
Final Report

2005 Urban Water Management Plan – City of Santa Maria

Prepared for
City of Santa Maria

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Santa Maria, CA 93454

April 2007

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2005 Urban Water Management Plan – City of Santa Maria

Submitted to
City of Santa Maria

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G CITY OF SANTA MARIA 2004 WATER QUALITY REPORT

Notice of Adoption

A meeting to solicit public comments on the 2005 Urban Water Management Plan for the City of Santa Maria was held on April 3, 2007 at 6:30 pm at Santa Maria City Hall Council Chambers. Notice of this meeting was published in accordance with Section 6066 of Government Code in the Santa Maria Times on March 16th, 20th, 23rd, and 28th, 2007 and the El Tiempo weekly newspaper on March 22nd and 29th, 2007.

The City of Santa Maria held a public workshop to present the 2005 Urban Water Management Plan. The workshop was held at the Santa Maria City Hall Council Chambers at 5:30 pm on March 22, 2007. Copies of the Urban Water Management Plan were made available to the public at the Santa Maria City Clerk's Office, the Utilities Administration Office and on the City's website on March 16, 2007.

Comments, oral and written, and responses to those comments are documented in Appendix C of this document.

The City of Santa Maria hereby adopts the 2005 Urban Water Management Plan.



Richard G. Sweet, P.E.
Director of Utilities
Utilities Department
City of Santa Maria

Abbreviations and Acronyms

ac-ft	acre-feet
ac-ft/yr	acre-feet per year
Act	Urban Water Management Planning Act
AMCL	alternative MCL
BMPs	best management practices
CCL	contaminant candidate list
CCRs	consumer confidence reports
CCWA	Central Coast Water Authority
CDHS	California Department of Health Services
CIMIS	California Irrigation Management Information System
City	City of Santa Maria
Council	California Urban Water Conservation Council
CPE	comprehensive performance evaluation
CT	concentration time
CUWA	California Urban Water Agencies
CWSs	community water systems
D/DBP	disinfectant/disinfection by-product
DMM	demand management measure
DOC	dissolved organic carbon
DOF	Department of Finance
DWR Guidebook	Guidebook to Assist Water Suppliers in the Preparation of 2005 Urban Water Management Plan
DWR	Department of Water Resources (California)
EC	enhanced coagulation
EPA	Environmental Protection Agency
ETo	evapotranspiration
gpcd	gallons per capita per day

gpd	gallons per day
gpm	gallons per minute
GSWC	Golden State Water Company
GWR	Groundwater Rule
HAA5	haloacetic acids
IESWTR	Interim Enhanced Surface Water Treatment Rule
IOCs	inorganic contaminants
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
mgd	million gallons per day
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
N/A	not available
NAICS	North American Industry Classification System
NCSD	Nipomo Community Services District
NPDWR	National Primary Drinking Water Regulation
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
ppm	parts per million

SBCAG	Santa Barbara County Association of Governments
SDWA	Safe Drinking Water Act
SMCL	secondary maximum contaminant level
SOCs	synthetic organic contaminants
SUVA	source-water-specific ultraviolet absorbance
SWP	State Water Project
SWTR	Surface Water Treatment Rule
TCR	Total Coliform Rule
TDS	total dissolved solids
TOC	total organic carbon
TTHMs	total trihalomethanes
UCM	unregulated contaminants monitoring
ULF	ultra low flush
ULFT	ultra-low-flush-toilet
UWMP	Urban Water Management Plan
VOCs	volatile organic compounds
WRCC	Western Regional Climate Center
WY	water year

Definitions

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

CHAPTER 2. DEFINITIONS

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

Section 10611.5. *“Demand management” means those water conservation measures, programs, and incentives that prevent the waste of water and promote the reasonable and efficient use and reuse of available supplies.*

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

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

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

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

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

Section 10616.5. *“Recycled water” means the reclamation and reuse of wastewater for beneficial use.*

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

Chapter 1. Introduction and Overview

Background

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

Under the current law, urban water suppliers with more than 3,000 service connections or water use of more than 3,000 acre-feet per year (ac-ft/yr) are required to submit a UWMP every 5 years to the California Department of Water Resources (DWR). The reports must be submitted by December 31. The City last prepared an UWMP in 2000. The 2005 UWMP is an update to the 2000 plan.

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

Section 10610.2.

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

- (9) *The quality of source supplies can have a significant impact on water management strategies and supply reliability.*
- (b) *This part is intended to provide assistance to water agencies in carrying out their long-term resource planning responsibilities to ensure adequate water supplies to meet existing and future demands for water.*

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

- (a) *The management of urban water demands and efficient use of water shall be actively pursued to protect both the people of the state and their water resources.*
- (b) *The management of urban water demands and efficient use of urban water supplies shall be a guiding criterion in public decisions.*
- (c) *Urban water suppliers shall be required to develop water management plans to actively pursue the efficient use of available supplies.*

System Overview

The City of Santa Maria (City) is located in the Santa Maria Valley about 180 miles north of Los Angeles. The City provides water distribution and wastewater collection, treatment, and disposal services to the City and to nearby areas outside the city limits.

Historically, the City has pumped water from the Santa Maria Valley Groundwater Basin as its primary water supply. The City began receiving State Water Project (SWP) water from the Central Coast Water Authority (CCWA) via the Coastal Branch Aqueduct in 1996. The SWP water augments local groundwater supplies and is generally higher quality water. Currently, the City is operating under a court ordered Stipulation which is described in Chapter 3. Under this Stipulation, the City derives its water supply from local groundwater, purchased water from the SWP and the associated return flows that may be recaptured from the Basin, and a share of the yield of the Twitchell Reservoir operations.

The service area is primarily characterized by residential and commercial land use. Figure 1-1 illustrates the location of the City's System.

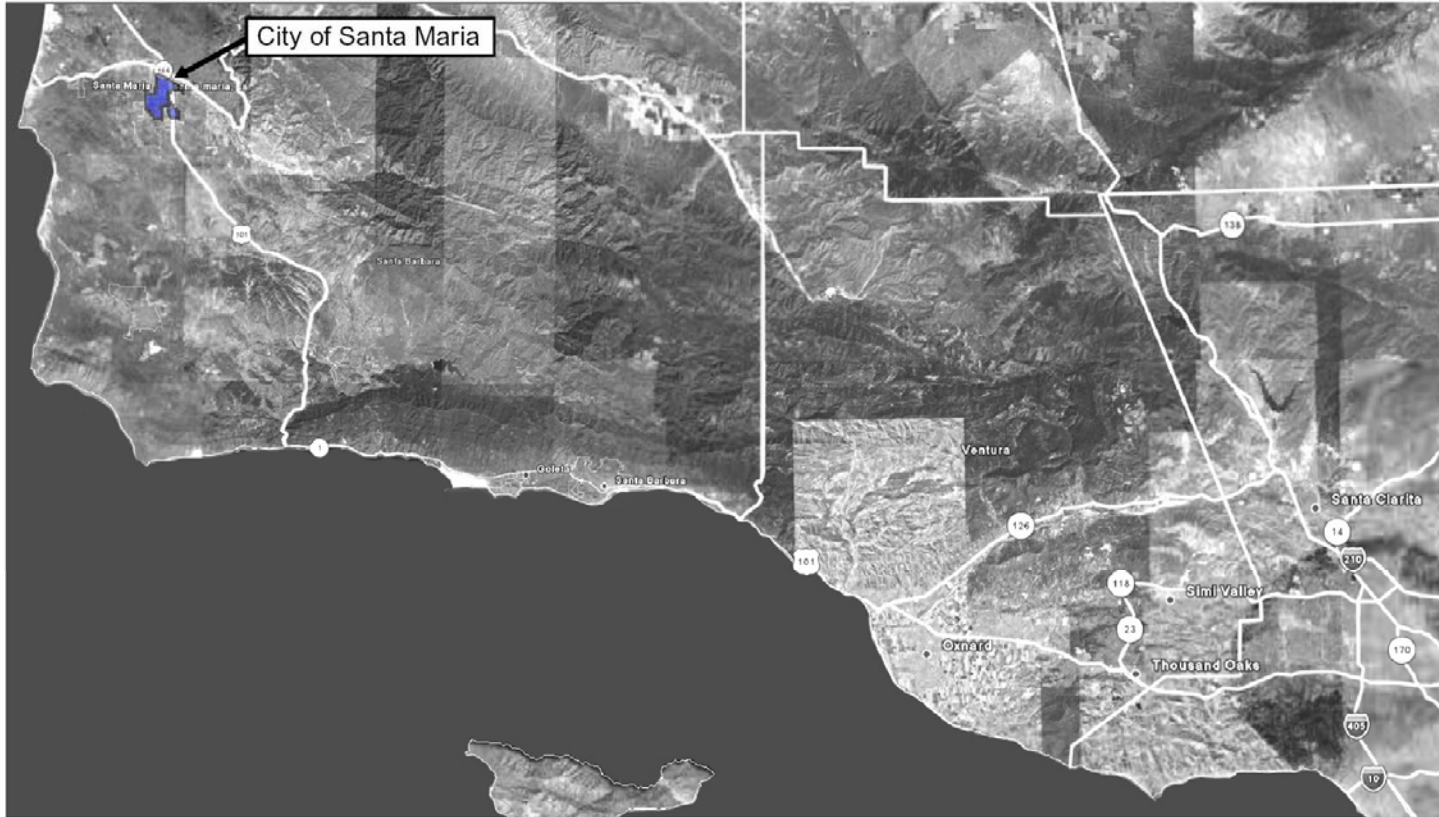


Figure 1-1 City of Santa Maria System Location Map

California Urban Water Conservation Council

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

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

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

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

Agency Coordination

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

Section 10620.

- (a) Every urban water supplier shall prepare and adopt an urban water management plan in the manner set forth in Article 3 (commencing with Section 10640).*
 - (b) Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.*
 - (c) An urban water supplier indirectly providing water shall not include planning elements in its water management plan as provided in Article 2 (commencing with Section 10630) that would be applicable to urban water suppliers or public agencies directly providing water, or to their customers, without the consent of those suppliers or public agencies.*
-
- (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.*

The City initiated agency coordination with a mailing of letters to Cities and Counties within its service area, wholesale agencies, wastewater agencies, and agencies with which the City has emergency connections. The initial letters notified the agencies of the City's intent and requested data for the preparation of the UWMPs. All identified agencies were followed up with a telephone call. A Notice of Public Meeting and Intent to Adopt with a copy of the draft report were submitted to all above mentioned agencies. Table 1-1 list the agencies contacted during the preparation of this UWMP.

Table 1-1
Coordination with Agencies

Agency	Participated in UWMP Development	Commented on the Draft	Attended Public Meetings	Contacted for Assistance	Received Copy of the Draft	Sent Notice of Intention to Adopt	Not Involved/No Information
County of Santa Barbara				✓	✓	✓	
Central Coast Water Authority				✓	✓	✓	
Golden State Water Company				✓	✓	✓	
Laguna County Sanitation District				✓	✓	✓	
City of Guadalupe				✓	✓	✓	
Nipomo Community Services District (NCSD)				✓	✓	✓	
Santa Maria Valley Water Conservation District					✓	✓	
San Luis Obispo County Flood Control and Water Conservation District					✓	✓	
Rural Water Company					✓	✓	

Notes

1. Table format based on DWR Guidance Document Table 1

Public Participation and Plan Adoption

Public participation and plan adoption requirements are detailed in Section 10642 of the Act.

Section 10642. Each urban water supplier shall encourage the active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan. Prior to adopting a plan, the urban water supplier shall make the plan available for public inspection and shall hold a public hearing thereon. Prior to the hearing, notice of

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

For this update of the UWMP, a public workshop was held on March 22, 2007 at Santa Maria City Hall Council Chambers. A public hearing was held on April 3, 2007 at Santa Maria City Hall Council Chambers for the City of Santa Maria. This public session was held for review and comment on the draft plan before the approval by the City. Legal public notices for the public hearing were published in the local newspapers in accordance with Government Code Section 6066. Copies of the draft plan were available to the public at the Santa Maria City Clerk's Office, the Utilities Administration Office, and the City's website at <http://www.ci.santa-maria.ca.us/3111.html>. Appendix B contains a copy of the hearing notice from a local newspaper and the meeting minutes from the public pertaining to the UWMP. Appendix C contains comments received, and comment resolution.

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

UWMP Preparation

The City prepared this UWMP with the assistance of its consultant, CH2M HILL, as permitted by Section 10620 (e) of the Act.

Section 10620.

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

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

The adopted plans are available for public review at the City of Santa Maria Office of the City Clerk and the Santa Maria Public Library. Copies of the plan were submitted to DWR, cities and counties within the service area, the State Library, and other applicable institutions within 30 days as required by Section 10644 and 10645.

UWMP Implementation

The City is committed to the implementation of this UWMP as required by Section 10643 of the Act. The City has implemented many DMMs via the City's participation in the Council's MOU.

Content of the UWMP

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

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

Chapter		Corresponding Provisions of the Water Code
Introduction and Overview	10642	Public Participation
	10643	Plan Implementation
	10644	Plan Filing
	10645	Public Review Availability
	10620 (a) – (e)	Coordination with Other Agencies; Document Preparation
	10621 (a) – (c)	City and County Notification; Due Date; Review
	10620 (f)	Resource Optimization
	10630	Level of Planning
	10641	Coordination
Service Area	10631 (a)	Demographics and Climate
Water Supply	10631 (b) – (d), (h), (k)	Water Sources, Reliability of Supply, Transfers and Exchanges, Supply Projects, Data Sharing
Water Use	10631 (e), (k)	Water Use, Data Sharing
Demand Management Measures	10631 (f) – (g), (j)	Demand Management Measures
	10631.5	DMM Implementation Status
Desalination	10631 (i)	Desalination
Water Shortage Contingency Plan	10632	Water Shortage Contingency Plan
Recycled Water Plan	10633	Recycled Water
Water Quality	10634	Water Quality Impacts on Reliability
Water Service Reliability	10635	Water Service Reliability

Resource Optimization

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

The City is committed to optimizing its available water resources and implements water conservation programs throughout its service area. In an effort to expand the breadth of offered programs, the City partners with wholesale suppliers, local retailers, and other agencies that support water conservation programs.

Chapter 2. Service Area

A detailed description of the City's service area is requested by the Act. Section 10631 (a) of the act requires that:

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.

This chapter summarizes the City's system service area and presents an analysis of available demographics, population growth projections, and climate data to provide the basis for estimating future water requirements.

Area

The City of Santa Maria is located in northern Santa Barbara County. The City is bounded on the north by the Santa Maria River and San Luis Obispo County line. Since 2000, the boundaries of the City's service area have changed. The new service area boundary includes developed and underdeveloped land area to the west, south, and east of the City's center. A portion of the City's service area lies outside the city limits, within unincorporated areas of Santa Barbara County. Figure 2-1 illustrates the City's service area. The service area is primarily characterized by residential and commercial land use. Figure 2-1 also shows currently planned expansion areas in addition to the current service area.

Demographics

Although the City's service area currently includes some small portions of the County that are outside city limits, the City was chosen to be demographically representative of the area. According to 2000 US census data, the median age of Santa Maria's residents is 29.2 years. Santa Maria has average household size of 3.40 and a median household income of approximately \$36,541.

Residential developments and open spaces represent the predominant land uses in Santa Maria with 29 percent and 23 percent of the City's total area, respectively. The remaining portion of the City's land use is divided among industrial and commercial uses. Of the residential developments, 62 percent of the existing housing falls into the single family category. This preference for single family housing is expected to continue; however, in future, new development of affordable multi-family housing units may potentially be implemented within the Santa Maria existing service area and planned expansion areas. The Santa Maria area has experienced average annual population growth of 3.3 percent between 1980 and 2000. It is expected to experience average annual population growth of 1.4 percent from 2005 through 2030.

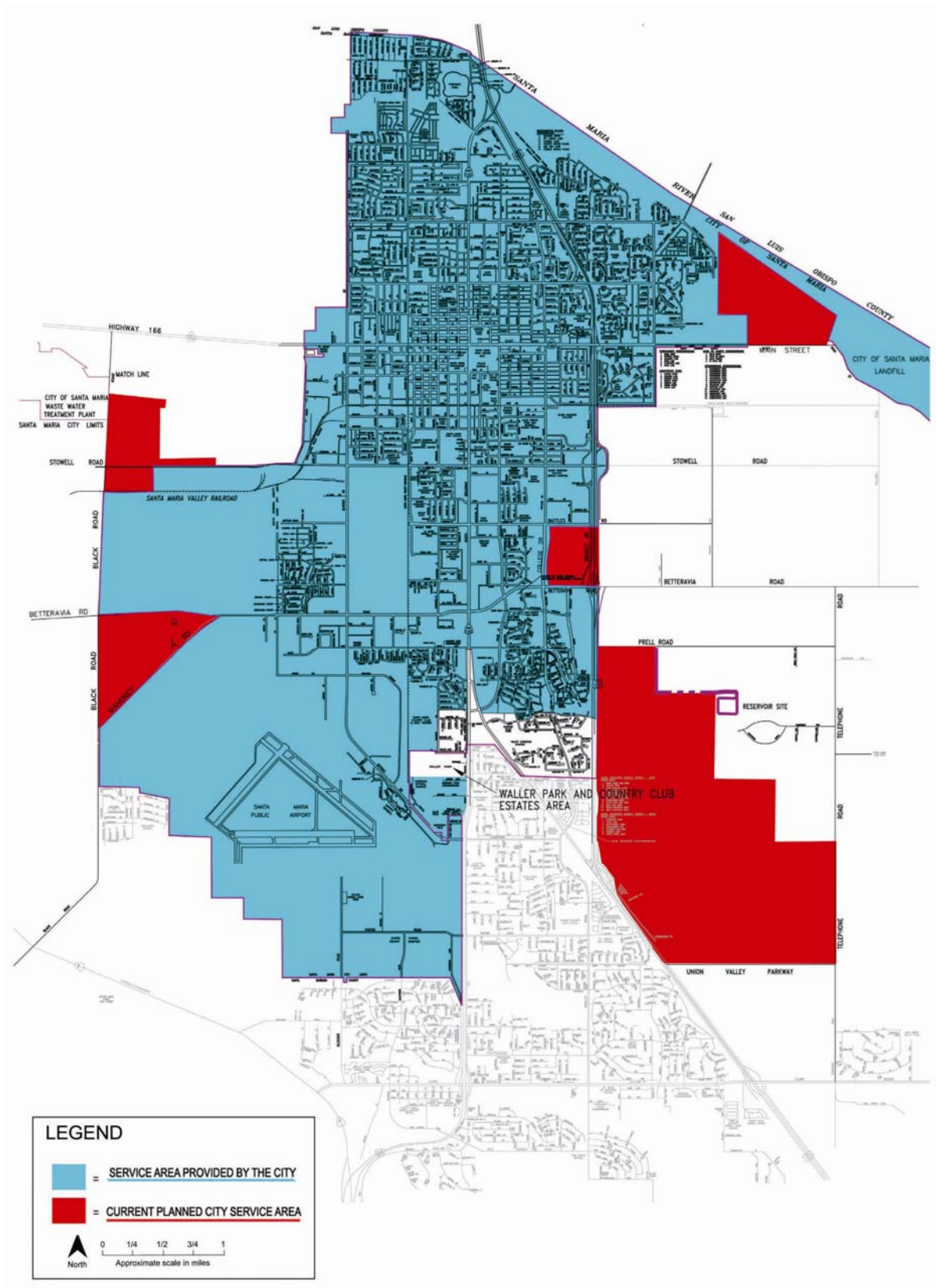


Figure 2-1 Santa Maria's City Service Area

Population

Population data provided by the City's Community Development Department and Santa Barbara County Association of Governments (SBCAG) were used to develop estimates of future population within the City (SBCAG, 2002).

