	7.231
3	11336104	1460 S PARCO AV	0.904
4	11336105	1442 S PARCO AV	0.454
5	11336106	1436 S PARCO AV	0.232
6	11336107	1410 S PARCO AV	5.518
7	11336116	1551 S GROVE AV	12.255
8	11336118	1405 S GROVE AV	11.642
9	11341421	1704 S VINEYARD AV	3.677
10	11343105	1160 S MILDRED AV	51.026
11	11351208	O E AIRPORT--OIA	8.524
12	11351210	O E AIRPORT --OIA	7.400
13	21019210	572 N TURNER AV	22.343
14	21121104	3000 E JURUPA ST	20.039
15	21121109	1200 S ARCHIBALD AV	19.395
16	21121111	2900 E JURUPA ST	65.765
17	21131203	O E MISSION BL	4.020
18	21131204	O E MISSION BL	2.022
19	21134101	O S SEAGULL AV	0.615
20	21134102	O E JURUPA ST	0.782
21	21134103	O E JURUPA ST	0.534
22	21134104	O E JURUPA ST	0.530
23	21134105	O E JURUPA ST	0.532
24	21134106	O S AVIATION DR	0.786
25	21134107	O S AVIATION DR	1.016
26	21808103	2300 S MILLIKEN AV	46.266
27	21808105	O E MISSION BL	0.263
28	21808108	O E MISSION BL	49.657
61	21809124	O S MILLIKEN AV	15.280
29	23801131	1000 N ROCHESTER AV	2.270
30	23801219	O E INLAND EMPIRE BL	10.664
31	23801223	O E FOURTH ST	13.856
32	23808140	O S WINEVILLE AV	2.655
33	23824110	5010 E AIRPORT DR	0.000
34	101120109	1241 W STATE ST	0.000
35	101120110	1211 W STATE ST	2.434
36	101120111	520 S MAGNOLIA AV	2.409
37	101122102	616 OAKS AV	0.000
38	101142109	O S ELDERBERRY AV	0.942
39	101142111	O S ELDERBERRY AV	1.942
40	101152112	O S ELDERBERRY AV	1.005
41	101153103	O S BENSON AV	2.566
42	101153104	O S BENSON AV	1.860
43	101143105	O S BENSON AV	4.781
44	101412103	O S OAKS AV	0.063
45	101412104	O S OAKS AV	1.705
46	101421112	1320 W FRANCIS ST	7.281
47	104921105	720 E SUNKIST ST	0.000
48	104930105	752 W PARK ST	2.668
49	104930106	720 W PARKS ST	2.685
50	104942104	1310 S CUCAMONGA AV	4.694
51	104950102	1125 S SULTANA AV	0.207

City of Ontario
Existing Agricultural Uses
Exhibit A

Identification	APN	Address	Acreage
52	105013102	1518 S CUCAMONGA AV	0.000
53	105013103	1558 S CUCAMONGA AV	6.028
53	105016103	1556 S GRPVE AV	0.000
55	105017102	1642 S GROVE AV	9.563
56	105018103	1743 S CUCAMONGA AV	8.970
57	105020101	1687 S BON VIEW AV	9.547
58	105036108	1844 S FERN AV	0.000
59	105045104	1921 S BON VIEW AV	4.740
60	105046109	1056 E FRANCIS ST	9.064
61	011340102	1533 S PARCO AVE	29.000
62	101121106	1300 W MISSION BLVD	1.000
63	101138204	1055 W MISSION BLVD	1.000
64	101446205	1951 S PALMETTO AVE	1.000
65	105115103	1256 E PHILADELPHIA ST	6.000
66	105157177	NW CORNER GROVE AVE & RIVERSIDE DR	1.000
67	104947204	CAMPUS (N OF FRANCIS, S OF PHILLIPS)	6.000
68	011008107	1633 E HOLT BLVD	5.000
69	105144103	NW CORNER EUCLID AVE & RIVERSIDE DR	10.000
		Total	**544 Acres**

