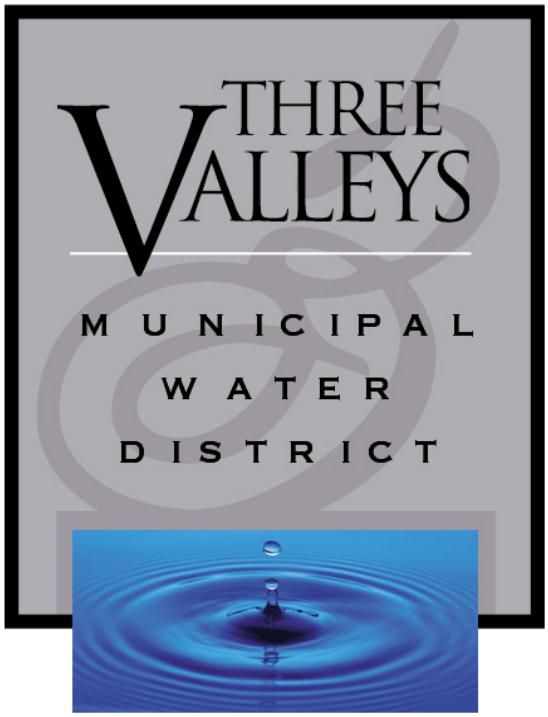
Urban Water Management Plan

2005



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Contact Sheet

Date Plan Submitted to the Department of Water Resources:	January 20, 2006
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The water supplier is a:	*Municipal Water District*
The water supplier is a:	*Wholesaler*

Notice of Adoption

The Board of Directors of the Three Valleys Municipal Water District ("District") held a public hearing on Wednesday, December 21, 2005, at 10:00 a.m., at the District's Headquarters located at 1021 E. Miramar Avenue in Claremont, California, for the purpose of reviewing and considering possible adoption of the District's 2005 Urban Water Management Plan.

Prior to said public hearing, all persons were invited to review the District's proposed 2005 Urban Water Management Plan, which was available for public inspection at the District's Headquarters at the above location during regular business hours, and to submit written comments thereto to the District. Written and oral comments to the District's proposed 2005 Urban Water Management Plan may be submitted to the District's Board of Directors at the time of the public hearing thereon.

_____

Richard W. Hansen, P.E., General Manager *Date*

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List of Abbreviations

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
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
D/DBP	disinfectant/disinfection by-product
DMM	demand management measure
DOC	dissolved organic carbon
DOF	dissolved organic carbon
DWR Guidebook	Guidebook to Assist Water Suppliers in the Preparation of 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
HAAS	haloacetic acids
IESWTR	Interim Enhanced Surface Water Treatment Rule

(List of Abbreviations—continued)

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	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
SWP	State Water Project
SWTR	Surface Water Treatment Rule
TCR	Total Coliform Rule

(List of Abbreviations—continued)

TDS	total dissolved solids
TOC	total organic carbon
TTHMs	Total Trihalomethanes Rule
TVMWD	Three Valleys Municipal Water District
ULF	ultra low flush
ULFT	ultra-low-flush-toilet
UWMP	Urban Water Management Plan
VOCs	volatile organic compounds
WEWAC	Water Education Water Awareness Committee
WSDM Plan	Water Surplus and Drought Management Plan

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 1. Introduction

1.1 Introduction/Overview

The California Urban Water Management Planning Act requires that each urban water supplier, 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, shall prepare, update and adopt its urban water management plan at least once every five years on or before December 31, in years ending in five and zero.

This Urban Water Management Plan (UWMP) was prepared in accordance with the California Urban Water Management Planning Act (California Water Code, beginning with Section 10610). The Act was initially adopted as Assembly Bill (AB) 797 in 1983, and has since been amended many times. Such amendments as the Sunset Clause (AB 2661), the Recycled Water Bill (AB 2853), SB 221 (Kuehl), SB 610 (Costa) and others, place an increased emphasis on water metering, drought contingency planning, and the reclamation/recycling of wastewater. A copy of the Urban Water Management Planning Act is included as Appendix B. The Act requires that "Urban Water Suppliers" providing water service to 3,000 or more customers (direct or indirect), or supplying more than 3,000 acre-feet of water annually to prepare, adopt and file an Urban Water Management Plan with the California Department of Water Resources (DWR) every five years.

The law, as is required, states 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 California Urban Water Management Planning Act 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.

California Urban Water Conservation Council

Signatories to the Memorandum of Understanding Regarding Urban Water Conservation in California (MOU), have the option of submitting a California Urban Water Conservation Council Best Management Practices (BMP) report as an alternative to preparing a discussion of the 14 demand management measures specified in the Act.

The *Three Valleys Municipal Water District* (TVMWD) prepared its initial UWMP in 1985 and subsequently submitted it to the State Department of Water Resources. In 1990, TVMWD drafted an updated UWMP, however due to staff shortages the plan was never completed nor adopted. In 1992, TVMWD prepared the "Water Shortage Contingency Plan" (WSCP) in response to amendment AB11X of the Urban Water Management Planning Act, effective October 1991. The WSCP provided for estimated minimum water supply projections, consumption reduction methods, and other elements related to drought contingency planning in California. The 1995 UWMP updated both the 1985 UWMP and 1990 UWMP draft, as well as incorporated applicable components of the WSCP. As required, a 2000 Plan was submitted in accordance with all guidelines and requirements.

1.2 Background: TVMWD Urban Water Management Plan

This 2005 Urban Water Management Plan displays TVMWD's water demands as well as sources of current and future water supply, projected water uses, water conservation measures, water rate structure, and drought management programs. The UWMP also

highlights water management activities that TVMWD currently conducts, or is forecasted to conduct, within the next five years on a regional basis in cooperation with its member agencies. Through its implementation of conservation Best Management Practices, as well as the development of a Local Resources Development Program in cooperation with other local water suppliers, TVMWD has become increasingly involved with water conservation activities within its service area.

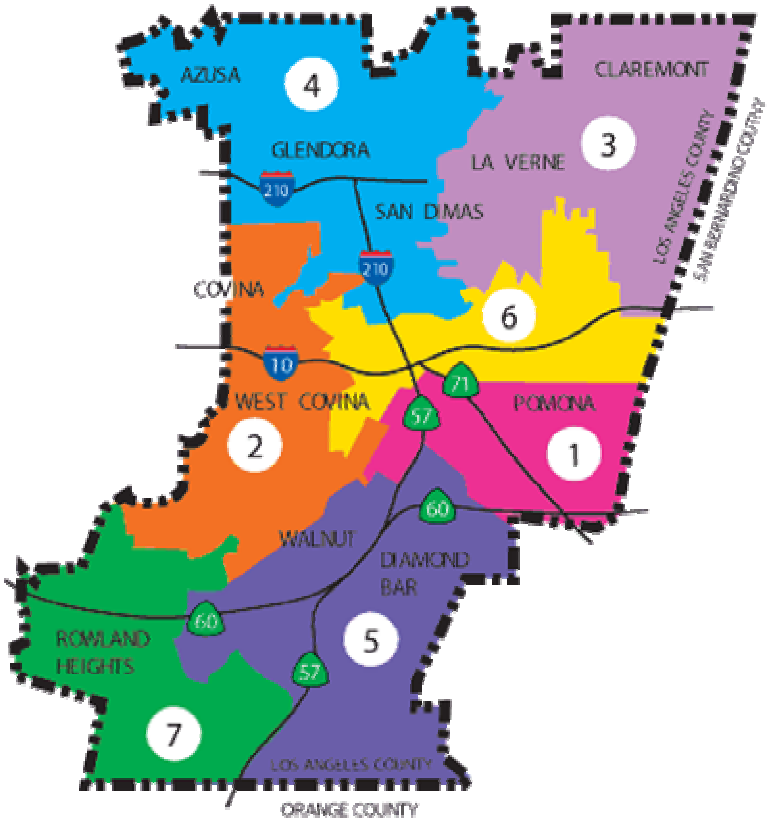
TVMWD's Urban Water Management Plan will also incorporate elements from both the Metropolitan Water District's (MWD) *Integrated Resources Plan* (IRP), *Regional Urban Water Management Plan* (RUWMP) and the TVMWD *Regional Water Plan*. Furthermore, the proposed MWD *Water Surplus and Drought Management Plan* (WSDM) will be discussed in reference to TVMWD's own water shortage contingency plan. By synthesizing all of the available information, the TVMWD's 2005 Urban Water Management Plan will provide an effective tool for the District, serving as both a statistical reference as well as an outline of current and future water resource alternatives within the service area. Water resource management an integral part of TVMWD' long-term water strategy as in some instances, it may be more cost-effective to implement demand management programs than it would be to secure additional supplies and production/treatment facilities to meet existing and growing demands.

1.3 Overview: Three Valleys Municipal Water District

Rapid population expansion and economic development throughout Los Angeles County during the early 1900's heightened the demand on existing water supplies. In southern California, essentially a semi-arid environment, because natural water supply sources were unable at the time to accommodate for the increasing demand caused by such migration and development; new sources of water were sought. The MWD was thus formed as a solution to water resource availability in 1928 by eleven southern California cities in order to consolidate the diverse water requirements of the region into an agency with regional water resource planning objectives. The seminal project responsible for unifying the interests of these southern California communities was the 1941 completion of the 242-mile long Colorado River Aqueduct, which enabled the MWD to adequately provide imported water to its regional constituency. Subsequently, the California State Water Project was constructed, providing MWD with additional imported water from northern California. In 1945, the Pomona Area Water Committee was assembled for the purpose of securing annexation into the MWD of Southern California's service area in order to gain access to imported water supplies to serve the Pomona Valley, Walnut Valley, as well as the eastern portion of the San Gabriel Valley. Five years later, in January of 1950, the Pomona Valley Municipal Water District was created and effectively incorporated into the MWD by November of the same year. Later, as the District developed and annexed additional Los Angeles County areas, the former name was modified to Three Valleys Municipal Water District (TVMWD), more aptly describing the service area which the District encompassed.

TVMWD is a local public agency organized under the provisions of the Municipal Water District Law of 1911, California Water Code Sections 71000-73000. As the Act reads,

the primary functions of TVMWD are to acquire, control, distribute, store, purify, and conserve water for the beneficial use of its entire service area. TVMWD exclusively supplies water at wholesale to its member agencies, which in turn, either retail the water directly to their customers, or wholesale it to other public agencies and private water companies for resale. Most of TVMWD's member agencies have some local sources of water available, however when water demands exceed these local supplies, the member agencies rely on TVMWD to supply their supplementary needs. Additionally, TVMWD has the right to acquire, use, and dispose of easements and other interests in real property, the right to operate facilities within the public right-of-way, the power to tax and levy charges, and the authority to issue bonds for system development and maintenance.



A seven-member Board of Directors governs TVMWD, with Directors elected to staggered, four-year terms from the various electoral divisions. Director elections occur in November of even-numbered years, with Director elections for Divisions 1, 3, and 5 held simultaneously at one election while Director elections for Divisions 2, 4, 6, and 7 are conducted at an alternate election. The elected members of the Board are required to reside within the Division of which they represent. Furthermore, the TVMWD Board members appoint one Director to represent Three Valleys on MWD's 37-member Board of Directors. Public board meetings are generally held the third Wednesday of each month at 8:00 a.m.

General descriptions of the seven divisions are as follows:

- Division 1: South Pomona
- Division 2: Walnut and sections of Covina, West Covina and San Dimas
- Division 3: La Verne and Claremont
- Division 4: Glendora and San Dimas
- Division 5: Diamond Bar, sections of City of Industry and Walnut
- Division 6: North Pomona and sections of San Dimas
- Division 7: Rowland Heights and a section of City of Industry

Three Valleys Municipal Water District's mission statement "is to supplement and enhance local water supplies to meet customers' needs for adequate, high quality, reliable water in a cost-effective as well as environmentally sound manner". The following provisions allow for the assurance of the goals presented in the Mission Statement:

1. Pro-actively investigating the feasibility of developing resources to benefit the service area and region at-large
2. Optimizing the value of existing and potential future water resources
3. Accounting for all activities
4. Providing to the maximum extent possible equity and fairness to all retailers
5. Reducing the dependence upon imported water
6. Promoting conservation efforts

In order to achieve these goals, TVMWD works to diversify the region's water resources, while minimizing the long-term costs of water as well as the environmental impacts incurred. In its development of new water resources, TVMWD will not only assess the technical and economic feasibility of the proposed water resource, but also develop a concept for implementation, operation and ownership, with the goal of achieving consensus among the retail water purveyors.

1.4 Service Area

TVMWD incorporates the areas of the eastern San Gabriel Valley, Pomona Valley, and Walnut Valley. TVMWD has contiguous boundaries with five different municipal water districts, four of which are also member agencies of MWD. The District's boundary encompasses approximately 133.3 square miles and a current population estimate of 550,000. Three Valleys Municipal Water District is one of twenty-six public agencies that purchase water from MWD. Moreover, MWD acts as the sole provider of water for TVMWD. Table 1-1 categorizes the eighteen water purveyors residing within the boundaries of the Three Valleys service area and identifies their current source(s) of water supply. From this same table it is evident that water purveyors within the District rely on a mix of water resources, particularly groundwater, in order to provide an adequate, reliable water supply for their regional constituencies.

The following tabulation categorizes which of these purveyors are recipients of wholesale imported water from the TVMWD:

Name of Agency	Description of Service Area	Primary Sources of Water
Boy Scouts of America—Firestone Reservation	Comprised of the property at the Firestone Scout Reservation in Diamond Bar	Three Valleys MWD
California State Polytechnic University, Pomona	Located in Pomona and comprising the campus and property owned and operated by the university.	Three Valleys MWD and groundwater
City of Covina	Those portions of Covina located mainly east of Grand Avenue.	Groundwater, Three Valleys MWD, Covina Irrigating Co.
City of Glendora	The city boundaries	Groundwater and Three Valleys MWD

Name of Agency	Description of Service Area	Primary Sources of Water
City of La Verne	The city boundaries	Groundwater and Three Valleys MWD
City of Pomona	The city boundaries	Groundwater, Three Valleys MWD and reclaimed water
Mount San Antonio Junior College	Located in Walnut and comprising the campus and property owned and operated by the university.	Groundwater and Three Valleys MWD
Rowland Water District	Comprising the boundaries of their service area.	Three Valleys MWD and reclaimed water and groundwater for reclaimed use
Golden State Water Company, Claremont	The City boundaries.	Groundwater and Three Valleys MWD
Golden State Water Company, San Dimas	The City boundaries.	Groundwater and Three Valleys MWD
Walnut Valley Water District	Comprising the boundaries of their service area.	Three Valleys MWD and reclaimed water and groundwater for reclaimed use

It is through these local agencies, that the water requirements of the population are addressed throughout the following areas: Charter Oak, Claremont, Covina, Covina Knolls, Diamond Bar, Glendora, Industry, La Puente, La Verne, Pomona, Rowland Heights, San Dimas, Walnut, and West Covina. While California State Polytechnic University, the Boy Scouts and Mount San Antonio Junior College utilize the wholesale water directly, the remaining eight water purveyors rely on TVMWD water indirectly, for resale to their various constituencies.

The remaining six agencies lie partially within the TVMWD boundaries, though they are not currently receiving imported water directly from Three Valleys:

- City of Azusa
- City of Industry
- City of West Covina (served by Suburban Water Systems).
- Covina Irrigating Company
- Suburban Water Systems
- Valencia Heights Water Company

1.5 Coordination with Member Agencies

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.

As required by amendments to the Urban Water Management Planning Act, water suppliers are required to send notifications to all cities and counties in the suppliers' service area that the Urban Water Management Plan is being updated and that they are invited to provide comments during the update process. In March 2005, TVMWD sent out notices to each of our Member Agencies in our service area. Copies of the notifications are included in Chapter 8.

TVMWD also conducts a monthly Member Agencies' Managers' meeting with each of our Member Agencies, where at the March 8, July 12, September 13, and the October 11, 2005 meetings the Urban Water Management was reviewed and discussed. In addition a DRAFT copy was provided as a hand-out and an e-mail "PDF" copy was provided on October 14, 2005. A final DRAFT was provided December 7, also via e-mail distribution.

The following table lists the agencies contacted during the preparation of the UMMP,

Table 1-2: Member Agency, Water Management, Local Cities and Relevant Public Agencies Participation

Agency	Participation in Development	Commented on the Draft	Attended Public Meetings	Contacted for Assistance	Received a Copy of the DRAFT	Sent Notice of Intent to Adopt
Golden State Water	X	X		X	X	X
Rowland Water District	X	X		X	X	X
Walnut Valley Water District	X	X		X	X	X
Valencia Heights Water Co.	X			X	X	X
Boy Scouts of America				X	X	X
Cal Poly Pomona				X	X	X
Mt San Antonio College				X	X	X
Suburban Water Systems	X			X	X	X
City of Covina	X			X	X	X
City of Glendora	X	X		X	X	X

Agency	Participation in Development	Commented on the Draft	Attended Public Meetings	Contacted for Assistance	Received a Copy of the DRAFT	Sent Notice of Intent to Adopt
City of La Verne	X	X		X	X	X
City of Pomona	X	X		X	X	X
MWD	X			X	X	X
Main San Gabriel Basin Watermaster					X	X
Chino Basin Watermaster					X	X
Inland Empire Utilities Agency					X	X
City of Azusa					X	X
City of Claremont					X	X
City of Diamond Bar					X	X
City of Industry					X	X
City of La Puente					X	X
City of Walnut					X	X
Los Angeles County					X	X
Upper San Gabriel Valley MWD					X	X

1.6 Public Notice/Participation and Plan Adoption

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.

Section 10642 of the Urban Water Management Planning Act requires urban water suppliers to make the Plan available for public review and hold a public hearing prior to adopting the Plan. The Draft Plan was distributed for review and comment beginning on December 7, 2005. A public hearing is scheduled at the regular meeting of the Three Valleys MWD's Board of Directors, December 21, 2005, 10:00 a.m. Written comments will be received through December 21, 2005. This Plan has been and will be modified

where appropriate, to incorporate comments received from the public, interested organizations and other agencies.

1.7 Plan Content

This UWMP provides an update and discusses the status of projects, programs, and studies in water supply planning, water conservation and recycled water. This Plan also meets the requirements of the Urban Water Management Planning Act. Table 1-3 provides an index of the required components of the UWMP, and their location within this TVMWD 2005 UWMP Update, respectively.

Table 1-3: 2005 Urban Water Management Plan Checklist
(Checklist organized according to subject)

Chapter No.	Chapter Title	Code Section	Required Components of Plan
8	Adoption & Implementation	10642	Make plan available for public inspection before its adoption.
8	Adoption & Implementation		Adopt plan as prepared or as modified after the public hearing.
1	Introduction	10620(d)(2)	Coordinate the preparation of its plan with other appropriate agencies, including direct and indirect suppliers, wastewater, groundwater and planning agencies (refer to Section 10633).
2	Service Area	10631(a)	Provide current and projected population.
2	Service Area		Describe the climate and other demographic factors.
3	Sources of Supply	10631(b)	Identify and quantify the existing and planned sources of water available in 5-year increments to 20 years.
3	Sources of Supply	10631(d)	Describe opportunities for exchanges or transfers of water on short-term or long-term basis.
3	Sources of Supply	10631(e)(1)	Quantify current and past water use in 5-year increments to 20 years.
3	Sources of Supply	10631(e)(2)	Identify projected water uses among water use sectors in 5-year increments to 20 years
3	Sources of Supply	10631(c)	Describe average, single dry and multiple dry water year data.
5	Water Shortage Contingency Plan	10632(b)	Provide minimum water supply estimates based on driest three-year historic sequence.
3	Sources of Supply	10631(c)	Describe the reliability of water supply.
3	Sources of Supply		Describe the vulnerability of water supply to seasonal or climatic shortage.
7	Recycled Water	10633(a)	Describe the wastewater collection and treatment systems in the supplier's service area.
7	Recycled Water	10633(b)	Describe the type, place and quantity of recycled water currently used in the supplier's service area.
7	Recycled Water	10633(c)(d)	Describe and quantify potential uses of recycled water in 5-year increments to 20 years.
7	Recycled Water	10633(e)	Describe the action that may be taken to encourage recycled water use.

Chapter No.	Chapter Title	Code Section	Required Components of Plan
7	Recycled Water	10633(e)	Provide the projected acre-feet results of recycled water used per year.
3	Sources of Supply	10635(a)	Provide an assessment of the reliability of the water supplier's water service to its customers during normal, single dry and multiple dry water years.
3	Sources of Supply		Compare the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in 5-year increments (refer to 10631(c)).
3	Sources of Supply		Compare normal, single dry and multiple dry water year projected water supply sources available to the water supplier with the normal, single dry, multiple dry water year projected water uses (refer to 10631(c)).
5	Water Shortage Contingency Plan	10632(c)	Provide actions a water supplier will take to prepare for a catastrophe.
Appendix ___		10632(h)	Provide a copy of a draft water shortage contingency resolution or ordinance.
5	Water Shortage Contingency Plan	10632(a)	Provide water shortage stages of action including up to a 50 percent reduction outlining specific water supply conditions at each stage.
Not applicable		10632(d)	Provide mandatory prohibitions.
Not applicable		10632(f)	Provide penalties or charges.
Not applicable		10632(e)	Provide consumption reduction methods.
5	Water Shortage Contingency Plan	10632(g)	Provide an analysis of the impacts on the water supplier revenues and expenditures.
5	Water Shortage Contingency Plan		Provide measures to overcome revenue and expenditure impacts.
5	Water Shortage Contingency Plan	10632(i)	Provide a mechanism for determining actual reductions in water use.
Appendix A		10631(f)	Water Conservation Best Management Practices

1.8 Metropolitan Water District of Southern California

TVMWD is a member of the Metropolitan Water District of Southern California. MWD is a public agency that provides supplemental imported water from Northern California (State Water Project) and the Colorado River Aqueduct to twenty-six different member agencies located in the coastal plains of Los Angeles, Orange, Riverside, San Bernardino, San Diego and Ventura Counties. Nearly 90% of the population within these counties, about 18 million people, resides within MWD's 5,200 square mile service area.

Summary of MWD's Operations

- Regional Water Wholesaler to 6 counties (approximately 5,200 square miles)
- 26 Member Agencies
- 37-member Board

- Serves 18 million people
- Projected population growth ~220,000 people/year
- Regional economy: $600+ billion
- Water Supplies: Meets about half of the total retail demand in the five county area

As a water wholesaler, MWD has no retail customers. It distributes treated and untreated imported water from the Colorado River and northern California (SWP) to its member agencies. MWD provides an average of 50% of the municipal, industrial and agricultural water used within its service area. The remaining 50% comes from local wells, local surface water, recycling, and from the City of Los Angeles' aqueduct in the eastern Sierra Nevada.

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

To address these challenges, MWD and its member agencies developed an Integrated Water Resources Plan (IRP) in 1996, updated in 2004.

MWD prepares its own Regional Urban Water Management Plan (RUWMP). TVMWD's UWMP was developed with the information provided from MWD's draft RUWMP (May 2005) and the final draft RUWMP (October 2005).

Finally, MWD provides financial support for local water projects and water conservation project implemented by its member agencies that contribute to an increase in the reliable regional water supplies available to the region. Currently, MWD sponsors two programs:

1. The Local Resources Program (LRP) was established in June, 1998, to encourage the construction of recycled water and recovered groundwater projects. It replaces the longstanding Local Projects Program (LPP) and the Groundwater Recovery Program (GRP), originally established in 1982, and 1991, respectively. MWD currently provides a financial contribution of $154 for each new acre-foot of water developed from local water recycling that replaces a demand on MWD's system. Local agencies may receive up to a maximum of $250 per acre-foot of firm yield for groundwater recovery projects that treat contaminated groundwater and produce clean water. Participation in the program is through a competitive request for proposal (RFP) process that seeks to identify local projects that best meet the region's need and provide the greatest return on investment.

2. MWD also provides financial and technical assistance to its member agencies for implementing the water conservation measures, known as Best Management Practices (BMP) contained in the Urban Water Conservation Best Management Practices Memorandum of Understanding. The Conservation Credits Program was established in 1988. MWD pays the lesser of one-half the program cost or the equivalent of $154 per acre-foot of water saved through conservation. A variation of this policy provides funding for ultra-low-flow toilet replacements programs at the flat rate of $60 per toilet.