Existing housing data for the Santa Maria area was obtained from the 2000 U.S. Census. Population projections were provided to the City by the SBCAG (SBCAG, 2002). The population projections included in this UWMP through 2020 are consistent with SBCAG projections. The City of Santa Maria's Community Development Department provided additional information regarding potential land use rezoning, redevelopment, and land annexations. This information was used to refine SBCAG's projections for 2025 and 2030. The population projections for 2025 and 2030 show a greater population than SBCAG projections to reflect redevelopment of residential areas to include higher density housing, planned expansions to the City's current service area and future housing developments in these areas.

The water demand projections presented in Chapter 4 are based on the population projections provided by SBCAG and the City.

SBCAG Population Projection Development Methodology

The 2000 population data are derived from the 2000 U.S. Census, which form a baseline for local data projections. SBCAG applies a forecast model which is disaggregated into three submodels: 1) population, 2) employment, and 3) constraints.

The population model provides population forecasts for each of five subregions in Santa Barbara County and seven cities within the county. SBCAG's has been calibrated with 1990 to 2000 population and housing and demographic estimates from the Department of Finance, and other sources such as the State Department of Health. For each of the 5 year forecast periods and geographic regions, the model forecasts male and female population by five-year age groups. The population model considers increases in population (births and relocation into the region) and decreases in population (deaths and relocation out of the region).

The employment model forecasts the number and type of jobs for each subregion by five-year increments. However, the employment model does not forecast for individual cities and unincorporated areas. As a result, the employment projections cannot be broken down to the City's service area and are not included in this UWMP.

SBCAG's demographic forecasting section works closely with California Department of Finance (DOF), the State Department of Health, and members from local jurisdictions to refine the projections for population, housing, and employment. The SBCAG's projections were completed with data provided by these agencies. As local jurisdictions modify and revise land use plans and growth management policies the long-range forecasts are impacted. The detailed explanation of the population projection process employed by SBCAG is provided in the Regional Growth Forecast 2000 - 2030 (SBCAG, 2002).

City of Santa Maria System Population Projections

The City of Santa Maria’s population that is served within the City’s boundaries was 88,793 people in 2005. This population served within the City’s boundaries is expected to reach 126,680 by 2030. A summary of historic and projected population within the Santa Maria’s boundaries is presented in Table 2-1 and illustrated in Figure 2-2.

The 2000 Urban Water Management Plan (UWMP, 2000) predicted population in 2005 to reach approximately 80,000 and 2020 population to reach 106,000 people. The population in 2005 and 2020, as presented in this report, are 88,793 and projected to be 110,800 people, respectively. The population for year 2005 in the current study is more than the estimates in the previous 2000 report. This is due to a significant increase in population growth between 2000 and 2005. 2000 UWMP population projections assumed average population growth rates of 1.5 to 2.0 percent between 1995 and 2020. Actual average annual population growth rates were 2.0 percent between 1995 and 2000 and 2.78 percent between 2000 and 2005. Average annual growth rates between 2000 to 2020 and 2020 to 2030 are 1.7 percent and 1.4 percent, respectively.

The population projections provided by SBCAG for the Santa Maria area between 2005 and 2020 are consistent with the projections provided by the City of Santa Maria’s Community Development Department. SBCAG’s population projections for years 2025 and 2030 differ from the updated projections provided by the City’s Community Development Department. These differences reflect additional projections completed by the City’s Community Development Department. The City’s projections include recent data on land use rezoning, land annexation, and redevelopment which have become available since the SBCAG report was published.

Table 2-1
Service Area Historical and Projected Population

Year	Service Area Population	Data Source
1995	69,800	
2000	77,423	
2005	88,793	SBCAG
2010	96,800	
2015	105,900	
2020	110,800	
2025	118,777	
2030	126,680	City of Santa Maria

Notes

1. This table is based on the DWR Guidebook Table 2.
2. Based on calendar year (January 1 – December 31).
3. Service area population projections are based on SBCAG Regional Growth Forecast 2000 – 2030 and information provided by City of Santa Maria’s Community Development Department

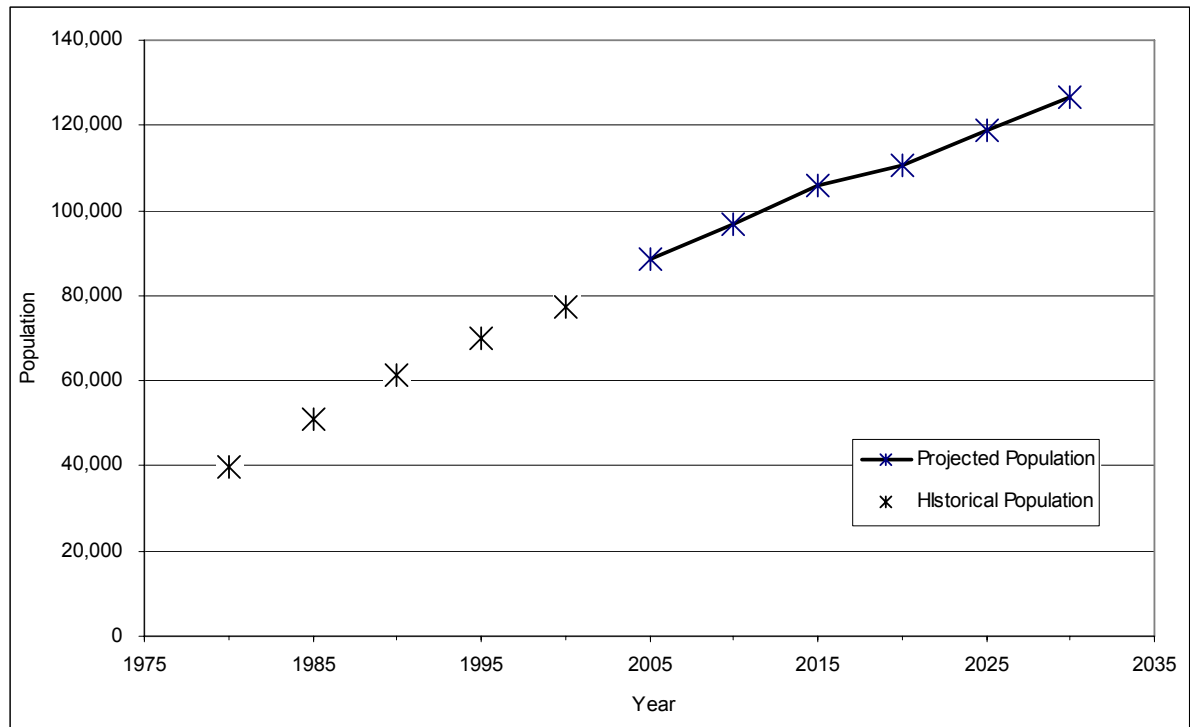


Figure 2-2. Population Growth Projections

Climate

The City of Santa Maria has cool winters and mild summers. The Western Regional Climate Center web site (www.wrcc.dri.edu) maintains historical climate records for the past 30 years for Santa Maria. Table 2-2 presents the monthly average climate summary based on 30 year historical data for Santa Maria. In winter, the lowest average monthly temperature is approximately 41 degrees Fahrenheit while the highest average monthly temperature reaches approximately 75 degrees Fahrenheit in the summer. Figure 2-3 presents the monthly average precipitation based on 30 year historical data. The rainy season is from November to March. Monthly precipitation during the winter months ranges from 1 to 2 inches. Low humidity occurs in the summer months from May to October. The moderately hot and dry weather during the summer months typically results in moderately high water demand.

Similar to the Western Regional Climate Center in the Santa Maria area, the California Irrigation Management Information System (CIMIS) web site (<http://www.cimis.water.ca.gov>) tracks and maintains records of evapotranspiration (ET_o) for few cities. ET_o statistics used for this system also come from Santa Maria station. ET_o is a standard measurement of environmental parameters that affect the water use of plants. ET_o is given in inches per day, month, or year and is an estimate of the evapotranspiration of a large field of well-watered, cool-season grass that is four- to seven-inches tall. The monthly average ET_o is presented in inches in Table 2-2. As the table indicates, a greater quantity of water evaporates during June, July and August, which may result in high water demand.

Table 2-2
 Monthly Average Climate Data Summary for Santa Maria

Month	Standard Monthly Average ETo ⁽²⁾ (inches)	Average Total Rainfall (inches)	Average Temperature (degrees Fahrenheit)	
			Max	Min
January	1.8	2.49	63.1	38.9
February	2.2	2.8	64.3	40.9
March	3.2	2.35	64.7	42.1
April	4.0	1.03	66.8	43.4
May	5.0	0.27	70.6	46.8
June	5.1	0.04	72.8	50.0
July	5.1	0.03	73.2	53.0
August	5.1	0.03	74.4	53.6
September	4.5	0.21	73.4	52.2
October	3.5	0.49	73.4	47.9
November	2.4	1.36	69.0	42.4
December	1.7	1.87	64.4	38.5

Notes

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

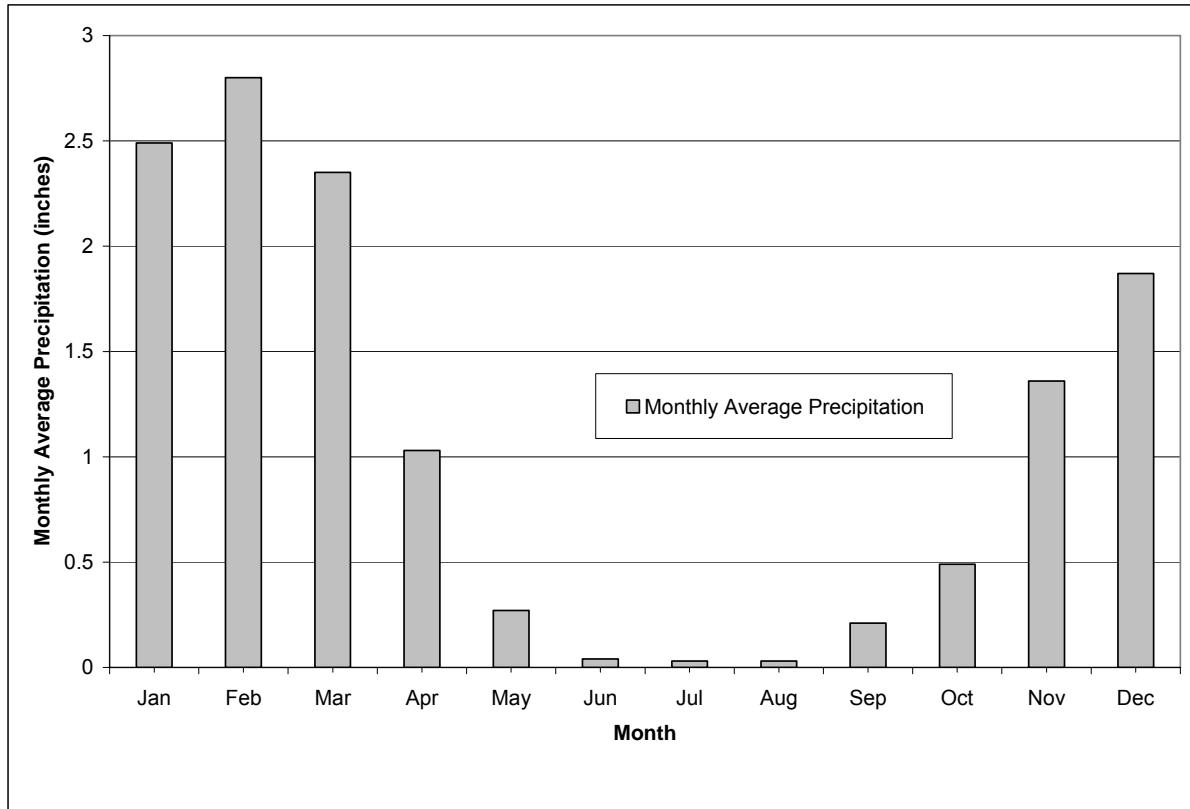


Figure 2-3. Monthly Average Precipitation in Santa Maria based on 30 Years Historical Data

Chapter 3. Water Supply

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

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

- (1) *A copy of any groundwater management plan adopted by the urban water supplier, including plans adopted pursuant to Part 2.75 (commencing with Section 10750), or any other specific authorization for groundwater management.*
- (2) *A description of any groundwater basin or basins from which the urban water supplier pumps groundwater. For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree.*

For basins that have not been adjudicated, information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to eliminate the long-term overdraft condition.

- (3) *A detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.*
 - (4) *A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the urban water supplier. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.*
- (c) *Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following:*
- (1) *An average water year.*
 - (2) *A single dry water year.*
 - (3) *Multiple dry water years.*

For any water source that may not be available at a consistent level of use, given specific legal, environmental, water quality, or climatic factors, describe plans to supplement or replace that source with alternative sources or water demand management measures, to the extent practicable.

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

This chapter addresses the water supply sources for the City of Santa Maria. The following sections provide details in response to those requirements of this portion of the Act.

Water Sources

The City currently has the following available water supply sources: local groundwater, purchased water from the State Water Project (SWP) and the associated return flows that may be recaptured from the Basin, assigned rights to water from the Santa Maria Groundwater Basin, and assigned rights to augmented yield from the Twitchell Reservoir.

The imported water supplies for the City are obtained from the SWP via a contract with the Central Coast Water Authority (CCWA).

Currently, groundwater is pumped from a total of eight active groundwater wells in the Santa Maria Groundwater Basin (Basin). The City's wells have a current total normal year active capacity of 24,878 acre-feet per year (ac-ft/yr). Between 2000 and 2004, the actual production averaged 661 ac-ft/yr.

The City's rights to rely on Basin water resources (for both pumping and storage) are governed by a settlement agreement ("Stipulation"), currently being finalized before the Santa Clara County Superior Court (*Santa Maria Valley Water Conservation District vs City of Santa Maria, et al.*, Case no. 770214), as further described below.

Table 3-1 summarizes the current and planned water supplies available to the City between 2005 and 2030.

This water supply information, and this UWMP, are based on the Stipulation signed by a majority of the parties in *Santa Maria Valley Water Conservation District vs. City of Santa Maria, et al.*, commonly known as the "Santa Maria Groundwater Adjudication," and data provided by CCWA. The City expects the Court to incorporate the Stipulation as part of its final judgment in the action. The City expects the Court to render a final judgment in early 2007.

The City's water supply is expected to reliably meet the projected demands through 2030. There is no direct recycled water supply planned for this system, although percolation of

treated wastewater at the City's WWTP is an indirect use of recycled water which, in effect, improves the overall reliability of the City's groundwater supplies.

It should be noted that the water supply available to the City is much greater than the supply needed to meet the projected demand. A detailed description of the available supply to the City is presented in the Reliability section below.

Table 3-1
Current and Planned Water Supplies for City of Santa Maria

Source	2005	2010	2015	2020	2025	2030
Purchased Water from SWP	13,706	13,706	13,706	13,706	13,706	13,706
Groundwater ⁽²⁾	12,795	12,795	12,795	12,795	12,795	12,795
Twitchell Yield/Commingled Groundwater ⁽³⁾	14,300	14,300	14,300	14,300	14,300	14,300
Return Flows from SWP Water ⁽⁴⁾	8,909	8,909	8,909	8,909	8,909	8,909
Recycled Water	0	0	0	0	0	0
Total ⁽⁵⁾	49,710	49,710	49,710	49,710	49,710	49,710

Notes

1. Unit of measure: ac-ft/yr
2. Groundwater supplies are based on appropriative rights in Santa Maria Groundwater Basin as defined in the Stipulation. Pursuant to the Court's Phase 5 Tentative Decision, the City has been assigned 5,100 ac-ft/yr of prescriptive rights.
3. Further details can be found in Exhibit F of the Stipulation.
4. Pursuant to the Stipulation, the City is entitled to recapture 65% of its SWP use in the Basin.
5. See Reliability section for details on these supplies.
6. Table format based on DWR Guidance Document Table 4.

The City's water supply is projected to remain relatively constant from 2005 to 2030 to meet the associated projected water demands, with the majority of this demand being met by imported surface water. The City is expected to have an available supply in excess of the projected demands through 2030. Water demand projections are documented in Chapter 4. Details of the imported water, return flows, Twitchell Yield, and native groundwater supplies are presented in the following section followed by a discussion of the reliability of all sources of water supply.

Imported Water

Santa Maria has a Water Supply Agreement with CCWA for 17,280 ac-ft/yr of Table A imported SWP water. Pursuant to this Stipulation, Santa Maria agreed to import and use within the Basin no less than 10,000 ac-ft/yr of available SWP water, or the full amount of available SWP water if the amount available is less than 10,000 ac-ft in a given year. Both GSWC and Guadalupe will import and use all their available SWP water within the Basin.

SWP water originates within the Feather River watershed, is captured in Lake Oroville, and flows via the Sacramento-San Joaquin Delta, the California Aqueduct and the Coastal Branch Extension into CCWA's treatment and conveyance facilities.

Return Flows

Under the Stipulation, the City is entitled to a fixed percentage of the annual amount of SWP water it uses within the Basin. The fixed percentage for the City is 65 percent, based on a rolling average of the prior 5 years of imported water use. These “return flows” augment the yield in the Basin through the recharge that occurs when these sources are used within the Basin.

Groundwater

Groundwater for the City is supplied by eight active wells in the Santa Maria River Valley Groundwater Basin. The Basin has a surface area of approximately 184,000 acres (287.5 square miles). The Basin is bounded by the San Luis and Santa Lucia Ranges on the north, by the San Rafael Mountains on the east, by the Solomon Hills on the south, by the Casmalia Hills on the southwest, and by the Pacific Ocean on the west.