City of Chino
CHINO BASIN LAND USE CONVERSION
PARCELS TO BE CONVERTED IN FY 94/95

PROPERTY No.	ACREAGE	ADDRESS N/S - E/S	APN	GENERAL NOTES
8	10	3600/13650	1019-611-28,39,40	IRRIGATED LANDSCAPE/UNDER DEVELOPMENT
			1019-611-41,42,43,49	
10	31	3900/14000	1022-031-2	ENTERTAINMENT COMPLEX
			1022-26-4	
			1022-27-4	
			1022-082-1,2,8,9,10	
13	142	4300/14300	1022-42-6,7,8	COMM/IND - WAREHOUSE
			1022-41-5	
			1022-56-2	
			1022-53-11,12,13	
			1022-431-8	
			1022-441-8	
			1022-541-3	
18	70	5300-15400	1028-201-13,17	COMM/IND (MISSION LAUNDRY)
			1028-511-1 thru 20	
			1028-501-1 thru 25	
			1028-491-1 thru 9	
23	26	6400/13900	1021-251-1,20	RESIDENTIAL DEVELOPMENT/COMMERCIAL PARK
			1021-241-2,3	
29	39.5	6600/13900	1053-251-1,2,3,4	RESIDENTIAL DEVELOPMENT
			1053-241-68	
			1053-011-2 thru 5	
30	99	5700/14150	1021-351-1,2	AYALA PARK
			1021-321-1,2	
			1021-311-1,2	
			1021-281-1	
			1026-011-1	
32	61	6950/13100	1052-051-1 thru 18	DOMESTIC SERVICE ONLY/RESIDENTIAL
			1052-051-20 thru 25	
*	41	3950/13900	1022-082-1 thru 11	COMMERCIAL DEVELOPMENT
			1022-251-3 thru 14	
TOTAL	519.5			

*** acreage above property number 11 (MAJESTIC SPECTRUM POWER CENTER)**

Jurupa Community Services District
LAND CONVERSION REQUESTS FY 94-95
OUTSIDE OF CONVERSION AREA NO. 1

PARCEL NUMBER	PARCEL ADDRESS		NUMBER OF ACRES	MAP NO	LOT NO
156020026	12400	PHILADELPHIA	10.25	A	1
156020027	12350	PHILADELPHIA	15.41	A	2
156020030			8.79	A	3
156160018	3791	DE FOREST	10.75	B	1
156160035	3065	DULLES	5.21	B	2
156160036	3058	DULLES	9.42	B	3
156160037			7.31	B	4
156160038			5.03	B	5
156160039	3178	DULLES	5.11	B	6
156160046	3431	DE FOREST	5.10	B	7
156160058			2.45	B	8
156160059			1.60	B	9
156160060			0.19	B	10
156160061			0.22	B	11
156160065	3450	DULLES	5.50	B	12
156160066	3204	DE FOREST	5.20	B	13
156160067			5.37	B	14
156160068			5.00	B	15
156160069	3384	DE FOREST	5.00	B	16
156160070			5.21	B	17
156160071	3725	NOBEL	7.88	B	18
156160072			3.55	B	19
156160073	3444	DE FOREST	1.20	B	20
156160074	3590	DE FOREST	10.66	B	21
156160080			5.16	B	22
156160081			6.25	B	23
156160082	10885	INLAND	11.43	B	24
156160084	10980	INLAND	2.51	B	25
156160087	3305	DULLES	20.47	B	26
156160088	3305	DULLES	44.37	B	27
156160089	3305	DULLES	8.40	B	28
156160095	3038	DEERE	12.94	B	29
156160096	3371	DE FOREST	25.03	B	30
156160097			23.97	B	31
183030007	7545	JURUPA	9.90	C	3
183030008	7585	JURUPA	1.99	C	2
183030033	7491	JURUPA	5.69	C	1
183080010	7371	JURUPA	7.55	D	1
		TOTAL ACRES	327.07		