Chapter 2. Service Area

DEMOGRAPHIC TRENDS AND ECONOMIC ACTIVITIES
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.

Because water use is related to demographic and economic activities, an accurate description of population, housing stock, and employment rates within the Three Valleys service area can assist the various water planning activities described later in this Plan. Southern California has grown into the nation's second largest metropolitan area. More than 18 million people call the Southland home and still more are coming. Over the next twenty-five years another six million people are projected to be added to our large and diversifying region. Several factors impact the growth, the natural birthrate of existing resident's fuels population growth. Immigrants are attracted here because of jobs and the hope for a better life. At the same time a huge baby boomer population group in the region will retire and set the stage for an unprecedented transfer of wealth and market buying power and demand preferences.

The center and coastal areas of the region are job rich and brimming with people because housing is in short supply. Many seek affordable, starter homes by driving from valley to valley in an outward quest that stretches our urban area and puts great pressure on our fragile desert and mountain environment and urbanizes our farm land. This impacts the water supply, air quality and ecological balance. It also creates hot spots of traffic congestion and social change. Steady development over the years has pushed our average density levels in our widespread region above those found in any other metro area in the nation. This is challenging our assumptions about how we accommodate expected future growth, where it will occur and whether we can re-orient it to achieve a higher quality of life.

Table 2-1[1]: Southern California Population Estimates by County

County	2010	2020	2025	2030	Percent Change
Imperial	214,000	277,000	318,000	352,667	10.9%
Los Angeles	10,784,000	11,759,000	12,338,000	12,856,000	4.2%
Orange	3,169,000	3,344,000	3,416,000	3,498,333	2.41%
Riverside	2,031,000	2,534,000	2,834,000	3,101,667	9.44%
San Bernardino	2,032,000	2,487,000	2,787,000	3,038,667	9.03%
Ventura	836,000	915,000	951,600	989,333	4.03%

[1] Data taken from Southern California Association of Governments, *except for 2030* which was interpolated from the 2010 to 2025 data, refer to http://www.scag.ca.gov/

Table 2-2: Population Projections of the Three Valleys MWD's Service Area

	2005	2010	2015	2020	2025	2030
Three Valleys' Service Area Projected Population	563,143	621,755	669,807	718,182	754,644	781,000

Population, housing, and employment growth rates in the TVMWD service area were obtained from *California's Department of Finance*, *Southern California Association of Governments* (SCAG) regional planning agency, *San Gabriel Valley Council of Governments* and from in-house estimates. SCAG projections of population, housing, and employment growth already incorporate growth management programs as promulgated in the Growth Management Plans of SCAG. As shown on Table 2-2, the total current population of the Three Valleys service area is estimated at 563,000 people, an increase of 3.8% since 2000.

Median Household Incomes[2]

U.S. Average **$48,192**	California Average **$55,562**	Los Angeles County Average **$49,356**

The local economy, like the national economy, has been driven over the last several years in part by the housing sector and consumer spending. While these sectors continue to fuel growth, core California sectors like information, manufacturing and professional services continue to languish. According to UCLA's Anderson's Economic Forecast Report, "California is mediocre at best, at worst we are liable to dip into another recession….our forecast is for a slowdown in housing in early 2006, leading to a broader economic slowdown in 2006-2007. At this time, there is not enough evidence from our leading indicators to suggest that this slowdown will become a full-blown recession." [3]

The San Gabriel Valley's Economic Outlook[4]

The San Gabriel Valley is a large sub-region in the northeast portion of the Los Angeles urbanized area, and is home to roughly one-fifth of the county's population and workforce. Three Valleys is situated in the eastern portion of the San Gabriel Valley. Politically, the Valley is governed by 31 separate municipalities, as well as the County which has jurisdiction over unincorporated county islands that cover 13 percent of the area. The Valley is bounded on the east by the San Bernardino county line, on the north by the Angeles National Forest, on the south by State Highway 60, and on the west by the Los Angeles City and Glendale municipal boundaries. The San Gabriel Valley is home to eighteen percent of the Los Angeles residents and the San Gabriel Valley economic base employs eighteen percent of metro area workers, and is second in size to the City of Los Angeles sub-region where forty percent of jobs are located. The Gateway Cities sub-region located

[2] Refer to: http://quickfacts.census.gov/qfd/states/06/06037.html

[3] Information from UCLA's Anderson School of Management, http://www.anderson.ucla.edu/x9909.xml

[4] Data obtained from the San Gabriel Valley Council of Governments

to the south of the San Gabriel Valley ranks a close third among Los Angeles sub-regions in terms of the size of its economic base. While the majority (63 percent) of Valley workers live in the valley, a significant portion of workers commute from neighboring areas in San Bernardino County, the City of Los Angeles, Arroyo Verdugo, and the Gateway Cities sub-regions. Similarly, Valley residents tend to commute to jobs in these neighboring areas. The commuting patterns confirm that the San Gabriel Valley is economically integrated with the Los Angeles metro area, and secondarily with the Riverside-San Bernardino metro area. While the San Gabriel Valley economy may be studied separately, it must be understood within the context of the larger regional economy.

Although Los Angeles grew more slowly than the rest of the country throughout the 1990s, its growth path has mostly followed the same trajectory as the rest of the country. When fortunes rise and fall outside Los Angeles, this affects demand for local products that are exported outside the region, and affects earnings for workers who compete in national labor markets. The San Gabriel Valley has grown quickly compared with other sub-regions in the Los Angeles metro area. However, overall the Valley has not kept pace with growth in San Bernardino, Riverside and Orange County. Since 1996, the Valley's growth path has come close to matching growth rates in Orange County and the rest of the state. The Valley's proximity to the booming San Bernardino and Orange County economies may have provided much of the fuel for the Valley's growth engine.

Table 2-3: TVMWD Housing Statistics and Population Projections

	2000	2005	2010	2015	2020	2025
Estimated Population	563,143	621,755	669,807	718,180	754,644	781,000
Land Use Categories						
Single-Family Residential	100,209	101,941	103,673	105,405	107,137	108,869
Multi-Family Residential and Condominiums	19,928	20,130	20,260	20,462	20,644	20,866
Mobile Home Parks	105	101	97	93	89	85
Commercial	3,136	3,544	3,952	4,360	4,768	5,176
Churches	247	254	261	268	275	282
Industrial	1,675	1,834	1,993	2,152	2,311	2,470
Recreational Camping Facilities	3	2	2	2	2	2
Vacant SFR	2,793	2,425	2,057	1,689	1,321	953
Vacant Non-SFR	1,641	1,089	537	100	100	100
Totals	**129,737**	**131,320**	**132,832**	**134,531**	**136,667**	**138,803**

Climate

TVMWD's service area is located within the "Mediterranean" climate zone of Southern California. The region receives an average annual rainfall of about 15-inches. Monthly average temperatures range from a low of 56 degrees in January to a high of 78 degrees in July and August. Table 2-4 shows monthly average ETO, (evapotranspiration) rainfall, and temperature within TVMWD's service area.

Table 2-4: Climate[5]

	Jan	Feb	Mar	Apr	May	Jun
Standard Monthly Average Eto	2.00	2.28	3.43	4.62	4.99	6.04
Average Rainfall (inches)	3.3	3.1	2.9	1.1	0.3	0.0
Average Temperature (Fahrenheit)	56°	58°	58°	62°	67°	72°

	Jul	Aug	Sep	Oct	Nov	Dec
Standard Monthly Average Eto	6.98	6.97	5.27	3.96	2.65	2.06
Average Rainfall (inches)	0.0	0.0	0.4	0.4	1.9	2.3
Average Temperature (Fahrenheit)	78°	78°	76°	70°	61°	56°

[5] Taken from the CIMIS data at http://wwwcimis.water.ca.gov/cimis/welcome.jsp

Chapter 3. Sources of Supply

(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.

3.1 Planning Criteria

Development of the UWMP utilized the following planning criteria in the formulation and evaluation of potential water supply strategies:

Costs: In addition to avoiding rate shocks, key objectives related to costs are to 1) minimize resource costs, and 2) maintain low average rates. The District believes that keeping costs, and therefore our Member Agencies' bills, low is a key.

Reliability: The District intends to maintain a high level of service reliability for its customers. The primary focus of MWD's IRP (in which Three Valleys was a participant) was long-term water supply reliability because the District has contingency plans and internal standards (e.g., storage standards and peak-day spare capacity for reservoirs) to address short-term reliability issues.

Water Quality: In addition to optimizing health-related treated water quality, the District's UWMP objectives also include avoiding sudden changes in water taste or appearance.

Environmental Impacts: A District planning objective is to avoid or mitigate environmental impacts.

Local Control: In light of the current uncertainties associated with the District's imported supplies, the District determined that local control of some resources is desirable. Factors considered in evaluating local control include:

- The number of entities involved in developing or acquiring the supply options;
- The firmness of the District's water rights or contractual allocations.

Risk: The last key planning objective is to minimize risks due to future uncertainty. These risks include:

- *Financial risk:* The likelihood of spending more money than expected or spending money unnecessarily...
- *Water quality regulatory risk:* The likelihood of being unable to comply with future health-related water quality regulations. Even though the cost of treatment needed to comply with current standards is included for all source options being considered, some sources have an inherently higher risk of not meeting future standards with existing treatment facilities.
- *Availability risk:* The likelihood that a supply source is not available due to external legal or regulatory changes or uncertainties in the quantity of supply provided or saved. For example, agricultural transfers may be risky because of contractual and through-Delta delivery issues.

3.2 Water Conservation

As further discussed in Chapter 4, water conservation is a key component of TVMWD's long-term water supply and management strategy. The objectives include reductions to both indoor and outdoor use for all customer groups within the District's service area.

The focus of the recommended program is to reduce peak summer demands in order to reduce the need for additional production and storage facilities. In addition, as a signatory to the MOU on Urban Water Conservation, TVMWD is committed to implementing locally cost-effective water conservation best management practices.
As part of the IRP process, the District estimates that the total long-term savings from District sponsored conservation measures would range from approximately 16,700 AF/2005 to 30,000 AF/2030.

A range in potential savings was developed due to the uncertainties in actual savings associated with water conservation programs, and does not include savings that would occur due to "natural conservation" (i.e., savings due to the retrofit of non-conserving plumbing fixtures with low flow fixtures).

3.3 Sources of Supply—Existing and Planned

The water utilized within the Three Valleys Municipal Water District service area is comprised of various sources. These sources include local (local groundwater, surface water, and recycled water) and imported supplies (Colorado River, State Water Project) made available through MWD. During a normal year, local sources have historically met about 45% of the water needs of the service area, while the Three Valleys' imported sources supply the remaining 55% percent. Table 3-1, presented below, illustrates relative use percentages during the last five years of the various water sources available within the Three Valleys service area.

Table 3-1: Relative Water Source Use Within TVMWD

Fiscal Year	Groundwater	Surface	Recycled	Imported
2000/01	36.3%	6.4%	6.4%	51.0%
2001/02	33.5%	5.4%	7.3%	53.6%
2002/03	31.1%	3.3%	6.2%	59.6%
2003/04	27.6%	5.8%	5.5%	61.0%
2004/05	30.4%	6.4%	4.9%	58.0%
Average:	**31.8%**	**5.5%**	**6.1%**	**56.6%**

As a result of the investments made in conservation, water recycling, storage, and supply, Three Valleys in conjunction with MWD has identified a resource management plan that should lessen the impact of a severe drought through 2025. A key element of Metropolitan's strategy is to store surplus supplies during wet periods for use during drought periods. The resource management strategy and supply additions to Metropolitan that make this possible include:

Table 3-2: TVMWD Water Supply Sources and Sub-Agency Categorization

CATEGORY/ SUB-AGENCIES	WATER SUPPLY SOURCES			
Municipalities	**Imported**	**Groundwater**	**Surface**	**Reclaimed/ Recycled**
City of Azusa	X(1)	X		
City of Covina	X	X	X	
City of Glendora	X	X	X	
City of Industry	X(1)	X		X
City of La Verne	X	X		
City of Pomona	X	X	X	X
Water Companies				
Covina Irrigating Company		X	X	
Golden State Water Co-Claremont	X	X	X	
Golden State Water Co-San Dimas	X	X	X	
Suburban Water Systems	X(1)	X	X	
Valencia Heights Water Co.	X(1)	X	X	
Water Districts				
Rowland Water District	X	X(2)		X
Walnut Valley Water District	X	X(2)		X
Institutions				
California State Poly. Univ.	X	X(3)		X
Mt. San Antonio College	X	X(3)		
Private				
Boy Scouts of America	X			

(1) Imported water not supplied directly by Three Valleys Municipal Water District
(2) Groundwater normally available to these agencies is of very poor quality due to high salt concentrations; however, a small amount of groundwater is purchased from La Verne, with the cooperation of Three Valleys. Groundwater is utilized in reclaimed water system.
(3) Groundwater use by Cal Poly Pomona and Mt. SAC is solely for irrigation/environmental purposes

State Water Project Region

MWD, on Three Valleys' behalf, has continued to explore out-of-region water storage and transfer programs. Current water storage agreements provide for dry year supplies of almost 400 TAF. Transfer programs provide additional water, but this amount varies from year to year. Additional programs that could supply 125 TAF are under development. In addition, Metropolitan's State Water Project Contract

allows it to store up to 220 TAF of carryover water in SWP storage reservoirs. There will be direct benefit to Three Valleys and its Member Agencies through these efforts. This amount includes 30 TAF of the eventual 200 TAF transfer agreement between San Diego County Water Authority and the Imperial Irrigation District.

Diamond Valley Lake was filled for the first time by early 2002. Completion of this project added 800 TAF of storage to Metropolitan's mix of resources. With the help of state Proposition 13 grant funds, Three Valleys MWD and its member agencies have expanded groundwater storage in the region.

3.4 Conveyance, Treatment & Distribution Facilities

The total conveyance, treatment, and distribution facilities employed by the TVMWD in order to supply water to its local retail water purveyors include those owned and operated by MWD as well as facilities owned and operated by TVMWD. Included also, are facilities owned and operated by member agencies, and the separate member agency distribution systems. The major facilities within Three Valleys Municipal Water District are comprised of the five surface water treatment plants: Weymouth, owned and operated by MWD, Miramar, owned and operated by TVMWD, the City of Pomona's Pedley Water Treatment Plant, along with various local water treatment facilities from ion-exchange to volatile organic compound air-strippers.

Water Transmission Facilities

TVMWD operates service connections to MWD's distribution system for the purpose of distributing MWD-treated water to various TVMWD retail agencies. TVMWD has the ability to transmit water imported from both the State Water Project as well as the Colorado River through MWD, although at this time TVMWD relies solely on State Water Project water as its source of supply for the Miramar Treatment Facility. TVMWD's water transmission system consists of an estimated 33,000 feet of transmission pipelines varying in size from 18 to 36 inches in diameter. In addition to connections at the Miramar Treatment Plant Facility, Three Valleys has 14 wholesale service connections to MWD's aqueduct system, which in turn provide water to the local member agencies serviced by TVMWD. These service connections are listed in Appendix C.

Miramar Water Treatment Plant Facility

The Miramar Facility is located on 25 acres in north Claremont. It has a nominal design capacity of 30 cubic feet per second or approximately 20 million gallons per day, with a maximum design capacity of 38.7 cubic feet per second, or 25 million gallons of water per day. Under normal circumstances, approximately 30 percent of all water sold by TVMWD passes through the Miramar system.

The imported raw water utilized by Miramar is imported from the State Water Project system, via the California aqueduct, and purchased from MWD by TVMWD. The water is stored by the State Department of Water Resources (DWR) at Lake Silverwood located in the San Bernardino Mountains. From there, the water flows by gravity through

MWD's Rialto Pipeline, which TVMWD draws off via the Foothill feeder for treatment at the Miramar Water Treatment Plant Facility before distribution to TVMWD member agencies. Because of the highly elevated location of the Miramar Facility, gravity flow induces the movement of the treated water. This allows the Miramar Facility to operate at a substantially reduced cost, due to the avoidance of expensive pumping costs; thus enabling Three Valleys to maintain lower rates for its member agencies.

The Miramar Treatment Facility site includes 1) the Miramar Treatment Plant, 2) gravity flow water transmission pipelines, 3) three hydroelectric generating stations, 4) 2 water reservoirs, each having a capacity of approximately 8 million gallons, and 5) District Administration Headquarters. The Miramar Plant uses a conventional treatment process, consisting of flocculation, sedimentation, filtration, and chloramines disinfection. The gravity flow transmission pipelines carry water westward from the plant to the communities of Claremont and La Verne. Water in excess of the demands of these two communities is available to San Dimas and the agencies comprising the Pomona-Walnut-Rowland Joint Water Line. Two of TVMWD's three hydroelectric generating stations are located along these transmission lines, while the third is located at the Miramar Water Treatment Plant site. The hydrogeneration unit located at the Treatment Plant site produces electricity which is used in part to power the water treatment facility, while the surplus electricity is sold at a wholesale rate to Southern California Edison Company. All of the electricity produced at the other two hydroelectric units is sold to the Edison Company. The three hydroelectric facilities are capable of producing a combined power output of approximately 1,070 kilowatts.

Weymouth Treatment Facility

Owned and operated by the Metropolitan Water District, the Weymouth Treatment facility receives imported water from both the Colorado River and the State Water Project. The Upper Feeder, east of the Weymouth Water Treatment Facility, the Yorba Linda Feeder and the Foothill Feeder provide untreated water to the facility. From there, the Upper Feeder west of Weymouth, Middle Feeder and the Orange County Feeder all transport treated water to the various member agencies. The Weymouth Facility is located in La Verne, and incorporates 15 acres of settling pools as well as fabrication machine shops where valves, steel pipe, and pipe fixtures are manufactured. Reportedly, the treatment plant has a rated capacity of over 700 MGD.

Pedley Water Treatment Plant

The Pedley Water Treatment Plant is owned and operated by the City of Pomona. Surface water from San Antonio Canyon and Evey Canyon is diverted to the treatment plant prior to use within the city's water system. Average flow from these sources varies due to fluctuations in climate and precipitation. The treatment plant has a rated capacity of 4.0 mgd.

Covina Irrigating Company Temple Plant

Covina Irrigating Company (CIC) owns and operates the Temple Plant, a surface water treatment plant in Covina. The Temple Plant treats either native waters diverted from the San Gabriel River or raw imported water from Metropolitan's USG-3 Connection off the

Foothill Feeder in San Gabriel Canyon. CIC is both a Three Valleys and Upper San Gabriel Valley Municipal Water District (USGVMWD) member agency serving approximately 25% of its wholesale supply within Three Valleys' service area.

3.5 Recycled Water Sources

Pomona Water Reclamation Plant (WRP)
Owned and operated by the Los Angeles County Sanitation District, this facility treats approximately 11,648 acre-feet per year (AFY) of municipal wastewater, serving the needs of the cities of Pomona, Claremont, La Verne, the California State Polytechnic University, and the Walnut Valley Water District and Rowland Water Districts. Recycled water is distributed after treatment as described in Chapter 7.

3.6 Surface Water Sources

Local surface water supply to the purveyors within the Three Valleys Municipal Water District is relatively minimal in comparison to overall water supply. Surface water supplies have generally accounted for six percent or less of the total water supply within the Three Valleys area. The comparative relationship of surface water supplies to total water supplies is shown in Table 3-1.

Surface water sources consist of captured runoff from local watersheds that are stored for subsequent direct use, as well as several direct diversions from streams into local water systems. Surface water from San Antonio and Evey Canyon is diverted to the City of Pomona's Pedley Treatment Plant and subsequently delivered to Pomona's municipal water system. Annual yield from this water source fluctuates greatly from year to year in response to shifting hydrologic conditions.

Local surface supplies into the Three Valleys service area are also delivered by Covina Irrigating Company (CIC). CIC conveys water from the San Gabriel Canyon reservoirs to its treatment plant located in the City of Covina. CIC then wholesales water to retail agencies such as the cities of Covina and Glendora, Valencia Heights Water Company, Golden State Water Company, and Suburban Water Systems. Surface water from the San Gabriel Canyon constitutes about 75%-80% of the local surface water delivered into the Three Valleys area.

As can be expected, during prolonged periods of below-normal rainfall, local water supplies decrease. Conversely, prolonged periods of above-average rainfall increase local surface water percentages.

3.7 Groundwater Sources

There are several groundwater basins known to exist partially or wholly within the Three Valleys' political boundary. The basins from which potable supplies are currently drawn include the Chino, the San Gabriel Basins (includes Main San Gabriel, Glendora, Way

Hill, San Dimas, and Foothill Basins), and the Six Basins (includes San Antonio Canyon, Lower Claremont Heights, Upper Claremont Heights, Pomona, Live Oak, and Ganesha Basins). The Puente and Spadra Basins are also within Three Valleys' boundaries but

their resources are primarily used to augment recycled water supplies.

Historically, groundwater production within Three Valleys has been relatively stable, with average total production ranging from 37,000 to 66,000 AFY. The amount of water extracted from the groundwater basins includes water entering the basin from a number of sources, the primary source being natural replenishment. This replenishment occurs as a result of percolating rainfall and stream runoff. Additionally, recharge of groundwater basins is accomplished by harboring local runoff in flood control reservoirs constructed in major drainage areas, where it is subsequently released at controlled rates into streambeds and spreading grounds for percolation into the groundwater basins. Another water source replenishing groundwater supply to the basins is the percolation of water used on the surface for watering lawns and gardens.

Extraction of water from the basins underlying Three Valleys is limited due to basin adjudication constraints and groundwater quality. The Chino Basin, Main San Gabriel Basin, Six Basins, and Puente Basin are all adjudicated. 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. The Six Basins was adjudicated in 1999, and the judgment associated with its operation is administered by a Watermaster Board. Three Valleys retail agencies that produce from the Six Basins include Golden State Water Company and the cities of Pomona and La Verne. The Puente Basin lies in the southerly region of the Three Valleys service area. Current groundwater production from the Puente Basin is relegated to augmenting recycled water supplies and other non-potable uses. The Spadra Basin, underlying the southwesterly portion of Pomona, is currently the only "unadjudicated" basin within TVMWD. This groundwater resource is currently underutilized as a potable resource, and because of the relatively stagnant nature of the groundwater supplies, the water quality is generally not desirable. This characteristic is a consequence of the underlying geology of the basin, which yields very low producing wells and high TDS concentrations. Nine out of ten wells within the Spadra are used solely for non-potable purposes.

There are several groundwater basins that underlie the Three Valleys service area. Unfortunately, some of these basins have sufficiently poor groundwater quality that limits the ability to produce a significant supply. In general, it is the retail agencies in the southern portion of the service area (Walnut Valley WD, Rowland WD, Cal Poly, Mt. SAC, and the Boy Scouts) that have the least access to groundwater supplies. Consequently, it is these agencies that rely heavily (90%-100%) on imported water.

The agencies in the northern portion of the service area, on the other hand, do have greater access to underlying groundwater resources. Accordingly, these agencies are less reliant on imported supplies, but in most cases, imported water must still be delivered to

meet total demands. Water quality also plays a key role in the ability to use groundwater from this northern portion of the district. In some instances, groundwater contamination in this region has forced the shutdown of many production wells or has necessitated changes in operation through treatment or blending of the affected supply.

Groundwater Management

It should also be noted that spreading connections (delivery points of imported water for groundwater recharge) also play a key role in the improvement of groundwater quality. While primarily used for conjunctive use purposes, spreading connections can also serve to enhance groundwater production within an area affected by poor water quality. PM-26, a spreading connection that was constructed just a few years ago, is used to deliver untreated import water to the Little Dalton Spreading Grounds located in the foothills of the City of Glendora. The city owns several wells near the recharge facilities and has recently constructed another one in the same general vicinity. After deliveries from PM-26 began, Glendora observed a noticeable improvement in the water quality of the extracted groundwater. The city noted that nitrate levels have decreased with regular production and replenishment.

Historically, the Main San Gabriel Basin Watermaster has purchased imported water from MWD (through TVMWD) to provide replenishment water when pumping exceeds the safe yield of the basin or an agency exceeds its annual pumping allocation.