The water-bearing units are alluvium, dune sands, and the Orcutt, Paso Robles, Pismo, and Careaga Formations. The alluvium consists of unconsolidated lenticular bodies of gravel, sand, silt, and clay (DWR, 2003). The dune sands consist of well-rounded, fine- to coarse-grained sand. The Orcutt Formation consists of sand interbedded with coarse gravel with minor amounts of silt and clay restricted to the upper parts of the unit (DWR, 2003). The Paso Robles formation consists of unconsolidated to poorly consolidated gravel, sand, silt, and clay (DWR, 2003). The Careaga Formation consists of unconsolidated fine- to medium-grained marine sand with some silt and unconsolidated to well consolidated coarse- to fine-grained sand, gravel, silty sand, silt, and clay (DWR, 2003). The Pismo formation consists of coarse- to fine-grained sand interbedded with discontinuous layers of silt and clay (DWR, 2003). Groundwater is generally unconfined, except in the coastal portions where it is confined (DWR, 2003).

Sources of native (natural) water to the groundwater basin include the following: infiltration of precipitation, inflow from adjacent areas, return flows from applied water (irrigation), percolation of water from streams flowing across the Basin, especially the Arroyo Grande on the north and Santa Maria and Sisquoc Rivers in the south. In addition, two reservoirs, Lopez Reservoir on the Arroyo Grande in the north and the Twitchell Reservoir on the Cuyama River, a tributary to the Santa Maria River in the south, provide storage of storm water for recharge of the Basin. Water from the Lopez Reservoir is used directly by the coastal communities of Arroyo Grande, Pismo Beach, Grover Beach, and Oceano Community Services District, so some return flows from local irrigation recharges the groundwater basin locally. Reservoir releases are made to provide for groundwater recharge through the bed of the Arroyo Grande into the groundwater basin underlying the Arroyo Grande area. The Twitchell Reservoir is operated as a flood control and water conservation reservoir. Releases are controlled from Twitchell Reservoir to maximize recharge of the Basin through percolation of the Santa Maria River bed.

Since 1998, State Water Project water has been imported to the Basin by Oceano Community Services District and Pismo Beach in the north, and City of Guadalupe, City of Santa Maria, and Golden State Water Company in the south. The importation of this water has reduced the stress on the Basin through a reduction in pumping by some parties. Groundwater

recharge is increased by the return flows of imported applied waters through irrigation and wastewater discharges to percolation ponds.

Groundwater discharges from the Basin include: consumptive use of groundwater by agricultural users and, municipal and industrial users (e.g., cities and oil industry for secondary recovery of oil), and groundwater discharge to the ocean. Groundwater discharge to the ocean is required to prevent seawater intrusion into the Basin.

The total groundwater storage capacity of the Basin is approximately 4,000,000 acre-feet (DWR, 2003). The large volume of groundwater in storage in the basin provides a buffer to drought conditions in the Basin.

Developed Basin Supplies

In addition to the natural recharge of the Basin as described above, two reservoirs, the Lopez Reservoir on the Arroyo Grande in the north and the Twitchell Reservoir on the Cuyama River, a tributary to the Santa Maria River in the south, provide additional, non-native supplies to the Basin.

Water from the Lopez Reservoir is used directly by the coastal communities of Arroyo Grande, Pismo Beach, Grover Beach, and Oceano Community Services District. Some return flow from local irrigation of these supplies also augments the groundwater recharge locally. Also, reservoir releases are made to provide for groundwater recharge through the bed of the Arroyo Grande into the groundwater basin underlying the Arroyo Grande area.

The Twitchell Reservoir is operated as a flood control and water conservation reservoir. Releases are controlled from Twitchell Reservoir to maximize recharge of the Basin through percolation along the Santa Maria River bed. The Stipulation sets the developed yield at 32,000 ac-ft/yr.

Since 1997, SWP water has been imported to the Basin by Oceano Community Services District and Pismo Beach in the north, and the City of Guadalupe, City of Santa Maria, and Golden State Water Company in the south. The importation of this water has reduced the stress on the Basin through a reduction in groundwater pumping by those parties relying instead on SWP water. Groundwater recharge is also augmented by the return flows of imported applied waters through irrigation and wastewater discharges to percolation ponds.

Stipulated Judgment and Water Rights

In 1997, the Santa Maria Valley Water Conservation District filed a lawsuit to adjudicate water rights in the Basin. (*Santa Maria Valley Water Conservation District vs City of Santa Maria, et al.*, (Superior Court, County of Santa Clara, Case no. 770214). The court divided the trial of the case into phases. In January 2001, the Court issued the Phase 1 Order, which established the Outermost Boundaries of the Basin. In December 2001, the Court issued the Phase 2 Order, which established the area constituting the Basin for purposes of the adjudication. In May 2004, the Court issued a Partial Statement of Decision on Phase 3 issue regarding the hydrologic conditions in the Basin. As part of its Phase 3 Partial Statement of Decision, the court reserved jurisdiction over remaining water rights issues and management of the Basin.

Subsequent to the Phase 3 trial, the majority of the parties to the lawsuit, including the original plaintiff, the Santa Maria Valley Water Conservation District, negotiated a Settlement Agreement (“Stipulation”) that set forth terms and conditions for a physical solution concerning the overall management of Basin water resources, including rights to use groundwater, SWP water and associated return flows, the developed groundwater yield resulting from the operation of Twitchell and Lopez reservoirs, use of Basin storage space, and the ongoing monitoring and management of these resources, consistent with common law water rights priorities and Article 10, Section 2 of the California Constitution. The Stipulation has been signed by a majority of overlying land owners in the Santa Maria Basin.

The Stipulation also subdivides the Basin into three Management Areas: the Northern Cities Management Area, Nipomo Mesa Management Area, and the Santa Maria Valley Management Area (see the Stipulation for a map of the location of these management areas). The delineation of these areas was based on historical development and use of Basin water resources, as further delineated in the Stipulation and the court record. This Stipulation is provided in Appendix F.

As noted above, the Stipulation provides the City certain rights to water in the Basin. These rights include: a recognition of the City’s highest historical use of groundwater from the Basin; the right to recapture a preset portion of the return flows from the City’s use of SWP in the Basin; and a 14,300 ac-ft/yr share of the developed groundwater yield resulting from Twitchell Reservoir operations.

In addition, the City may access additional supply through the transfer of Twitchell Yield. Also, return flows from SWP water are assignable in whole or in part, subject to accounting.

The Stipulation also establishes certain preset water shortage response measures in anticipation of reduced availability of groundwater.

Although the court has approved the Stipulation as between those who have signed it, not all parties to the adjudication have agreed to it. Phase 4 proceeded to trial in early 2006 as between the public water suppliers, including the City, and a small number of landowners who opposed the Stipulation. The Phase 4 statement of decision issued by the Court stated that the City and Golden State Water Company met the burden of showing a prescriptive right during various time periods prior to the time the Twitchell Project began recharging the Basin. Phase 5 occurred in July of 2006. The scope of the Phase 5 trial was to allow the remaining landowners to show that they had engaged in self-help during the applicable prescriptive periods and to determine whether, and in what form, the Court should impose a physical solution on the parties’ collective future use of the Basin. The Phase 5 statement of decision re-affirms the prescriptive rights obtained by the City and Golden State Water Company, states that those rights are correlative to the rights of the overlying landowners, and provides that the City and Golden State Water Company are entitled to those specific quantities of water in the Basin, the same as any overlying landowner, so long as there is a surplus of water in the Basin. The statement of decision also states that the monitoring program contained in the Stipulation will be incorporated into the Court’s final judgment and will be binding on all parties to the litigation. Further, the Phase 5 statement of decision provides that the Court will retain jurisdiction to enforce the judgment and to implement the physical solution as necessary. The Phase 5 statement of decision further confirms the ability of the Santa Maria Valley Water Conservation District to allocate Twitchell Yield in

the manner provided in the Stipulation. The Court held a hearing on the Phases 4 and 5 tentative decisions in January 2007 and instructed the public water supplier parties to prepare the final judgment. It is anticipated that a final judgment and physical solution will be entered in 2007.

Existing and Projected Groundwater Use

As described above, the Stipulated Agreement provides the City of Santa Maria certain water rights within the Basin including, but not limited to, appropriative rights to Native Groundwater and the right to New Developed Water. In addition, the City has rights to Twitchell Development Water and return flows of its imported water. Table 3-2 presents the City's water rights of Twitchell Development Water and return flows of its imported water. The available return flow to the City is calculated on the average quantity the City imports in the previous five years. The return flow quantity in Table 3-2 is based on the reliable amount of SWP supplies as described in CCWA's 2005 UWMP (CCWA, 2005).

Table 3-2
Groundwater Pumping Rights

Basin Name	Pumping Rights (acre-feet per year)
Twitchell Yield ⁽²⁾	14,300
Native Groundwater/Appropriative Rights in Times of Surplus ⁽³⁾	12,795
Return Flows of Imported Water ⁽⁴⁾	8,909

Notes

1. Table format based on DWR Guidance Document Table 5
2. Further details can be found in Exhibit F of the Stipulation.
3. Groundwater supplies are based on appropriative rights in Santa Maria Groundwater Basin as defined in the Stipulation. Pursuant to the Court's Phase 5 Tentative Decision, the City has been assigned 5,100 ac-ft/yr of prescriptive rights.
4. Return flows are based the projected 100 percent reliable amount on the City's contract for annual imported water deliveries of 13,700 ac-ft/yr. Available return flows may be less if the total amount of imported water is not available.

Table 3-3 shows the City's wells and current well capacities. The City's current well system has a total active normal year well capacity of 15,452 gpm (24,878 ac-ft/yr).

Table 3-3
Wells and Well Capacity in the City of Santa Maria System

Well Name	Nominal Well Capacity (gpm)	Nominal Well Capacity (ac-ft/yr)	Status
5AS	1,122	1,806	Active
6S	1,236	1,990	Standby
7S	1,800	2,898	Inactive
8S	1,998	3,217	Active
9S	1,800	2,898	Active
10S	2,124	3,420	Active
11S	1,848	2,975	Active
12S	2,400	3,864	Active

Table 3-3
Wells and Well Capacity in the City of Santa Maria System

Well Name	Nominal Well Capacity (gpm)	Nominal Well Capacity (ac-ft/yr)	Status
13S	2,080	3,349	Active
14S	2,080	3,349	Active
Total Capacity	18,488	29,766	

Table 3-4 shows the City’s groundwater pumping history for calendar years (January 1 – December 31) 2000 to 2004. The groundwater was pumped from eight active wells located in the Santa Maria Groundwater Basin. The City’s use of groundwater since 1997 is greatly reduced as the City maximized its use of SWP water.

Table 3-4
Groundwater Pumping History by City of Santa Maria (2000 to 2004)

Basin Name	2000	2001	2002	2003	2004
Santa Maria River Valley	547	2,698	468	1,177	1,223
Percent of Total Water Supply	4	21	4	9	9

Notes

1. Table format based on DWR Guidance Document Table 6
2. All values are in acre-feet
3. Years are reported in calendar years (January 1 – December 31)

Table 3-5 shows the projected groundwater pumping amounts for the City. The water will be pumped from the City’s eight active wells currently being pumped or from new or replacement wells as may be required in the future to meet existing and projected demands. The groundwater pumping amounts presented in Table 3-5 include water sources described in the Stipulation. These sources consist of Twitchell Yield, groundwater, and return flows from imported SWP water. The City’s projected total water demands are presented in Chapter 4.

Table 3-5
Projected Groundwater Pumping Amounts by City of Santa Maria to 2030

Basin Name	2005	2010	2015	2020	2025	2030
Santa Maria River Valley	708	2,008	3,486	4,282	5,576	6,858
Percent of Total Water Supply	1	4	7	9	11	14

Notes

1. Table format based on DWR Guidance Document Table 7
2. All values are in acre-feet
3. Years are reported in calendar years (January 1 – December 31)
4. Groundwater pumped from the Santa Maria River Valley Groundwater Basin consists of Twitchell Yield, groundwater, and return flows from imported SWP water.

Reliability of Supply

Currently, the City has the available water discussed above to meet the projected demands. Groundwater, including the City's historic appropriative rights as well as the City's prescriptive rights under the Stipulation and Twitchell Yield, is pumped from the Basin and the imported supplies from the SWP are obtained via CCWA. In addition, the City can pump a percentage of the imported water supply as return flows. These return flows are pumped from the City's wells and are in addition to their groundwater supplies. Because the City's supplies are derived both from local water conservation projects and the SWP, the conditions in local and distant areas can impact the reliability of supplies. The following discussion summarizes the reliability of the City's water supply sources. The City's supply is expected to be 100 percent reliable through 2030. This reliability is a result of the projected reliability of imported water and associated return flows and reliable groundwater in the Basin. Following is a summary of the basis of this reliability.

CCWA's Water Supply Reliability

As described above, CCWA's sole water supply is imported water from the SWP. The amount of actual water available to be delivered by SWP varies from year to year based on a combination of hydrologic conditions, water available in SWP storage reservoirs, and environmental regulations in the San Francisco Bay/Sacramento-San Joaquin River Delta. SWP water deliveries are subject to reduction when dry conditions occur in northern California.

CCWA is a SWP contractor (through Santa Barbara County Flood Control and Water Conservation District) with an annual contractual amount of 45,486 acre-feet. Each Contractor annually submits by October 1st of each year a request to DWR for water delivery in the following calendar year, in any amount up to the Contractor's full amount. Per CCWA's 2005 UWMP, CCWA concludes it will obtain its full contract entitlement of 45,486 ac-ft/yr from 2005 to 2030.

The State Water Project Delivery Reliability Report (DWR, 2005) concluded that the SWP, using existing facilities operated under current regulatory conditions, and with all contractors asking for their full allotted amount, could deliver 77 percent of total allotted amounts on a long-term average basis (CCWA, 2005). Based on updated reliability analysis the SWP could deliver 77 percent of the allotted amounts on a long-term average basis. These most recent analyses also project that, SWP deliveries during multiple-dry year periods would be about 25 to 40 percent of the allotted amounts, and possibly as low as 5 percent of the allotted amounts during an unusually dry single year. During wetter years, or about 25 percent of the time, 100 percent of full amounts are projected to be available.

However, some contractors have never requested delivery of their allotted amounts as a result of factors such as less-than-planned water demand, availability of other water supplies, and water conservation efforts that have held below initial demand projections for full contract amounts (CCWA, 2005).

Reliability of Return Flows

The City derives its return flows to the local groundwater basin from a percentage of the amount of imported water delivered to the City each year. The available return flows are

based on a five-year rolling average of the amount of SWP water imported by the City. The City may then pump 65 percent of the five-year average of imported water as return flows through their groundwater wells. Based on projected demands, The City plans to import their full allotment of 17,800 ac-ft/yr of SWP water. Under the Stipulation, the City is required to import a minimum of 10,000 ac-ft/yr of SWP water, if it is available. As mentioned above, the return flow water will also be impacted by the reliability of SWP water. In normal years, the return flows are expected to be 77 percent reliable (13,706 ac-ft/yr); however, during single-dry years and multiple-dry years, those are expected to be about 5 percent and 33 percent reliable, respectively.

City of Santa Maria's Groundwater Supply Reliability

The Santa Maria Groundwater Basin, especially the Santa Maria Valley Management Area, is a very reliable source of water for the City. This reliability is based on City's water rights in the Basin and the availability to extract return flows from imported State Water Project water. In addition, the Santa Maria Groundwater Basin has large volume of groundwater in storage to buffer drought conditions, as has been demonstrated historically.

As a part of the Stipulation, the City of Santa Maria, along with the Golden State Water Company (GSWC) and City of Guadalupe, has preferential appropriative rights to surplus native groundwater. Therefore, these parties may pump groundwater without limitation unless a Severe Water Shortage Condition exists, as defined and provided in the Stipulation. The four conditions that serve as the basis for determination of the existence of a Severe Water Shortage Condition are described below. In the event of a Severe Water Shortage Condition, the Court may order GSWC, along with Santa Maria and Guadalupe, to limit their pumping to their respective shares of groundwater derived from the Twitchell Yield, return flows, and any assigned rights. The Court granted the City 5,100 ac-ft/yr of prescriptive rights in the Basin.

The Stipulation has requirements for monitoring and management to ensure that water supplies continue to be sufficient to support water uses in the Basin. Annual monitoring will be implemented to report on water demands and water supplies. The Stipulation includes provisions to avoid Severe Water Shortage Conditions and a procedure to deal with Severe Water Shortage Conditions. Given the historic reliability of Basin supplies, Severe Water Shortage Conditions shall be found to exist only when the Management Area Engineer, based on ongoing monitoring, finds the following:

1. Groundwater levels in the Management Area are in a condition of chronic decline over a period of not less than five years.
2. The groundwater decline has not been caused by drought.
3. There has been material increase in groundwater use during the five-year period.
4. Monitoring wells indicated that groundwater levels in the Santa Maria Valley Management Area are below the lowest recorded levels.

The procedure for addressing Severe Water Shortage Conditions is described in the Stipulation, which may include limitations on groundwater use. The Stipulation also has provisions for the management and administration of the Twitchell Project. These

provisions are designed to provide for funding and operation of the Twitchell Project so as to maintain this water supply to the Basin.

As noted, the City has rights to rely on its highest historical use of groundwater in times of surplus, plus 14,300 ac-ft/yr of groundwater derived from the Twitchell Project, its SWP return flows, and its prescriptive rights.

In conclusion, the City has firm access to groundwater, the additional 14,300 ac-ft/yr of groundwater derived from the Twitchell Project, SWP entitlement, plus the five-year average of SWP water return flows to meet its water demands. This reliability could be reduced in the event that the initial court response to a Severe Water Shortage Condition requires imposition of limitations on groundwater use. However, there are many options available to the City to avoid such limitations, such as temporary transfers of rights to pump groundwater or other actions that might be approved by the court.

City of Santa Maria's Water Supply Reliability

Reliability for the City depends upon the reliability of imported water, groundwater production, and maintenance of the Twitchell Project, as discussed above. As presented in Table 3-1, a sufficient water supply exists to meet the projected water demands in Santa Maria. It should be noted that available supplies exceed supplies needed to meet the projected demands (Table 4-5). This supply buffer (excess available supply) serves to increase reliability of supplies.

Purchased water supplies from SWP project are estimated by incorporating the average supply reliability of SWP water to CCWA. Applying 77 percent reliability to the 17,800 ac-ft/yr SWP water provides 13,706 ac-ft/yr of reliable SWP supplies to the City. Based on long term reliability values provided by CCWA, the supply of 13,706 ac-ft/yr is expected to be 100 percent reliable.

The return flows are calculated by multiplying the imported water by the return flow factors in the Stipulated Agreement. The City may extract 65 percent of their imported water supply as return flows. Again, based on long term reliability, these estimated return flow supplies are expected to be 100 percent reliable.

Supply reliability for the City depends upon the reliability of imported water and local groundwater supplies, as discussed above.