City of Ontario
Existing Agricultural Uses
Exhibit A

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16	21121111	2900 E JURUPA ST	65.765
17	21131203	O E MISSION BL	4.020
18	21131204	O E MISSION BL	2.022
19	21134101	O S SEAGULL AV	0.615
20	21134102	O E JURUPA ST	0.782
21	21134103	O E JURUPA ST	0.534
22	21134104	O E JURUPA ST	0.530
23	21134105	O E JURUPA ST	0.532
24	21134106	O S AVIATION DR	0.786
25	21134107	O S AVIATION DR	1.016
26	21808103	2300 S MILLIKEN AV	46.266
27	21808105	O E MISSION BL	0.263
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61	21809124	O S MILLIKEN AV	15.280
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30	23801219	O E INLAND EMPIRE BL	10.664
31	23801223	O E FOURTH ST	13.856
32	23808140	O S WINEVILLE AV	2.655
33	23824110	5010 E AIRPORT DR	0.000
34	101120109	1241 W STATE ST	0.000
35	101120110	1211 W STATE ST	2.434
36	101120111	520 S MAGNOLIA AV	2.409
37	101122102	616 OAKS AV	0.000
38	101142109	O S ELDERBERRY AV	0.942
39	101142111	O S ELDERBERRY AV	1.942
40	101152112	O S ELDERBERRY AV	1.005
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42	101153104	O S BENSON AV	1.860
43	101143105	O S BENSON AV	4.781
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46	101421112	1320 W FRANCIS ST	7.281
47	104921105	720 E SUNKIST ST	0.000
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City of Ontario
Existing Agricultural Uses
Exhibit A

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61	011340102	1533 S PARCO AVE	29.000
62	101121106	1300 W MISSION BLVD	1.000
63	101138204	1055 W MISSION BLVD	1.000
64	101446205	1951 S PALMETTO AVE	1.000
65	105115103	1256 E PHILADELPHIA ST	6.000
66	105157177	NW CORNER GROVE AVE & RIVERSIDE DR	1.000
67	104947204	CAMPUS (N OF FRANCIS, S OF PHILLIPS)	6.000
68	011008107	1633 E HOLT BLVD	5.000
69	105144103	NW CORNER EUCLID AVE & RIVERSIDE DR	10.000
		Total	544 Acres

ROTATION SCHEDULE FOR REPRESENTATIVES TO WATERMASTER

Existing and Proposed Representation of the Parties to the Judgment

Interim	Appropriators			NON-AG	Agricultural Pool		Municipals		
34-month	[24]			[13 Ind.]	[3 Groups]		[3 Overlying Districts]		
Mar-98	Ontario	MVWD	CCWD	Industry	Dairy	Crops	IEUA	TVMWD	WMWD
1999	Ontario	MVWD	CCWD	Industry	Dairy	Crops	IEUA	TVMWD	WMWD
2000	Ontario	MVWD	CCWD	Industry	Dairy	Crops	IEUA	TVMWD	WMWD
Term cycles	(2 yr)	(2 yr)	(2 yr)						
Reappoint	*Big*	*Medium*	*Small*						
Jan-01	FWC	MVWD	CCWD	Industry	Dairy	Crop	IEUA	TVMWD	WMWD
Jan-02	FWC	Chino	Ontario	Industry	Dairy	State	IEUA	TVMWD	WMWD
Jan-03	Pomona	Chino	Minor Rep	Industry	Crop	State	IEUA	TVMWD	WMWD
Jan-04	Pomona	FUWC	Chino Hills	Industry	Crop	State	IEUA	TVMWD	WMWD
Jan-05	Jurupa	FUWC	Chino Hills	Industry	Crop	Dairy	IEUA	TVMWD	WMWD
Jan-06	Jurupa	MVWD	Minor Rep	Industry	State	Dairy	IEUA	TVMWD	WMWD
Jan-07	Ontario	MVWD	Minor Rep	Industry	State	Dairy	IEUA	TVMWD	WMWD
Jan-08	Ontario	CCWD	Upland	Industry	State	Crop	IEUA	TVMWD	WMWD
Jan-09	FWC	CCWD	Upland	Industry	Dairy	Crop	IEUA	TVMWD	WMWD
Jan-10	FWC	Chino	Minor Rep	Industry	Dairy	Crop	IEUA	TVMWD	WMWD
Jan-11	Pomona	Chino	Minor Rep	Industry	Dairy	State	IEUA	TVMWD	WMWD
Jan-12	Pomona	FUWC	Chino Hills	Industry	Crop	State	IEUA	TVMWD	WMWD
Jan-13	Jurupa	FUWC	Chino Hills	Industry	Crop	State	IEUA	TVMWD	WMWD
Jan-14	Jurupa	MVWD	Minor Rep	Industry	Crop	Dairy	IEUA	TVMWD	WMWD
Jan-15	Ontario	MVWD	Minor Rep	Industry	State	Dairy	IEUA	TVMWD	WMWD