Another area of interest with respect to groundwater production is the adjudicated Six Basins. Certain areas underlying the cities of La Verne and Pomona have typically exhibited high concentrations of nitrate, and in some cases, VOC contamination. Consequently, the groundwater produced by the overlying users (La Verne, Pomona, Golden State Water Co.) is limited based on blending and/or treatment requirements. To increase production from these areas, local agency groundwater treatment projects are moving ahead. Groundwater treatment projects which are part of a conjunctive use program are described below. Otherwise, new local facilities which have been constructed or are in progress are listed below. Please note that TVMWD supports new local water supply development indirectly by its recent adoption of an unbundled rate system which includes an inclining two-tiered structure for treated, imported water purchases. Directly, TVMWD adopted a "New Water Incentive" program in 2005 whereby member agencies receive a $40.50 per AF credit for all new, locally produced water supplies. Finally, TVMWD and its local agencies team up to participate in MWD's Local Resource Program (LRP), where MWD pays credits for locally produced water as an incentive to build new capital facilities, commonly groundwater production/treatment facilities.

Groundwater Treatment Facilities in TVMWD's Service Area

VOC Air Stripping Facility at Well 3

This facility owned and operated by the City of Pomona is equipped with an air stripping and granular activated carbon components and is located in the northern part of Pomona. The facility has been in operation of and on since 1992 and it has an average capacity of about 600 gpm. The facility extracts water from the Pomona Basin.

VOC Air Stripping Facility at Well 3

This facility owned and operated by the City of Pomona is equipped with series an air stripping units that treat Wells & 8B at Pomona's Reservoir 5 site. The treatment plant is located just north of the Towne Avenue and Freeway 10 intersection. The facility has been in operation since 2004 and it has an average capacity of about 1,450 gpm. The facility extracts water from the Pomona Basin as well.

Table 3-3: Local Groundwater Supply Projects within TVMWD

PROJECT NAME	PROGRAM	START DATE	YIELD	DESCRIPTION
RWD Recycled Wtr Expansion	LRP	[Refer to Chap. 7]	[Refer to Chap. 7]	[Refer to Chap. 7]
WVWD Recycled Wtr Expansion	LRP	[Refer to Chap. 7]	[Refer to Chap. 7]	[Refer to Chap. 7]
Pomona-Well 37	LRP	2007	1100 AFY	Ion exchange wellhead treatment for nitrate removal
WVWD Industry & Lycoming Wells	New Water Incentive	2003	600 AFY	Brackish ground water used in recycled water system
RWD Well 1	New Water Incentive	2003	500 AFY	Brackish ground water used in recycled water system
Golden State Wtr. Co. Columbia & Highway GW Tmt.	New Water Incentive	2005	2500 AFY	Central ion exchange ground water treatment for perchlorate & nitrate removal
Pomona Wells 7 & 8B	New Water Incentive	2004	2000 AFY	Central GW treatment plant for VOC removal w/ air strippers and nitrate reduction by blending
Glendora Well 13E	New Water Incentive	2005	1000 AFY	Replacement of contaminated well
Suburban Wtr. Co. RASF Well 1 & Plant 142 Well 2	New Water Incentive	2003	7000 AFY	Replacement of contaminated wells

Conjunctive Use Programs

Conjunctive use projects foster sound resource management through the efficient use of imported water. While not necessarily developing a new supply, conjunctive use optimizes the interdependence between groundwater storage and imported supplies. Through this practice, regions can become more self sufficient and less dependent on imported water during periods of droughts, in other words, more supply reliability.

Additional recharge coupled with increased production capacity can offset the use of treated imported water by the overlying users. Furthermore, this added replenishment capability enhances the conjunctive use potential of groundwater basins. Finally, as Glendora has observed with the PM-26 connection, imported water recharge improves the local groundwater quality.

Since the 2000 UWMP and as described below new conjunctive use projects have been initiated in the Six Basins Area of TVMWD. Such projects require a coordinated program balancing recharge with rates of extraction:

Live Oak Basin Conjunctive Use Project

Location: Baseline Rd @ Live Oak Canyon, City of Claremont

Yr. Const: 1998: relocation of basins
2005: import water connection
2005/2006: feasibility study
2005-2007: wellhead tmt. project

Capacity: 15 cfs instantaneous recharge
3000 AF program storage
1000 AFY program extraction
2500 AFY non-program average yield

Owner / Operator: Basins: LA County Department of Public Works
Import Water Connect: TVMWD & SGVMWD
Wellhead Treatment: C. of LaVerne
CUP: MWD, TVMWD, La Verne

Description of Facilities

Live Oak Canyon in La Verne is served by a dam/reservoir, debris basin, and spreading grounds. These facilities are owned and operated by the Los Angeles County Department of Public Works (LACDPW) and are used for both flood control and water conservation purposes. The surface recharge facility consists of a series of small basins that were reconfigured in 1998 to accommodate the realignment of Baseline Road and the construction of the 210fwy through the La Verne and Claremont areas. The spreading grounds now include five basins that straddle the new alignment of Baseline Road (one basin north of and four basins south of the roadway).

Until recently, the only means of recharge at the Live Oak facility was local runoff from the canyon watershed. Surface spreading of water within these "percolation ponds" replenishes the Live Oak Groundwater Basin underlying the City of La Verne. TVMWD was awarded a DWR Proposition 13 grant to fund the construction of a new spreading connection to the Basin. This spreading connection is unique in that the untreated imported water will be delivered via San Gabriel Valley Municipal Water District's (SGVMWD) pipeline. Because SGVMWD is a direct State Water Project contractor, special arrangements and agreements were put into place between TVMWD, SGVMWD, and MWD to satisfy institutional concerns. The connection was completed in January 2005 and spreading commenced in February 2005. Approximately 900 AF will be recharged in the Live Oak Spreading Grounds prior to February 2006 as part of MWD's conjunctive use storage account to be potentially called-upon during dry years. This initial recharge and storage will provide the data necessary to complete a feasibility report required by DWR as the final phase of the grant-funded project.

The City of La Verne, with grant funding secured from MWD (also Prop 13) through TVMWD as member agency, is currently in progress with the construction of a wellhead

treatment project in conjunction with the spreading connection at the Live Oaks Spreading Grounds. When completed, the City will be able to extract up to a maximum of 1,000 AFY for the program's dry-year yield but up to 2500 AFY of non-program groundwater during normal years. . The project involves rehabilitating existing wells, construction of an ion exchange treatment system to remove nitrate and perchlorate, and the drilling of a new well within the Live Oak Basin. This groundwater basin is one of two basins within the Six Basins Judgment for which La Verne has exclusive operational and pumping rights.

San Antonio Spreading Grounds Conjunctive Use Project (SASG-CUP)

Location: San Antonio Spreading Grounds (SASG), downstream of San Antonio Dam, Cities of Claremont and Upland, and a new well at the adjacent TVMWD Miramar property

Yr. Const: 1920 (initial work)
2006/07: import water connect.
2006/07: extraction well

Capacity: 40 cfs instantaneous recharge
3000 AF program storage
1000 AFY program extraction
5000 AFY non-program average yield

Owner / Operator: SASG: Pomona Valley Protective Assoc.
Import Water Connection: TVMWD
Extraction Well: TVMWD

Description of Facilities

The San Antonio Spreading Grounds (SASG) provides a very large area for groundwater replenishment through surface spreading. Currently, local runoff from the upstream canyons (San Antonio and Evey) constitutes the only source of recharge water for these spreading facilities. Consequently, the amount of water available is highly dependent on local precipitation and the operation of the San Antonio Dam by the U.S. Army Corps of Engineers (ACE).

After the City of Pomona and the San Antonio Water Company make upstream diversions of their respective surface water rights, the Corps operates the dam for flood control purposes and makes releases as downstream conditions permit. Most of these releases are spread in the grounds but when flow rates exceed the capacity of the intakes, the water level behind the dam is approaching the ACE release parameters, or if it is

undesirable to recharge because of rising water conditions downgradient of the spreading

facilities, then flows within San Antonio Wash may be bypassed and diverted to downstream spreading grounds within the Chino Groundwater Basin, Orange County Groundwater Basin, or to the Pacific Ocean.

Recharge within the SASG replenishes the Canyon Basin and the Upper Claremont Heights Basin. Subsurface flow within these groundwater basins then continues southerly and southwesterly to replenish the Lower Claremont Heights and Pomona Basins.

The SASG-CUP achieves two major goals. First, as specified in the Six Basins Judgment, a Party that produces more groundwater than its share of the annual operating safe yield must make arrangements to deliver Replacement Water. With the exception of a couple agencies that have local surface water rights, there currently exists no physical means of delivering this water. So an imported water connection/pipeline branching off TVMWD's Miramar service from the MWD Foothill Feeder will provide a means to supply basin replacement water.

Second, and more importantly, this imported water spreading connection and an extraction well at the adjacent Miramar property allows groundwater and surface water to be used conjunctively within Six Basins and the TVMWD service area. This conjunctive use project will accomplish the following objectives:

- Improve the reliability and subsequent management of water supply in the Six Basins
- Reduce annual and seasonal peak demand on MWD's Weymouth Water Treatment Plant (WTP) and the District's Miramar WTP and during periods of drought
- Increase operational flexibility in the State Water Project (SWP) and MWD transmission facilities by allowing delivery for recharge rather than direct use
- Reduce the cost of water by facilitating purchase of imported water at MWD's rate for untreated Replenishment Water rather than MWD's treated Supply Rate
- Reduce groundwater production costs by raising and maintaining optimum basin groundwater levels
- Improve water quality out of the Miramar WTP by the blending of low THM groundwater from the new production well
- Put off indefinitely the need for large capital projects at Miramar WTP to meet water quality regulations and increased treated water demand with the addition of the new production well

At the time of preparation the SASG-CUP is in progress with a status as itemized below.

- A feasibility study funded through the AB303 DWR Local Groundwater Assistance

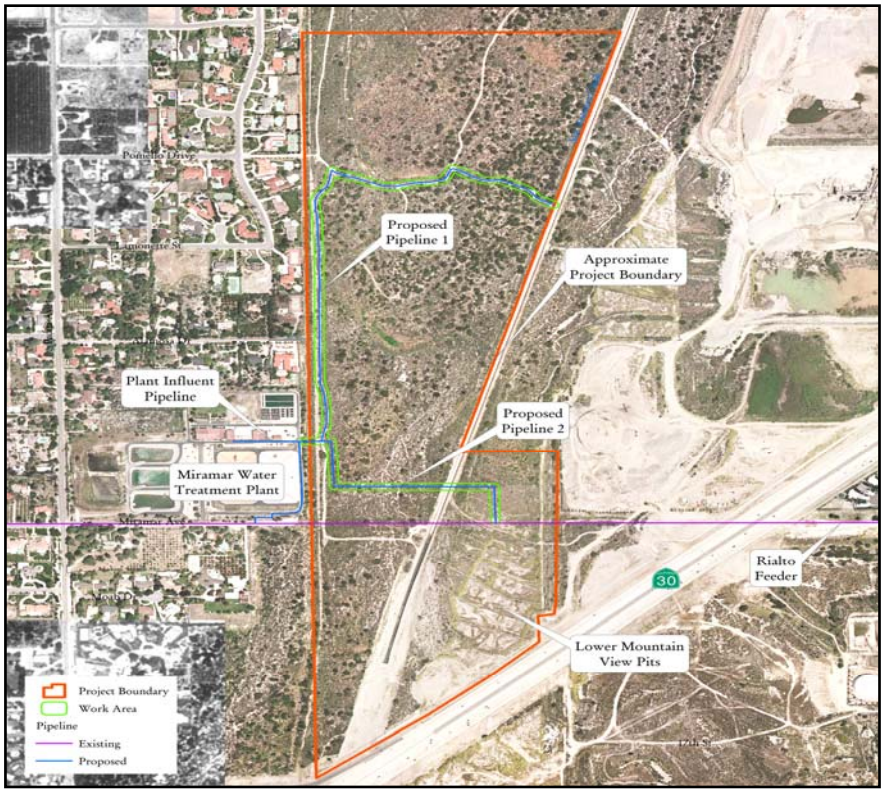
Fund has been completed and the SASG-CUP has been determined to be both technically and economically feasible

- TVMWD has entered into an agreement with MWD for a groundwater storage program (conjunctive use) whereby TVMWD will receive partial funding of the capital improvements from MWD and its award of Proposition 13 grant monies
- All CEQA requirements have been satisfied with the preparation, adoption, and filing of an Environmental Impact Report (EIR)
- Design and permitting is now beginning, followed by pipeline and well construction to start in late 2006 and project completion scheduled for March of 2008

The project facilities shown below in *Figure 3-1* to be constructed include over 3,000 feet of 36-inch diameter pipeline into the southern portion of SASG with outlet structures and a production well on the Miramar site with the following properties:

Anticipated Depth:	500 to 600 feet
Well Casing and Screen Diameter:	16 inch.
Well Discharge Rate:	500 to 1,000 gallons per minute (gpm)

Figure 3-1



Chino Basin Conjunctive Use Project

Location: City of Pomona Anion Exchange Nitrate Removal Facility Expansion Project

Yr. Const: In progress: Completion expected in January 2007

Capacity: 100,000 AF program storage (Basin-wide)
33,000 AFY program extraction capability (Basin-wide)
10,000 AFY Pomona average yield

Owner / Operator: City of Pomona

Description of Facilities

The Pomona Anion Exchange Nitrate Removal Facility is one component of a very large and complex conjunctive use program within the Chino Groundwater Bain, most of which is outside of the TVMWD service area. As noted in the table above, the program, partially funded by MWD through the use of DWR Proposition 13 grant monies, will ultimately provide 100,000 AF of storage and 33,000 AFY of extraction during dry years when surface water supplies are otherwise insufficient to meet normal demand.

Pomona's project, funded through TVMWD as a MWD member agency, will be constructed in order to greater utilize the City's allocation of groundwater in the Chino Basin. For many years, several of Pomona's Chino Basin wells have been inactive due to high nitrates in the groundwater and without a low-groundwater blending source. This $1.7M anion exchange plant will remove nitrates from the groundwater so that the water can be disinfected and pumped directly into the City's treatment system without blending, yielding up to an additional 2,000 AF annually after completion. This water will be made available to help satisfy the conjunctive use program's dry year extraction requirements as well as to replace the use of imported, treated water on a regular basis.

3.8 Summary of Potential Resource Alternatives

As described in the previous sections, there are several resource "avenues" that Three Valleys can take before simply relying on imported water to meet its long-term needs. The recovery or expansion of groundwater production by those agencies that have access to this resource may provide on the order of 20,000 – 25,000 acre-feet per year of added supplies.

Conjunctive use, which may not "create" new supplies, does in fact assist with resource availability during times of drought, which are the most critical times with respect to water management and reliability. Conjunctive use potential within the Three Valleys service area can provide an estimated 5,000 – 10,000 acre-feet per year of short-term reliability. Recycled water development by the retail agencies in the southern portion of the Three Valleys service area may offset another 10,000 – 15,000 acre-feet per year of firm imported water demand.

3.9 Historic Water Use

Table 3-4 below illustrates Three Valleys' historic imported water sales and use of local resources by its member agencies between fiscal years 2000/2001 and 2004/2005. The raw data for each TVMWD member agency is included as Appendix D. Total imported water sales for the service area have remained at a fairly consistent level ranging between 59,000 and 89,500 acre-feet annually.

TABLE 3-4: TVMWD Service Area Water Consumption
FY 2001 to 2005 (in acre-feet)

Fiscal Year	Imported Sales	Local Groundwater	Local Surface Water	Local Recycled Water	Total
2000/2001	68,564	48,771	8,540	8,540	134,400
2001/2002	80,415	50,342	8,132	10,987	149,900
2002/2003	83,187	43,386	4,450	8,463	139,500
2003/2004	89,562	40,607	8,537	8,110	146,800
2004/2005	75,626	41,336	6,183	6,990	130,100

Water Use
The availability of TVMWD's water supplies is affected by both climatic as well as regulatory/environmental conditions. Summaries of the future projected quantities of supply under average annual and dry year conditions are provided in Table 3-7 and discussed in greater detail below.

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) *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.*

Figures 3-2 and 3-3 represent an illustrated account of total water sales to each TVMWD member agency between fiscal years 2000/01 and 2004/05. The figures comparatively highlight annual fluctuations of imported water use, as well as which member agencies presently purchase the most water through TVMWD facilities. Previous to the FY 2003/04 water purchases through the JWL were separated between the Walnut Valley Water District, Rowland Water District, and the City of Pomona.

Figure 3-2: Individual Member Agency Imported Water Sales in Acre-Feet

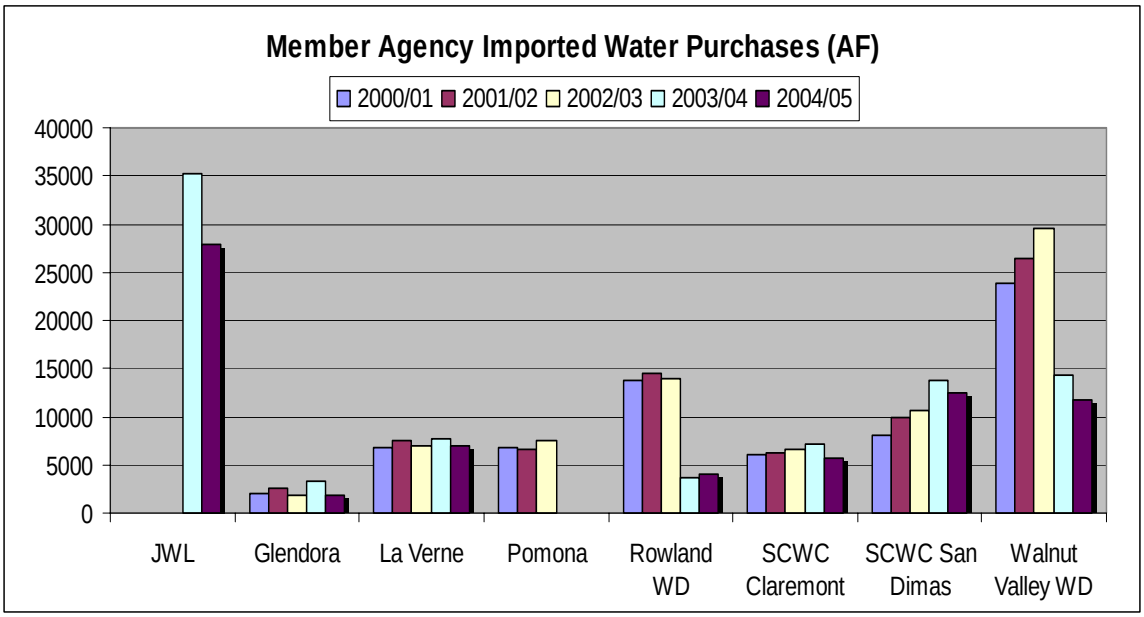


Figure 3-3: Member Agency Imported Water

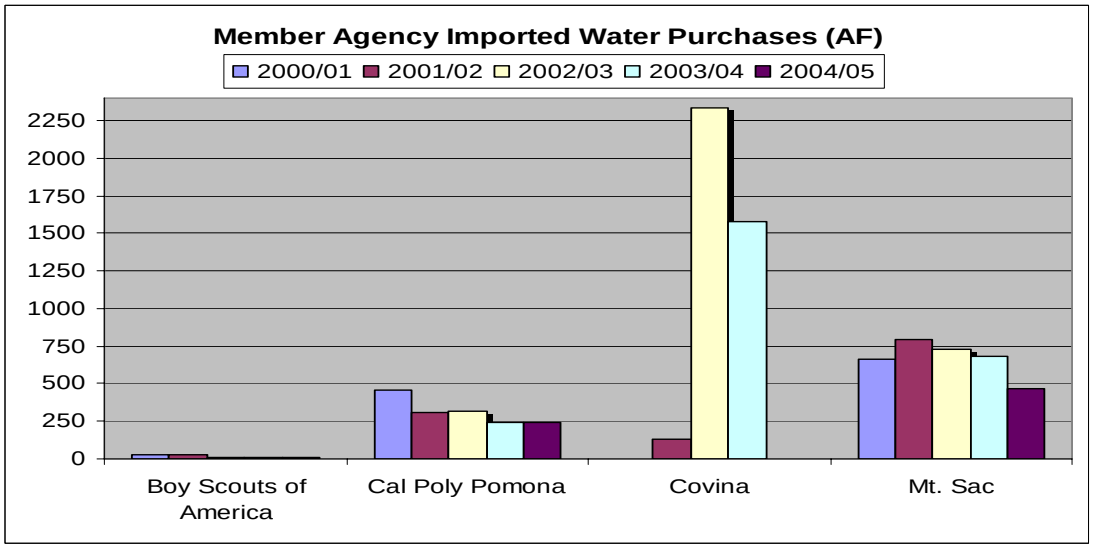
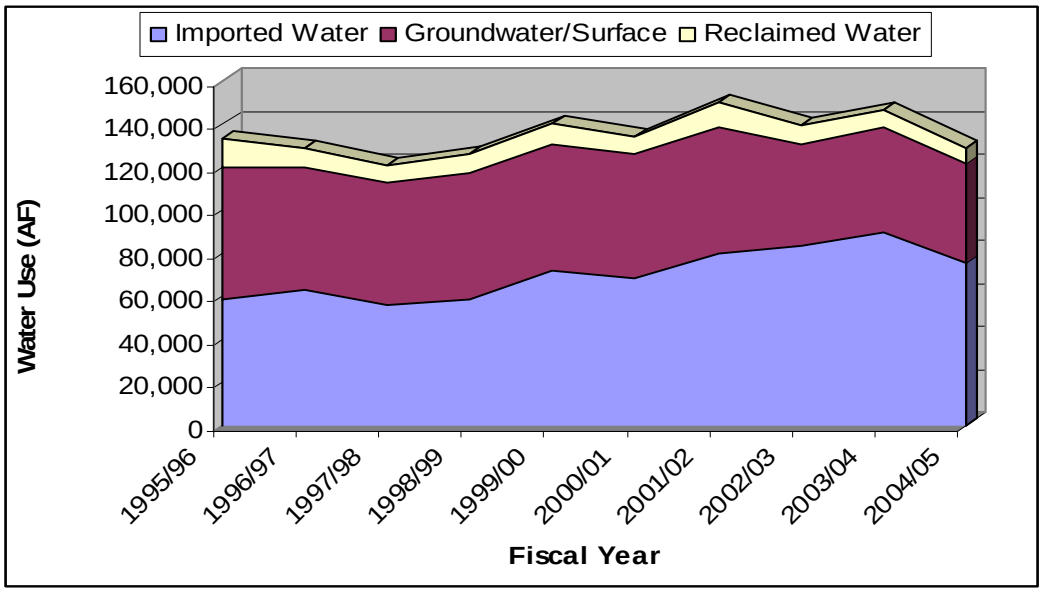


Figure 3-4 illustrates historical water use within the Three Valleys Municipal Water District by member agencies between fiscal years 1995/1996 and 2004/2005, also showing relative use between imported and local water during this ten-year interval.

Figure 3-4: Total Water Use by Source, 1995/1996 to 2004/2005



3.10 Water Use by Member Agencies

The primary uses of Three Valleys' supplemental water supplies are for domestic and municipal purposes. Table 3-5 projects future demands on Three Valleys from each

member agency within Three Valley's service area. The data shown was supplied by each member agency except as noted. Conservation efforts, local resource development, and price effects are factored into the water demand figures listed below.

Table 3-5: Projected Water Demands by Member Agencies on Three Valleys

Water Distributed	2010	2015	2020	2025	2030 - opt
City of Covina	685	685	685	685	685
City of Glendora	2,300	2,800	3,300	3,300	3,300
City of La Verne	6,820	6,328	5,828	5,128	4,428
City of Pomona	6,000	6,000	6,000	6,000	6,000
Golden State Water Co-Claremont	6,971	7,501	8,024	8,529	9,020
Golden State Water Co-San Dimas	12,733	14,288	15,852	17,401	18,927
Rowland Water District	14,700	15,800	16,900	18,200	19,500
Walnut Valley Water District	25,739	26,302	26,616	26,764	28,914
California State Poly. Univ.	269	269	269	269	269
Mt. San Antonio College	699	699	699	699	699
Boy Scouts of America	26	26	26	26	26
Total	**76,942**	**80,698**	**84,199**	**87,001**	**91,768**

** Tier 1 imported water allocations were used to establish projected demands for these agencies.*

3.11 Reliability of Supply

Increasing conflicts over the quantity and quality of the imported water from the State Water Project (SWP) and Colorado River Aqueduct (CRA) have increased the costs of these supplemental supplies in Southern California as well reduced their potential reliability.