Table 3-6 presents water supply projections from purchased water, groundwater, and return flows during a normal year, single-dry year and multiple-dry years for the City. The normal year supply represents the expected supply under average hydrologic conditions, the dry-year supply represents the expected supply under the single driest hydrologic year, and the multiple-dry year supply represents the expected supply during a period of three consecutive dry years.

As described above, the SWP imported water supply is expected to be 77 percent reliable (based on a long-term average basis) for normal years. However, the SWP deliveries during the multiple-dry year periods could be between 25 to 40 percent of the allotted amounts and possibly as low as 5 percent of the allotted amount during an unusually dry single year. The available water supplies for 2030 are calculated accordingly and are presented in Table 3-6.

Any water demands, which cannot be met with imported SWP water, are expected to be met by groundwater supplies, including return flows of SWP water, in accordance with the Stipulated Agreement. As presented in the Stipulated Agreement, the Management Area Engineer is responsible for monitoring water conditions and recommending water supply projects and programs to help ensure water supplies are available to each Management Area under all hydrologic conditions.

Table 3-6
Supply Reliability for the City of Santa Maria for Year 2030

Source	Normal Water Year	Single-Dry Water Year	Multiple-Dry Water Years		
			Year 1	Year 2	Year 3
Imported Water from SWP ⁽²⁾	13,706	890	5,874	5,874	5,874
Groundwater Available from Twitchell Yield ⁽³⁾	14,300	14,300	14,300	14,300	14,300
Groundwater ⁽⁶⁾	12,795	25,611	20,627	21,645	22,663
Return flows from SWP water ^(4,5)	8,909	8,909	8,909	7,891	6,873
Recycled water	0	0	0	0	0
Total	49,710	49,710	49,710	49,710	49,710
Percent of Normal		100	100	100	100

Notes

1. Unit of measure: ac-ft/yr
2. Single-dry year and multiple-dry year reliability for imported water is 5 percent and 33 percent, respectively, of contracted total.
3. Granted under the Stipulation, subject to and adjustments that could be ordered by the Court
4. Return flows are based on five-year rolling average of imported water. Single-dry year impacts will not affect availability of return flows for previous five-year average.
5. Multiple-dry year reliability of return flows considers the previous five-year rolling average of SWP imports. These projections assume five years of normal water years before the beginning of the multiple-dry year period.
6. Long-term operation of the groundwater basin under the Stipulation and storage of imported water from the SWP will allow increased groundwater production in years where actual imported water supplies are limited.
7. Table format based on DWR Guidance Document Table 8.

Table 3-7 lists single-dry year and multiple-dry year periods for both groundwater and purchased water supplies. The single-dry year and multiple-dry year periods are based on CCWA's (which are based on SWP) analysis of the lowest average precipitation for a single year and the lowest average precipitation for a consecutive multiple-year period, respectively.

Based on the historical records from 1876 to 2004, SWP has indicated that 1977 is the single-dry year and the years of 1931-1934 are representative of driest four consecutive SWP supplies (CCWA, 2005). A normal water year is based on the long-term average basis. Using existing facilities operated under current regulatory conditions, and with all contractors asking for their full amounts in most years, SWP would be able to deliver 77 percent of the total supplies during a normal water year. The water supply from SWP would be about 25

to 40 percent (about 33 percent) during multiple-dry years and about 5 percent during a single-dry year. In other words, 100 percent reliable water supplies from SWP could be estimated for CCWA's water supplies using 77, 33 and 5 percent for the normal, multiple-dry and a single-dry water year demands, respectively.

Therefore, with those amounts, CCWA has determined that they can meet their projected water demands for imported water for these years, so the supply is equal to the projected demands. In addition, there are other mechanisms that could augment the reliability of supplies during a dry period. For example, water available through exchanges with other contractors, purchases of water through DWR dry year water purchase programs, short term water transfers through DWR's Turnback Pool programs and groundwater recharge programs operated by some CCWA project participants. The water demands from several CCWA project participants may not be critical because they have invested in water reclamation (recycling) projects, desalination, water transfers, exchanges, conservation measures and conjunctive use projects to increase the reliability of their overall water portfolios. In any given year, additional water can be made available through the SWP system for the incremental cost of purchasing or exchanging the water from others in the SWP.

The Central Coast Water Authority has recently completed a water treatment capacity study. In that study, CCWA has determined that the treatment capacity at the Palino Pass treatment plant is approximately 5000 ac-ft/yr greater than its current permitted rating. CCWA is currently working with the DHS to re-rate the treatment plant's capacity. In addition, the capacity study determined that the pipeline capacity to deliver the water is also greater than design capacity. The capacity at the Santa Maria turnout is also approximately 5000 ac-ft/yr. This capacity is not available south of the Santa Maria turnout. A contributing factor why this occurs only in this section of the pipeline is that DWR designed this section of pipeline. DWR was more conservative in their design than CCWA that designed the balance of the project.

The City proposes to acquire this capacity within the treatment plant and pipeline to provide additional water supplies for use in the Santa Maria valley. Currently the City is entitled to their proportionate share of the available pipeline and treatment capacity at no cost. The City would plan to work with the other CCWA participants to acquire their portions of the pipeline and treatment capacity.

To provide water for this additional capacity, the City proposes to acquire water from other State water project participants. The County of Santa Barbara has an additional 12,000 ac-ft/yr approximately that is available to meet this need. This is referred to as the Table A water. The city would propose to work with other CCWA participants to acquire the entire Table A amount and the City would propose to use that portion of water assigned to Santa Maria to provide permanent deliveries for that portion of new pipe line capacity and have the balance of the water acquired used to firm up State Water deliveries.

The added benefit of the additional permanent and firmed up water supplies is that the City receives a 65 percent return flow credit that reduces the unit cost significantly, although water quality is the limiting factor to using this added supply.

For the groundwater reliability analysis, precipitation data from 1949 through 2004 were reviewed. Data for the water year basis were obtained by the Western Regional Climate Center (WRCC) at Santa Maria, CA. Precipitation data was evaluated from Water Year (WY) 1948-49 (October 1, 1948 - September 30, 1949) through WY 2003-04 (October 1, 2003 - September 30, 2004). Water year 1971-72 was the single driest year with 4.26-inches of precipitation. The normal water year was based on DWR's description of the median water year over the period of record. The median annual precipitation between WY 1949 and WY 2004 at Santa Maria was 12.07-inches. Based on the median precipitation, the normal water year was 1988. The multiple dry year period of WY 1970 through WY 1972 recorded the lowest 3-year total of precipitation.

Table 3-7
Basis of Water Year Data

Water Year Type	Base Year(s)	Historical Sequence
CCWA/SWP ⁽¹⁾		
Normal Water Year	N/A ⁽²⁾	1876-2004
Single-Dry Water Year	1977	
Multiple-Dry Water Years	1931-1934	
Groundwater ⁽³⁾		
Normal Water Year ⁽⁴⁾	1988	1949-2004
Single-Dry Water Year	1972	1949-2004
Multiple-Dry Water Years	1970-1972	1949-2004

Notes

1. DWR SWP Delivery Reliability Report (May 2005) presents data on historic hydrology
2. N/A – Not Applicable. Average of the entire hydrologic period
3. Record of precipitation from Western Regional Climate Center (WRCC) at Santa Maria, CA.
4. Normal Water Year calculated from median precipitation from WY 1949-WY 2004
5. Table format based on DWR Guidance Document Table 9

Factors Resulting in Inconsistency of Supply

Table 3-8 presents factors resulting in inconsistency of supply for the City of Santa Maria.

Table 3-8
Factors Resulting in Inconsistency of Supply

Name of Supply	Legal	Environmental	Water Quality	Climatic
Groundwater, Santa Maria Groundwater Basin	The Court retains jurisdiction over management of the Basin and may limit pumping under Severe Water Shortage Conditions as presented in the Stipulation. The Management Area Engineer will monitor groundwater conditions and report to the Court.	N/A	None	See Legal Column in this Table.
Purchased Water from SWP and Associated Return Flows	N/A	N/A	None	Reliability of imported water supply may vary based on SWP annual water supply

Notes

1. Table format based on DWR Guidance Document Table 10
2. N/A – Not applicable or not available

Transfers and Exchanges

The Stipulation provides the City with quantifiable and certain water rights. Prior to the groundwater adjudication, these rights were not quantifiable. The Stipulation also establishes a framework for both permanent and temporary transfers of water rights within the Basin. Because the City has obtained quantifiable water rights, the City has greater flexibility in facilitating transfers and exchanges. The Stipulation allows permanent or temporary transfer of the developed groundwater yield associated with the operation of the Twitchell Project. The Stipulation also allows temporary transfers of agricultural pumping rights (fallowing programs) during Severe Water Shortage Conditions. These assignments are summarized in Table 3-9.

As described above, there are mechanisms that could augment the reliability of supplies during a dry period. For example, water available through exchanges with other contractors, purchases of water through DWR dry year water purchase programs, short term water transfers through DWR's Turnback Pool programs and groundwater recharge programs operated by some CCWA project participants. In any given year, additional water can be made available through the SWP system for the incremental cost of purchasing or exchanging the water from others in the SWP.

Table 3-9
Transfer and Exchange Opportunities

Source Transfer Agency	Transfer or Exchange	Short Term	Proposed Quantities	Long term	Proposed Quantities
Twitchell Management Authority	TBD ⁽²⁾	TBD	TBD	TBD	TBD
CCWA	TBD ⁽²⁾	TBD	TBD	TBD	TBD

Notes

1. Table format based on DWR Guidance Document Table 11
2. Transfers and exchanges under these programs will occur on an as needed basis.

Planned Water Supply Projects and Programs

The City will construct new wells, pipelines, and treatment systems, as needed, as a part of its ongoing operations to maintain its supply and meet distribution system requirements. The City's plan is to maximize supplies from the SWP to provide increased reliability for water quality reasons, then to provide treatment to groundwater supplies to meet water quality objectives during peak-use and during shortages in the SWP, and to lessen the reliance on SWP long-term for water quality issues.

As described above, the City has a number of planned water supply projects and programs intended to increase the City's water supply. Table 3-10 presents potential water supply projects and programs that are being pursued by the City, which are as follows:

- The CCWA has recently completed a study of the treatment capacity at the Palino Pass treatment plant. CCWA has determined that the capacity of the plant is approximately 5,000 ac-ft/yr greater than its current permitted rating. In addition, CCWA determined that the capacity at the Santa Maria turnout is approximately 5,000 ac-ft/yr greater than its design capacity. The City has proposed to acquire this capacity to provide additional water supplies for use in the Santa Maria area.
- The City has proposed to acquire additional SWP Table A water from other CCWA participants. Currently, the County of Santa Barbara has approximately 12,000 ac-ft/yr of additional water. This water would used to provide additional water supplies to the Santa Maria area.
- As part of the Stipulation, the City, Guadalupe, and Golden State Water Company received 80 percent of the Twitchell yield of 32,000 ac-ft/yr. The balance of the water shall be made available to the stipulating landowners within the district. The Stipulation provides for the City to purchase this supply should the landowners wish to relinquish this supply. Because the majority of the stipulating landowners have an overlying right and first priority to the native water it is likely that some or all of the stipulating landowners may choose to sell their Twitchell water amounts rather than incur the expense of the Twitchell management authority. If the landowners choose to keep their Twitchell water supplies they will be subject to their portion of the Twitchell management authority assessments.

Table 3-10
Future Water Projects Supply

Project Name	Normal Year	Single Dry Year	Multiple Dry Years		
			Year 1	Year 2	Year 3
SWP Table A Water Purchases	N/A	N/A	N/A	N/A	N/A
Purchases of Twitchell Yield	N/A	N/A	N/A	N/A	N/A

Notes

1. This table is based on the DWR Guidebook Table 17.
2. N/A – Not Available
3. Unit of measure: ac-ft/yr

Wholesale Agency Supply Data

Table 3-11 provides CCWA's existing and planned water sources available to the City under normal years. The supplies shown are equal to the total amount of water potentially available to the City under the Water Supply Agreement with CCWA.

Table 3-11
Existing and Planned Water Sources Available to the City as Identified by CCWA

Wholesaler Sources	2010		2015		2020		2025		2030	
	Existing	Planned	Existing	Planned	Existing	Planned	Existing	Planned	Existing	Planned
Imported Water from SWP	17,800	N/A	17,800	N/A	17,800	N/A	17,800	N/A	17,800	N/A

Notes

1. Table format based on DWR Guidance Document Table 20
2. N/A – Data not available at this time
3. Unit of measure: ac-ft/yr

Table 3-12 provides information on the supplies available to the City under single-dry and multiple-dry year conditions for 2030. It is expected that if available SWP supplies are limited in dry periods, the City will pump groundwater, in accordance with the Stipulated Agreement, to meet demands. The total available supplies are projected to be 100 percent reliable to meet the water demand through 2030. In addition to these supplies, CCWA may purchase water from other wholesalers in California to augment water supplied through the SWP.

Table 3-12
Reliability of Wholesale Supply

Wholesaler	Single Dry	Multiple-Dry Water Years		
		Year 1	Year 2	Year 3
CCWA	890	5,874	5,874	5,874

Notes

1. Table format based on DWR Guidance Document Table 21
2. Single-dry year and multiple-dry year reliability provided by CCWA. Actual available supplies may increase as CCWA can purchase water from other wholesalers in dry years.

Table 3-13 lists factors affecting wholesale supply for the City of Santa Maria. The factors affecting reliability of the wholesale water supply have been discussed above.

Table 3-13
Factors Affecting Wholesale Supply

Name of Supply	Legal	Environmental	Water Quality	Climatic
Purchased Water from CCWA	N/A	N/A	N/A	Reliability of imported water supply may vary based on SWP available water supply

Notes

1. N/A - Not applicable
2. Table format based on DWR Guidance Document Table 22

Chapter 4. Water Use

Section 10631 (e) of the Act requires that an evaluation of water use be performed for the City of Santa Maria. The Act states:

Section 10631 (e)

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

(A) Single-family residential

(B) Multifamily

(C) Commercial

(D) Industrial

(E) Institutional and governmental

(F) Landscape

(G) Sales to other agencies

(H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof

(I) Agricultural.

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

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

Section 10631 (k) Urban water suppliers that rely upon a wholesale agency for a source of water, shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent practicable, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water-year types in accordance with subdivision (c). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (c), including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.

As part of the Urban Water Management Plans, California regulation requires water suppliers to quantify past and current water use and to project the total water demand for the water system. Projections of future water demand allow a water supplier to analyze if future water supplies are adequate, as well as help the agency when sizing and staging future water facilities. Water use and production records, combined with population projections, provide the basis for estimating future water requirements.

This chapter presents an analysis of water use data and the resulting projections for future water needs for the City of Santa Maria.

Historical and Projected Water Use

Historical water use data from 1999 to 2004 were analyzed in order to estimate the City's future water demands. Projections for the number of service connections and future water use were calculated for the year 2005 through 2030 in five-year increments. Future water demands were estimated using a population-based approach. Detailed descriptions of how the population-based projections were calculated are provided below. Table 4-1 shows the historical and projected number of metered service connections for the City of Santa Maria's system from 1999 through 2030. Figure 4-2 shows the historical and projected water use for the City of Santa Maria from 1999 until 2030.

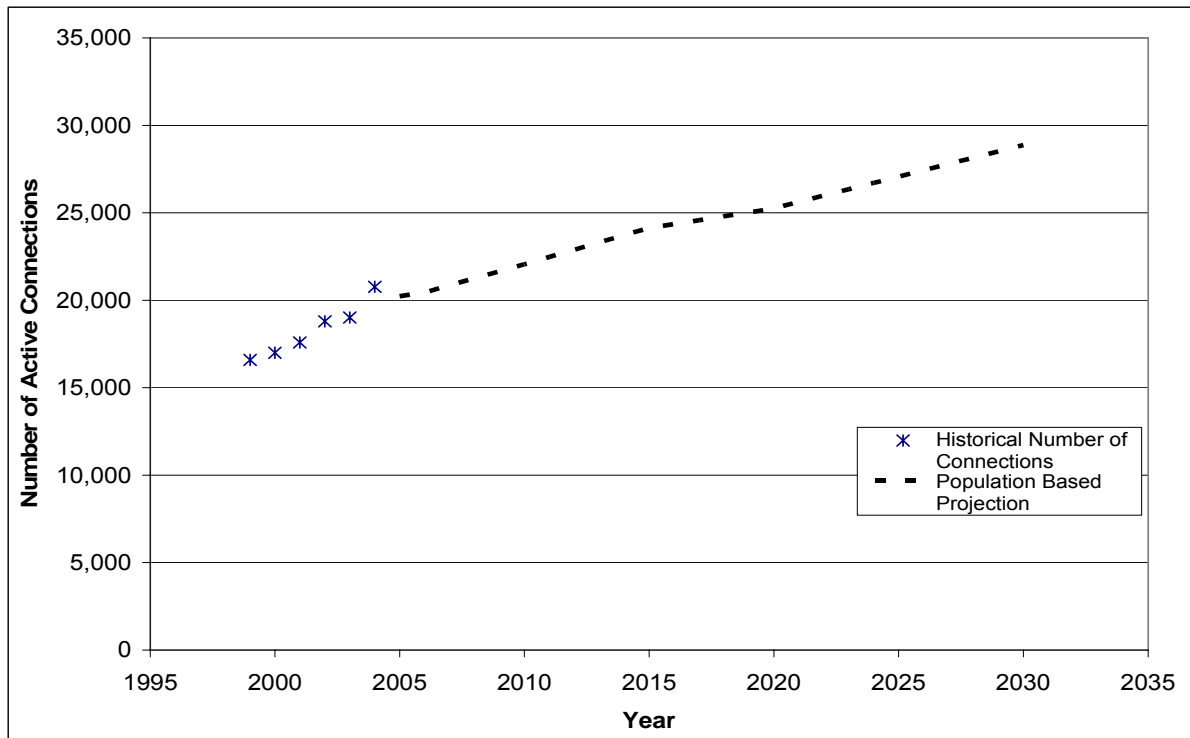


Figure 4-1. Historical and Projected Number of Metered Service Connections

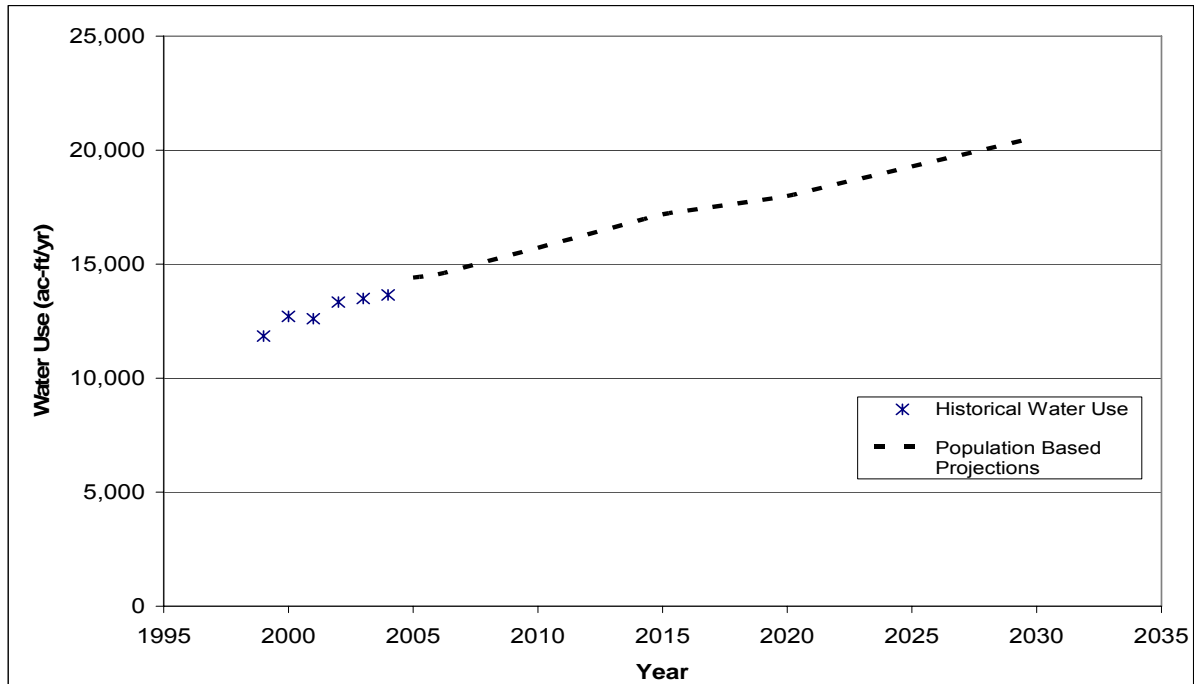


Figure 4-2. Historical Water Use and Future Water Use Projections

Historical water use records from 1999 through 2004 were analyzed in order to estimate future water demands. The water use data were sorted by customer type using North American Industry Classification System (NAICS) codes into the following categories: single family, multi-family, industrial, commercial, institutional, and others.