The noted rotation sequence perpetuates indefinitely until and unless there is a Court approved change

RESOLUTION NO. 99-03

RESOLUTION OF THE CHINO BASIN WATERMASTER CONCERNING WATERMASTER PUBLIC MEETINGS, HEARINGS AND CONFIDENTIAL SESSIONS

BE IT RESOLVED BY THE CHINO BASIN WATERMASTER that this resolution amends the Chino Basin Watermaster Rules and Regulations governing Watermaster operations.

Section 1. Purpose
This resolution amends the Chino Basin Watermaster Rules and Regulations governing Watermaster operations.

Section 2. Amendment
Section 2.06 and 2.07 of the Watermaster Rules are amended and will now read as follows:

2.06 Public Meetings/Hearings/Confidential Sessions

(a) Public Meetings. All meetings, whether regular or special, shall be open to the public except as provided in (c) below.

(b) Hearings. Whenever a public hearing shall be required herein, written notice of such public hearing containing the time, date and place of hearing, together with the matters to be heard thereat, shall be given to all Active Parties and each such person who has requested, in writing, notice of such hearing at least (10) ten days prior to said public hearing.

At such hearing, evidence shall be taken with regard to only the matters noticed, unless a sufficient urgency shall exist to the contrary, and full findings and decisions shall be issued and made available for public inspection.

(c) Confidential Sessions. All meetings of the Watermaster shall be open to the public as provided in (a) and (b) above, unless a confidential session is authorized by this rule or the Advisory Committee. A confidential session may be held by the Watermaster and the chair of the three Pools (Appropriative, Agricultural and Non-Agricultural) to:

Meet with counsel to discuss or act on pending or threatened litigation;
Discuss personnel matters involving individual employees.

Minutes shall not be taken for confidential sessions, but a confidential memorandum shall be prepared to describe attendance and votes on decisions.

2.07 Notice

(a) Meetings. Notices of meetings and confidential sessions shall be given in writing to all Active Parties and each such person who has requested notice in writing, and shall specify the time and place of the meeting or session and the business to be transacted thereat. Hearing notices shall be made as provided in 2.06 (b) above. [Based on Judgment, page 20, Paragraph 37(c).]

(b) Delivery of Notice. Delivery of notice for meetings and confidential sessions shall be deemed made on the date personally given or within ninety-six (96) hours of deposit in the United States mail, first class, postage prepaid, addressed to the designee and at the address in the latest designation filed by such person."

Section 3. Other.
Except as provided herein, the Chino Basin Watermaster Rules and Regulations, along with any prior amendments thereto, are reaffirmed.

NOW, FURTHER, BE IT RESOLVED that this Resolution shall become effective upon adoption.

RESOLUTION 99-03, approved by the Chino Basin Watermaster Advisory Committee on the 13th day of May 1999, is hereby **ADOPTED** by the Chino Basin Watermaster Board on this 13th day of May 1999.