MWD evaluated the dependability of these supplies in March 2003 and concluded that imported water would be available to ensure the continued delivery of the historic average imported water amounts of 1.2 million acre feet annually (CRA) and 700,000 acre-feet annually (SWP). IEUA expressly relies upon MWD's 2003 report in estimating future imported water availability to its service area.

In April of 1998, Metropolitan's Board of Directors adopted the Water Surplus and Drought Management Plan. The guiding principle of the WSDM Plan is to manage Metropolitan's water resources and management programs to maximize management to

wet year supplies and minimize adverse impacts of water shortages to retail customers. From this guiding principle come the following supporting principles:

- *Encourage efficient water use and economical local resource programs; and*
- *Coordinate operations with member agencies to make as much surplus water as possible available for use in dry years.*

Table 3-6 (below) shows the reliability of TVMWD's water supply projected through the year 2025. The normal, single-dry, and multiple-dry year water scenarios are given for each of the five-year periods. TVMWD's source of wholesale water, both raw and treated, is overwhelmingly derived from MWD which has provided its member agencies with an analysis based on the single-dry year hydrology of 1977 and the multiple-dry year hydrology of 1990-1992. MWD has overlain the models for these periods on the demand projections, supply mix, and management strategies which they are forecasting for 2010 to 2025, and hence, TVMWD passes along these same assumptions and information.

TABLE 3-6: TVMWD Water Supply—AFY

	2005	2010	2015	2020	2025	2030
Retail Demand on TVMWD	75,626	76,942	80,698	84,199	87,001	91,768
TVMWD Groundwater Supplies	0	2,500	5,000	10,000	10,000	10,000
TVMWD Surface Water Supplies (from MWD avail. sfc & replen)	97,633	99,024	100,146	104,828	102,226	101,862
Normal Year Supply (average)	97,633	101,524	105,146	114,828	112,226	111,862
Normal Year Demand (average)	75,626	76,942	80,698	84,199	87,001	91,768
Normal Year Reliability (Supply / Demand)	129%	132%	130%	136%	129%	122%
Single-Dry Year Supply (1977 hydrology)	95,587	105,494	115,121	115,381	111,343	110,938
Single-Dry Year Demand (1977 hydrology)	83,264	86,329	90,220	93,882	96,484	101,037
Single-Dry Year Reliability (Supply / Demand)	115%	122%	128%	123%	115%	110%
Multiple-DryYear Supply (1990-92 hydrology)	96,301	97,179	106,528	107,077	103,653	103,227
Multiple-DryYear Demand (1990-92 hydrology)	86,214	89,484	93,610	97,166	100,051	104,799
Multiple-Dry Year Reliability (Supply/Demand)	112%	109%	114%	110%	104%	99%

The normal-year demands on Three Valleys shown above are based upon actual for 2005 and projections for future years submitted directly by each member agency as part of the

development of their individual 2005 Urban Water Management Plans. The single and multiple dry-year demands on TVMWD as well as TVMWD's supply for all scenarios are calculated using the factors resulting from MWD's regional hydrologic models.

It should be noted in Table 3-6 that up to 10,000 AFY of groundwater supply is planned on being made available to TVMWD through the utilization of a Storage and Recovery Agreement with the Six Basins Watermaster in the Six Basins adjudicated groundwater basin. The Six Basins Judgment and TVMWD's Storage and Recovery Agreement are included in Appendix E. The recovery of this water is pending completion of TVMWD's San Antonio Spreading Grounds Conjunctive Use Project, previously described in this chapter.

The data in Table 3-6 is also shown graphically in the following Figures 3-5 through 3-7. The depiction is obvious, as MWD forecasts complete reliability, so to does TVMWD forecast complete reliability (Supply/Demand > 100%) in this planning period for supplying the water demands of its member agencies by using a mix of resources identified in MWD's 2003 Integrated Regional Plan Update and 2005 Regional Urban Water Management Plan. The only exception occurs in year 2030 with the multiple dry-year hydrology, and even then TVMWD could supply 99% of demand.

Figure 3-5:

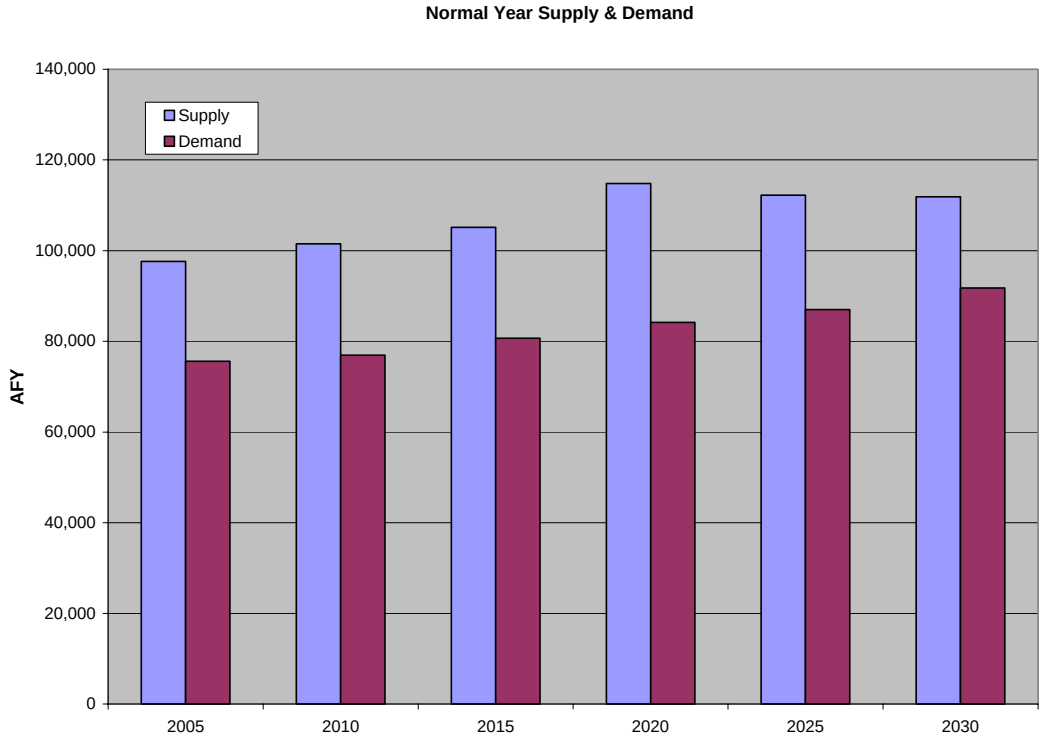


Figure 3-6:

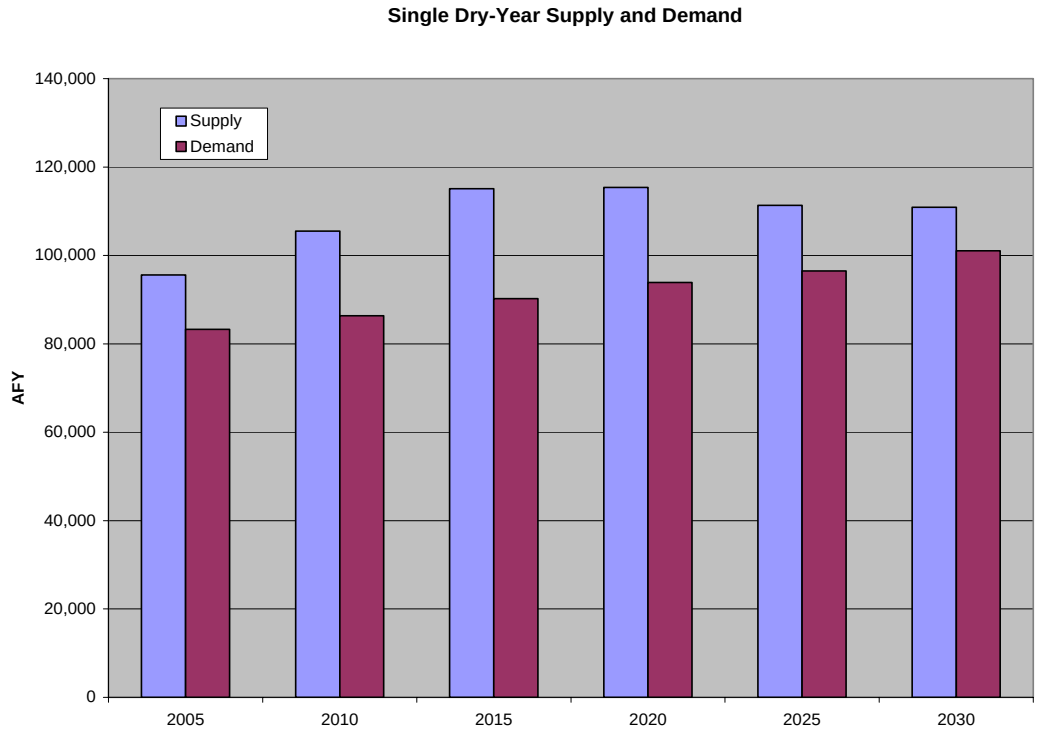
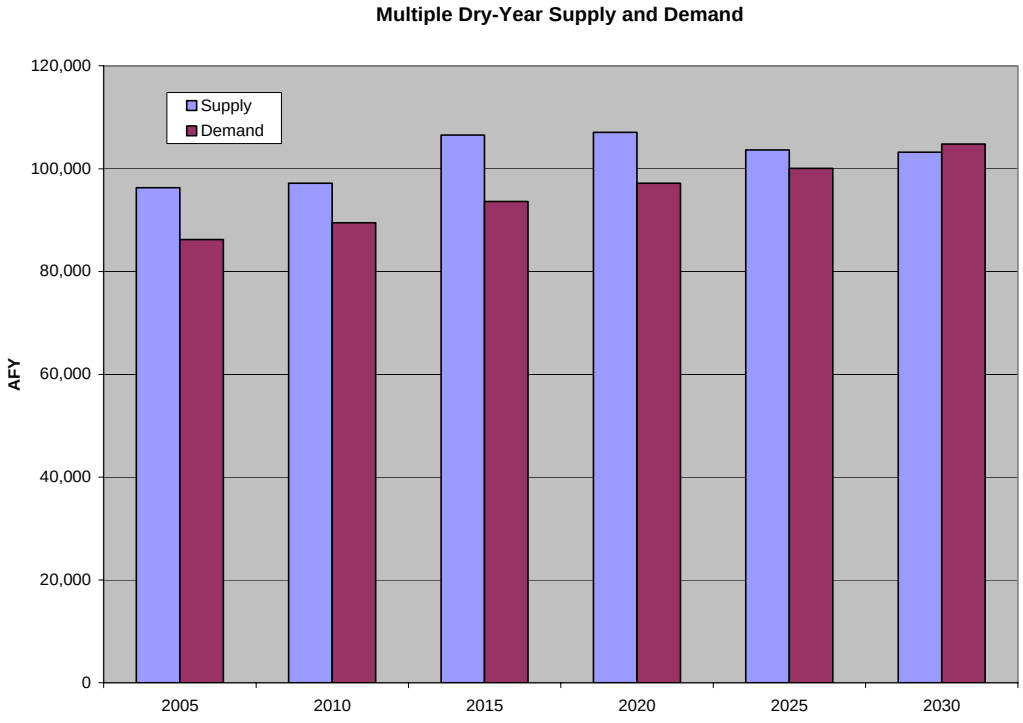


Figure 3-7:



A key element of this regional strategy is to store surplus supplies during wet periods for use during dry periods. Resource improvement strategies and additions that make this possible include:

- Local Resources – MWD has invested in 74 local water supply projects, with three in the Three Valleys service area
- Colorado River Region study and potential implementation of three very large groundwater banking programs
- State Water Project regional water storage and banking programs
- In-region storage with Diamond Valley Lake and partnerships in Conjunctive Use Programs, including three with Three Valleys

3.12 MWD Traditional Supply Infrastructure

The State Water Project (SWP) conveys water from Northern California to areas south of the Sacramento-San Joaquin Delta through a series of rivers, canals, reservoirs, aqueducts, and pumping plants. Water from the SWP originates at Lake Oroville, located on the Feather River in Northern California, and subsequently flows into the Sacramento-San Joaquin Delta. From the delta, the water is then transported by the California Aqueduct through the Central Valley and into the Southern California region. This system is owned and operated by the State Department of Water Resources (DWR).

Colorado River water is conveyed from the California-Arizona border to the metropolitan area via the Colorado River Aqueduct (CRA). Its 242-mile journey begins from the intakes at Lake Havasu to the terminal reservoir known as Lake Matthews, located near the City of Riverside. The CRA is owned and operated by MWD.

MWD supplies imported water to the Three Valleys service area through its network of large distribution pipelines, also known as "feeders". There are two primary feeders that deliver raw (untreated) water into the Three Valleys area: the Foothill Feeder (a.k.a. the Rialto Pipeline) and the Upper Feeder. Another feeder, the Yorba Linda Feeder provides untreated water to MWD's Weymouth plant in La Verne and runs through the Three Valleys' service area and has the potential to provide untreated water within the Three Valleys' area at a future date.

The Foothill Feeder originates from Devil's Canyon located south of Silverwood Lake. Silverwood Lake is a reservoir on the East Branch of the SWP and typically serves as the sole source of water in the reach of the Foothill Feeder between Devil's Canyon and MWD's Live Oak Reservoir, which is located in La Verne. Three Valleys' Miramar Water Treatment Plant, which is located along this reach of pipeline, receives 100% State Project Water.

The Upper Feeder originates from Lake Matthews, MWD's terminal reservoir for its Colorado River supply. As the water is delivered westerly, this feeder can be supplied with State Project Water through its connection with the Etiwanda Pipeline. The Upper

Feeder then continues westerly to MWD's F. E. Weymouth Filtration Plant located in the City of La Verne. Imported water treated at Weymouth is typically a blend of supplies from the Colorado River Aqueduct and the State Water Project. Treated water from the Weymouth Plant is delivered to Three Valleys' retail agencies through connections along the Upper Feeder, Middle Feeder, and the Orange County Feeder.

Both the Northern California and Colorado River supplies are faced with many challenges. However, it is projected that the SWP supply reliability objectives for MWD and it member agencies can be met through an implementation approach which includes:

- The Delta Improvements Package – a set of linked actions designed to allow the SWP to operate the Banks Pumping Plant in the south Delta at 8500 cfs, provided all regulatory standards can be achieved and water is available for export
- The Phase 8 Settlement – includes various plans and projects for water resource management in the Sacramento Valley
- The Monterey Amendment – enables MWD to use a portion of the San Luis Reservoir capacity for carryover storage into the subsequent calendar year, increasing actual SWP delivery by 75 to 200 thousand AFY
- SWP Terminal Storage – the exercise of contractual rights by MWD for 65,000 AF of flexible storage on the SWP East Branch at Lake Perris and 154,000 AF on the West Branch at Castaic Lake

Due to drought and implementation of the "California 4.4 Plan" (an innovative water plan to stay within the state's 4.4 million acre-foot apportionment on the Colorado River), Southern California could be faced with major cutbacks of this source of supply. However, MWD has either achieved or identified a number of programs could be use to achieve the regional, long-term development targets for its CRA aqueduct, including:

- Conservation Program with Imperial Irrigation District (IID)
- Coachella and All-American Canal Lining Projects
- IID/SDCWA (San Diego) Transfer
- Palo Verde Irrigation District Land Management Program
- Hayfield Storage Program
- Other future groundwater storage programs in the lower Colorado River Basin

Finally, MWD has invested heavily in promoting greater efficiency through coordinated use of the SWP and Central Valley Project (CVP). Eight CVP/SWP storage/transfer programs are in place and three under development which will provide dry-year reliability of over 700,000 AFY.

CHAPTER 4. Demand Management & Water Conservation

4.1 Background

Demand management is an integral part of TVMWD's long term water resource management strategy. As part of TVMWD's UWMP process, potential demand management programs were evaluated at the same level of detail as other supply-side options. In some instances, it may be more cost-effective to implement demand management programs than it would be to secure additional supplies and production/treatment facilities to meet existing and growing demands.

The following is a summary of TVMWD's demand management strategy developed as part of the District's IRP process, followed by a summary of the implementation status of the District's demand management program. TVMWD has a multi-faceted demand management program that includes a variety of activities that reach out to residential, business, industrial and landscape customers. The following pages describe each of the key activities and their implementation status. A summary of the BMP requirements, and TVMWD's progress in meeting our commitments to the MOU, is also provided in Table 4-2. In general, the District is on track in meeting both our demand management recommendations and BMP implementation commitments.

The relevant code section, 10631 states:

(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.

In addition to implementing demand management measures, TVMWD is a signatory to the *Memorandum of Understanding* (MOU) on Urban Water Conservation, and as such, is committed to implementing those water conservation Best Management Practices (BMPs) which are cost effective for the District.

(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).

4.2 TVMWD's Commitment to Conservation

Throughout the years, TVMWD has demonstrated a strong commitment to conservation and water resource management. The District encompasses a region with a unique climate, drought pattern, and limited water supply, coupled with a continuing population growth rate. TVMWD recognizes the need for efficient water use, not simply in times of drought, but as an integral part of everyday life. As Chapter 2 explains, population in the immediate service area of Three Valleys is not expected to grow at the rate experienced in some parts of southern California. Through consistent conservation the risk of potential water shortages is reduced, thereby ensuring a greater degree of future

availability for the TVMWD. Conservation reduces the amount of water per capita if the measures established make sense, are easy for people to implement and do not require significant input on the side of the consumer. Therefore, TVMWD believes that conservation measures implemented must lead to long-term education and behavioral changes wherever appropriate.

As a wholesale water agency, a major emphasis of the TVMWD commitment to conservation is to promote and facilitate water conservation projects by the retail agencies within the TVMWD service area. These undertakings focus on commercial and industrial equipment and processes, residential plumbing retrofits, landscape irrigation, and education. One of TVMWD's most important long-term conservation measures is educating the public on the source of water to the southern California area and the need for water conservation for the region to enhance long-term reliability and growth.

TVMWD first initiated a water conservation program during the 1976-1977drought. TVMWD's primary focus was public education and awareness as a necessary means to combat inefficient consumption of water. However in recent years, while maintaining its emphasis on education and public information, Three Valleys has also expanded its conservation activities in the areas of conservation research and increased coordination of funding for retail-agency sponsored projects. Our water supply reliability is dependent on both the further enhancement of local and supplemental imported water sources. In addition, our member agencies (retail) local water agencies have developed a blueprint for water supply reliability through the development of diversified resources and economic soundness. In order to achieve and maintain a high level of water use efficiency within its service area, TVMWD's primary conservation objectives are as follows:

- *Assist member agencies with funding and implementing conservation projects*
- *Fund conservation research and disseminate conservation information*
- *Coordinate conservation activities on behalf of retail agencies served by TVMWD*
- *Develop and implement pilot conservation projects which will complement other programs being conducted in Southern California*
- *Work with Metropolitan Water District of Southern California to coordinate and improve their outreach efforts in the area of conservation*
- *Administer and coordinate any conservation programs which are more effective at the regional or wholesale level versus the individual member agencies' level.*
- *Seek outside funding sources which will complement and expand conservation programs, education and outreach.*

Table 4-1: TVMWD Conservation Objectives

Outreach Goals	Outreach Activities *(some items are listed in multiple categories)*
Customer Education Goal To educate the customers, taxpayers and decision makers about the future of conserving water and protecting our water resources and guiding their actions for years to come.	• Three Valleys Facility Tours • MWD-sponsored tours • Conservation-themed ads in local newspapers • Water resource related articles in local newspapers • Information provided via the District's Website • ULFT (toilet) distribution events • High-efficiency clothes washer rebates • Protector del agua courses • Leadership Breakfasts • Annual Budget and Water Quality Reports
Local Education (in-school) Goal To reach a large number of students on an in-depth and effective level utilizing the skills and enthusiasm of local teachers.	• Solar Cup • Three Valleys Facility Tours • WEWAC Events: Video Contest, LA County Fair Participation, 'Edu-Grant' Program, and Project WET Workshop • MWD Poster Contest • Teacher Education
Local Business Education Goal To work with local businesses/industry to promote water conservation.	• Facility Tours • Continue to offer and promote the Commercial and Industrial rebates (CII Program) for businesses and institutions. • Website information via the internet • Subsidized purchases of water brooms
Alliances and Partnership Goal To form and cultivate alliances with our Member Agencies, Metropolitan local cities and other municipal, state, federal and private institutions for joint projects and sources of funding.	• Coordination with MWD and our member agencies on a variety of conservation related state and federal legislative initiatives • Grant Coordination [DWR, Prop 50, MWD] and assistance (where appropriate) with our Member Agencies • Quarterly conservation meetings
Media and Public Information Goal To utilize all forms of media to disseminate our water conservation message.	• Conservation-themed ads in local newspapers • Water resource related articles in local newspapers • Participation at community events • Continued distribution of MWD's video production, "Straight from the Tap" to public access cable TV in our service area. • TVMWD's Website
Best Management Practices/Irrigation Goal To promote efficiencies that reduces the demand on imported water and aid in conserving our water resources. To increase the area's native plantings and reduce the potable water irrigation demand.	• Promote the use of California native and California 'friendly' plants • Utilize local expertise at Cal Poly Pomona and the Rancho Santa Ana Botanic Gardens • Set-up protector del agua courses • Use of California-friendly plants at Three Valleys' headquarters

The benefits of conservation include:

- Ratepayers save money on their water utility bills;
- Reduced wastewater flow;
- Reduced urban runoff;
- Avoidance of purchasing expensive imported water; and
- Environmental benefits.

4.3 Participation in MWD's Regional Conservation Programs

An important role for TVMWD has been to assist its member agencies in utilizing funding from MWD's *Conservation Credits Program* (CCP). This program was implemented in coordination with the member agencies, authorizing MWD's General Manager to subsidize approved conservation projects from the various member agencies and sub-agencies. MWD currently pays up to one half of the direct cost or $154 per acre-foot for the implementation of qualifying conservation projects with demonstrable water savings, thereby reducing the demand on Metropolitan's water supplies. Proposals from the member agencies are considered on a case-by-case basis, but require local support in order to be accepted. Of the member retail agencies actually receiving water directly or indirectly from Three Valleys, nearly all have been participants in the MWD CCP. Included in this list are the cities of Covina, Glendora, La Verne, and Pomona; the Golden State Water Company (Claremont and San Dimas Divisions); the Rowland Water District and the Walnut Valley Water District.

As stated, Three Valleys participates in regional conservation programs implemented or developed by Three Valleys and/or the Metropolitan Water District. Listed below are examples and descriptions of various water conservation programs employed within the Three Valleys' service area:

Landscape Conservation Program/Equipment Retrofits
Outdoor water use is one of the largest users of water in Southern California – much of which can be attributed to inefficient or outdated equipment, but also a large portion of the water used is to maintain inappropriate landscape materials in the semi-arid environment of Southern California. Three Valleys has entered in to an agreement with Metropolitan Water District to promote and offer such improved devices as weather-sensitive irrigation controllers for residential and commercial sites. Three Valleys has provided landscape water use surveys to local home owners' associations and institutions. Three Valleys recognizes that inappropriate landscape materials is also one of the reasons outdoor water use in Southern California is so high and as such has participated in a very active program of education and outreach to local residents to improve the acceptability and understanding of native and drought tolerant plants for use in landscape design.

protector del agua
This program provides instruction in efficient water use through proper design, irrigation, and maintenance. Targeting smaller landscape maintenance personnel and public agency grounds keepers, this six-week course is offered in both English and Spanish. Class sizes

average twenty-five participants per course, with approximately three or four courses conducted within the TVMWD service area annually. Additionally, several half-day seminars are offered throughout the year, geared directly to the homeowner or homeowners associations. The curriculum for the protector del agua was created for MWD by professors at the Irrigation Training and Research Center (ITRC) at Cal Poly, San Luis Obispo. These classes will continue to be offered by TVMWD for customers within the service area.