The water use projections are based on the population projections provided by SBCAG through 2020 and additional population projections developed by the City for 2025 and 2030. The population projections were extended to 2030 by the City using additional build-out data. The methodology used in the derivation of population projections for the City of Santa Maria is discussed in more detail in Chapter 2. During the period 1999-2004, water use in the City of Santa Maria averaged 145 gallons per capita per day (gpcd). This value incorporates total water use within the City, including water used for industrial, commercial, institutional, and other uses. The population-based projections of total water use from 2005 through 2030 were calculated by multiplying the annual projected population by 145 gpcd.

The annual water use by connection type was also projected for the years 2005 through 2030. These projections are based on the ratio of annual water use for each connection type to the total annual water use from 1999 through 2004. This factor of water use for each connection type was calculated by dividing the total water use by the water use of each connection type. The percentage of the total annual water use was averaged for the period 1999-2004 and applied to the projected water demands for 2005-2030.

The number of metered service connections was also projected on an annual basis for 2005 through 2030. These projections are based on the water use ratio of each connection type in the City of Santa Maria from 1999-2004. The percentage of total annual water use for each connection type was calculated by dividing the total water use by the water use of each

connection type. This percentage of the total annual water use was averaged for the period 1999-2004 and applied to the projected water demands for 2005-2030.

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

Figure 4-3 shows the population-based water use projections by customer type, unaccounted for water, and projected sales to other agencies. The population-based projections of the number of service connections, and the resulting water demand, are provided in Table 4-1 and Table 4-2 respectively.

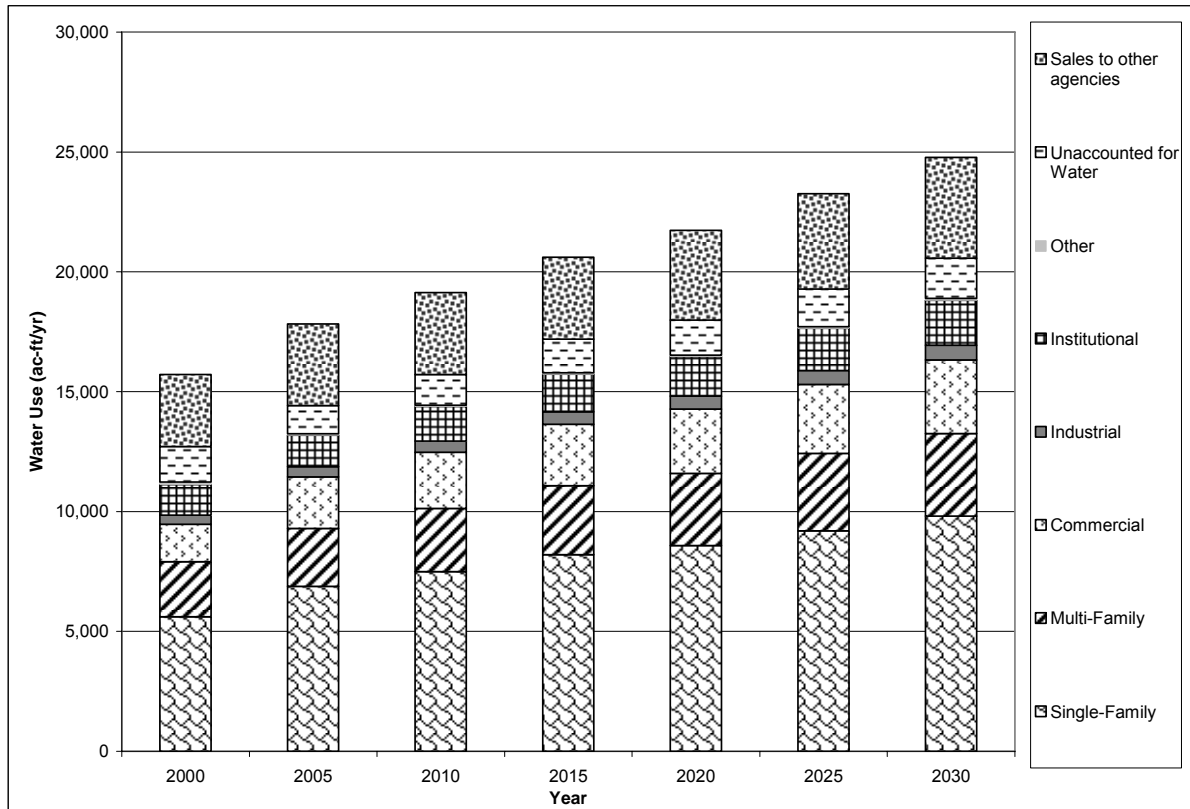


Figure 4-3. Water Use by Customer Type

Table 4-1
Historical and Projected Potable Metered Accounts by Type for the City of Santa Maria

Year	Single Family	Multi-Family	Commercial	Industrial	Institutional/ Government	Other	Total
2000	14,168	777	1,263	90	429	269	16,996
2005	17,190	851	1,213	116	477	387	20,234
2010	18,741	927	1,322	126	520	422	22,058
2015	20,502	1,015	1,446	138	569	461	24,132
2020	21,451	1,062	1,513	144	596	483	25,248
2025	22,995	1,138	1,622	155	638	517	27,066
2030	24,525	1,214	1,730	165	681	552	28,867

Notes

1. Table format based on DWR Guidance Document Table 12
2. Based on calendar year
3. Other accounts for any service connections not included in any other category, including idle or inactive connections.
4. Unit of measure: ac-ft/yr

Table 4-2
Historical and Projected Potable Water Deliveries for Metered Accounts for City of Santa Maria

Year	Water Use by Type						Total
	Single Family	Multi-Family	Commercial	Industrial	Institutional/ Government	Other	
2000	5,608	2,298	1,565	377	1,278	106	11,232
2005	6,876	2,416	2,147	433	1,317	54	13,243
2010	7,496	2,634	2,340	473	1,436	59	14,438
2015	8,201	2,882	2,560	517	1,571	65	15,796
2020	8,580	3,015	2,679	541	1,644	68	16,527
2025	9,198	3,232	2,872	580	1,762	72	17,716
2030	9,810	3,447	3,063	618	1,879	77	18,894

Notes

1. Table format based on DWR Guidance Document Table 12
2. Based on calendar year
3. Other accounts for any service connections not included in any other category, including idle or inactive connections.
4. Unit of measure: ac-ft/yr

Sales to Other Agencies

Table 4-3 provides a summary of the projected sales of water to other agencies from the City of Santa Maria's system. These projected water sales include amounts that the City has agreed to supply the other agencies. As shown in Table 4-5 the City's projected sales to other agencies are included as a portion of the City's total demands.

Table 4-3
Sales to Other Agencies

Water Distributed	2000 ⁽²⁾	2005	2010	2015	2020	2025	2030
GSWC ⁽⁵⁾	N/A	415	415	415	746	981	1,216
NCSD ⁽⁴⁾	3,000	3,000	3,000	3,000	3,000	3,000	3,000

Notes

1. This table is based on the DWR Guidebook Table 13.
2. Based on calendar year.
3. Unit of measure: ac-ft/yr
4. The existing MOU with NCSD describes supplies of up to 3,000 ac-ft/yr supplemental water. Future annexations to NCSD's service area will require additional supplemental water and the MOU has the option for future deliveries greater than 3,000 ac-ft/yr.
5. The City of Santa Maria has agreements in place to sell 900 ac-ft/yr to GSWC as demands increase.

In addition, The City has identified a number of potential projects and areas in the Santa Maria area that may purchase excess water supplies from the City in the future. These may include, but are not limited to, the areas shown in Figure 4-4. Future sales by the City to these areas would be met by the available supply that exceeds the City's demand. As the demands for future projects are determined, a water supply assessment would be completed to describe the City's ability to meet these potential demands.

Other Water Uses and Unaccounted-for Water

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

Unaccounted-for water must be incorporated when projecting total water demand. Unaccounted-for water is defined as the difference between annual production and supply and annual sales. Included in the unaccounted-for water are system losses (due to leaks, reservoir overflows, or inaccurate meters), and water used in operations. In the City of Santa Maria's system, from 1999 through 2004, unaccounted-for water has averaged 8.12 percent of the total production. Table 4-4 provides a summary of unaccounted-for water in the City's system.



Figure 4-4 Potential Projects and Areas that may Purchase Excess Water Supplies from the City

Table 4-4
Additional Water Uses and Losses

Water Use Type	2000	2005	2010	2015	2020	2025	2030
Other Water Uses	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Unaccounted-for System Losses	1,480	1,171	1,276	1,396	1,461	1,566	1,670
Total	1,480	1,171	1,276	1,396	1,461	1,566	1,670

Notes

1. This table is based on the DWR Guidebook Table 14.
2. Based on calendar year.
3. Unaccounted-for water includes system losses due to leaks, reservoir overflows, and inaccurate meters, as well as water used in operations.
4. Unit of measure: ac-ft/yr

Total Water Demand

As mentioned above, other water uses, as well as any water lost during conveyance, must be added to the customer demand in order to project the City's water demand. In addition to the City's sales to other agencies, unaccounted-for water must be incorporated to the total water demand (refer to the section above for a definition of unaccounted-for water).

Table 4-5 summarizes the projections of water sales to other agencies, demand within the City, unaccounted-for water, and total water demand through the year 2030. The projected water sales in the remainder of the analysis, including Table 4-5 represent the total demand of the population-based projections and sales to other agencies.

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

Table 4-5
Projected Water Sales, Unaccounted-for System Losses, and Total Water Demand

Year	Projected Water Sales ⁽⁴⁾	Unaccounted-for System Losses	Total Water Demand
2000 ⁽²⁾	14,232	1,480	15,712
2005	16,658	1,171	17,829
2010	17,853	1,276	19,129
2015	19,211	1,396	20,607
2020	20,273	1,461	21,734
2025	21,697	1,566	23,263
2030	23,110	1,670	24,780

Notes

1. This table is based on the DWR Guidebook Table 15.
2. Based on calendar year.
3. Unit of measure: ac-ft/yr
4. Projected Water Sales includes total demands within the City of Santa Maria and sales to other agencies

Data Provided to Wholesale Agency

The City provided the following water use data to the Central Coast Water Authority (CCWA), its wholesale water supplier for the State Water Project.

Table 4-6
Summary of City of Santa Maria Data Provided to CCWA

Wholesaler	2010	2015	2020	2025	2030
CCWA	17,800	17,800	17,800	17,800	17,800

Notes

1. Table format based on DWR Guidance Document Table 19
2. Based on calendar year.
3. Unit of measure: ac-ft/yr

Chapter 5. Demand Management Measures

The evaluation of DMMs occupies a significant portion of the Act. The Act states:

Section 10631

- (f) *Provide a description of the supplier's water demand management measures. This description shall include all of the following:*
- (1) *A description of each water demand management measure that is currently being implemented, or scheduled for implementation, including the steps necessary to implement any proposed measures, including, but not limited to, all of the following:*
 - (A) *Water survey programs for single-family residential and multifamily residential customers.*
 - (B) *Residential plumbing retrofit.*
 - (C) *System water audits, leak detection, and repair.*
 - (D) *Metering with commodity rates for all new connections and retrofit of existing connections.*
 - (E) *Large landscape conservation programs and incentives.*
 - (F) *High-efficiency washing machine rebate programs.*
 - (G) *Public information programs.*
 - (H) *School education programs.*
 - (I) *Conservation programs for commercial, industrial, and institutional accounts.*
 - (J) *Wholesale agency programs.*
 - (K) *Conservation pricing.*
 - (L) *Water conservation coordinator.*
 - (M) *Water waste prohibition.*
 - (N) *Residential ultra-low-flush (ULF) toilet replacement programs.*
 - (2) *A schedule of implementation for all water demand management measures proposed or described in the plan.*
 - (3) *A description of the methods, if any, that the supplier will use to evaluate the effectiveness of water demand management measures implemented or described under the plan.*
 - (4) *An estimate, if available, of existing conservation savings on water use within the supplier's service area, and the effect of the savings on the supplier's ability to further reduce demand.*
- (g) *An evaluation of each water demand management measure listed in paragraph (1) of subdivision (f) that is not currently being implemented or scheduled for implementation. In the course of the evaluation, first consideration shall be given to water demand management measures, or combination of measures, that offer lower incremental costs than expanded or additional water supplies. This evaluation shall do all of the following:*
- (1) *Take into account economic and noneconomic factors, including environmental, social, health, customer impact, and technological factors.*
 - (2) *Include a cost-benefit analysis, identifying total benefits and total costs.*

- (3) *Include a description of funding available to implement any planned water supply project that would provide water at a higher unit cost.*
- (4) *Include a description of the water supplier's legal authority to implement the measure and efforts to work with other relevant agencies to ensure the implementation of the measure and to share the cost of implementation.*
- (j) *Urban water suppliers that are members of the California Urban Water Conservation Council and submit annual reports to that Council in accordance with the "Memorandum of Understanding Regarding Urban Water Conservation in California," dated September 1991, may submit the annual reports identifying water demand management measures currently being implemented, or scheduled for implementation, to satisfy the requirements of subdivisions (f) and (g).*

Section 10631.5. The department shall take into consideration whether the urban water supplier is implementing or scheduled for implementation, the water demand management activities that the urban water supplier identified in its urban water management plan, pursuant to Section 10631, in evaluating applications for grants and loans made available pursuant to Section 79163. The urban water supplier may submit to the department copies of its annual reports and other relevant documents to assist the department in determining whether the urban water supplier is implementing or scheduling the implementation of water demand management activities.

This chapter presents a summary of the City's past, current and future water conservation activities for the Santa Maria System in compliance with the above listed sections of the Act.

The water conservation practices, as defined by the Act, are comprised of 14 DMMs. The DMMs are functionally equivalent to urban water conservation best management practices (BMPs) administered by the California Urban Water Conservation Council (Council). Table 5-1 lists the BMPs.

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

Table 5-1
Water Conservation Best Management Practices

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

Notes

1. Economic benefits of these BMPs are considered nonquantifiable.

BMP Implementation Status

The BMP implementation status was assessed based on information provided in BMP activity reports for the years 1999 to 2004 that were filed with the Council. In addition, the BMP coverage reports were used to assess whether the target implementation schedule, as defined by the Council, for each BMP is met. The 2004 Activity Report and Coverage Report are included in Appendix E. Based on Section 10631 (j) the Council reports meet the requirements of Water Code Section 10631 (f) and (g). A summary of these reports is presented in Table 5-2 and Table 5-3.

Table 5-2 presents a summary of the past water conservation activities within the City.

Table 5-2
Summary of Water Conservation Activities (1)

Year	BMP 1: Residential Surveys	BMP 2: Residential Retrofits	BMP 7: Public Information Programs	BMP 8: School Programs Students Reached
Pre 2005	3,779	600	Yes	12,180
Meeting Coverage Requirements	Yes	No	Yes	Yes

Table 5-3 presents a summary of the offered programs and implementation status in the City for all BMPs. The City is currently not meeting coverage requirements as defined by the Council for BMPs 2, 3, 5, 9 and 14. A benefit-cost analysis was performed on these BMPs to determine if implementation of these BMPs for the City should continue.

Table 5-3
Summary of Best Management Practice Implementation

BMPs	Summary of Activities	Coverage Implementation(2) Status
1. Residential Water Surveys	Santa Maria has developed and implemented a targeting/marketing strategy for Single- and Multi-Family residential water use surveys.	Coverage requirements are being met.
2. Residential Plumbing Retrofits	Santa Maria utilizes City events for distributing low-flow devices and uses city webpage to provide information on low-flow kits.	Coverage requirements are not met.
3. System Water Audits, Leak Detection, and Repair	City software highlights high water usage that results in city personnel conducting onsite leak detection. Leaks in city equipment are fixed. Leaks in customer equipment are identified and customer is advised to retain plumber.	Coverage requirements are not being met.
4. Metering	All accounts in the Santa Maria service area are metered and are billed by volume.	Fully implemented.
5. Large-Landscape-Conservation Program	Information regarding the efficient use of landscape water is provided to new customers.	Coverage requirements are not met.
6. High-Efficiency-Washing-Machine Rebate Program	Rebates for high-efficiency washers are not offered by energy utility providers. Santa Maria partners with Santa Barbara County Water Agency to offer rebate programs to Santa Maria customers.	Coverage requirements are being met.
7. Public Information Program (1)	Santa Maria has a public information program. Santa Maria issues press releases, publishes newsletters and uses bill inserts to notify the public of various conservation programs.	Coverage requirements are being met.
8. School Education Program (1)	Santa Maria has implemented a school information program to promote water conservation.	Coverage requirements are being met.
9. Conservation Program CII Accounts	Santa Maria partners with Santa Barbara County Water Agency to offer rebate programs to Santa Maria CII customers to promote the replacement of toilets with ULFT.	Coverage requirements are not met.
10. Wholesale-Agency Program (1)	Not applicable.	Not applicable
11. Conservation Pricing (1)	Santa Maria has adopted conservation pricing, including using water rates that are developed to recover the cost of providing service and billing customers for metered water use.	Fully implemented.
12. Water Conservation Coordinator (1)	Santa Maria has a water conservation coordinator on staff to develop and implement conservation programs.	Coverage requirements are being met.
13. Water Waste Prohibition (1)	There is a water waste prohibition ordinance in effect for Santa Maria that includes a number of water uses.	Coverage requirements are not met.
14. Residential-Ultra-Low-Flush-Toilet-Replacement Program	Santa Maria does not have a ULFT replacement program for single-and multi-family residences.	Coverage requirements are not met.