CHINO BASIN WATERMASTER BOARD

Robert Neufeld

Robert Neufeld, Chairman

ATTEST:

Josephine Johnson

Josephine Johnson, Secretary/Treasurer
Chino Basin Watermaster Board

APPROVED:

Robert DeLoach

Robert DeLoach, Chairman
Watermaster Advisory Committee

STATE OF CALIFORNIA)
) SS
COUNTY OF SAN BERNARDINO)

I, Josephine Johnson, Secretary/Treasurer of the Chino Basin Watermaster Board, DO HEREBY CERTIFY that the foregoing Resolution being No. 99-03, was adopted at a regular meeting of the Chino Basin Watermaster Board by the following vote:

AYES: Neufeld, Krueger, Arbelbide, Hofer, Johnson, and King

NOES: None

ABSENT: Catlin, Schroeder, and Vanden Heuvel

ABSTAIN: None

CHINO BASIN WATERMASTER BOARD

Josephine Johnson
Secretary/Treasurer

STATE OF CALIFORNIA)
) SS
COUNTY OF SAN BERNARDINO)

I, Josephine Johnson, Secretary/Treasurer of the Chino Basin Watermaster Board, DO HEREBY CERTIFY that the foregoing Resolution being No. 99-03, was adopted at a regular meeting of the Chino Basin Watermaster Board by the following vote:

AYES: Neufeld, Krueger, Arbelbide, Hofer, Johnson, and King

NOES: None

ABSENT: Catlin, Schroeder, and Vanden Heuvel

ABSTAIN: None

CHINO BASIN WATERMASTER BOARD

Josephine Johnson
Secretary/Treasurer

Appendix J
Summary of Population Based on Census Data

Appendix D: Demographic Information for Claremont System CSA

Table D-1: Census Tracts within the Claremont System CSA

County	Subregion	City Code	City	Census Tract Number	Percentage of Census Tract
Los Angeles	San Gabriel Valley COG	13756	Claremont city	400205	60%
Los Angeles	San Gabriel Valley COG	13756	Claremont city	400206	100%
Los Angeles	San Gabriel Valley COG	13756	Claremont city	401701	60%
Los Angeles	San Gabriel Valley COG	13756	Claremont city	401800	100%
Los Angeles	San Gabriel Valley COG	13756	Claremont city	401901	100%
Los Angeles	San Gabriel Valley COG	13756	Claremont city	401902	100%
Los Angeles	San Gabriel Valley COG	13756	Claremont city	402000	100%
Los Angeles	San Gabriel Valley COG	58072	Pomona city	401701	35%
Los Angeles	San Gabriel Valley COG	58072	Pomona city	401704	10%
Los Angeles	San Gabriel Valley COG	99999	Unincorporated	401704	100%
Los Angeles	San Gabriel Valley COG	99999	Unincorporated	400205	2%
Los Angeles	San Gabriel Valley COG	99999	Unincorporated	400206	100%

Table D-2: Population, Household and Employment Projections for Year 2000, 2005, 2010, 2015, 2020, 2025 and 2030 for Claremont System CSA

Claremont System CSA Population, Household and Employment Estimates for 2000

County	Subregion	City Code	City	Census Tract	Total Population	Number of Households	Total Employees
Los Angeles	San Gabriel Valley COG	13756	Claremont city	400205	2153	704	1372
Los Angeles	San Gabriel Valley COG	13756	Claremont city	400206	5137	1684	204
Los Angeles	San Gabriel Valley COG	13756	Claremont city	401701	2510	957	1074
Los Angeles	San Gabriel Valley COG	13756	Claremont city	401800	7256	2770	3732
Los Angeles	San Gabriel Valley COG	13756	Claremont city	401901	4281	218	3241
Los Angeles	San Gabriel Valley COG	13756	Claremont city	401902	5994	2625	5357
Los Angeles	San Gabriel Valley COG	13756	Claremont city	402000	7002	2334	3548
Los Angeles	San Gabriel Valley COG	58072	Pomona city	401701	1209	622	65
Los Angeles	San Gabriel Valley COG	58072	Pomona city	401704	4928	1485	2096
Los Angeles	San Gabriel Valley COG	99999	Unincorporated	401704	315	74	9
Los Angeles	San Gabriel Valley COG	99999	Unincorporated	400205	532	87	304
Los Angeles	San Gabriel Valley COG	99999	Unincorporated	400206	397	132	56