Ultra-Low Flush Toilet Retrofits

Several retail agencies offer incentives for the replacement of old toilets, which use an average of 3.5 gallons or more per flush, with new 1.6 gallon-per-flush (gpf) toilets. By installing these 1.6 gpf retrofits, 30-50 gallons of water per household is saved daily. This type of substantial water savings will have long term effects, while not requiring customers to alter their water use habits. Three Valleys has actively facilitated these retrofit projects with retail agencies in the Covina, Glendora, Golden State Water Company, Pomona, La Verne, Rowland Water District, and Walnut Valley Water District service areas. Over the years, a total of approximately 25,000 ULFT's have been installed and/or rebated in the TVMWD service area, resulting in a projected water savings of 320 million gallons (980 acre-feet) of water saved each year. TVMWD recently provided direct install high efficiency, dual-flush toilets resulting in over 350 ULFTs being retrofitted directly in areas of older housing stock, thus reducing water use. These direct install programs were such that no TVMWD member agency was directly associated with the program and the conservation need was great and the water savings potential significant. These programs alone are thought to have saved approximately 15.3 million gallons or 47 acre-feet of water over the past 3 years.

Commercial, Institutional, and Industrial (CII) Retrofits

These retrofits refer to alterations made to equipment and processes in order to improve water use efficiency in institutionalized settings, such as restaurants, schools, laundromats, or group residential communities such as retirement homes, etc. The recent equipment included in this category are: pre-rinse spray nozzles, efficient toilets and urinals, cooling tower conductivity controllers, and commercial high-efficiency clothes washers, professional steamers, and waterbrooms. A number of these pieces of equipment have been installed within schools, restaurants, group residential communities, hotels and public works agencies. Implementation of these retrofits results in various amounts of water savings; the washing machine saving an average of 150,000 gallons annually, while the cooling tower would result in a savings of approximately 800,000 gallons annually with proper management. However, the conservation savings resulting from the installation of these retrofits vary in respect to the targeted market segment. The installation of a ULFT within retail/wholesale/restaurant sites would result in average water savings of 36 to 57 gallons per day, while hotels estimate total savings of 16 gallons per day. The CII retrofit program is managed by Honeywell DMC for Metropolitan Water District which allows for its member agencies to participate with a simple agreement. Three Valleys has participated in the program since its inception and promotes this worthwhile program through mail-outs and joint workshops. According to the Honeywell DMC staff, Three Valleys has taken advantage of a total of 895 retrofits

since they have been administering the CII program for MWD. The majority of which are commercial high-efficiency washing machines and pre-rinse spray nozzles.

Education Programs

The goals of the school and community education programs are to familiarize children and adult consumers with the critical importance of water within our everyday lives, while providing them with information on how to efficiently manage individual water consumption. Through various programs, both elementary and high school students learn efficient water use habits. Three Valleys' staff draws upon highly effective and well-received curricula developed by the Metropolitan Water District and Water Education Foundation. The education programs employed, "Admiral Splash", "California Smith, Water Detective", "Groundwater Education", "California's Water Story" and "Water Politics", emphasize the importance of water awareness and the efficient use of water, as well as the availability of water throughout the respective regions. In addition to the education programs, teachers are invited to attend free workshops that serve as an introduction to the materials. Teachers who take advantage of this opportunity may receive other benefits such as free field trips to water facilities or borrowing privileges for a variety of videos, models and other educational tools.

Three Valleys also hosts and co-hosts Project WET workshops on an annual basis; these workshops are open to K through 12th grade teachers and the workshops employ and train the teachers in attendance on the use of the Water Education Foundation's award-winning curricula materials. All teachers leave with a Project WET workbook to use throughout their careers.

Also, school tours of almost any grade level are welcome and encouraged. Most fiscal years see an average of 12 to 20 school tours of grades kindergarten through college. These tours are geared for each specific audience, but all are given an overview of water in California, provided an opportunity to learn where their drinking water is delivered from and teachers are encouraged to teach basic water vocabulary before and after the event. This program reaches an average of 400 students each year.

Public Affairs Services

TVMWD addresses a widespread audience through its consistent dissemination of public information. Three Valleys distributes press releases during the year and purchases extensive newspaper advertising space, in addition to writing water conservation articles for the local newspapers. TVMWD presents a display on conservation at several community events and fairs. TVMWD also distributes MWD's literature, its own brochures, and Sunset Magazine reprints at speaking engagements, displays, its front counter, on tours, to its member agencies, and in public buildings throughout the service area. Facility tours play an important role in increasing the comprehension of opinion leaders and the general public about water issues, particularly about the necessity of conservation in this time of extensive population growth in Southern California. Landscape conservation concepts for the general public are featured at the conservation garden at the Miramar Water and Hydroelectric Facility and Headquarters, where visitors can witness the employment of various drought tolerant and native plant species.

These activities can be effective in reducing water demand, especially if the public perceives a real and present need to conserve. Although it is difficult to accurately quantify the amount of water conserved as a result of public information activities, as well as ascertain the program's cost effectiveness, the formal public information program will remain as an integral element of TVMWD's conservation efforts because without information and education, the public cannot make informed decisions on water use.

4.4 Implementation of Best Management Practices

Three Valleys is one of the charter signatories of the 1992 *Memorandum of Understanding Regarding Urban Water Conservation Best Management Practices* (MOU), a document which established the California Urban Water Conservation Council (CUWCC—a self-regulating body composed of signatories), as well as the initial list of conservation Best Management Practices (BMPs). At that time and thereafter, TVMWD encouraged the signing of the MOU by all member agencies within its jurisdiction in order to expedite implementation of reasonable urban conservation measures. A number of the TVMWD member agencies are signatories to the CUWCC, including; Cities of Covina, La Verne, and Pomona, Covina Irrigating Co., Rowland Water District, Golden State Water Co., and Walnut Valley Water District.

In Three Valleys' role as a wholesale water agency, it does not have the responsibility for direct implementation of some BMPs. Rather, BMP—10 ("Wholesale agency assistance programs") requires wholesale agencies to provide financial and technical support, and when mutually agreeable and beneficial, direct management of conservation projects on behalf of a retail supplier. Nevertheless, wholesalers like Three Valleys have a direct responsibility with respect to help implement all of the BMPs. TVMWD has taken steps to meet the requirements of these BMPs, as described in the following paragraphs.

BMP—10 speaks most directly to the requirements of a wholesale agency. Implementation of this measure consists of:

- Providing financial incentives (or equivalent resources) to retail water agency customers on all cost-effective BMPs;
- Providing workshops for retail agency personnel on CUWCC procedures and reporting requirements, and the technical, programmatic, strategic or other pertinent issues in water conservation; and
- Having the necessary staff or other resources available to respond to retail agencies' needs for assistance.

Three Valleys meets the first requirement by passing through financial incentives offered by the Metropolitan Water District through its Conservation Credits Program. While TVMWD does not offer an additional incentive over and above that provided by MWD, the district has provided some in-kind services such as managing contracts for all of its retail agencies participating in ULFT distribution events. In this way, a single vendor may be selected for several agencies' projects. Thus, a better per unit price may be negotiated due to economies of scale. In addition, by managing the contracts centrally it

is hoped that the transaction costs to the retail agencies are minimized. It also provides administrative oversight and assistance to the member agencies that have limited staff for conservation activities.

Three Valleys periodically hosts a water conservation meeting with staff from all of the retail agencies it serves. These meetings serve as a forum to discuss developments in the water conservation field generally, or more specifically with the California Urban Water Conservation Council or the Metropolitan Water District.

The following table indicates TVMWD's activities in all the BMPs. TVMWD believes that it serves an important function in assisting its member agencies in achieving 100 per cent implementation of the CUWCC's goals, and therefore assists at all levels where member agencies request such assistance.

Table 4-2: Best Management Practices (BMP) Implementation by Three Valleys

CUWCC BMP	Assistance Offered by TVMWD YES/NO	Type of Assistance Provided Details/Information	Number Implemented TO DATE (Note: these numbers are approximate based on TVMWD information. Member agencies may have separate records for their conservation programs)
BMP 1 Water survey programs for single-family residential and multi-family residential customers. *[Not required]*	YES	TVMWD has encouraged the implementation of Residential Surveys through administrative activities, such as contacting consultants on behalf of member agencies, seeking RFPs and coordinating multiple agencies located in close proximity to one another to create a better value. To date, City of La Verne and City of Pomona are considering implementing Residential Surveys in the upcoming fiscal year.	3,571
BMP 2 Residential Plumbing Retrofits *[Not required]*	YES	TVMWD has provided low-flow showerheads to its member agencies to distribute at outreach events, and during ULFT distribution events. TVMWD has also distributed these showerheads at events and activities. TVMWD also participated in the Learning to Live Waterwise program for 4th grade students. The program was offered at no cost to its member agencies. The program provided residential retrofit kits	60,088 Low-flow showerheads 2,400 kits

CUWCC BMP	Assistance Offered by TVMWD YES/NO	Type of Assistance Provided Details/Information	Number Implemented TO DATE (Note: these numbers are approximate based on TVMWD information. Member agencies may have separate records for their conservation programs)
		(showerheads, faucet aerators, toilet tummies, rain/sprinkler gauges) to students in the 4th grade and required the completion of a pre- and post-survey to be completed by the student for their household. Over 2,400 households throughout the TVMWD service area participated in this program.	
BMP 3 System Water Audits, Leak Detection *Required*	YES	TVMWD does monthly evaluations by examining water sales, water purchased (from MWD) and unaccounted for water losses. TVMWD has averaged less than 1.3% unaccounted for water losses on an annual basis.	Monthly as a regular part of reporting to the Board of Directors
BMP 4 Metering with Commodity Rates for All New Connections and Retrofit of Exiting Connections *[Not required]*	NO Not applicable	Relevant to retail water suppliers only.	Not applicable
BMP 5 Large Landscape Audits *[Not required]*	YES	TVMWD has encouraged its member agencies to complete and/or offer these types of audits by contacting possible consultants for group pricing and implementation. TVMWD has paid for large landscape audits in cases where the need is extreme and the member agency has proven uninterested. The information is passed directly on to the customer for implementation of the water-saving corrections/activities.	2
BMP 6 High Efficiency Washing Machines	YES	TVMWD has administered and run the high efficiency clothes washer rebate program for its member agencies for the last three years. TVMWD passes the BMP credit on to the member agencies for	1,555 rebates

CUWCC BMP	Assistance Offered by TVMWD YES/NO	Type of Assistance Provided Details/Information	Number Implemented TO DATE (Note: these numbers are approximate based on TVMWD information. Member agencies may have separate records for their conservation programs)
[Not required]		inclusion in their CUWCC reports. However, all rebates, correspondence and the subsequent MWD/DWR credit are done in-house by TVMWD. TVMWD has also helped member agencies inform the public about this program by printing ads for local newspapers, providing billing inserts specific to each member agency and providing the information on its website.	
BMP 7 Public Information *Required*	YES	TVMWD does an extensive amount of public information through local advertisements, supplement sections (i.e. "Think Environment", "Living Here"), articles and attending local fairs, to promote water conservation. TVMWD also assists MWD by sending out their "Straight From The Tap" public information series directly to the local cable outlets in the TVMWD service area. TVMWD also hosts a quarterly Leadership Breakfast for all interested parties in the community to provide an opportunity to network and listen to speakers on items of interest on the local and national level. Some of the speakers to date, include: Dr. William Patzert, Research Oceanographer, California Institute of Technology, Jet Propulsion Laboratory; Dr. Timothy Quinn, MWD Vice President of State Water Resources; Sheriff Lee Baca, Los Angeles County; Mr. Ronald Gastelum, CEO, MWD; Mr. Wes Bannister, Chairman Board of Directors, MWD; Mr. Ed Means, Sr. Vice President McGuire Environmental Consultants, Inc. to name a few. The average attendance at these breakfasts is approximately 75 guests.	Numerous activities/programs
BMP 8 School Education	YES	TVMWD staff has visited classrooms and given presentations whenever invited by either the school or the member agency.	Numerous programs

CUWCC BMP	Assistance Offered by TVMWD YES/NO	Type of Assistance Provided Details/Information	Number Implemented TO DATE (Note: these numbers are approximate based on TVMWD information. Member agencies may have separate records for their conservation programs)
Required		TVMWD provides school tours for grades kindergarten through college on an annual basis. TVMWD has participated in staffing school tours for middle school (reaching approximately 1,500 students in the TVMWD service area). TVMWD will provide materials to teachers when requested for their school library or for in-classroom use. TVMWD has participated in a number of the Project WET Workshops either as a co-hoster or as sole host specifically for TVMWD teachers. TVMWD is also a supporter of the MWD Solar Cup program. Hosting numerous teams to participate in this educational program for high school students. TVMWD encourages its member agencies to directly host Solar Cup teams, but in cases where this is not available and a school is interested, TVMWD will provide the sponsorship and guidance for the team(s). TVMWD has also promoted the excellent curricula developed by MWD and provides teachers the ability to receive the materials, but also promotes it by scheduling workshops for teachers interested in learning more about the materials.	
<u>BMP 9</u> Commercial, Industrial, Institutional	YES	TVMWD has promoted the MWD CII program to its member agencies and has participated directly by providing waterbrooms to the member agencies, ULFTs and urinals to CII locations. TVMWD has signed the MWD CII Conservation Agreement to help promote the program further. To date a number of	1,575 devices

CUWCC BMP	Assistance Offered by TVMWD YES/NO	Type of Assistance Provided Details/Information	Number Implemented TO DATE (Note: these numbers are approximate based on TVMWD information. Member agencies may have separate records for their conservation programs)
[Not required]		CII devices have been installed in the TVMWD service area during 2004 - 06, approximately 865 items – primarily pre-rinse spray nozzles and commercial high efficiency clothes washers. TVMWD also co-hosted a CII workshop with the Inland Empire Utilities Agency (IEUA) our neighbor wholesaler to the east.	
BMP 10 Whole Sale Agency Assistance *Required*	YES	TVMWD actively supports the conservation activities of its member agencies through financial, administrative, outreach and staff support. (see above)	Not enumerated
BMP 11 Conservation Pricing *Required*	YES	TVMWD has implemented rates reflecting Tier 1 and Tier 2 pricing. Member agencies are given a water sales allocation based on historical purchases. If they exceed that allocation, they will be charged the Tier 2 rate for water. This method directly reflects the new MWD pricing methodologies.	Not enumerated
BMP 12 Conservation Coordination *Required*	YES	TVMWD has a position which assists the member agencies with all the BMPs, conservation activities, outreach activities and fund raising. Additional TVMWD staff is provided when necessary to assist with large programs and outreach events.	1.0 FTE
BMP 13 Water Waste Prohibition *[Not required]*	NO	TVMWD has no provision to enact ordinances for its member agencies. Therefore, enforcement of such an activity would fall solely to the member agencies. TVMWD has emergency drought management resolutions on file for encouragement and support to its member	Not applicable

CUWCC BMP	Assistance Offered by TVMWD YES/NO	Type of Assistance Provided Details/Information	Number Implemented TO DATE (Note: these numbers are approximate based on TVMWD information. Member agencies may have separate records for their conservation programs)
		agencies.	
BMP 14 Residential ULFT Replacements *Not Required*	YES	TVMWD has supported ULFT replacement programs for numerous years. Through the negotiation of a consultant contract to help the member agencies receive a better per-unit price and standardize reporting and programs. TVMWD has also provided direct ULFT replacements in cases where the need was identified but the member agency was unable to assist. These types of programs have generated large conservation figures by replacing older toilets. TVMWD passes the MWD credit directly through to its member agencies after reviewing reports and coordinating the outreach efforts whenever necessary.	Approx. 30,000

We stand with each of our Member Agencies to meet the challenge to assist and encourage long-tem water resource management planning. In southern California, our arid climate, coupled with an increased demand on water resources, means we must all become more 'water-conscious' in our approach to conservation.

CHAPTER 5. WATER SHORTAGE CONTINGENCY PLAN

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

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.

5.1 Introduction

The Water Shortage Contingency Plan was first adopted on February 11, 1992 and is updated with the Urban Water Management Plan. The Plan is a component of the regional Urban Water Management Plan. The Plan was first adopted in response to emergency legislation in 1992. Subsequent legislative changes have modified the requirements of water shortage contingency planning. Current requirements are in Section 10632 of the California Water Code, the Urban Water Management Planning Act, which is provided as Appendix B to this document. The District has sufficient water supplies to meet demands in most years, but deficiencies can occur as a result of dry winter weather or through extended interruption of imported supplies. TVMWD is a wholesale water supplier and member of Metropolitan Water District of Southern

California (MWD). As such, in times of water shortages or emergency drought conditions, contingency plans and pricing structures will be followed per agreements with MWD. As MWD has adopted its tiered rate structure, Three Valleys is affected by this and associated water use is priced accordingly. This price structure is, of course, passed on to our retail agencies.

Southern California's three imported water supplies (State Water Project, Colorado River Aqueduct and Los Angeles Aqueduct) cross the San Andreas Fault. Many other fault lines bisect major water facilities throughout the region. Experts consider it likely that one or more of these supplies will be disrupted in the event of a major earthquake. MWD estimates that restoring service on any of these facilities following a catastrophic outage could take up to six months. This, in turn, could reduce annual deliveries by roughly up to 50% for MWD-supplied water. The UWMP requires agencies to consider the effect of a 50% cutback in water supplies. This corresponds approximately to the degree of cutback contemplated by MWD's earthquake disruption scenario. Also contemplated are power outages, the effects of droughts and potential terrorist acts.

A copy of the draft resolution regarding TVMWD's water shortage contingency procedures is included in Appendix F. To minimize the potential impact of imposed water restrictions, TVMWD will continue to encourage its Member Agencies to store water in local groundwater basins when surplus water is available. This stored water can then be extracted should there be a shortage in available imported water. TVMWD's Water Shortage Stages of Action Table 5-4 presents potential water management actions that could be implemented during shortage conditions. There are five TVMWD shortage stages of actions. In addition, documents provided in Appendix F gives the Board of Directors authority to take actions necessary to manage available supplies, including passing through to member agencies allocations and penalties for exceeding allocated deliveries.

Since 1950 when Three Valleys Municipal Water District was formed, the district's sole supplier of water has been the Metropolitan Water District of Southern California. Increasingly, Three Valleys has assumed more water resource planning responsibilities; nevertheless, the policies and practices of MWD significantly impact Three Valleys and the retail agencies it serves. Nowhere is this more apparent than in the event of a water shortage.

As more fully described in Chapter 3, Three Valleys is always looking at various projects to enhance the reliability of the water supply; however, the contingency plans of Metropolitan Water District are paramount in this District's ability and manner of response to drought. As a member agency, TVMWD participated in numerous meetings leading to the development of MWD's "Water Surplus and Drought Management Plan (WSDM Plan)." The MWD Board of Directors adopted this plan in April, 1999. The WSDM Plan is briefly described below, followed by a summary of recent MWD actions to ensure regional reliability.

Section 5.2 Management of Water Shortages—The "WSDM" Plan

The MWD Water Surplus and Drought Management (WSDM) Plan, aims to attain a 100% supply reliability goal for the region. The WSDM Plan, in conjunction with the Integrated Resources Plan, will work to correlate shortage mitigation to surplus supplies, through the utilization of all available resources within the area. TVMWD is a wholesale supplier of water. TVMWD is not a water utility. As such, each retail agency is responsible for water shortages—Three Valleys will assist wherever and whenever possible. The potential additional resources available to the area include increased local conservation and water recycling, improvements in the reliability of imported supplies, increased regional surplus storage, and increased conjunctive-use groundwater programs.

The WSDM Plan recognizes the link between surpluses and shortages, and it integrates operational actions with respect to both conditions. The WSDM Plan continues MWD's commitment to the regional planning approaches initiated in the IRP. The benefits of MWD's contingency planning approach have been evident in recent years. Of particular note are the region's successes in dealing with operational constraints such as the rehabilitation of the Colorado Aqueduct in 2003, the disruption to Delta diversions caused by the Jones Tract flooding in 2004, and the strong position of local storage despite five years of dry conditions.

Surplus and shortages will be defined in terms of stages, according to the level of supplies and storage remaining in all available resources. Each stage will require the implementation of various actions, dependent upon the degree and severity of the shortage. For the ten-year period addressed by the WSDM Plan, 1999-2008, the majority of shortage contingencies will be regulated by withdrawals from storage, groundwater management programs, options and spot market transfers. It is predicted that through these measures, shortages would be effectively mitigated without negatively impacting the quantity of water delivered to member agencies.

In order to promote alternative resource utilization at the allocation level, the WSDM Plan will work in conjunction with MWD's and Three Valleys' water rate structure by instituting additional charges for water use in excess of the 90% primary agency allocation. The economic value of water includes: (1) the utility's operation and maintenance costs; (2) the costs to procure and develop additional water supplies to meet growing demands; and, (3) the social and environmental "opportunity costs" of losing other benefits of the water in order to develop and consume the water.

In summary, a set of guiding principles could be generated as follows and in no particular order:

- *Provide a strong incentive for efficient water use;*
- *Promote efficiency through an appropriate water rate structure that reflects MWD's cost model;*
- *Offer a fair and consistent rate methodology; and*

- *Assure revenue stability;*

In addition, the WSDM plan generally mentions many of the items that have since been put into place through working agreements and projects. Some of the projects and the relative issues in the WSDM include, *"encourage storage of surplus supplies to mitigate shortages and improve water quality,"* specifically TVMWD has and is doing the following to mitigate reliance on imported supplies:

- The Live Oak Conjunctive Use Project, approximately 750 acre-feet to be placed in storage, contract with MWD, City of La Verne and Three Valleys signed/executed on November 21, 2002.
- The Chino Basin Conjunctive Use Cooperative Agreement, stores approximately 3,000 acre-feet in the Chino Basin for future use and current improvements.
- San Dimas Conjunctive Use Project will store approximately 3,000 acre-feet of surplus water for dry-year yield and water quality improvements.
- Six Basins Conjunctive Use Project will store approximately 10,000 acre-feet of State Water Project water for future use.

5.3 Three Valleys Water Shortage Strategic Planning

Equitable allocation of this imported water to the Member Agencies will be based upon numerous factors such as economic and retail impacts, growth projections, local supply production, past use and anticipated conservation levels. During severe shortage conditions, the dissemination of public information will play an increasingly vital role in altering consumer response throughout the various constituencies. As detailed in Chapter 4 Three Valleys maintains an active and on-going public information program to advocate continuous efficient water use. However, during shortage conditions, Three Valleys will implement a public information campaign stressing the importance of active drought conservation. Any effort will involve all or a portion of the following elements:

1. *Supply Availability and Forecasts*
   a. Total supply availability, including both ground and surface water supply sources
   b. Groundwater rights status for that particular year.
   c. Available groundwater supply
   d. Operational condition of Member Agencies' wells, reservoirs and other facilities
   e. Current aquifer levels.
   f. The rate of decline in aquifer levels, compared with the normal operating levels.
   g. Surface water conditions in proximity to Member Agencies' wells.
   h. Surface water conditions for water supplies provided through the state water project and the Colorado River Aqueduct
   i. Amount of time required to implement a supply enhancement measure.
   j. Weather conditions as derived from short- and long-term weather forecasts and modeling by the national weather service.

2. *Water demand factors*
   a. Current trends and seasonal forecasts for the system's daily water demands.

b. The estimated margin of safety provided by the demand reduction compared with the level of risk assumed if no action is taken.
c. Amount of time required to implement a water use reduction measure.
d. Media availability.
e. Customer response.
f. Magnitude of expected savings provided by a water use reduction measure.

3. *Other Factors*
   a. Consider actions taken by MWD.
   b. The value of lost water sales revenue compared with the increased margin of reliability.
   c. Consultation with MWD, Member Agencies, elected officials, state resource agencies and interest groups
   d. The length of time between stage changes and required time and resources necessary for the implementation of actions by the Administration.
   e. The length of time a shortage stage would be in place.
   f. Required time lags to shift administrative gears and institute measures
   g. Potential costs to Member Agencies
   h. Equity in demand reduction amongst Member Agencies.
   i. Contractual obligations for water supply and water use (re: the Miramar Treatment Plant).
   j. Surface water quality impacts
   k. Earthquakes
   l. Power outages
   m. Terrorist/criminal acts

Table 5-1: Factors Resulting in Inconsistency of Wholesaler's Supply

Name of Supply	Legal	Environment	Water Quality	Climate
Colorado River	X	X	X	X
State Water Project	X	X	X	X
Miramar Water Treatment Plant			X	X

5.4 Shortage Contingency Stages

Utilizing data from MWD using 80 years of historical records for each water source, MWD has indicated that the years of 1990, 1991, and 1992 are representative of the driest three consecutive years for MWD supplies. Based on review of MWD published average year supply capability in comparison to multiple dry-year supply capability, and assuming a repeat of 1990 through1992 hydrology, the driest three years would yield approximately 2.4 percent less supply than the average year

The following table quantifies the minimum water supply available during the next three years (2006-2008) based on the driest three-year historic sequence (1990-1992) for our water supply.