Notes

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

Cost Benefit Analysis

A benefit-cost economic analysis was completed for the quantifiable BMPs that are not meeting coverage requirements (BMP 2, 3, 5, 9 and 14). The benefit-cost analysis was completed with the consideration of economic factors. Non-economic factors, including environmental, social, health, customer impacts, and new technology, are not believed to be significant and were not considered in the analysis.

The basis and assumptions used in the economic analysis of each BMP, as well as detailed calculations are included in Appendix D. Common assumption for all BMPs is the real discount rate of 4.0 percent and \$150 per ac-ft for the value of conserved water. The value of conserved water provided by the City is estimated based on the cost incurred for the next increment of purchased or developed water. The real discount rate is based on the City's current cost of borrowing. Other assumptions with supporting references are described in Table D-1 (Appendix D).

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

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

The economic analysis shows that all BMPs yield benefit-cost ratios less than one, which indicates that the costs of conservation are in excess of the benefits and implementation of these conservation measures is not cost effective.

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

BMP Description	Total Discounted Cost ⁽¹⁾	Total Discounted Benefits ⁽²⁾	Total Water Saved (ac-ft) ⁽³⁾	Benefit /Cost Ratio ⁽⁴⁾	Simple Payback Analysis (years) ⁽⁵⁾	Discounted Cost / Water Saved (\$/c-ft) ⁽⁶⁾	Net Present Value / Water Saved (\$/ac-t) ⁽⁷⁾
2 Residential Plumbing Retrofits	\$605,732	\$131,253	1,203	0.2	83	\$504	-\$395
3 System Water Audits, Leak Repair	\$1,462,227	\$580,058	6,210	0.4	33	\$235	-\$142
5 Large Landscape Conservation Programs and Incentives	\$29,901	\$7,619	59	0.3	39	\$506	-\$377
9 Conservation Program for CII Accounts	\$46,614	\$15,510	112	0.3	15	\$417	-\$278
14 Residential ULFT Replacement Program	\$1,111,860	\$354,510	3,779	0.3	72	\$294	-\$200

Notes

1. Present value of the sum of financial incentives and operating expenses - using discount rate of 4.01%.
2. Present value of the sum of avoided purchased water costs - using discount rate of 4.0%.
3. Achieved water savings for the implemented BMP.
4. Total discounted benefits divided by total discounted costs.
5. Time horizon in years required for benefits to pay back costs of the BMP.
6. Total discounted costs divided by total water saved.
7. Total of discounted benefits less discounted costs divided by total water saved.

Recommended Conservation Program

The results of the economic analysis show all BMPs yielding benefit-cost ratios less than one, which indicates that the costs of conservation are in excess of the benefits and implementation of these conservation measures is not cost effective. Signatories of the MOU are not required to implement BMPs that are not cost beneficial. Therefore, the City is not required to continue implementation of these BMPs, and may pursue an exemption from implementing these measures with the Council.

BMPs 7, 8, 10, 11, 12, and 13 were not included in the proposed implementation program because they are considered non-quantifiable. These BMPs have no specific level of effort defined in the MOU, therefore water savings and costs associated with these BMPs were not included in the analysis. The cost for BMP 12 is contained in the City's overhead. BMPs 4 and 6 are already implemented, and, therefore, have no additional cost associated with them. BMP 13 has no associated cost unless initiated by a water shortage condition.

When implementing water conservation programs, the City is subject to economic and legal constraints that need to be considered as they may affect the cost effectiveness of each BMP.

Economic Considerations

The cost of water is an important economic factor that needs to be considered when implementing conservation programs. Higher cost of water increases the economic viability of BMP implementation. Currently, there are no water projects planned in the City that would result in higher unit costs of water, thus increasing the economic feasibility of water conservation measures.

Legal Considerations

The City has the legal authority to implement cost beneficial BMPs in its capital/operating budget. When developing programs that advance water conservation, the City can offer financial incentives, information or educational programs in its service area and has legal authority to enforce urban codes or plumbing codes for new or existing connections that pertain to implementation of efficient devices, or reduction of water use.

Cost Share Partners

The City partners with other agencies that support conservation programs to expand the breadth of offered programs. Joint participation offers opportunity for cost sharing and development of more effective conservation strategies.

Chapter 6. Desalination

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

Section 10631 (i) Describe the opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.

This chapter presents opportunities to use desalinated water as a future water supply source for the City of Santa Maria per requirements of California Water Code section 10631(i). The reliability of water supply for the City could be further augmented by the desalination of brackish water and seawater plans of the Central Coast Water Authority (CCWA). The following discussion summarizes the brackish water and seawater desalination plans of CCWA.

Brackish or Groundwater Desalination. As mentioned in the CCWA's 2005 UWMP, neither CCWA's mission nor the route of its pipeline and facilities lend themselves to brackish or groundwater desalination projects. However CCWA and its project participants could team up with other SWP Contractors and provide financial assistance in construction of other regional groundwater desalination facilities. A list summarizing the groundwater desalination plans of other SWP Contractors is not available; however, CCWA would begin this planning effort should the need arise.

Seawater Desalination. CCWA's mission is to import SWP water (CCWA, 2005). At this time, its Board of Directors does not consider desalination to be a cost effective method of increasing the reliability of imported water. Two CCWA project participants, however, have constructed desalination facilities. The City of Morro Bay intermittently operates an 830,000 gpd desalination facility and the City of Santa Barbara maintains a decommissioned desalination facility for emergency use.

Similar to the brackish water and groundwater desalination opportunities described above, CCWA and its project participants could provide financial assistance to its project participants or to other SWP Contractors in the use and/or construction of their seawater desalination facilities. CCWA has been following the existing and proposed seawater desalination projects along California's Coast. The "Seawater Desalination and the California Coastal Act" provides a summary and status of the existing and proposed seawater desalination plants along the California's Coast. Currently, most of those existing and proposed seawater desalination facilities are/would be operated by agencies that are not SWP Contractors (see CCWA's 2005 UWMP for details).

There are no specific opportunities identified for using desalinated water as a source of water supply for the City. Therefore, Table 6-1, has been left blank.

Table 6-1
 Summary of Opportunities for Water Desalination

Source of Water	Yield (ac-ft/yr)	Start Date	Type of Use	Other
N/A	N/A	N/A	N/A	N/A

Notes

1. Table format based on DWR Guidance Document Table 18
2. N/A – Not available

Chapter 7. Water Shortage Contingency Plan

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

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

- (a) Stages of action to be undertaken by the urban water supplier in response to water supply shortages, including up to a 50 percent reduction in water supply, and an outline of specific water supply conditions which are applicable to each stage.*
- (b) An estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency's water supply.*
- (c) Actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including, California Urban Water Management Planning Act Page 9 August 1, 2003 but not limited to, a regional power outage, an earthquake, or other disaster.*
- (d) Additional, mandatory prohibitions against specific water use practices during water shortages, including, but not limited to, prohibiting the use of potable water for street cleaning.*
- (e) Consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.*
- (f) Penalties or charges for excessive use, where applicable.*
- (g) An analysis of the impacts of each of the actions and conditions described in subdivisions (a) to (f), inclusive, on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments.*
- (h) A draft water shortage contingency resolution or ordinance.*
- (i) A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.*

This chapter documents the City of Santa Maria's Water Shortage Contingency Plan for the City of Santa Maria per requirements of Section 10632 of the Act. The purpose of the Water Shortage Contingency Plan is to provide a plan of action to be followed during the various stages of a water shortage. The plan includes the following elements: action stages, estimate of minimum supply available, actions to be implemented during a catastrophic interruption of water supplies, prohibitions, penalties and consumption reduction methods, revenue impacts of reduced sales, and water use monitoring procedures.

The City has initiated water conservation programs to reduce the water demand. These programs to reduce the water demands are in effect at all times within the City. The conservation programs include:

- **Irrigation System:** The City Recreation and Parks Department initiated a program to improve the efficiency of irrigation programs of the City's landscaped areas. Under this

program, a systematic upgrade of the irrigation system is conducted by replacing antiquated lines, heads, and valves. Concurrently with this effort, a state-of-the-art computerized control system was installed at many sites to improve irrigation efficiency. In addition to the irrigation system, a self-guided garden is available to the public which offers a variety of plants suggested for planting to reduce water irrigation demand.

- **Public Information Programs:** The City also practices a comprehensive public/education program that has led to lower water usage.
- **Residential and System Water Audit Program.** A comprehensive water audit program is practiced by the City in order to increase conservation. The residential audits include inspections of residential plumbing fixtures and irrigation systems. The system audit program includes a thorough water meter inspection plan and a “notice of high water use” policy.

In addition, based on the Stipulated Agreement resulting from *Santa Maria Valley Water Conservation District vs. City of Santa Maria, et al.*, groundwater levels are monitored to find any severe water shortage conditions in the management area. The Stipulation Agreement has requirements for monitoring and management to ensure that water supplies continue to be sufficient to support water uses in the Basin (see Chapter 3 for details). The procedure for addressing Severe Water Shortage Conditions is described in the Stipulation Agreement, which may include limitations on groundwater use. Annual monitoring will be implemented to report on water demands and water supplies. The Stipulation includes provisions to avoid severe water shortage conditions and a procedure to deal with Severe Water Shortage Conditions. This shall exist when the Management Area Engineer, based on ongoing monitoring, finds the following:

1. Groundwater levels in the Management Area are in a condition of chronic decline over a period of not less than five years.
2. The groundwater decline has not been caused by drought.
3. There has been material increase in groundwater use during the five-year period.
4. Monitoring wells indicated that groundwater levels in the Santa Maria Valley Management Area are below the lowest recorded levels.

Action Stages

The Act requires documentation of actions to be undertaken during a water shortage. The City of Santa Maria has developed actions to be undertaken in response to water supply shortages, including up to a 50 percent reduction in water supply.

The following section discusses the actions that might be taken depending on the severity of the shortage. Table 7-1 describes the water supply shortage stages and conditions. The stages will be implemented during water supply shortages according to shortage level, ranging from 5 percent shortage in Stage I to 50 percent shortage in Stage IV. The stage determination and declaration during a water supply shortage will be made by the City.

Table 7-1
Water Supply Shortage Stages and Conditions

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

Notes

This table is based on the DWR Guidebook Table 23.

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

Stage I (5 - 10 percent shortage) - The activities performed by the City during this stage include, but are not limited to:

- Declare water alert conditions and encourage voluntary conservation
- Conduct public information campaign
- Conservation Hotline, a toll free number with trained Conservation Representatives to answer customer questions about conservation and water use efficiency

Stage II (10 - 20 percent shortage). Stage II will include actions undertaken in Stage I. The actions to be undertaken by the City during this stage include, but are not limited to:

- Propose voluntary conservation allotments and/or require mandatory conservation rules
- Reduce water used for municipal public water uses such as street cleaning
- Develop an incentives program that provides a monetary credit for all water reduction beyond a specified goal

Stage III (20 - 35 percent shortage). Stage III is a critical shortage that includes all steps taken in prior stages regarding allotments and mandatory conservation rules. The actions to be undertaken by the City include, but are not limited to:

- Implement mandatory reductions.
- Eliminate municipal public water uses not required for health or safety.
- Put restrictions for various water uses and monitor the reductions.
- Penalize customers for excessive usage.

Stage IV (35 - 50 percent shortage). This is a super critical shortage that includes all steps taken in prior stages regarding allotments and mandatory conservation. The actions to be undertaken by the City include, but are not limited to:

- Implement further mandatory reductions

- Eliminate private irrigation of turf and landscaped areas except buckets
- Monitor all activities and production daily for compliance with necessary reductions.

Minimum Supply

The Act requires an estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the City of Santa Maria's water supply.

Table 7-2 summarizes the minimum volume of water available from each source during the next three years based on multiple-dry water years and normal water year. The water supply quantities for 2006 to 2008 are based on the Stipulation and data provided by CCWA. The return flows under multiple-dry year conditions are calculated based on the quantities available to the System under the Stipulation and the percentage (provided in CCWA's 2005 UWMP) that yields 100 percent reliable supplies. See Chapter 3 for details.

The City of Santa Maria's supply is expected to be 100 percent reliable from 2005 to 2008. This reliability is a result of, 1) the projected reliability of imported water and associated return flows, and 2) reliable groundwater in the Santa Maria Groundwater Basin (see Chapters 3 and 10 for details).

Table 7-2
Three-Year Estimated Minimum Water Supply

Source	2006	2007	2008	2005 Average year
Purchased Water from SWP	5,874	5,874	5,874	13,706
Groundwater Available from Twitchell Yield ⁽³⁾	14,300	14,300	14,300	14,300
Groundwater ⁽⁵⁾	20,627	21,645	22,663	12,795
Return Flows from SWP Water ⁽⁴⁾	8,909	7,891	6,873	8,909
Recycled water	0	0	0	0
Total	49,710	49,710	49,710	49,710

Notes

1. This table is based on the DWR Guidebook Table 24.
2. Unit of measure: ac-ft/yr
3. Granted under the Stipulation
4. Return flows based on average SWP imports of previous five years as described in the Stipulation
5. Long-term operation of the groundwater basin and storage of imported water from the SWP will allow increased groundwater production in years where imported water supplies are limited.

Catastrophic Supply Interruption Plan

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

either a Stage III or Stage IV water supply shortage condition. Table 7-3 provides a summary of actions to be undertaken during catastrophic events such as power outage, earthquake, and malevolent acts.

Table 7-3
Summary of Actions for Catastrophic Events

Possible Catastrophe	Summary of Actions
Power outage	<ul style="list-style-type: none"> • Arrange to provide emergency water. • Assess areas that will take the longest to repair. • Establish water distribution points and ration water if necessary. • Conduct bacteriological tests in order to determine possible contamination. • Arrange for alternate power supply to operate pumps.
Earthquake	<ul style="list-style-type: none"> • Assess the condition of the water supply system. Arrange to provide emergency water. • Identify priorities including hospitals, schools and other emergency operation centers. • Complete the damage assessment checklist for reservoirs, water treatment plants, wells and boosters, system transmission and distribution. • Coordinate with fire district to identify immediate fire fighting needs. • Determine any health hazard of the water supply and issue any notification to the customers, if necessary. • Make arrangements to conduct bacteriological tests, in order to determine possible contamination.
Malevolent acts	<ul style="list-style-type: none"> • Assess threat or actual intentional contamination of the water system. • Notify local law enforcement to investigate the validity of the threat. • Get notification from public health officials if potential water contamination • Determine any health hazard of the water supply and issue any notification to the customers, if necessary

Note:

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

Prohibitions, Penalties, and Consumption Reduction Methods

The Act requires an analysis of mandatory prohibitions, penalties, and consumption reduction methods against specific water use practices which may be considered excessive during water shortages.

The City can set forth water use violation fines, charges for removal of flow restrictors, as well as establish the period during which mandatory conservation and rationing measures

will be in effect. Table 7-4 summarizes the various prohibitions and the stages during which the prohibition becomes mandatory.

Table 7-4
Summary of Mandatory Prohibitions

Examples of Prohibitions	Stage When Prohibition Becomes Mandatory
Uncorrected plumbing leaks	II, III, IV
Watering that causes excess water to run-off onto an adjoining sidewalk, driveway, waterway, gutters, streets	II, III, IV
Restrict service of drinking water to any customers at public places unless requested	II, III, IV
Washing aircraft, cars, buses, boats, trailers, or other vehicles without a positive shut-off nozzle on the outlet end of the hose	II, III, IV
Washing buildings, structures, sidewalks, walkways, driveways, patios, parking lots, tennis courts, or other hard-surfaced areas in a manner which results in excessive run-off	II, III, IV
Watering lawn, landscape, or other turf area	II, III, IV
Use of water for construction purposes	II, III, IV
Use of water to clean, fill, or maintain levels in decorative fountains	II, III, IV
Filling or refilling of swimming pools	II, III, IV

Notes

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

Based on the requirements of the Act, Table 7-5 summarizes the methods that can be used by the City in order to enforce a reduction in consumption, where necessary. As mentioned earlier, various water conservation programs have been initiated the City and the County to reduce the water demand. Additional measures can be phased in to provide additional demand reductions and increase public awareness of the need to conserve water. Conservation is a permanent and long-term application used within the City at all times. Moreover, the County adopted the Regional Program in 1990 to promote water conservation within Santa Barbara County.

Table 7-5
Summary of Consumption Reduction Methods

Consumption Reduction Method	Stage When Method Takes Effect	Projected Reduction Percentage
Upgrade irrigation systems	All Stages	35
Reduce irrigation requirements by converting traditional landscape to a water-conserving one	All Stages	50
Public education/information programs	All Stages	N/A
Demand reduction program	All Stages	N/A
Water conservation kits	All Stages	N/A
Flow restriction	III, IV	N/A
Restrict building permits; Restrict for only priority uses	II, III, IV	N/A
Use prohibitions	II, III, IV	N/A
Water rate schedule; Per capita allotment by customer type	II, III, IV	N/A
Plumbing fixture replacement	All Stages	N/A
Voluntary rationing	II	N/A
Mandatory rationing	III, IV	N/A
Incentives to reduce water consumption	III, IV	N/A
Excess use penalty	III, IV	N/A
Install high-efficiency retrofit kits	All Stages	N/A
Conduct audits	All Stages	N/A
Percentage reduction by customer type	III, IV	N/A
Replace antiquated lines, heads, and valves	All Stages	N/A

Notes

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

The City sets forth penalties for violations of prohibited uses mentioned above. Table 7-6 summarizes the penalties and charges and the stage during which they take effect. The penalties consist of a written warning and a surcharge for the violation. A flow-restrictor or possible shutoff may be imposed after three violations.

Table 7-6
Summary of Penalties and Charges for Excessive Use

Penalties or Charges	Stage When Penalty Takes Effect
Penalties for not reducing consumption	III, IV
Charges for excess use	III, IV
Flow restriction	III, IV
Termination of Service	III, IV

Note:

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

Revenue Impacts of Reduced Sales

Section 10632(g) of the Act requires an analysis of the impacts of each of the actions taken for conservation and water restriction on the revenues and expenditures of the water supplier. Table 7-7 provides a summary of actions with associated revenue reductions; while Table 7-8 provides a summary of actions and conditions that impact expenditures. Table 7-9 summarizes the proposed measures to overcome revenue impacts. Table 7-10 provides a summary of the proposed measures to overcome expenditure impacts.