Claremont System CSA Population, Household and Employment Projections for 2005

County	Subregion	City Code	City	Census Tract	Total Population	Number of Households	Total Employees
Los Angeles	San Gabriel Valley COG	13756	Claremont city	400205	2742	704	1388
Los Angeles	San Gabriel Valley COG	13756	Claremont city	400206	5234	1704	212
Los Angeles	San Gabriel Valley COG	13756	Claremont city	401701	2749	1135	1083
Los Angeles	San Gabriel Valley COG	13756	Claremont city	401800	7745	2956	3781
Los Angeles	San Gabriel Valley COG	13756	Claremont city	401901	4466	235	3359
Los Angeles	San Gabriel Valley COG	13756	Claremont city	401902	6603	2641	5408
Los Angeles	San Gabriel Valley COG	13756	Claremont city	402000	7138	2339	3578
Los Angeles	San Gabriel Valley COG	58072	Pomona city	401701	1814	746	83
Los Angeles	San Gabriel Valley COG	58072	Pomona city	401704	5261	1523	2096
Los Angeles	San Gabriel Valley COG	99999	Unincorporated	401704	422	86	9
Los Angeles	San Gabriel Valley COG	99999	Unincorporated	400205	619	95	305
Los Angeles	San Gabriel Valley COG	99999	Unincorporated	400206	418	137	56

Claremont System CSA Population, Household and Employment Projections for 2010

County	Subregion	City Code	City	Census Tract	Total Population	Number of Households	Total Employees
Los Angeles	San Gabriel Valley COG	13756	Claremont city	400205	2986	704	1558
Los Angeles	San Gabriel Valley COG	13756	Claremont city	400206	5274	1723	284
Los Angeles	San Gabriel Valley COG	13756	Claremont city	401701	2828	1291	1188
Los Angeles	San Gabriel Valley COG	13756	Claremont city	401800	7928	3120	4272
Los Angeles	San Gabriel Valley COG	13756	Claremont city	401901	4579	251	4541
Los Angeles	San Gabriel Valley COG	13756	Claremont city	401902	6835	2655	5929
Los Angeles	San Gabriel Valley COG	13756	Claremont city	402000	7186	2343	3887
Los Angeles	San Gabriel Valley COG	58072	Pomona city	401701	2377	997	247
Los Angeles	San Gabriel Valley COG	58072	Pomona city	401704	5572	1597	2096
Los Angeles	San Gabriel Valley COG	99999	Unincorporated	401704	481	103	9
Los Angeles	San Gabriel Valley COG	99999	Unincorporated	400205	673	106	308
Los Angeles	San Gabriel Valley COG	99999	Unincorporated	400206	432	144	58

Claremont System CSA Population, Household and Employment Projections for 2015

County	Subregion	City Code	City	Census Tract	Total Population	Number of Households	Total Employees
Los Angeles	San Gabriel Valley COG	13756	Claremont city	400205	3064	730	1558
Los Angeles	San Gabriel Valley COG	13756	Claremont city	400206	5317	1733	284
Los Angeles	San Gabriel Valley COG	13756	Claremont city	401701	2857	1319	1270
Los Angeles	San Gabriel Valley COG	13756	Claremont city	401800	8063	3219	4512
Los Angeles	San Gabriel Valley COG	13756	Claremont city	401901	4702	257	4830
Los Angeles	San Gabriel Valley COG	13756	Claremont city	401902	6948	2719	6179
Los Angeles	San Gabriel Valley COG	13756	Claremont city	402000	7309	2400	4140
Los Angeles	San Gabriel Valley COG	58072	Pomona city	401701	2563	1056	281
Los Angeles	San Gabriel Valley COG	58072	Pomona city	401704	5756	1650	2096
Los Angeles	San Gabriel Valley COG	99999	Unincorporated	401704	518	119	15
Los Angeles	San Gabriel Valley COG	99999	Unincorporated	400205	767	121	323
Los Angeles	San Gabriel Valley COG	99999	Unincorporated	400206	462	152	62