Regional Shortage Stage 1 (5 to 10 percent shortage)

MWD may make withdrawals from Diamond Valley Lake as a regional response. Three Valleys will work with Member Agencies in determining short-, medium- and long-term supply capabilities. Three Valleys MWD will initiate a public information campaign to,

- Initiate public information campaign.
- Explain drought situation to the public and governmental bodies.
- Explain other stages and forecast future actions.
- Request voluntary water conservation.
- Suggest the preparation and dissemination of educational brochures, bill inserts, etc.
- Notify media.

Regional Shortage Stage 2 (10 to 20 percent shortage)

MWD and TVMWD will continue Shortage Stage 1 actions and may draw from out-of-region groundwater storage. In addition TVMWD will,

- Accelerate public information program.
- Disseminate technical information.
- Institute rate program to support conservation.
- Request from Member Agencies water use reductions at proscribed levels.
- Lobby for passage of drought ordinances in service area.
- Encourage use of ET rate for landscape watering.
- Increase efficiency of TVMWD operation to ensure supply.

Regional Shortage Stage 3 (20 to 35 percent shortage)

MWD and Three Valleys MWD will continue Stage 2 actions and may curtail or temporarily suspend deliveries to Long Term Seasonal and Replenishment Programs in accordance with their discounted rates. MWD will continue Shortage Stage 2 actions and may draw from conjunctive use groundwater storage and the SWP terminal reservoirs.

- Adopt Base Retail allocation for each Member Agency.
- Advise area planning staffs of possible short-term inability to supply new developments/annexations due to shortages to existing customers.
- Continue public information program at accelerated pace.

Regional Shortage Stage 4 (35 to 50 percent shortage)

Three Valleys' Board of Directors may call for extraordinary conservation through a coordinated outreach effort and monitor the effectiveness of ongoing conservation programs. Monthly reporting on conservation program activities and progress and will provide quarterly estimates of conservation water savings. MWD may curtail Interim Agricultural Water Program deliveries in accordance with their discounted rates.

- All steps intensified.
- Reassess allocation plan for possible per capita residential allowance.

Regional Shortage Stage 5 (50 percent or higher)

TVMWD will continue Shortage Stage 4 actions and in conjunction with MWD may exercise any and all water supply option contracts and/or buy water on the open market either for consumptive use or for delivery to regional storage facilities for use during the shortage. MWD will discontinue deliveries to regional storage facilities, except on a regulatory or seasonal basis, continue extraordinary conservation efforts, and develop a plan to allocate available supply fairly and efficiently. The allocation plan will be based on MWD's Board-adopted principles for allocation.

5.5 Mechanisms for Determining Allocation of Supplies

The five stages of TVMWD actions are intended to be consistent with action stages defined by MWD. As surplus or shortage conditions progress, these actions are additive. Accordingly, TVMWD will monitor consumption and asses penalties for excessive use based on allocations established with the Member Agencies. Table 5-4 presents progressive stages that may be utilized during shortage conditions. However, the MWD and TVMWD systems are complex and the ultimate actions taken will depend on the unique issues of each particular condition.

During water shortage emergencies TVMWD will assist each of its Member Agencies to help resolve any situation related to allocation of imported water supplies and/or local conservation efforts. TVMWD will "equitably allocate imported water on the basis of agencies' needs." TVMWD has been working with its retail agencies that have potential to store and use groundwater. Projects that store additional water and/or improve the groundwater quality benefit the entire District by providing alternative sources of water to be used in times of emergency drought or MWD-sanctioned reductions in imported water. TVMWD's Member Agencies that do not have access to groundwater (primarily in the southern section of the District) will not be cut back on imported supplies to the extent that their economy or population will adversely be affected. The two agencies related to this situation are Walnut Valley Water District and Rowland Water District. Both agencies have been encouraged to further develop their reclaimed water supply and distribution, participate in Three Valleys' sponsored conservation programs, and explore alternative water exchange possibilities with neighboring groundwater suppliers. For example, Three Valleys has conducted ultra-low-flush toilet distributions in partnership with the Walnut Valley Water District and co-hosted an educational, water science faire with Rowland Water District. These activities improve the conservation efforts and educate our retail agencies' customers which will ultimately lead to water savings.

Three Valleys has participated in and its retail customers have benefited from the MWD non-firm, interruptible water supply program. Three Valleys supported the pricing structure associated with this program through a resolution dating back to 1981 (see Appendix F. Also in Appendix F is a DRAFT resolution that will provide TVMWD with the Board-approved authority to begin emergency shortage communications in concert with MWD upon notification. Specifically, this means that if MWD determines that a mandatory cut back in supplies to its member agencies is necessary, we will call

upon our retail agency partners that have participated in the dry-year yield programs, groundwater banking and interruptible supply purchases. To date, our retail agencies have collectively "banked" approximately 15,000 acre-feet of water for potential use in times of emergency drought or MWD-determined supply shortages. These mandatory prohibitions will include interruptible supply and other non-necessary water supplies to our retail agencies.

Past resolutions completed by Three Valleys Municipal Water District has encouraged its retail agencies to adopt ordinances encouraging conservation practices during times of drought (see attached). Although, Three Valleys is not equipped to enforce specific residential water use ordinances in times of extreme drought, Three Valleys will work with to increase awareness and implement public information campaigns stressing the importance of active drought conservation.

As a wholesale water supplier, Three Valleys has meters with which to determine water use by our retail customers. Determination of water use amounts is done through actual monthly billing and subsequent reporting of water use. Water use by each retail agency can be determined through individual metered connections. Per agreements and operating plans that we have with participating retail agencies, cut backs in supply when necessary must be accountable to MWD in relation to specific agreements and projects.

Three-Year Estimated Minimum Supply Evaluation

The UWMP Act requires that the minimum water supply be quantified based on the driest three-year historic sequence. The reliability of TVMWD's water supply during multiple dry years is directly dependent on the reliability of MWD's supply during multiple dry years as is listed in Table 3.6.

Table 5-2: TVMWD Water Shortage Contingency Stages

Action	Shortage Stages				
	Shortage		Severe Shortage		Extreme Shortage
	1 5% to 10% reduction	2 10 to 20% reduction	3 20% to 35% reduction	4 35% to 50% reduction	5 50% or higher reduction
Conduct Public Outreach					
Conservation					
Work with Member Agencies in determining supply capabilities (Refer to sections 5.2 & 5.3 above)					
Curtail replenishment and make-up supply deliveries					
Extraordinary Conservation					
MWD to call or exercise various water options					
MWD/TVMWD to allocate water supplies (Refer to MWD's "WSDM Plan")					
Natural Disasters (i.e., earthquake, fire, flood)	**Implementation depending on severity and duration as per TVMWD's Emergency Response and Vulnerability Assessment Response Plans**				
Power Outage					
Terrorist / Criminal Acts					
System Failures: *State Water Project* *Colorado River Aqueduct* *Miramar Water Treatment Plant*					

5.6 Impacts on Revenues/Expenditures

The District's Board of Directors has previously established an "Operating Reserve" for short-term cash needs of one million dollars to cover partial water payments and payroll for an approximate sixty–day period. Other reserves funds (i.e., "rate stabilization") are designed to minimize the impacts of any short-term demand reduction on rates. The reserve structure is based on the assumption that two out of every ten years could be expected to require demand reduction efforts due to drought. Also, these funds will cover contingencies if the Miramar Treatment Plant is inoperable or partially operable for an extended period of time. When fully funded, it would be able to maintain the District in a revenue-neutral position through two successive years of 25 percent reductions below normal demand levels. These various reserve funds will assist in reducing impacts on rates during multiple dry years that occur as a result of reduced revenue due to reduced water sales, and additional costs of securing supplies during shortages.

CHAPTER 6—Water Quality Impacts

6.1 Overview

The sources of water utilized in the Three Valley's service area are primarily:

- State Water Project
- Colorado River

Import water is supplied by MWD

- Groundwater
- Recycled/Reclaimed water

Operated by Three Valleys' Member Agencies

In addition to the usual health and safety considerations, water quality has near-term supply quantity implications for Three Valleys and its Member Agencies. California's Title 22 Drinking Water Standards, along with USEPA Federal Drinking Standards mostly comprise the regulatory benchmarks for water quality standards. If cleanup facilities are built without the consideration of the local supply, then many water purveyors will be forced to build redundant treatment facilities on impaired wells or look to an alternative supply, including surface supplies from northern California and the Colorado River. Currently, water purveyors only use surface water sources when they are readily available or when groundwater sources are unavailable or become impaired.

Although individual cleanup projects that put treated water to beneficial use will provide localized benefits, there will also be broad benefits that impact the regional water supply situation in California. The necessity to develop new sources and to fully utilize existing sources is very evident in recent court decisions within the State and the Colorado River Watershed. For instance, water available from the Colorado River is being reduced as Arizona and Nevada utilize more of their share. In addition, the dependability of the State Water Project is decreasing as a result of a lack of storage facilities, and there are potential restrictions that may result from the ongoing CALFED process. Now more than ever, it is critical to protect and develop the groundwater and recycled resources so that both groundwater and surface water of the State can be managed more effectively. The following factors highlight the influence of water quality on the level of supplies required:

1. Imported water from the Colorado River must be blended (mixed) with lower-salinity water from the SWP. Higher salinity levels in either Colorado River water or groundwater would increase the proportion of SWP supplies required to meet the adopted imported water salinity objectives.

2. High total dissolved solids (TDS) in water supplies leads to high TDS in wastewater, which lowers the usefulness of the water and increases the cost of recycled water. In many parts of the local groundwater basins other contaminants (nitrates, VOC's, perchlorates) continue to spread towards, and threaten groundwater supply wells. Given that so many supply wells have already been shut down, the current situation continues to represent a significant threat in TVMWD's service area. If a

groundwater basin becomes contaminated and cannot be used, additional water will be required from other sources—most likely from Three Valleys imported supply.

3. If diminished water quality causes a need for ion-exchange membrane treatment, the process typically results in losses of up to 15 percent of the water processed. These losses result both in an increased requirement for additional water supplies and environmental constraints related to brine disposal. In addition, the process is costly.

4. Degradation of imported water supply quality could limit the use of local groundwater basins for storage because of standards controlling the quality of water added to the basins. The goal to contain the contamination is supported with actions that specifically address threats to groundwater pumping centers. Loss of major production centers will continue to impair the water supply unless these types of threats are immediately addressed in a cleanup plan.

6.2 Water Quality and Sources of Water

Health issues are the primary concern with particular contaminants in drinking water. For the region's supplies, this concerns has been associated with the following:

- Perchlorate in Colorado River and local groundwater supplies
- Disinfection by-products formed by disinfectants reacting with bromide and total organic carbon (TOC) in SWP water
- Methyl tertiary butyl ether (MTBE) in groundwater and local surface reservoirs
- Nitrates in the groundwater supply
- Volatile organic compounds in the groundwater supply
- N-nitrosodimethylamine (NDMA) in groundwater and treated surface waters hexavalent chromium in groundwater radon.

Colorado River
Water imported via the Colorado River Aqueduct (CRA) has the highest level of salinity of all of MWD's sources of supply, averaging around 650 mg/L during normal water years. Concern over salinity levels in the Colorado River has existed for many years. To deal with the concern, the Colorado River Basin Salinity Control Act was approved in 1974. These initial actions were driven by high TDS in the Colorado River as it entered Mexico, as well as the concerns of the seven basin states regarding the quality of Colorado River water in the United States. To foster interstate cooperation on this issue, the seven basin states formed the Colorado River Basin Salinity Control Forum.

State Water Project
SWP water is generally of high quality. Total dissolved solids (TDS) concentrations average 325 milligrams per liter (mg/L). The quality of SWP water as a drinking water source is affected by a number of factors, most notably by seawater intrusion and agricultural drainage in the Bay-Delta. The water quality parameters of most concern are total organic carbon (TOC), bromide, and salinity. Levels of TOC and bromide increase significantly as water moves through the Bay-Delta. These constituents combine with

chemicals used in the water treatment process to form disinfection by-products which are carcinogenic. Water supplies from the SWP have significantly lower TDS levels than the Colorado River, averaging 250 mg/L in water supplied through the East Branch and 325 mg/L on the West Branch. Because of this lower salinity, Metropolitan blends SWP water with high salinity CRA water to reduce the salinity levels of delivered water. However, both the supply and the TDS levels of SWP water can vary significantly in response to hydrologic conditions in the Sacramento-San Joaquin watersheds.

TVMWD which uses 100% state project water at its Miramar Treatment Facility has been working to increase plant production at its Miramar facility, to reduce Disinfection By-Products (DBPs) formation, evaluate sludge production due to enhanced coagulation and divert storm flows from entering the Backwash Ponds.

6.3 Specific Contaminants

Perchlorate
Ammonium perchlorate is used as a main component in solid rocket propellant, and it can also be found in some types of munitions and fireworks. Ammonium perchlorate and other perchlorate salts are readily soluble in water.

Metropolitan began monitoring for perchlorate in July 1997 when it was detected in the Colorado River Aqueduct and the Lake Mead outlet t Hoover Dam. Extensive sampling within the Colorado River watershed in July and August of e same year indicated that the perchlorate originated in the Las Vegas Wash, and the most likely source was the Kerr-McGee chemical manufacturing site located in Henderson, Nevada. In August 1997

The primary human health concern related to perchlorate is its effects on the thyroid. Perchlorate interferes with the thyroid gland's ability to produce hormones required for normal growth and development. Currently California Department of Health Services (DHS) is in the process of developing a drinking water regulation. If the current notification level is exceeded, CDHS requires that utilities inform their governing bodies and recommends they notify consumers of perchlorate's presence in the drinking water supply and its potential adverse health effects.

Perchlorate has also been found in groundwater basins within Three Valleys and MWD's service area. Member agencies are considering various options for removing or reducing perchlorate concentrations, including blending and treatment. Perchlorate in local groundwater basins is thought to be largely from local sources that tested and manufactured solid rocket engines. The closed wells are typically located near rocket testing and manufacturing facilities (for example, Aerojet in Azusa in the Main San Gabriel Basin and the Jet Propulsion Laboratory/NASA (JPL) in Raymond Basin).

Total Organic Carbon (TOC's) and Bromide
When source water containing high levels of total organic carbon (TOC) and bromide is treated with disinfectants such as chlorine or ozone, disinfection byproducts (DBP's) form. Studies have shown a link between certain cancers and DBP exposure. In addition, some studies have shown an association between reproductive and development effects and chlorinated water. In December 1998, the U.S. Environmental Protection agency (EPA) adopted more stringent regulations for DBPs, Water agencies began complying with those new regulations in January 2002, and EP A is expected to promulgate even more stringent regulations in 2005.

Existing levels of TOC and bromide in Delta water supplies present significant concern for Three Valleys' ability to maintain safe drinking water supplies. Levels of these constituents in SWP water increase several-fold as water moves through the Delta due to agricultural drainage and seawater intrusion. One of MWD's primary objectives for the CALFED Bay-Delta process is protection and improvement of the water quality of its SWP supplies to ensure compliance with current and future drinking water regulations. Although exact future drinking water standards are unknown, significant source water protection of SWP water supplies will almost certainly be a necessary component of meeting these requirements cost effectively.

CALFED's Bay-Delta Program calls for a wide array of actions to improve Bay/Delta water quality, ranging from improvements in treatment technology to safeguarding water quality at the source. These actions include conveyance improvements, alternative sources of supply, changes in storage and operations, and advanced treatment by water supply agencies. Source water quality improvements must be combined with cost-effective water treatment technologies to ensure safe drinking water at a reasonable cost. Three Valleys Miramar Treatment Plant exclusively uses SWP water and practices enhanced coagulation for TOC removal and plans to meet the upcoming Stage II DBP Rule regulation through upgrading of the Miramar water treatment process.

Methyl Tertiary Butyl Ether (MTBE)
MTBE is very soluble in water allowing the chemical to move quickly in the groundwater. It is introduced into surface water bodies from the motor exhausts of recreational watercraft. MTBE is also resistant to chemical and microbial degradation in water, making treatment more difficult than the treatment of other gasoline components. MTBE presents a significant problem to local groundwater basins. Leaking underground storage tanks and poor fuel-handling practices at local gas stations may provide a large source of MTBE. Only one gallon of gasoline is enough to contaminate about 16.5 million gallons of water. Three Valleys has supported federal and state legislation aimed at reducing the impacts of MTBE in its drinking water supply.

Nitrate (NO_3*)*
Many local groundwater producers wells' are inactive due to NO_3 contamination from prior agricultural or private sewage disposal practices. A recent trend of ion-exchange technology is allowing TVMWD's Member Agencies to reactivate wells as these local projects are brought on-line.

The Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR)
This rule was implemented to reduce disease incidence associated with Cryptosporidium and other pathogenic microorganisms in drinking water. The LT2ESWTR will supplement existing regulations by targeting additional Cryptosporidium treatment requirements for higher risk systems. This proposed regulation also contains provisions to mitigate risks from uncovered finished water storage facilities and to ensure that systems maintain microbial protection as they take steps to reduce the formation of disinfection byproducts. The LT2ESWTR will apply to all systems that use surface water or ground water under the direct influence of surface water and Three Valleys MWD is planning to be in full compliance with its Miramar WTP.

CHAPTER 7. Recycled Water

7.1 Overview

Pomona-Walnut-Rowland Area
The Pomona-Walnut-Rowland (PWR) Area, located in the southern region of the Three Valleys service area, has very limited access to groundwater resources. Despite its location overlying the Spadra and Puente Groundwater Basins, poor groundwater quality has resulted in limited amounts of production for potable use from these resources. Consequently, the PWR area is heavily reliant on expensive, treated imported water. Although lacking in groundwater resources, the PWR area's proximity to existing wastewater treatment plants affords it the availability and use of recycled water. However, high seasonal and daily demands on the recycled water system have exceeded the available supply from the Pomona Water Reclamation Plant, the single facility currently serving the needs of Pomona, WVWD, and RWD.

To meet increasing demands within the PWR area, the City of Pomona, Walnut Valley WD, and Rowland WD have sought to expand their respective recycled water markets and increase deliveries to offset the use of imported water. WVWD and RWD, who in the past had relied wholly on imported water, can now draw from this recycled supply to reduce overall potable water demand. As their respective customer base and demands for recycled water grow, they must look to other means of augmenting the supply from the Pomona WRP. WVWD currently incorporates groundwater from the Puente Basin, which is high in total dissolved solids (TDS), to supplement the supply within its recycled water system. Other potential well sites are being considered for even more supply.

Through an agreement with the Sanitation Districts of Los Angeles County (LACSD), the City of Pomona distributes treated effluent from the Pomona WRP to the city's retail customers for industrial and irrigation purposes and to California State Polytechnic University, Pomona. Walnut Valley Water District (WVWD) also has a purchase agreement with the LACSD *in addition to a separate purchase agreement with the City of Pomona*. WVWD similarly delivers its portion of recycled water to retail customers within its own service area. Both RWD and WVWD also add the water produced from three non-potable groundwater wells into their recycled water system.

Distribution and delivery of recycled water within this southern portion of the Three Valleys service area is made possible by the construction of approximately twenty-seven miles of pipeline and appurtenant structures. The combined use of recycled water by the three retail agencies is estimated to account for almost two-thirds of the total plant effluent at the Pomona WRP. The three retail water agencies use an average of 8,800 acre-feet annually over the most recent fiscal years, not including WVWD's and RWD's addition of 600 acre-feet of non-potable groundwater. This translates to roughly 62.1 percent of the WRP's total production. This remaining recycled water is typically discharged to the San Jose Creek channel where it progresses to the unlined portion of the San Gabriel River and subsequently recharged into the Central Groundwater Basin.

Currently, the use of recycled water remains limited due to the capacity of the Pomona WRP. During periods of high demand, the Pomona plant can not meet the combined needs of Pomona, WVWD, and RWD. This has led to the planning and implementation of a new recycled water project as described below.

7.2 The Industry Regional Recycled Water Project

Overview

The City of Industry Regional Recycled Water Project (Regional Project) expands the recycled water delivery capacity of Rowland Water District's (Rowland) and Walnut Valley Water District's (Walnut Valley) existing recycled water systems and allows Suburban Water System (Suburban) to construct its own recycled water distribution system. The Regional Project is possible in part due to the City of Industry's (Industry) existing backbone transmission pipeline from LACSD's San Jose Creek WRP that was constructed with excess capacity in anticipation of such regional expansion. Each of the four Regional Project participants is partly or completely within the Three Valleys Municipal Water District (Three Valleys). Suburban and the City of Industry are also partly in Upper San Gabriel Valley Water District's (Upper District) service area.

Source of Regional Project Water

The Regional Project will provide an estimated 8,867 acre-feet per year (AFY) of additional water supply for delivery through the expanded distribution system. The Regional Project recycled water supply will be provided by the San Jose Creek and Pomona WRPs owned and operated by the County Sanitation Districts of Los Angeles County. In Walnut Valley, the treated wastewater will be augmented by limited non-potable groundwater drawn from four new local wells. Regional Project facilities the three retailing agencies will co-fund include:

- One operational storage reservoir
- Two pumping stations, one at the San Jose Creek WRP and the other by Industry's existing station

Rowland Water District's System

Rowland's Existing Non-Potable Water System is supplied by high TDS groundwater, primarily from Rowland Well. Previously, surplus recycled water was made available from Walnut Valley through an emergency interconnection. This is not anticipated to be a supply source in the future. None of these existing sources are part of the Project.

Rowland's Portion of the Regional Project (Project) will deliver up to 1,884 AFY of Recycled Water from the San Jose Creek WRP through Industry's regional supply transmission facilities. Rowland's new facilities will include:

- *Approximately 88,000 feet of distribution pipelines, ranging from 4-inch to 24-inch diameter; and*
- *Three pumping stations.*

Rowland's End-Users: Project water will be used for irrigation and commercial, institutional, and industrial purposes.

Walnut Valley Water District's System
Walnut Valley's Existing Non-Potable Water System is supplied recycled water from the Pomona WRP and high TDS groundwater from two existing wells. It is currently capable of delivering 1,350 acre-feet per year. In the past, when surplus was available, Walnut Valley provided Rowland with Recycled Water through an inter-tie.

Walnut Valley's Portion of the Regional Project will deliver up to 2,584 AFY through its expanded distribution system. Both the Pomona and San Jose Creek WRPs will supply Recycled Water to the Project. Additional non-potable water will be provided from four new Project wells.

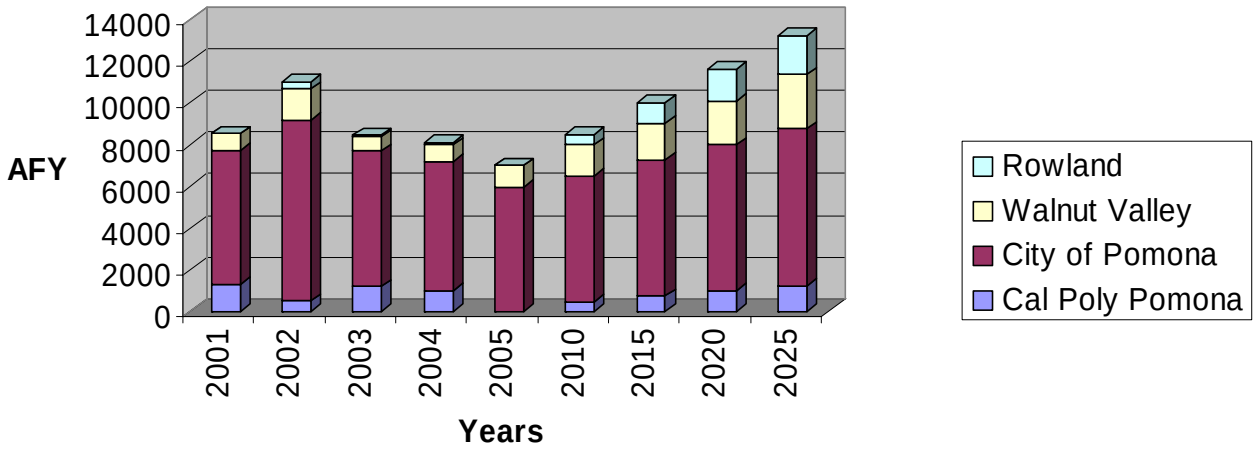
The Project facilities to be constructed and owned solely by Walnut Valley will include:
- Approximately 163,000 feet of distribution pipelines, ranging from 6-inch to 24-inch diameter
- Three operational storage reservoirs
- One pressure reducing station
- Four wells
- Three pumping stations
- Walnut Valley also shares Project distribution facilities with Suburban. These jointly-owned Project elements include:
- Approximately 31,500 feet of distribution pipelines, ranging from 12-inch to 24-inch diameter
- Three operational storage reservoirs
- Two pumping stations

Walnut Valley's End Users: Project water will be used for irrigation and industrial purposes.