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

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

Notes

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

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

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

Notes

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

Table 7-9
Proposed Measures to Overcome Revenue Impacts

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

Notes

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

Table 7-10
Proposed Measures to Overcome Expenditure Impacts

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

Notes

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

Water-Use Monitoring Procedures

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

Table 7-11
Water-Use Monitoring Mechanisms

Mechanisms for Determining Actual Reductions	Type and Quality of Data Expected
Monitor water conservation efforts through customer billing data	<ul style="list-style-type: none"> • Monthly water use data • Water use comparison during the billing period of the previous year
Monitor water production records	<ul style="list-style-type: none"> • Hourly/daily/monthly water production depending on frequency of readings

Note:

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

In addition to the specific actions that the City can undertake to determine actual reductions in water use, the City can raise a flag on the monthly bill to inform the customer when water usage exceeds an average usage rate. Customers can be contacted and offered a service call in an attempt to identify the cause of the high use. The customer can be charged for any repairs or expenses incurred.

Chapter 8. Recycled Water Plan

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

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

- (a) A description of the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.*
- (b) A description of the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.*
- (c) A description and quantification of the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.*
- (d) The projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected pursuant to this subdivision.*
- (e) A description of actions, including financial incentives, which may be taken to encourage the use of recycled water, and the projected results of these actions in terms of acre-feet of recycled water used per year.*
- (f) A plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.*

Coordination

The City of Santa Maria does not currently use or have any plans to directly use recycled water in the future. Therefore, Table 8-1 has been left blank for this traditional use of recycled water. Although the City does not currently use or have any plans to directly use recycled water in the near future, the City's treated waste water that is discharged to disposal ponds does percolate into the subsurface and recharge the groundwater basin as return flows. These return flows and recharge to the groundwater basin help protect against seawater intrusion and improve groundwater quality by lowering total dissolved solids (TDS) concentrations.

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

Participating Agencies	Role in Plan Development
N/A	N/A

Notes

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

Wastewater Quantity, Quality, and Current Uses

A per capita wastewater generation factor was used to calculate the volume of wastewater generated by the customers in the City’s wastewater system. The per capita wastewater generation for the City service area is approximately 96 gallons per day (gpd). This per capita wastewater generation factor was used to estimate the existing and projected volumes of wastewater collected and treated in the City (refer to Table 8-2). The City does not currently directly supply recycled water to its customers. However, under the Stipulation discussed in Chapter 3, the City receives credit for the return flows of the water imported through the SWP. These return flows recharge the groundwater basin and help to protect against seawater intrusion. The return flows also improve groundwater quality by lowering TDS concentrations.

Currently, the City disposes of all of its treated wastewater through percolation ponds under a NPDES permit. Table 8-3 has been completed with projected wastewater treatment amounts through 2030. The City plans to continue with its current method of wastewater treatment that will allow for the use of return flows of imported water. As noted above, the return flows help to protect the groundwater basin from seawater intrusion and improve groundwater quality by lowering TDS concentrations.

Table 8-4 was also left blank as there are no traditional uses of recycled water by the City.

Table 8-2
 Estimates of Existing and Projected Wastewater Collection for the City of Santa Maria

	2000 ⁽²⁾	2005	2010	2015	2020	2025	2030
Projected population in service area	77,423	88,793	96,800	105,900	110,800	118,777	126,680
Wastewater collected & treated in service area	8,388 (7.5 mgd)	9,620 (8.6 mgd)	10,487 (9.4 mgd)	11,473 (10.2 mgd)	12,004 (10.7 mgd)	12,869 (11.5 mgd)	13,725 (12.2 mgd)
Quantity that meets recycled water standard	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes

1. This table is based on the DWR Guidebook Table 33.
2. Unit of measure: ac-ft/yr
3. Based on actual year.
4. Values of wastewater collected and treated are estimated. For a description of the methodology, refer to the text.
5. The projections of treated wastewater assume the City’s WWTP will be expanded to increase its capacity

Table 8-3
Estimates of Existing and Projected Disposal of Wastewater for City of Santa Maria

Method of Disposal	Treatment Level	2000	2005	2010	2015	2020	2025	2030
Percolation	Secondary	8,388 (7.5 mgd)	9,620 (8.6 mgd)	10,487 (9.4 mgd)	11,473 (10.2 mgd)	12,004 (10.7 mgd)	12,869 (11.5 mgd)	13,725 (12.2 mgd)

Notes

1. This table is based on the DWR Guidebook Table 34.
2. Unit of measure: ac-ft/yr

Table 8-4
Existing Recycled Water Use in the City of Santa Maria

Type of Use	Treatment Level	2004 Use (ac-ft/yr)
N/A	N/A	N.A.

Notes

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

Potential and Projected Use

There are no existing recycled water customers in the City of Santa Maria System. Therefore, Table 8-5 and Table 8-6 have been intentionally left blank. At this time, no potential future recycled water uses have been identified within the City's service area. However, under the Stipulation, the City receives credit for the return flows of imported water into the Basin. This imported water is indirectly recycled, as the City is able to pump a portion of the imported water as return flows. The City may reconsider traditional uses of recycled water in the future.

In the Urban Water Management Plan for the City of Santa Maria (2000), projections of recycled water within the City by the year 2005 were not included. The City does not have any current traditional or planned potential future uses of recycled water above the use of return flows from imported water. Therefore, Table 8-7 is not applicable for this system and has been intentionally left blank. However, the City's treated waste water that is discharged to disposal ponds does percolate into the subsurface and recharge the groundwater basin as return flows. These return flows and recharge to the groundwater basin help protect against seawater intrusion and improve groundwater quality by lowering TDS concentrations.

Table 8-5
Potential Future Recycled Water Uses

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

Notes

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

Table 8-6
Projected Future Recycled Water Use in Service

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

Notes

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

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

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

Notes

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

Optimization and Incentives for Recycled Water Use

Although the City maximizes the use of return flows from imported water, the City does not have any plans in place to provide traditional uses of recycled water. Therefore, Table 8-8 is not applicable for this system and has been intentionally left blank. The City may update this table in the future if the City considers traditional uses of recycled water. However, the City’s treated waste water that is discharged to disposal ponds does percolate into the subsurface and recharge the groundwater basin as return flows. The return flows and recharge to the groundwater basin helps protect against seawater intrusion and improves groundwater quality by lowering TDS concentrations.

Table 8-8
Methods to Encourage Recycled Water Use and the Resulting Projected Use

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

Notes

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

Chapter 9. Water Quality

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

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

This section presents a description of current and proposed water quality regulations, water quality issues for the City, and potential impacts of water quality to reliability.

Current and Proposed Water Quality Regulations

Environmental Protection Agency (EPA) and the State of California have established, or will develop, the following key primary water quality regulations under the Safe Drinking Water Act (SDWA). The Current and proposed water quality regulations listed below are discussed in the following paragraphs. These regulations apply to community and non-community water systems, which include those of the City of Santa Maria and may affect the City's water treatment facilities, treatment processes used, and monitoring requirements. See Table 9-1 for the status of current and proposed water quality regulations.

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

- Radionuclide Rule
- Radon Rule
- Drinking Water Candidate Contaminant List

Safe Drinking Water Act (SDWA)

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

Under the 1996 SDWA amendments, EPA must:

- Publish a list of contaminants that may require regulation under the SDWA no later than February 6, 1998, and every 5 years thereafter
- Consult with the scientific community, including the Science Advisory Board, when preparing the list
- Provide notice and opportunity for public comment on the list
- Establish an occurrence database to be considered when EPA makes decisions to regulate contaminants that are known or anticipated to occur in public water systems
- Decide whether to regulate no fewer than five listed contaminants, no later than August 6, 2001, and every 5 years thereafter

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

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

Primacy

EPA has delegated primary enforcement responsibility for drinking water program implementation and enforcement to the state of California. To maintain primacy (authority to enforce drinking water regulations) under the SDWA, the state must adopt drinking water regulations at least as stringent as the federal regulations and meet other relevant criteria. State drinking water regulations may be more stringent than the federal regulations,

but not less stringent. In California, the California Department of Health Services (CDHS) is the primacy agency for drinking water regulations.

Table 9-1
Status of Drinking Water Regulations

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

Notes

- i. Regulation with potential future impact to GSWC.

Table 9-2
Current Federal Drinking Water Standards

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

Table 9-2
Current Federal Drinking Water Standards

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

Table 9-2
Current Federal Drinking Water Standards

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

Notes

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

Table 9-3
Current State Secondary Drinking Water Regulations

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

Total Coliform Rule (TCR)

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

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

Other significant provisions of the TCR are:

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

All distribution system zones must be included in the routine sampling program, and some of the sample locations must be rotated throughout the year.

TCR Potential Revisions and Distribution System Requirements

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

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

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

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

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

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

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

Surface Water Treatment Rules

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

The Surface Water Treatment Rule (SWTR)

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

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

For disinfection, the SWTR required 99.9 percent (3 logs) for the combination of removal and inactivation of *Giardia* cysts and 99.99 percent (4 logs) for the combination of removal and inactivation of enteric viruses. The SWTR gave credit for 99.7 percent (2½ logs) removal of *Giardia* cysts and 99 percent (2 logs) removal of viruses in a “well-operated” conventional surface water treatment plant. The SWTR, then, required an additional ½-log of inactivation of *Giardia* cysts and an additional 2 logs of inactivation of viruses. Credit for the inactivation (or disinfection) requirements for *Giardia* and viruses was given for chlorine, chloramines, ozone, and chlorine dioxide. The credit was based upon achieving the product of disinfectant concentration and contact time, known as CT. The concentration (C) used was normally the concentration exiting the reactor used for primary disinfection and the time (T) was the time it took for 10 percent of the influent flow to exit the reactor (T₁₀). T₁₀ was to be determined using tracer testing in the plants using different flow rates. Tables of CT required for each of the disinfectants at different temperatures, and in some cases, different pH values were published in the *Guidance Manual for Compliance with the Filtration and Disinfection Requirements for Public Water Systems Using Surface Water Sources* (American Water Works Association, Denver, CO, 1991).

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

Cryptosporidium Action Plan

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

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

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

As part of the plan, the DHS completed a comprehensive review of the operations by water systems that use an alternative treatment system. The review focused on compliance with the turbidity standard during normal operations and after backwashing or other interruptions in service. It also included a review of the engineering report required 60 days after the first year of operation.

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

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

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

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

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

the effluent turbidity goals until improvements are made may also inform the customers of the system.

Interim Enhanced Surface Water Treatment Rule

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

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

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

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

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

Long Term 1 Enhanced Surface Water Treatment Rule

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

Long Term 2 Enhanced Surface Water Treatment Rule

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

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

Table 9-4

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

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

Disinfectant/Disinfection By-Product Rules

Total Trihalomethanes (TTHM) Rule

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

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

Table 9-5

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

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

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

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

Notes

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

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

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

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

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

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

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

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

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

1. Source water TOC is less than 2.0 mg/L.
2. Treated water TOC is less than 2.0 mg/L.
3. Source water TOC < 4.0 mg/L, raw water alkalinity > 60 mg/L as CaCO₃, distribution system TTHM and HAA5 concentrations are less than or equal to 40 mg/L and 30 mg/L, respectively.
4. Distribution system TTHM and HAA5 concentrations are less than or equal to 40 mg/L and 30 mg/L, respectively, and the system uses only free chlorine for disinfection.
5. Source-water-specific ultraviolet absorbance (SUVA) is less than 2.0 L/mg-m. SUVA is calculated by dividing UV absorbance (m⁻¹) at 254 nm by the concentration (mg/L) of dissolved organic carbon (DOC).
6. Treated water SUVA is less than 2.0 L/mg-m.

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

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

Source Water TOC mg/L	Source Water Alkalinity , mg/L as CaCO ₃		
	0 to 60	>60 to 120	>120
>2.0 to 4.0	35	25	15
>4.0 to 8.0	45	35	25
>8.0	50	40	30

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

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

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

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

Raw Water Alkalinity, mg/L as CaCO ₃	Target pH
0 to <60	5.5
60 to <120	6.3
120 to <240	7.0
240	7.5

D/DBP Rule Stage 2

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

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

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

Volatile Organic, Synthetic Organic and Inorganic Chemical Rules

Volatile Organic Chemicals Rule

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

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

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

Phase II Synthetic Organic Chemicals and Inorganic Chemicals Rule

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

Phase V Synthetic Organic Chemicals and Inorganic Chemicals Rule

The Phase V Rule was promulgated in July 1992 and set MCLGs and MCLs for 23 contaminants. Compliance monitoring for these contaminants follows the same

standardized monitoring framework introduced with the Phase II rule. Some of the Phase V contaminants were previously on the unregulated contaminants monitoring (UCM) lists under other rules. To eliminate duplication, these contaminants were withdrawn from the UCM lists.

Groundwater Rule

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

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

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

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

Filter Backwash Rule

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

1. Return of all recycled flows prior to the point of the primary coagulant addition.

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

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

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

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

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

Lead and Copper Rule

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

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

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

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

If action levels are exceeded, water systems must collect source water samples and submit all data to the state with a treatment recommendation to reduce concentrations below the

action level. In addition, the water system must also provide a public education program to its customers within 60 days of the action level exceedance. The education program must be continued until the samples are found to be below the lead action levels.

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

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

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

Arsenic Rule

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

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

- A MCLG for arsenic in drinking water is set at zero.
- The MCL for arsenic is revised from 50 µg/L down to 10 µg/L by January 23, 2006.
- Beginning with Consumer Confidence Reports (CCRs) due by July 1, 2002, all community water systems (CWSs) will begin providing health information and arsenic concentrations in the annual reports for water that exceeds 5 µg/L (one half of the MCL).
- Both CWSs and non-transient non-community water systems (NTNCWSs) are required to meet the revised arsenic standard.
- Two compliance requirements for inorganic contaminants (IOCs), volatile organic contaminants (VOCs), and synthetic organic contaminants (SOCs). Specifically, when a system fails to collect the required number of samples, compliance averages will be

based on the actual number of samples collected. Also, new public water systems and systems using new sources of water must demonstrate compliance within state-specified time and sampling frequencies. These provisions apply to arsenic.

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

Radionuclide Rule

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

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

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

- Affected Systems: Community Water Systems (CWSs); non-CWSs, including transient and non-transient, are exempt.
- MCL Goals (MCLGs) for radionuclides: MCLGs of zero; includes combined radium-226/228; gross alpha, beta particle and photon radioactivity, and uranium
- Radium MCL: Combined Ra-226 and Ra-228 MCL of 5 pCi/L; based on new risk levels.
- Beta/Photon Radioactivity MCL:
 - ≤ 4 mrem/yr to the total body or any given internal organ except for H-3 and Sr-90
 - H-3 = 20,000 pCi/L; Sr-90 = 8 pCi/L
 - Total dose from co-occurring beta/photon emitters must be ≤ 4 mrem/yr to the total body of any internal organ;

- This MCL will be reviewed within 2 to 3 years based on a need for further re-evaluation of the risk management issues.
- Gross alpha MCL: 15 pCi/L excluding uranium and radon, but including Ra-226; maintain current MCL.
- Uranium MCL: 30 µg/L; new MCL.
- Polonium-210: Part of gross alpha; monitoring required under the UCMR rule; further action may be proposed at a later date.
- Lead-210: Not regulated; monitoring required under the UCMR rule; further action may be proposed at a later date.

Table 9-10
Existing and Revised MCLs for Radionuclides

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

Radon Rule

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

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

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

- MCLG zero
- MCL 300 pCi/L
- Alternative MCL (AMCL) 4,000 pCi/L

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

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

Drinking Water Contaminant Candidate List

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

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

Table 9-11
Contaminant Candidate List (CCL)

Microbiological Contaminants

Adenoviruses
Aeromonas hydrophila
Caliciviruses
Coxsackieviruses
Cyanobacteria (blue-green algae), other freshwater algae, and their toxins
Echoviruses
Helicobacter pylori
Microsporidia (Enterocytozoon & Septata)
Mycobacterium avium intracellulare (MAC)

Chemical Contaminants

1,2,2,2-tetrachloroethane
1,2,4-trimethylbenzene
1,1-dichloroethane

Table 9-11
Contaminant Candidate List (CCL)

1,1-dichloropropene
1,2-diphenylhydrazine
1,3-dichloropropane
1,3-dichloropropene
2,4,6-trichlorophenol
2,2-dichloropropane
2,4-dichlorophenol
2,4-dinitrophenol
2,4-dinitrotoluene
2,6-dinitrotoluene
2-methyl-Phenol (o-cresol)
Acetochlor
Alachlor ESA & other acetanilide pesticide degradation products
Aluminum
Boron
Bromobenzene
DCPA mono-acid degradate
DCPA di-acid degradate
DDE
Diazinon
Disulfoton
Diuron
EPTC (s-ethyl-dipropylthiocarbamate)
Fonofos
p-Isopropyltoluene (p-cymene)
Linuron
Methyl bromide
Methyl-t-butyl ether (MTBE)
Metolachlor
Molinate
Nitrobenzene
Organotins
Perchlorate

Table 9-11
Contaminant Candidate List (CCL)

Prometon

RDX

Terbacil

Terbufos

Triazines and degradation products of triazines (including, but not limited to Cyanazine, and atrazine-desethyl)

Vanadium

Water Quality Issues

The quality of the City's water supply depends on the proportion of the imported surface water and local groundwater. Imported surface water has a lower TDS concentration than local groundwater. The quality of these two sources is described below.

The local groundwater produced by the City's groundwater wells generally has a TDS concentration ranging from 600 parts per million (ppm) to 1,200 ppm, with an average of 844 ppm (Santa Maria, 2004). The City's surface water supply imported through the SWP generally has a TDS concentration range of 141 ppm to 376 ppm, with an average of 247 ppm (Santa Maria, 2004).

In general, groundwater represents approximately 9 percent of the City's current water supply. The local groundwater is blended with SWP water resulting in water quality that complies with all State and Federal drinking water requirements. There are currently no water quality issues affecting the City's water supply. In addition, the City does not anticipate any future water quality issues that may affect supply or reliability. Annually, the City publishes a Water Quality report which details the water quality sampling results for the City's wells and SWP water. A recent water quality report for 2004 is provided in Appendix G.

Surface Water Quality

The City of Santa Maria purchases water from the Central Coast Water Authority (CCWA). The CCWA obtains its water supply from the coastal reach of the SWP California Aqueduct. The source water of the State Water Project originates in northern California's mountains, rivers and streams, and flows through the Sacramento-San Joaquin Delta before entering the State Water Project's 444-mile California Aqueduct.