Claremont System CSA Population, Household and Employment Projections for 2020

County	Subregion	City Code	City	Census Tract	Total Population	Number of Households	Total Employees
Los Angeles	San Gabriel Valley COG	13756	Claremont city	400205	3140	757	1558
Los Angeles	San Gabriel Valley COG	13756	Claremont city	400206	5360	1745	284
Los Angeles	San Gabriel Valley COG	13756	Claremont city	401701	2884	1347	1348
Los Angeles	San Gabriel Valley COG	13756	Claremont city	401800	8197	3320	4742
Los Angeles	San Gabriel Valley COG	13756	Claremont city	401901	4824	263	5108
Los Angeles	San Gabriel Valley COG	13756	Claremont city	401902	7060	2784	6419
Los Angeles	San Gabriel Valley COG	13756	Claremont city	402000	7431	2458	4383
Los Angeles	San Gabriel Valley COG	58072	Pomona city	401701	2746	1116	314
Los Angeles	San Gabriel Valley COG	58072	Pomona city	401704	5938	1705	2096
Los Angeles	San Gabriel Valley COG	99999	Unincorporated	401704	553	134	21
Los Angeles	San Gabriel Valley COG	99999	Unincorporated	400205	857	135	336
Los Angeles	San Gabriel Valley COG	99999	Unincorporated	400206	491	159	67

Claremont System CSA Population, Household and Employment Projections for 2025

County	Subregion	City Code	City	Census Tract	Total Population	Number of Households	Total Employees
Los Angeles	San Gabriel Valley COG	13756	Claremont city	400205	3200	782	1558
Los Angeles	San Gabriel Valley COG	13756	Claremont city	400206	5393	1755	284
Los Angeles	San Gabriel Valley COG	13756	Claremont city	401701	2899	1374	1421
Los Angeles	San Gabriel Valley COG	13756	Claremont city	401800	8321	3420	4957
Los Angeles	San Gabriel Valley COG	13756	Claremont city	401901	4980	273	5365
Los Angeles	San Gabriel Valley COG	13756	Claremont city	401902	7163	2848	6642
Los Angeles	San Gabriel Valley COG	13756	Claremont city	402000	7547	2516	4609
Los Angeles	San Gabriel Valley COG	58072	Pomona city	401701	2937	1174	345
Los Angeles	San Gabriel Valley COG	58072	Pomona city	401704	6126	1763	2096
Los Angeles	San Gabriel Valley COG	99999	Unincorporated	401704	581	151	26
Los Angeles	San Gabriel Valley COG	99999	Unincorporated	400205	973	152	349
Los Angeles	San Gabriel Valley COG	99999	Unincorporated	400206	529	167	70

Claremont System CSA Population, Household and Employment Projections for 2030

County	Subregion	City Code	City	Census Tract	Total Population	Number of Households	Total Employees
Los Angeles	San Gabriel Valley COG	13756	Claremont city	400205	3257	809	1558
Los Angeles	San Gabriel Valley COG	13756	Claremont city	400206	5425	1766	284
Los Angeles	San Gabriel Valley COG	13756	Claremont city	401701	2913	1400	1489
Los Angeles	San Gabriel Valley COG	13756	Claremont city	401800	8440	3521	5158
Los Angeles	San Gabriel Valley COG	13756	Claremont city	401901	5130	281	5606
Los Angeles	San Gabriel Valley COG	13756	Claremont city	401902	7263	2913	6851
Los Angeles	San Gabriel Valley COG	13756	Claremont city	402000	7659	2574	4820
Los Angeles	San Gabriel Valley COG	58072	Pomona city	401701	3121	1232	374
Los Angeles	San Gabriel Valley COG	58072	Pomona city	401704	6306	1821	2096
Los Angeles	San Gabriel Valley COG	99999	Unincorporated	401704	606	168	31
Los Angeles	San Gabriel Valley COG	99999	Unincorporated	400205	1076	167	360
Los Angeles	San Gabriel Valley COG	99999	Unincorporated	400206	563	174	74