7.3 Summary of Recycled Water Usage within TVMWD's Service Area

The following bar chart summarizes historical and projected future use of recycled water within Three Valleys' service area as previously described:

Figure 7.1
RECYCLED WATER USE WITHIN TVMWD SERVICE AREA



CHAPTER 8. ADOPTION AND IMPLEMENTATION

Three Valleys sought input from the agencies it serves as customers, from other local entities and from the public in the development of this Plan. As set forth in Government Code Section 6066, notice of this public hearing (copy attached) was published in newspapers of general circulation.

Specifically, the public hearing was advertised on December 7 and 14, 2005, in the San Gabriel Valley Tribune and the Inland Valley Daily Bulletin.

Public Input Process

- Copies of the UWMP DRAFT document were provided to the Board on November 17, 2005 and also on December 16, 2005.
- As required by amendments to the Urban Water Management Planning Act, water suppliers are required to send notifications to all cities and counties in the suppliers' service area that the Urban Water Management Plan is being updated and that they are invited to provide comments during the update process. This was done on December 7, 2005.
- A hard copy of the final DRAFT plan along with a copy of the public notice was provided for reference purposes to the following public libraries within our service area:

Claremont Public Library	*Covina Public Library*	*Diamond Bar Public Library*
Glendora Library	*La Verne Public Library*	*Pomona Public Library*
Rowland Heights Library	*San Dimas Public Library*	*Walnut Public Library*

- In March 2005, TVMWD sent out notices to each of our Member Agencies in our service area seeking their input for development of the UWMP. Also at the monthly Member Agencies' Managers' meeting discussions and updates regarding the UWMP were reviewed with each of our Member Agencies on March 8, July 12, September 13, and the October 11, 2005. DRAFT copies of the plan were provided as a hand-out and an e-mail "PDF" copy was provided on October 14, 2005. A final DRAFT was provided December 7, also via e-mail distribution to each of our Member Agencies. In response, we received a variety of comments back that were incorporated into our plan.

- The District also distributed e-mail copies of our DRAFT plan to the Inland Empire Utilities Agency, Chino Basin Watermaster, Main San Gabriel Basin Watermaster, MWD and the Upper San Gabriel Valley MWD.

- A copy of the plan was available for public review at the District's Administrative offices is also available on our website at www.threevalleys.com.

NOTICE OF PUBLIC HEARING

The Board of Directors of the Three Valleys Municipal Water District ("District") will hold a public hearing on Wednesday, December 21, 2005, at 10:00 a.m., at the District's Headquarters located at 1021 E. Miramar Avenue in Claremont, California, for the purpose of reviewing and considering possible adoption of the District's 2005 Urban Water Management Plan.

Prior to said public hearing, all persons are invited to review the District's proposed 2005 Urban Water Management Plan, which is available for public inspection at the District's Headquarters at the above location during regular business hours, and to submit written comments thereto to the District. Written and oral comments to the District's proposed 2005 Urban Water Management Plan may be submitted to the District's Board of Directors at the time of the public hearing thereon.

For further information, please contact Mike Holmes, the District's Assistant General Manager, at (909) 621-5568 during regular business hours.

Published December 7 and 14, 2005

• EAST SAN GABRIEL
• POMONA &
• WALNUT VALLEYS

THREE VALLEYS
MUNICIPAL WATER DISTRICT

DIVISION 1

DIVISION 2

DIVISION 3

DIVISION 4

DIVISION 5

DIVISION 6

DIVISION 7

N

MAP SCALE IN FEET
0 4,000 8,000
AUGUST, 2000

THREE VALLEYS MUNICIPAL WATER DISTRICT

DIVISION MAP

INTEGRATED ENGINEERING SOLUTIONS, INC.
COVINA, CA (626) 331-8870

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, 2004
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 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.

(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), including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.

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 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,

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 quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.

(c) 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.

(d) 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.

(e) 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.

(f) 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.

(g) 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.

Articl 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 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 filed with 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 submitted its plan to 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.

Three Valleys Municipal Water District Meter Connections With Metropolitan Water District of Southern California

Connection	*Retail Purveyor*
PM-01	**Mt San Antonio College**
PM-06	**City of Glendora**
PM-07	**Golden State Water Company (San Dimas)**
PM-08	**Cal Poly Pomona University**
PM-09	**Rowland Water District**
PM-10	**Walnut Valley Water District**
PM-11	**City of Pomona**
PM-12	**Walnut Valley Water District**
PM-14	**Boy Scouts Firestone Reservation**
PM-15A	**PWR- Joint Water Line**
PM-15B	**PWR- Joint Water Line**
PM-16	**Golden State Water Company (San Dimas)**
PM-18	**City of Glendora**
PM-19	**City of Covina**
PM-21	**Three Valleys MWD**
PM-22	**Rowland Water District**
PM-23	**City of Glendora**
PM-24	**Walnut Valley Water District**
PM-26	**Three Valleys MWD**
PM-SGP-01	**Three Valleys MWD**

Total Water Supplies within the Three Valleys Service Area
Fiscal Year 2000-2001
(Acre-feet)

	Imported Water			Groundwater				Surface Water	Recycled Water		**Total**
	Miramar	Weymouth	Other	Chino	6 Basins	Main SG	Other		Pomona	SJC	
Boy Scouts of America	-	24	-	-	-	-	-	-	-	-	24
Cal Poly Pomona	-	453	-	-	-	-	91	-	1,314	-	1,857
Covina, City of	-	-	-	-	-	2,545	-	4,728	-	-	7,273
Glendora, City of	-	2,092	-	-	-	10,760	-	317	-	-	13,169
La Verne, City of	6,779	2	-	-	884	-	-	-	-	-	7,665
Mt. San Antonio College	-	660	-	-	-	-	-	-	-	-	660
Pomona, City of	779	6,014	-	17,453	2,298	-	1,075	1,934	6,403	-	35,957
Rowland Water District	2,106	11,735	-	-	20	-	-	-	-	-	13,861
Southern California Water Co.											
Claremont District	6,013	-	-	357	5,856	-	-	-	-	-	12,225
San Dimas District	1,194	6,934	-	-	1	5,245	-	1,193	-	-	14,566
Valencia Heights Water Company	-	-	-	-	-	1,924	-	367	-	-	2,291
Walnut Valley Water District	3,469	20,310	-	-	30	-	233	-	823	-	24,866
Total	**20,339**	**48,225**	**-**	**17,809**	**9,089**	**20,474**	**1,399**	**8,540**	**8,540**	**-**	**134,400**

Recycled water use by RWD is included in totals for WVWD

Total Water Supplies within the Three Valleys Service Area
Fiscal Year 2001-2002
(Acre-feet)

	Imported Water			Groundwater				Surface Water	Recycled Water		**Total**
	Miramar	Weymouth	Other	Chino	6 Basins	Main SG	Other		Pomona	SJC	
Boy Scouts of America	-	30	-	-	-	-	-	-	-	-	30
Cal Poly Pomona	-	312	-	-	-	-	104	-	519	-	935
Covina, City of	-	131	-	-	-	3,247	-	4,227	-	-	7,606
Glendora, City of	-	2,590	-	-	-	11,009	-	306	-	-	13,904
La Verne, City of	7,484	0	-	-	1,123	-	-	-	-	-	8,607
Mt. San Antonio College	-	791	-	-	-	-	-	-	-	-	791
Pomona, City of	801	5,745	-	17,612	1,870	-	1,101	2,012	8,672	-	37,812
Rowland Water District	1,848	12,673	-	-	78	-	-	-	323	-	14,922
Southern California Water Co.											
Claremont District	6,154	0	-	225	7,394	-	-	-	-	-	13,773
San Dimas District	1,271	8,562	-	-	0	4,244	-	1,257	-	-	15,334
Three Valleys MWD	15	-	-	-	-	-	-	-	-	-	15
Valencia Heights Water Company	-	3	-	-	-	1,995	-	330	-	-	2,327
Walnut Valley Water District	2,376	24,136	-	-	111	-	228	-	1,473	-	28,325
Total (Retail Use)	**19,949**	**54,971**	-	**17,837**	**10,576**	**20,495**	**1,434**	**8,132**	**10,987**	-	**144,380**
Main San Gabriel Basin WM			4,944								4,944
Other			551								551
Total (Service Area)	**19,949**	**54,971**	**5,495**	**17,837**	**10,576**	**20,495**	**1,434**	**8,132**	**10,987**	**-**	**149,900**

Total Water Supplies within the Three Valleys Service Area
Fiscal Year 2002-03
(Acre-feet)

	Imported Water			Groundwater				Surface Water	Recycled Water		**Total**
	Miramar	Weymouth	Other	Chino	6 Basins	Main SG	Other		Pomona	SJC	
Boy Scouts of America	-	13	-	-	-	-	-	-	-	-	13
Cal Poly Pomona	-	318	-	-	-	-	177	-	1,197	-	1,693
Covina, City of	-	2,333	-	-	-	2,572	-	2,178	-	-	7,083
Glendora, City of	-	1,761	-	-	-	11,061	-	152	-	-	12,975
La Verne, City of	6,953	42	-	-	1,617	-	-	-	-	-	8,612
Mt. San Antonio College	-	728	-	-	-	-	-	-	-	-	728
Pomona, City of	838	6,690	-	17,574	933	-	797	974	6,504	-	34,311
Rowland Water District	1,424	12,443	-	-	-	-	-	-	100	-	13,968
Southern California Water Co.											
Claremont District	6,610	-	-	132	6,142	-	-	-	-	-	12,885
San Dimas District	1,155	9,470	-	-	-	-	-	879	-	-	11,504
Three Valleys MWD	26	-	-	-	-	-	-	-	-	-	26
Valencia Heights Water Company	-	-	-	-	-	1,963	-	267	-	-	2,229
Walnut Valley Water District	2,237	27,354	-	-	-	-	417	-	661	-	30,669
Total (Retail Use)	**19,243**	**61,153**	-	**17,707**	**8,692**	**15,596**	**1,391**	**4,450**	**8,463**	-	**136,695**
Main San Gabriel Basin WM			2,791								2,791
Other			-								-
Total (Service Area)	**19,243**	**61,153**	**2,791**	**17,707**	**8,692**	**15,596**	**1,391**	**4,450**	**8,463**	**-**	**139,500**

Total Water Supplies within the Three Valleys Service Area
Fiscal Year 2003-04
(Acre-feet)

	Imported Water			Groundwater				Surface Water	Recycled Water		**Total**
	Miramar	Weymouth	Other	Chino	6 Basins	Main SG	Other		Pomona	SJC	
Boy Scouts of America	-	12	-	-	-	-	-	-	-	-	12
Cal Poly Pomona	-	293	-	-	-	-	-	-	1,000	-	1,293
Covina, City of	-	1,582	-	-	-	-	-	6,160	-	-	7,742
Glendora, City of	-	3,294	-	-	-	11,955	-	76	-	-	15,326
Joint Water Line	6,563	28,590	-								35,153
La Verne, City of	7,622	-	-	-	1,651	-	-	-	-	-	9,273
Mt. San Antonio College	-	682	-	-	-	-	-	-	-	-	682
Pomona, City of	-	-	-	16,111	1,518	-	949	1,482	6,186	-	26,247
Rowland Water District	-	3,624	-	-	-	-	-	-	109	-	3,733
Southern California Water Co.											
Claremont District	7,173	-	-	-	6,836	-	-	-	-	-	14,009
San Dimas District	838	12,959	-	-	-	-	-	-	-	-	13,797
Three Valleys MWD	23	-	-	-	-	-	-	-	-	-	23
Valencia Heights Water Company	-	-	-	-	-	1,586	-	819	-	-	2,405
Walnut Valley Water District	-	14,387	-	-	-	-	-	-	816	-	15,203
Total (Retail Use)	**22,219**	**65,423**	-	**16,111**	**10,006**	**13,541**	**949**	**8,537**	**8,110**	-	**144,897**
Main San Gabriel Basin WM			1,920								1,920
Other			-								-
Total (Service Area)	**22,219**	**65,423**	**1,920**	**16,111**	**10,006**	**13,541**	**949**	**8,537**	**8,110**	**-**	**146,800**

Total Water Supplies within the Three Valleys Service Area
Fiscal Year 2004-05
(Acre-feet)

	Imported Water			Groundwater				Surface Water	Recycled Water		**Total**
	Miramar	Weymouth	Other	Chino	6 Basins	Main SG	Other		Pomona	SJC	
Boy Scouts of America	-	14	-	-	-	-	-	-	-	-	14
Cal Poly Pomona	-	244	-	-	-	-	-	-	-	-	244
Covina, City of	-	-	-	-	-	3,196	-	3,795	-	-	6,991
Glendora, City of	-	1,925	-	-	-	10,738	-	177	-	-	12,840
Joint Water Line	7,106	20,814	-								27,921
La Verne, City of	6,913	-	-	-	1,270	-	-	-	-	-	8,183
Mt. San Antonio College	-	467	-	-	-	-	-	-	-	-	467
Pomona, City of	-	-	-	15,981	1,773	-	904	1,942	5,983	-	26,584
Rowland Water District	-	3,988	-	-	-	-	-	-	-	-	3,988
Southern California Water Co.											
Claremont District	5,619	-	-	-	5,354	-	-	-	-	-	10,974
San Dimas District	1,278	11,118	-	-	-	-	-	-	-	-	12,396
Three Valleys MWD	-	-	-	-	-	-	-	-	-	-	-
Valencia Heights Water Company	-	-	-	-	-	1,284	502	269	-	-	2,055
Walnut Valley Water District	-	11,703	-	-	-	-	333	-	-	1,007	13,043
Total (Retail Use)	**20,916**	**50,273**	-	**15,981**	**8,398**	**15,218**	**1,739**	**6,183**	**5,983**	1,007	**125,698**
Main San Gabriel Basin WM			4,437								4,437
Other			-								-
Total (Service Area)	**20,916**	**50,273**	**4,437**	**15,981**	**8,398**	**15,218**	**1,739**	**6,183**	**5,983**	**1,007**	**130,100**

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LOS ANGELES SUPERIOR

DEC 18 1998

JOHN A. CLARKE, CLERK

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**

THE DOCUMENT TO WHICH THIS CERTIFICATE IS ATTACHED IS A FULL, TRUE, AND CORRECT COPY OF THE ORIGINAL ON FILE AND OF RECORD IN MY OFFICE.

DEC 18 1998

ATTEST _____

JOHN A. CLARKE

Executive Officer/Clerk of the Superior Court of California, County of Los Angeles.

By _____, Deputy

C. MORALES

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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.

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 this 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 per AF and shall be due and payable on January 15, 1999. Late payment shall bear an interest penalty to be established annually by Watermaster. (escalated?)

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.

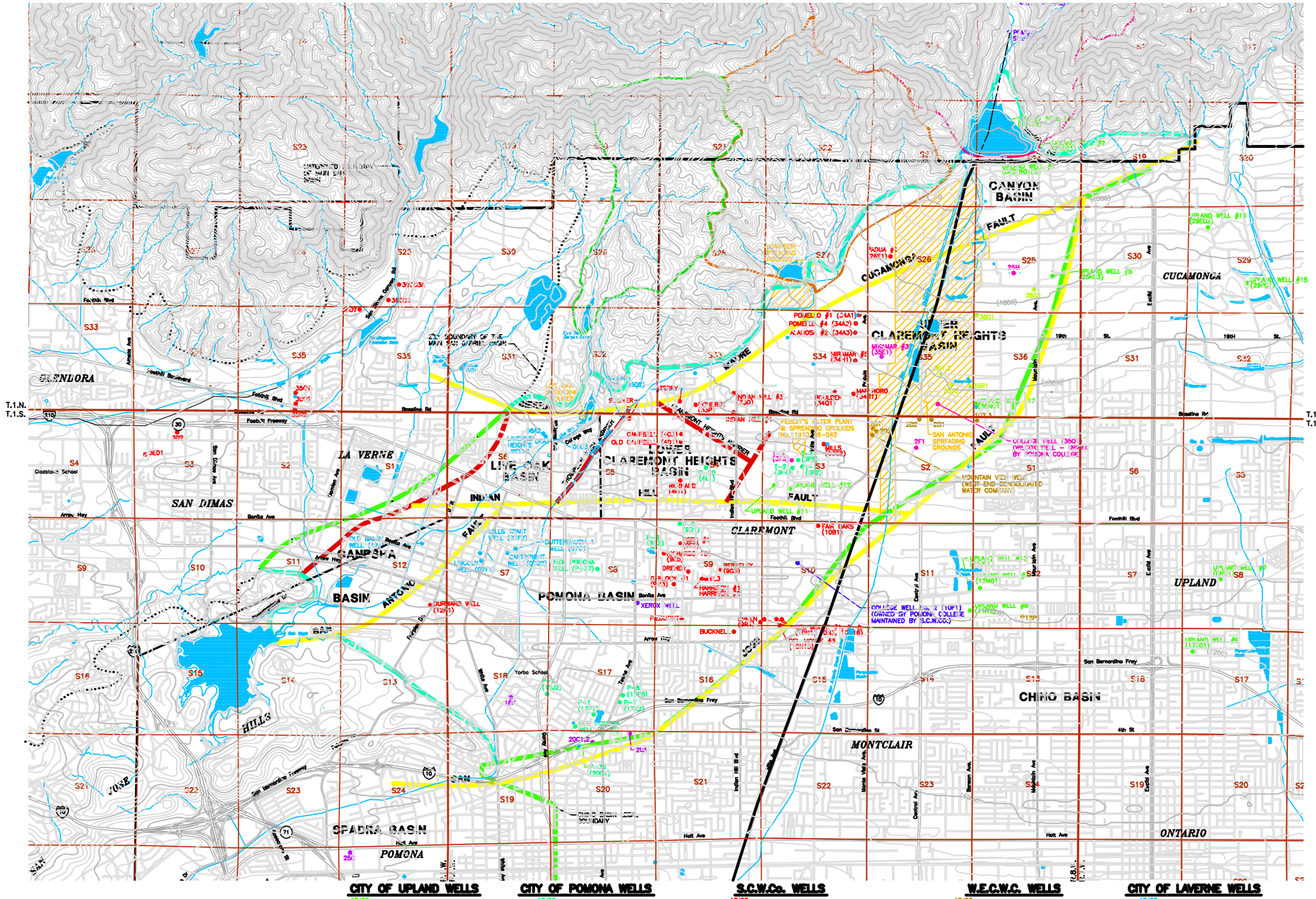
B. **Entry of Judgment.** The Clerk shall enter this Judgment.

Dated: DEC 18 1998 1998.

Judge of the Superior Court

WILLIAM J. McVITTIE

HATCH AND PARENT
21 EAST CARRILLO STREET
SANTA BARBARA, CA
93101-2782



LEGEND

- THOMPSON CREEK WATERSHED BOUNDARY
- LIVE OAK WATERSHED BOUNDARY
- SAN ANTONIO WATERSHED BOUNDARY
- FAULT LINE
- LEGAL BOUNDARY OF ADJACENT 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

18J02 — WELL AND NUMBER

STATE ID #	CITY ID #
24L1	UPLAND WELL #1 (DESTROYED)
24E02	UPLAND WELL #1A
24E01	UPLAND WELL #2
12M01	UPLAND WELL #3 (INACTIVE)
25K03	UPLAND WELL #5
BN01	UPLAND WELL #7
11R1	UPLAND WELL #8 (INACTIVE)
17E01	UPLAND WELL #9
3M3	UPLAND WELL #11 (DESTROYED)
3MI	UPLAND WELL #12 (DESTROYED)
11J01	UPLAND WELL #13 (INACTIVE)
29P01	UPLAND WELL #15
29E02	UPLAND WELL #16
36N01	UPLAND WELL #17

S.A.W.C. WELLS

18J02 — WELL AND NUMBER

STATE ID #	COMPANY ID #
25G1	SAWC WELL #17 (INACTIVE)
35R1	SAWC WELL #25 (INACTIVE)
35J3	SAWC WELL #26
3K1,2	SAWC WELL #27 (INACTIVE)
36D1	SAWC WELL #28 (INACTIVE)

CITY OF POMONA WELLS

18J02 — WELL AND NUMBER

STATE ID #	CITY ID #
17P7	P-1
18J2	P-3
17K2	P-7
17P5	P-8
8K2	P-9
9D1	P-13
4L1	P-20
17P3	P-32
20C1	P-33
8F1	P-37
3F2	T-1
3F4	T-2
3F3	T-3
3F5	T-4

SIMPSON PAPER CO.

18J02 — WELL AND NUMBER

STATE ID #	COMPANY ID #
18K	WELL 5
20A	WELL 1
20C1	WELL 2A
20C2	WELL 2B
25C	WELL 3

S.C.W.Co. WELLS

18J02 — WELL AND NUMBER

STATE ID #	COMPANY ID #
34A3	ALAMOSA #2
9G3	BERKELEY
4M1	BERNARD
34Q1	BOULDER
4C3	CAMPBELL
35Q1	COLLEGE WELL
10N1	DEL MONTE #1
10N3	DEL MONTE #2
10N15	DEL MONTE #3
10N16	DEL MONTE #4
9F	DREHER
12R1	DURWARD WELL
10B1	FAIR OAKS
9E2	FORD #1
9N3	GARLOCK #1
9R1	GREEN
9L3	HARRISON #1
9L2	HARRISON #2
33Q	INDIAN HILL #3
34R1	MARLBORO
3G2	MILLS #1
35E1	MIRAMAR #3
34H1	MIRAMAR #5
28E1	PADUA #1
34A1	POMELLO #1
34A2	POMELLO #4
33P	POMEROY
9E5	RICHARDS 160

KEY MONITORING WELLS

18J02 — WELL AND NUMBER

STATE ID #	COMPANY ID #
12W01	UPLAND WELL #3
2F1	ML VIEW #4
35E1	MIRAMAR #3
35Q1	COLLEGE WELL No. 1
3F3	T-3

POMONA COLLEGE

18J02 — WELL AND NUMBER

STATE ID #	COMPANY ID #
35Q1	COLLEGE WELL No. 1
10F1	COLLEGE WELL No. 2

W.E.C.W.C. WELLS

18J02 — WELL AND NUMBER

STATE ID #	COMPANY ID #
25G2	CANYON RIDGE WELL (DESTROYED)
1D2,3	LEMON HEIGHTS #4
2D1	ML VIEW #1
2D2	ML VIEW #2 (DESTROYED)
2F1	ML VIEW #4
12P1	WEST END WELL #1 (INACTIVE)
2B1	WEST END WELL #3
2B2	WEST END WELL #4
25N1	UPLAND-FOOTHILL #1 (DESTROYED)
25L1,2	UPLAND-FOOTHILL #3

CITY OF LAVERNE WELLS

18J02 — WELL AND NUMBER

STATE ID #	CITY ID #
07G2	CARTWRIGHT
07F1	LINCOLN
05D2	MALONE 2 (INACTIVE)
07F2	MILLS TRACT
12A	OLD BALDY
06A2	LAVERNE HEIGHTS 1
06A1	LAVERNE HEIGHTS 2
05G3	LAVERNE HEIGHTS 3
07G1	BUTTERBAUGH 1 (DESTROYED)

PREPARED BY:

CIVILTEC engineering inc.
(626) 357-0566

SIX BASINS AREA
FINAL BOUNDARY MAP

DESIGN: JM/MR	CHECKED: WDB	SCALE: 1" = 2000'
DRAWN: PWH	J.N. 97106	SHEET 1 OF 1

EXHIBIT "A"

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

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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~~ B, 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.

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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.

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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Simpson Paper Company
1301 Fifth Ave., Suite 2800
Seattle, Washington 98101-2613

WATER STORAGE AND RECOVERY AGREEMENT
BETWEEN THREE VALLEYS MUNICIPAL WATER DISTRICT
AND SIX BASINS WATERMASTER

This Agreement made, entered into, and executed as of the 23rd day of May, 2001, by and between THREE VALLEYS MUNICIPAL WATER DISTRICT (hereinafter referred to as "DISTRICT"), a public agency, and the SIX BASINS WATERMASTER (hereinafter referred to as "WATERMASTER"), a court appointed entity established by the Los Angeles County Superior Court.

RECITALS

A. Water rights have been adjudicated in the Six Basins Area according to the Judgment in Los Angeles County Superior Court Case No. KC029152, entitled Southern California Water Company v. the City of La Verne, et al.

B. Said Judgment establishes the WATERMASTER as the court empowered entity responsible for managing groundwater resources in 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 or the DISTRICT.

C. Said Judgment, under the provisions of Paragraph III.B.5, allows the DISTRICT to utilize unused storage capacity for the purpose of storing imported water.

D. The DISTRICT operates a water treatment plant adjacent to the San Antonio Spreading Grounds and overlying the Upper Claremont Heights Basin. At said plant, the DISTRICT can discharge water onto its property or direct it into the spreading grounds to percolate into the underlying groundwater supply.

E. The DISTRICT is a member agency of the Metropolitan Water District of Southern California, the wholesale water agency responsible for importing water from the State Water Project and the Colorado River. As a member agency, the DISTRICT is afforded the capability to directly purchase untreated water for groundwater recharge.

F. Spreading and injection or otherwise recharging groundwater in the Six Basins Area is restricted according to Paragraph VI.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 or credit by the storing entity.

G. DISTRICT and WATERMASTER desire to enter into an agreement for the storage and recovery of water.

COVENANTS

NOW THEREFORE, for and in consideration of the foregoing recitals and the mutual terms, conditions, promises, and covenants contained herein, the parties hereby agree as follows:

SECTION 1. STORAGE

1.1 DISTRICT may, subject to the conditions hereinafter set forth, spread and cause to be spread water in the Six Basins Area which would be stored for DISTRICT's account. The amount of water stored and available for recovery shall be all amounts it has spread or caused to be spread in the Six Basins Area. Without limitation on accumulations, DISTRICT shall acquire and retain ownership of all such water stored in its account until such water is transferred to another party or recovered by the DISTRICT.

1.2 Water spread and caused to be spread by the DISTRICT pursuant to this Agreement shall be accomplished at its Miramar Treatment Facility located at 1021 E. Miramar Avenue in the

City of Claremont. Said facility is adjacent to the San Antonio Spreading Grounds and overlies the Upper Claremont Heights Basin.

1.3 Water spread and caused to be spread for the DISTRICT's storage account under this Agreement shall be limited to a rate of one thousand (1,000) acre-feet per year, and the accumulated quantity within the account shall not exceed three thousand five hundred (3,500) acre-feet without prior approval of WATERMASTER.

1.4 DISTRICT shall issue a report to WATERMASTER and Pomona Valley Protective Association (PVPA) on a monthly basis indicating the amount of water the DISTRICT has spread. The report shall be due on or before the 15th day of the month next following the end of the relevant month.

1.5 All water held in storage under this Agreement shall be subject to losses as provided in Article III-B, Section 7 of the Judgment.

SECTION 2. RECOVERY

2.1 Inasmuch as Watermaster desires to account for water losses in the recharge process, the amount of stored water that the DISTRICT is entitled to recover shall be reduced by three percent (3.0%) of the quantity that was originally delivered. Such reduction is in addition to any loss of stored water that may have occurred based on the provisions of Article III-B, Section 7 of the Judgment.

2.2 Subject to applicable storage losses, DISTRICT shall be entitled to recover any and all water is has spread and/or stored, and/or caused to be spread and/or stored, and/or otherwise acquired in the Six Basins Area, by any means not expressly prohibited in the Judgment.

2.3 DISTRICT shall be allowed to transfer water from its storage account to any Party of

the Judgment. The Party to whom these rights are transferred may determine the appropriate use of the stored water subject to any applicable provisions of the Judgment.

SECTION 3. ADDITIONAL CONSIDERATIONS

3.1 DISTRICT shall not undertake any storage or recovery operations associated with this Agreement that may substantially injure the rights of any other Party.

3.2 DISTRICT shall be responsible for satisfying all applicable requirements of the California Environmental Quality Act (CEQA) in implementing any projects associated with this Agreement.

SECTION 4. NOTIFICATION

Any notices required hereunder may be given by mail, postage prepaid and addressed as follows:

To WATERMASTER: Attn: President, Watermaster Board
Six Basins Watermaster
1021 Miramar Avenue
Claremont, California 91711

TO DISTRICT: Attn: General Manager/Chief Engineer
Three Valleys Municipal Water District
1021 Miramar Avenue
Claremont, California 91711

IN WITNESS WHEREOF, the parties hereto have caused the Agreement to be executed by

and through their respective and duly authorized officers on the day and year above first written.

THREE VALLEYS MUNICIPAL WATER DISTRICT

By:

Richard Hansen
General Manger/Chief Engineer

SIX BASINS WATERMASTER

By:

Brian Bowcock
President, Watermaster Board

STATE OF CALIFORNIA -- THE RESOURCES AGENCY
GRAY DAVIS, *Governor*

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

May 27, 2003

Mr. Richard Hansen
General Manager
Three Valleys Municipal Water District
1021 East Miramar Avenue
Claremont, California 91711-2052

Dear Mr. Hansen:

The Department of Water Resources has reviewed the Three Valleys Municipal Water District 2000 Urban Water Management Plan submitted in accordance with the Urban Water Management Planning Act, California Water Code Sections 10610 *et seq* (Act). DWR's review is attached (Attachment 1).

Please use our attached review summary as a resource to improve future urban water management plans. Our review summary has separate lines for discrete provisions of the Act. Provisions are grouped into "Sections". Each provision may be identified as "Addressed" or "Not Addressed." In the last section of the review, titled "Demand Management Measures", each provision may be identified as "Implementing", "Not Implementing", "Exempt" or "Not Addressed." Not all provisions specified in the Act are applicable to all urban water suppliers. Where applicable, you can improve your Plan by addressing the provisions marked as "Not Addressed" or "Not Implementing."

To be considered eligible for financial assistance from DWR under Propositions 204 and 13 (Section 10656), the Act requires urban water suppliers to prepare, adopt and submit to DWR a complete urban water management plan in accordance with the Act's requirements for an urban water supplier. Many of the Act's requirements are technical and a water supplier may wish to consider consulting its legal advisor to interpret the requirements of the Act which are specifically applicable to the supplier's situation.

Three Valleys Municipal Water District can amend its 2000 urban water management plan at any time. If you submit an amended or updated urban water management plan to DWR, we request that you submit three hard copies, one electronic copy, and proof of adoption (i.e., adoption resolution, minutes, etc.) to the following address:

Mr. David Todd
Office of Water Use Efficiency
Department of Water Resources
Post Office Box 942836
Sacramento, California 94236-0001

Urban Water Management Plan Review Summary

Three Valleys Municipal Water District

Plan Reviewed By: David Inouye
Phone Number: (818) 543-4654
Email: davidi@water.ca.gov

Plan Preparation

Provide proof of public hearing	Addressed
Attach a copy of adoption resolution	Addressed
Describe the Coordination of the plan preparation.	Addressed

Service Area Description

Describe climate characteristics	Addressed
Describe other demographic factors	Addressed
Provide population projections	Addressed
For the review table, "Population," we were able to input tabular data for: 2000 2005 2010 2015 2020	

Water Supply

Identify water supply sources	Addressed
Quantify existing water supply volumes	Addressed
Quantify planned water supply volumes	Addressed
For the review table, "Current and Projected Water Supplies," we were able to input tabular data for: 2000 2005 2010 2015 2020	
Describe exchange or transfer opportunities	Addressed

Water Use

Quantify past water use, identifying the uses among water use sectors	Addressed
Quantify current water use, identifying the uses among water use sectors	Addressed
Quantify projected water use, identifying the uses among water use sectors	Addressed

Water Shortage Contingency Plan

Provide actions toward the preparation of a catastrophic interruption of water supplies	Addressed
Attach a copy of the draft water shortage contingency resolution or ordinance.	Addressed
Provide at least one stage of action	Addressed
Provide the water supply conditions for each stage	Addressed
List the mandatory prohibitions against specific water use practices during water shortages	Addressed
List excessive use penalties with a discussion of how they are applicable	Addressed
List the consumption reduction methods the water supplier will use to reduce water use in the most restrictive stages	Addressed
Describe how actions and conditions impact revenues	Addressed
Describe how actions and conditions impact expenditures	Addressed
Describe proposed measures to overcome the revenue and expenditure impacts	Addressed
Provide a mechanism or mechanisms for determining actual reductions	Addressed

Demand Management Measures

CUWCC Signatory: According to the California Urban Water Conservation Council, you are a signatory to the Memorandum of Understanding Regarding Urban Water Conservation in California. The Urban Water Management Planning Act states that signatories may submit Council Best Management Practices reports to satisfy the reporting on conservation activities. The Council will review your BMP reports. When the review is complete, DWR will request a copy of the review, and the information contained within the reports, from the Council.

April 30, 2003

Mr. David Todd
Office of Water Use Efficiency
Department of Water Resoruces
Post Office Box 942836
Sacramento, CA 94236-0001

RE: Supplemental Information for 2000 Urban Water Management Plan

Dear Mr. Todd:

Thank you for forwarding the review of our 2000 Urban Water Management Plan. In an effort to address the following three (3) items in our Plan, we offer the processes and policies that specifically address these issues. Although we appreciate that this response is not required to realize a complete Urban Water Management Plan, the issues identified as "Not Addressed" will benefit Three Valleys Municipal Water District and its retail agencies and help us to begin planning for our next Urban Water Management Plan.

[A] Draft water shortage contingency resolution or ordinance
[B] Mandatory prohibitions against specific water use practices during water shortages
[C] Mechanism(s) to determine actual reductions

[A] Three Valleys Municipal Water District is a wholesale water supplier and member of Metropolitan Water District of Southern California (MWD). As such, in times of water shortages or emergency drought conditions, contingency plans and pricing structures will be followed per agreements with MWD. As MWD has adopted its tiered rate structure, Three Valleys is affected by this and associated water use is priced accordingly. This price structure is, of course, passed on to our retail agencies.

As referenced in our Plan, the MWD Water Surplus and Drought Management (WSDM) plan generally mentions many of the items that have since been put into place through working agreements and projects. Some of the projects and the relative issues in the WSDM include:

1021 E. Miramar Avenue • Claremont, California 91711-2052
Telephone (909) 621-5568 • Fax (909) 625-5470 • http://www.threevalleys.com

"Encourage storage of surplus supplies to mitigate shortages and improve water quality"

- The Live Oak Conjunctive Use Project, approximately 750 acre-feet to be placed in storage, contract with MWD, City of La Verne and Three Valleys signed/executed on November 21, 2002.
- The Chino Basin Conjunctive Use Cooperative Agreement, stores approximately 3,000 acre-feet in the Chino Basin for future use and current improvements.
- San Dimas Conjunctive Use Project will store approximately 3,000 acre-feet of surplus water for dry-year yield and water quality improvements.
- Six Basins Conjunctive Use Project will store approximately 10,000 acre-feet of State Water Project water for future use.

"Equitably allocate imported water on the basis of agencies' needs"

Three Valleys has been working with its retail agencies that have potential to store and use groundwater. Projects that store additional water and/or improve the groundwater quality benefit the entire District by providing alternative sources of water to be used in times of emergency drought or MWD-sanctioned reductions in imported water.

Three Valleys' agencies that do not have access to groundwater (primarily in the southern section of the District) will not be cut back on imported supplies to the extent that their economy or population will adversely be affected. The two agencies related to this situation are Walnut Valley Water District and Rowland Water District. Both agencies have been encouraged to further develop their reclaimed water supply and distribution, participate in Three Valleys' sponsored conservation programs, and explore alternative water exchange possibilities with neighboring groundwater suppliers. For example, Three Valleys has recently completed ultra-low-flush toilet distributions in partnership with the Walnut Valley Water District and co-hosted an educational, water science faire with Rowland Water District. These activities improve the conservation efforts and educate our retail agencies' customers which will ultimately lead to water savings.

Three Valleys has participated in and its retail customers have benefited from the MWD non-firm, interruptible water supply program. Three Valleys supported the pricing structure associated with this program through a resolution dating back to 1981 (attached). Although the prices have changed, Three Valleys' participation and commitment to this program has not.

Also attached is a draft resolution that is anticipated to be adopted by our Board of Directors on May 21, 2003. As you can see, this resolution outlines the measures Three Valleys discussed in the 2000 plan, specifically on pages 47-48. This resolution will provide Three Valleys with the Board-approved authority to begin emergency shortage communications in concert with MWD upon notification. Implementation of dry-year storage accounting and communications with Three Valleys' retail agencies to begin water cutbacks to residential customers will be immediate. Delays to seek Board approval will not be necessary upon approval of this draft resolution no. 05-03-441.

[B] Three Valleys will have mandatory prohibitions against specific water use in relation to our retail customers. This means that if MWD determines that a mandatory cut back in supplies to its member agencies is necessary, we will call upon our retail agency partners that have participated in the dry-year yield programs, groundwater banking and interruptible supply purchases. To date, our retail agencies have "banked" approximately 15,000 acre-feet of water for potential use in times of emergency drought or MWD-determined supply shortages. These mandatory prohibitions will include interruptible supply and other non-necessary water supplies to our retail agencies.

Past resolutions completed by Three Valleys Municipal Water District has encouraged its retail agencies to adopt ordinances encouraging conservation practices during times of drought (see attached). Although, Three Valleys is not equipped to enforce specific residential water use ordinances in times of extreme drought, Three Valleys will work with MWD as stated in our Plan on page 48, "to increase awareness and implement public information campaigns stressing the importance of active drought conservation".

[C] As a wholesale water supplier, Three Valleys has meters with which to determine water use by our retail customers. Determination of water use amounts is done through actual monthly billing and subsequent reporting of water use. Water use by each retail agency can be determined through individual metered connections. Per agreements and operating plans that we have with participating retail agencies, cut backs in supply when necessary must be accountable to MWD in relation to specific agreements and projects.

Again, thank you for reviewing our 2000 Urban Water Management Plan and providing us with an opportunity to address any shortcomings for this and future Plans. Three Valleys strives to improve water supply through innovation, conservation, education, partnerships and planning.

Upon receipt and review of this communication, a written response from you would be appreciated to assure us that our 2000 Urban Water Management Plan suitably addresses all the items as required. As discussed with Mr. Inouye, if this item could be expedited to assure our application to 2003 Proposition 13 funding is thoroughly evaluated, we would be most grateful.

Sincerely,

Richard W. Hansen, P.E.
General Manager

Cc: **David Inouye,**
DWR Southern District
Glendale, CA 91203

RESOLUTION NO. 05-03-441

RESOLUTION OF THE BOARD OF DIRECTORS OF THREE VALLEYS MUNICIPAL WATER DISTRICT SUPPORTING WATER CONSERVATION, EMERGENCY DROUGHT, AND SUPPLY SHORTAGE CONTINGENCY INFORMATION AND ACTION MEASURES

WHEREAS, in order to maintain the quality of life for California's growing population, and support efforts to relieve the ever-increasing pressures on imported water supplies, and

WHEREAS, Three Valleys Municipal Water District is a member agency of Metropolitan Water District of Southern California and is supportive of the Water Surplus and Drought Management Plan as prescribed by Metropolitan, and

WHEREAS, Three Valleys acknowledges that as a limited resource, water must be conserved at all times and planning efforts must be in place to address potential imported water supply shortages based on drought, emergencies or infrastructure failures, and

WHEREAS, Three Valleys desires to address these issues before they are urgent, and

WHEREAS, Three Valleys will continue to develop, support, and coordinate conservation education and efforts throughout the District, and

WHEREAS, Three Valleys will adhere to imported water supply cutbacks by Metropolitan through the use of water storage accounts and projects, increased water conservation efforts and communications, encouragement of mandatory residential water cutbacks if deemed an emergency by Metropolitan, and

WHEREAS, Three Valleys agrees that, upon notice by Metropolitan that an imported water supply shortage is an immediately apparent event, and emergency measures must be enacted; and

THEREFORE, be it resolved, that the Three Valleys Municipal Water District will, in concert with Metropolitan, begin notifying its retail agencies that imported water supplies may be cut back to lessen the emergent water shortage and specific guidelines

in which to notify residential customers will be provided for their immediate use and information dissemination. Three Valleys will also begin the implementation of water storage project agreements and accounting to ensure adequate water supply to all its member agencies in times of emergency and/or drought conditions.

ADOPTED this 21st day of May, 2003.

AYES:

NOES:

ABSTAIN:

ABSENT:

Robert G. Kuhn President
Board of Directors

ATTEST:

Edmund Biederman, Secretary
Board of Directors

RESOLUTION NO. 4-77-206

RESOLUTION OF THE BOARD OF DIRECTORS OF POMONA VALLEY MUNICIPAL WATER DISTRICT PROMULGATING A WATER CONSERVATION PRICING INCENTIVE PROGRAM BASED UPON ACTION BY THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

WHEREAS, Pomona Valley Municipal Water District is a municipal water district formed and operating in accordance with the Municipal Water District Act, California Water Code Sections 71,000 et seq. and subject to the laws of the State of California; and

WHEREAS, the Pomona Valley Municipal Water District (hereinafter PVMWD) provides water for residential, commercial, industrial, municipal, irrigation, and fire protection purposes through its water system and metering facilities located along the Metropolitan Water District of Southern California distribution system (hereinafter MWD); and

WHEREAS, water for PVMWD customers is supplied by the MWD pursuant to the rights and obligations of PVMWD as a member agency of MWD since 1950; and

WHEREAS, California is suffering from a second consecutive drought year and the Governor and the State Legislature have requested local agencies to implement water conservation programs to alleviate the water and energy shortages; and

WHEREAS, as a result of the drought conditions, the State of California is not delivering MWD's full entitlement to State Water Project Waters; and

WHEREAS, MWD has been and will import maximum quantities of water through the Colorado River Aqueduct System but said Aqueduct lacks capacity to meet projected 1977 water demands and leave reasonable emergency water storage in terminal reservoirs; and

WHEREAS, MWD has informed PVMWD of the drought year conditions it is experiencing and requested PVMWD and its members to reduce their system demands by 10% until further notice; and

WHEREAS, MWD has adopted a water pricing incentive to encourage said reduction in demand for water by its member agencies above 90% of their 1976 monthly water deliveries; and

WHEREAS, financial incentives for water conservation may impact employment and economic stability and PVMWD seeks to mitigate any such adverse impact; and

WHEREAS, the PVMWD will incur specific economic rewards and penalties as a member agency of MWD; and

WHEREAS, PVMWD, in order to equitably distribute that economic reward or penalty, must adopt a water pricing schedule commensurate with that need until further notice of improved water conditions by MWD; and

WHEREAS, a public hearing, upon notice, was held to discuss the foregoing;

NOW, THEREFORE, the Board of Directors of PVMWD does hereby resolve, find, determine and order as follows:

Section 1: A water shortage is threatened within PVMWD. All water agencies and water users within PVMWD are requested to immediately eliminate water waste and to immediately implement reasonable voluntary water saving measures to effect a 10% reduction in import and local water demands.

Section 2: Growth for each member agency (hereinafter M.A.) and/or service connection shall be proportional to each M.A.'s growth as it bears to the total of District. Growth is hereby defined as the increase in active service connections from

January, 1976 to January, 1977, inclusive. Growth allocations shall be applied proportionally where applicable to those service connections that used water during that same month in 1976.

Section 3: In the event any unique or unforeseen loss of well or local supply not under the control of M.A. shall occur, M.A. shall notify PVMWD at the earliest convenience, if request for allocation adjustment is to be sought.

Section 4: Allocation of credits or penalties among M.A.'s service connections shall be determined by the deviation from import goal. Goal is defined as 90% of last year's import use for each service connection operated by M.A.

Section 5: In any month when PVMWD is assess a surcharge by MWD, the surcharge and applicable credit charges shall be allocated to each M.A. service connection that used water in excess of the defined goal in proportion to what their total overage bears to the Total charges to be paid. Applicable credit charge under this section shall be derived from those service connections using less than the defined goal. Those connections shall receive a credit value equal to $20/acre foot for each acre foot under that goal. Those credit dollars shall be included with the surcharge dollars to equal the Total charges to be paid for that month.

Section 6: In any month when PVMWD receives a credit from MWD the credit shall be allocated to M.A. service connections using less than the defined goal in that proportion to which each minus value service connection bears to the total credits within the PVMWD.

RESOLUTION NO. 4-90-310

RESOLUTION OF THE BOARD OF DIRECTORS OF THREE VALLEYS MUNICIPAL WATER DISTRICT ON URGING ADOPTION OF CONSERVATION ORDINANCES TO MITIGATE THE EFFECTS OF THE 1990 CALIFORNIA DROUGHT

WHEREAS, California is entering a forth consecutive year of below-normal precipitation;

WHEREAS, precipitation for the current water year has been substantially below normal in the watersheds of the imported water supplies serving Southern California, and many communities in the State will suffer water shortages;

WHEREAS, precipitation in Southern California has also been below average and many local groundwater basins are being overdrafted; and

WHEREAS, adoption of local conservation ordinances would help to reduce potential water shortages in Metropolitan's service area;

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of Three Valleys Municipal Water District urges all counties, cities, and other local entities in its service area to adopt conservation ordinances designed to mitigate the effects of the continuing drought during calendar year 1990;

BE IT FURTHER RESOLVED that a copy of this resolution be sent to the governing body and chief executive officer of every county, city, and water supply entity within Three Valleys Municipal Water District's service area.

SECRETARY'S CERTIFICATION

STATE OF CALIFORNIA }
} SS
COUNTY OF LOS ANGELES }

I, **RANDELL J. VOGEL**, Secretary of the Board of Directors of **THREE VALLEYS MUNICIPAL WATER DISTRICT**, do hereby certify that the above and foregoing is a full, true and correct copy of RESOLUTION NO. 4-90-310, of said Board, and that the same has not been amended or repealed.

I do hereby further certify that the foregoing resolution was duly adopted by the Board of Directors of said Water District at a regular meeting of said Board held on the 3rd day of April, 1990, and that it was so adopted by the following vote:

AYES: Directors Baldonado, Koch, Milne, O'Brien, Stiglich and Vogel

NOES: Director Armstrong

ABSENT: None

ABSTAINING: None

RANDELL J
Board of Dire
Three Valleys

RESOLUTION NO. 7-90-312

RESOLUTION OF THE BOARD OF DIRECTORS OF THREE VALLEYS MUNICIPAL WATER DISTRICT ESTABLISHING A SPECIAL ACCOUNT TO BE USED FOR PROGRAMS TO STORE AND CONSERVE WATER THAT WILL BE AVAILABLE TO MEET DOMESTIC AND MUNICIPAL DEMANDS

WHEREAS, the Board of Directors of the Metropolitan Water District of Southern California has adopted water rates to be effective for the year beginning July 1, 1990, and,

WHEREAS, these water rates provide for a reduction of five dollars per acre-foot in rates for interruptible and seasonal storage service for member agencies adopting a resolution committing the agency to placing the savings in a Special Account to be used for storage and conservation purposes, and,

WHEREAS, it is the intention of the Board of Directors of Three Valleys Municipal Water District to create such a Special Account in order to qualify for the water rate reduction.

NOW, THEREFORE, be it resolved by the Board of Directors of Three Valleys Municipal Water District as follows:

1. There is hereby created a Special Account to be used for programs to store and conserve water that will be available to meet domestic and municipal demands.

2. Funding for this Special Account shall be from the savings resulting from the $5 per acre-foot rate reduction for interruptible and seasonal storage service granted by the Metropolitan Water District of Southern California on water sold and delivered after July 1, 1990.

3. A copy of this Resolution shall be sent to the Metropolitan Water District of Southern California.

PASSED and **ADOPTED** this 17 day of July, 1990 by the following vote:

AYES: Directors Armstrong, Baldonado, Koch, Milne, O'Brien and Stiglich

NOES: None

ABSENT: Director Vogel

WILLIAM H. KOCH, President
Board of Directors
Three Valleys Municipal Water District

ATTEST:

RICHARD W. HANSEN, Assistant Secretary