The coastal reach of the SWP consists of a 101-mile long aqueduct from Kern County to Vandenberg Air Force Base in Santa Barbara County and a 42-mile long CCWA pipeline from Vandenberg AFB to Lake Cachuma. Water is pumped from the West Branch of the SWP through a series of four pumping stations and ultimately delivered to the Polonial Pass Filtration Plant where the water is treated by conventional surface water filtration techniques. The Polonial Plant is located in the Cholame Hills at an elevation of approximately 1400 feet. This elevation allows the plant to distribute water from the plant to

the Santa Ynez Pumping Facility in Santa Barbara County, which is approximately 120 miles away. Typically, there is no other treatment of the purchased surface water, other than the treatment received at the Polonial Pass Plant. The interconnection, thorough which Santa Maria accepts water from CCWA, is located downstream of Polonial Pass Plant and upstream of the Santa Ynez Pumping Plant.

The main water quality concerns for the surface water purchased from CCWA are related to the water supply source. The water quality is generally excellent; however, it is affected by seawater intrusion and agricultural drainage from peat soil islands in the Bay Delta area. The water quality parameters that are of particular importance include total organic carbon (TOC) and bromide. An increase in TOC and bromide concentrations may result in an increased production of disinfection byproducts.

Two actions that are implemented to protect Bay-Delta Fisheries have made controlling TOC and Bromide levels difficult. The SWP diversions for fishery protection are now scheduled for the fall season, instead of spring. The fall season is the time of year when TOC and Bromide levels are at their highest. In addition, selected cross Delta Channels are closed at certain times of the year to protect migrating fish. This degrades the overall quality of water that enters the SWP California Aqueduct because the closure of the Cross Delta Channel reduces the volume of higher quality water from the Sacramento River entering the SWP system.

Historically, the City's water supply received high quality surface water through the SWP. As a result, the water quality issues discussed above are not anticipated to be problematic as these disinfection byproducts are expected to be very low or non-detect. The City currently blends the surface water with local groundwater which serves to mitigate any potential disinfectant byproduct issues when surface water is introduced into the system.

Groundwater Quality

The City operates eight active groundwater wells which extract groundwater from the Santa Maria Valley Groundwater Basin. This basin primarily underlies the Santa Maria Valley but also underlies the Nipomo and Tri-Cities Mesas, Arroyo Grande Plain and the Nipomo, Arroyo Grande and Pismo Creek Valleys. The Basin is triangularly shaped and opens towards the west and extends offshore into the Pacific Ocean. The San Rafael Mountains bound the basin to the north and the Santa Ynez Mountains of the Coastal Traverse Range bound the basin to the south. The basin is an alluvial basin and is bounded by consolidated impermeable rock formations that outcrop along the inland periphery of the basin. The unconsolidated water bearing deposits can range in thickness up to 2,800 feet and average 1,000 feet in thickness. The water bearing formations of the basin include alluvium, dune sands and the Orcutt, Paso Robles, Pismo and Careaga formations.

Projected Impact of Water Quality

Table 9-12 summarizes the projected impact on water supply due to water quality issues with wells in the City of Santa Maria. There are no projected impacts on the City's water supply resulting from water quality issues through 2030.

Table 9-12
Summary of Projected Water Supply Changes Due to Water Quality Issues

Water Source	2005	2010	2015	2020	2025	2030
Well 5AS	0	0	0	0	0	0
Well 6S	0	0	0	0	0	0
Well 7S	0	0	0	0	0	0
Well 8S	0	0	0	0	0	0
Well 9S	0	0	0	0	0	0
Well 10S	0	0	0	0	0	0
Well 11S	0	0	0	0	0	0
Well 12S	0	0	0	0	0	0
Well 13S	0	0	0	0	0	0
Well 14S	0	0	0	0	0	0

Distribution System Water Quality

The City has implemented a number of monitoring programs to ensure that the water quality remains within acceptable ranges. The water quality parameters that are monitored, pursuant to plans approved by the Department of Health Services, include general physical parameters, presence of coliform bacteria, disinfectant and disinfection by-product levels, and corrosivity of the water by monitoring lead and copper levels at customers' water taps. All monitoring parameters and levels currently meet drinking water standards. The ability to continue to meet these standards is not expected to change in the foreseeable future.

In addition to the monitoring programs, the City has implemented a number of operational programs that are designed to maintain water quality within acceptable criteria. The system actively flushes its distribution system on a routine basis as a means to remove built up sediment within the mains as well as to ensure that aged water is removed from the system. The system also has an active backflow and cross connection prevention program in place to reduce the risk of backflow conditions from a service connection into the distribution system. Also, security measures are in place to protect the distribution system from tampering by unauthorized personnel. All of these programs are designed to assist with maintaining the water quality within the distribution system and provide some of the tools needed to respond to a water quality emergency.

Emerging Water Quality Issues

In 2000, there was significant interest in the detection and possible health effects of chromium 6 in drinking water supplies throughout the state. In 2001, the Office of Environmental Health Hazard Assessment (OEHHA) withdrew their previously established Public Health Goal (risk assessment level) of 2.5 µg/L for total chromium. The current MCL enforced by CDHS is 50 µg/L for total chromium, and OEHHA is in the process of

establishing a specific Public Health Goal for chromium 6. Total chromium in the City's System is 1.0 µg/l to 2.0 µg/l and chromium 6 is 1.2 µg/l.

Until recently, MTBE was the primary oxygenate in virtually all gasoline used in California. It was introduced to surface water bodies from motor exhaust of recreational watercraft, and into groundwater supplies by leaking underground storage tanks. The CDHS adopted a primary MCL of 13 µg/L for MTBE based on carcinogenicity studies in animals. They also established a secondary MCL for MTBE at 5 µg/L, based upon taste and odor concerns. MTBE has been non-detectable in all water sources serving the water system to date.

Chapter 10. Water Service Reliability

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

Section 10635.

- (a) Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.*
- (b) The urban water supplier shall provide that portion of its urban water management plan prepared pursuant to this article to any city or county within which it provides water supplies no later than 60 days after the submission of its urban water management plan.*
- (c) Nothing in this article is intended to create a right or entitlement to water service or any specific level of water service.*
- (d) Nothing in this article is intended to change existing law concerning an urban water supplier's obligation to provide water service to its existing customers or to any potential future customers.*

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

As noted, the City has several available water supplies to meet the projected demands. Groundwater is pumped from the Basin and the imported supplies from the SWP are obtained via CCWA facilities. In addition, the City can pump a percentage of the imported water supply as return flows. These return flows are pumped from the City's wells and are in addition to their groundwater supplies. The City also has a dedicated right to pump up to 14,300 ac-ft/yr derived from the developed Basin yield resulting from the operation of the Twitchell Project. Because these supplies are dependent on both local and state supplies, the conditions in local and distant areas can impact the reliability of supplies. The following discussion summarizes the reliability of the City's water supply sources. In general, the City's supply is expected to be 100 percent reliable through 2030. This reliability is a result of: 1) the projected reliability of imported water and associated return flows, and 2) reliable native and augmented groundwater in the Basin.

CCWA's sole water supply is imported water from the SWP. Imported water supplies from the SWP are expected to be 77 percent (based on a long-term average basis) reliable for the

normal years. However, during wet years, the SWP may be 100 percent reliable. In contrast, the SWP deliveries during the multiple-dry year periods could be about 25 to 40 percent of the allotted amounts and possibly as low as 5 percent of the allotted amount during an unusually dry single year. Various mechanisms could augment the reliability of supplies during a dry period. For example, water available through exchanges with other contractors, purchases of water through DWR dry year water purchase programs, short term water transfers through DWR's Turnback Pool programs and groundwater recharge programs operated by some CCWA project participants.

The Santa Maria Groundwater Basin, especially the Santa Maria Valley Management Area, is a very reliable source of water for the City. This reliability is based on the City's water rights in the Basin the use of return flows from imported State Water Project water. In addition, the Santa Maria Groundwater Basin has large volume of groundwater in storage to buffer drought conditions, as has been demonstrated historically.

As a part of the Stipulation, the City, along with GSWC and Guadalupe has preferential appropriative rights to surplus native groundwater: therefore, these parties may pump groundwater without limitation unless a Severe Water Shortage Condition persists within the Santa Maria Valley Management Area. The four criteria for determination of a Severe Water Shortage Condition are described below. In the event of a Severe Water Shortage Condition, the Court may order GSWC, along with Santa Maria and Guadalupe, to limit their pumping to their developed water at that time.

The Stipulation has requirements for monitoring and management to ensure that water supplies continue to be sufficient to support water uses in the Basin. Annual monitoring will be implemented to report on water demands and water supplies. The Stipulation includes provisions to avoid water shortage conditions and a procedure to deal with Severe Water Shortage Conditions.

As provided in the Stipulation, Severe Water Shortage Conditions exist when the Management Area Engineer, based on ongoing monitoring, finds the following: 1) groundwater levels in the Management Area are in a condition of chronic decline over a period of not less than five years, 2) the groundwater decline has not been caused by drought, 3) there has been material increase in groundwater use during the five-year period, and 4) monitoring wells indicate that groundwater levels in the Santa Maria Valley Management Area are below the lowest recorded levels. The procedure for addressing Severe Water Shortage Conditions is described in the Stipulation, which may include limitations on groundwater use.

The Stipulation also has provisions for the management and administration of the Twitchell Project. These provisions are designed to provide for funding and operation of the Twitchell Project, to maintain this water supply to the Basin so that the likelihood that Severe Water Shortage Conditions might develop is very low.

As provided in the Stipulation, the City has rights to pump its highest historical use of groundwater from the Basin, an additional right to 14,300 ac-ft/yr of developed groundwater yield derived from the Twitchell Project, and return flows from SWP use.

Any demands which cannot be met with the SWP water (and the associated return flows) are expected to be met by groundwater supplies in accordance with the Stipulation.

As presented in the Stipulation, the Management Area Engineer is responsible for monitoring water conditions and recommending water supply projects and programs to ensure water supplies are available to each Management Area under all hydrologic conditions.

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

Normal Water Year Analysis

The City's projected water supply consists of imported water, native groundwater, Twitchell Yield, and return flows of imported water in normal water years (see Chapter 3 for details). The City's normal year water supply is projected to be 49,710 ac-ft/yr. As discussed above and in Chapter 3, any demands which cannot be met with SWP water (and associated return flows) are expected to be met by native groundwater supplies and Twitchell Yield in accordance with the Stipulation. Table 10-1 presents the City's projected supplies as the supplies to meet projected demands. These demands include projected water use within the City, sales to other agencies, and unaccounted for water.

Table 10-1
Projected Normal Water Year Supply

	2010	2015	2020	2025	2030
Total Water Supply (ac-ft/yr) ⁽²⁾	19,129	20,607	21,734	23,263	24,780
Percent of Year 2005 ⁽⁴⁾	107	116	122	130	139

Notes

1. Table format based on DWR Guidance Document Table 40.
2. Total Water Supply includes projected demand within Santa Maria and sales to other agencies
3. Total water supplies to the City are 49,710 ac-ft/yr.
4. Year 2005 supplies needed to meet demands are 17,829 ac-ft.

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

Table 10-2
Summary of Projected Normal Water Year Demands

	2010	2015	2020	2025	2030
Total Water Demand (ac-ft/yr)	19,129	20,607	21,734	23,263	24,780
Percent of Year 2005	107	116	122	130	139

Notes

1. Table format based on DWR Guidance Document Table 41
2. Total water supplies to the City are 49,710 ac-ft/yr.

Table 10-3 summarizes the service reliability assessment for a normal water year based on water supply and water demand projections. As described in Chapter 3, local groundwater

from the Santa Maria Groundwater Basin and the total purchased water are expected to be 100 percent reliable to meet the projected demands through 2030.

Table 10-3
Comparison of Projected Normal Year Supply and Demand

	2010	2015	2020	2025	2030
Water Supply Total (ac-ft/yr)	19,129	20,607	21,734	23,263	24,780
Water Demand Total (ac-ft/yr)	19,129	20,607	21,734	23,263	24,780
Difference (supply minus demand)	0	0	0	0	0
Difference as Percent of Supply	0	0	0	0	0
Difference as Percent of Demand	0	0	0	0	0

Notes

1. Table format based on DWR Guidance Document Table 42

Single Dry-Year Analysis

There are various water transfer mechanisms that could augment the reliability of imported supplies during a dry period. For example, water available through exchanges with other contractors, purchases of water through DWR dry year water purchase programs, short term water transfers through DWR’s Turnback Pool programs and groundwater recharge programs operated by some CCWA project participants. In addition, long term operation of the Basin will increase the amount of stored water resulting from importing SWP water. As noted earlier, the single-dry year supplies for imported water may be significantly reduced to about 5 percent reliability. Any water demand which cannot be met with the SWP water (and the associated return flows) will be met by groundwater supplies in accordance with the Stipulation.

Table 10-4 presents projected single-dry year water supplies. It is assumed that the single-dry year supplies will meet or exceed projected demands through 2030 because local groundwater supplies will offset the deficit in imported water supplies in single-dry years.

Table 10-4
Projected Single-Dry Year Water Supply

	2010	2015	2020	2025	2030
Water Supply (ac-ft/yr)	19,129	20,607	21,734	23,263	24,780
Percent of Year 2005	107	116	122	130	139

Notes

1. Table format based on DWR Guidance Document Table 43
2. Total Water Supply includes projected demand within Santa Maria and sales to other agencies

Table 10-5 provides the single-dry year water demand projections for the City.

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

	2010	2015	2020	2025	2030
Water Demand in ac-ft/yr	19,129	20,607	21,734	23,263	24,780
Percent of Year 2005	107	116	122	130	139

Notes

1. Table format based on DWR Guidance Document Table 44

Table 10-6 demonstrates the reliability of water supplies to meet projected annual water demands for the City of Santa Maria in a single-dry year.

Table 10-6
Comparison of Projected Supply and Demand for Single Dry Year

	2010	2015	2020	2025	2030
Supply Total (ac-ft/yr)	19,129	20,607	21,734	23,263	24,780
Demand Total (ac-ft/yr)	19,129	20,607	21,734	23,263	24,780
Difference (supply minus demand)	0	0	0	0	0
Difference as Percent of Supply	0	0	0	0	0
Difference as Percent of Demand	0	0	0	0	0

Notes

1. Table format based on DWR Guidance Document Table 45

Multiple Dry-Year Analysis

Table 10-7 presents the projected multiple-dry year water supply and demand assessment. It is assumed that the multiple-dry year water supplies are the same as those for the normal years because a combination of groundwater and purchased water will meet projected water demands under multiple-dry years. As discussed above, the total water supplies available to the City is projected to be 49,710 ac-ft/yr.

As noted earlier, the multiple-dry year supplies for imported water are about 100 percent reliable at 33 percent of available supplies under normal water years. Any water demand, which cannot be met with the SWP water (and the associated return flows) are expected to be met by groundwater supplies in accordance with the Stipulated Agreement. The third year of the multiple-dry year water supply projection represents the end of each 3-year multiple-dry year period as required for the multiple-dry year analysis. It is assumed that the water demand for the preceding two years (of the 3-year multiple-dry year period) will be the same as those in the third year. For example, the water demand projection for 2010 has been used as the water demands projected in 2009 and 2008.

Table 10-7 demonstrates that the water supplies are sufficient to meet the projected water demand for each multiple-dry year period because groundwater and purchased water can supply reliable water through 2030. As a result, the total water supplies to meet the demands under multiple-dry years are expected to be 100 percent reliable.

In summary, water supplies from local groundwater and purchased water along with the supply from return flows ensure that the total water demands can be met under normal, single-dry year, and multiple-dry years.

Table 10-7
Projected Multiple-Dry Year Water Supply and Demand Assessment

Year	Supply (ac-ft/yr)	Demand (ac-ft/yr)	Difference	Difference as Percent of Supply	Difference as Percent of Demand
2006					
2007					
2008	19,129	19,129	0	0	0
2009	19,129	19,129	0	0	0
2010	19,129	19,129	0	0	0
2011					
2012					
2013	20,607	20,607	0	0	0
2014	20,607	20,607	0	0	0
2015	20,607	20,607	0	0	0
2016					
2017					
2018	21,734	21,734	0	0	0
2019	21,734	21,734	0	0	0
2020	21,734	21,734	0	0	0
2021					
2022					
2023	23,263	23,263	0	0	0
2024	23,263	23,263	0	0	0
2025	23,263	23,263	0	0	0
2026					
2027					
2028	24,780	24,780	0	0	0
2029	24,780	24,780	0	0	0
2030	24,780	24,780	0	0	0

Notes

1. Table format based on DWR Guidance Document Tables 47 through 57
2. Total Water Supply includes projected demand within Santa Maria and sales to other agencies

Chapter 11. References

- California Urban Water Management Council (Council). Memorandum of Understanding Regarding Urban Water Conservation in California. As Amended March 10, 2004.
- California Department of Water Resources. Bulletin 118 Update. 2003
- California Department of Water Resources. Draft State Water Project Delivery Reliability Report. November 2005.
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- Central Coast Water Authority (CCWA). Draft Urban Water Management Plan. 2005
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- Western Regional Climate Center. <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?casmar+sca>. December 2005.

Appendix A
2005 Urban Water Management Planning Act

Established: AB 797, Klehs, 1983

Amended: AB 2661, Klehs, 1990

AB 11X, Filante, 1991

AB 1869, Speier, 1991

AB 892, Frazee, 1993

SB 1017, McCorquodale, 1994

AB 2853, Cortese, 1994

AB 1845, Cortese, 1995

SB 1011, Polanco, 1995

AB 2552, Bates, 2000

SB 553, Kelley, 2000

SB 610, Costa, 2001

AB 901, Daucher, 2001

SB 672, Machado, 2001

SB 1348, Brulte, 2002

SB 1384, Costa, 2002

SB 1518, Torlakson, 2002

AB 105, Wiggins, 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).

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.

Article 3. Adoption and Implementation of Plans

10640. Every urban water supplier required to prepare a plan pursuant to this part shall prepare its plan pursuant to Article 2 (commencing with Section 10630).

The supplier shall likewise periodically review the plan as required by Section 10621, and any amendments or changes required as a result of that review shall be adopted pursuant to this article.

10641. An urban water supplier required to prepare a plan may consult with, and obtain comments from, any public agency or state agency or any person who has special expertise with respect to water demand management methods and techniques.

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

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

10644.

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

- (b) The department shall prepare and submit to the Legislature, on or before December 31, in the years ending in six and one, a report summarizing the status of the plans adopted pursuant to this part. The report prepared by the department shall identify the outstanding elements of the individual plans. The department shall provide a copy of the report to each urban water supplier that has 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.

Appendix B
Public Hearing Notice and Meeting Minutes

Appendix B

Public Hearing Notice and Meeting Minutes

Contents

- Public Hearing Notices (English and Spanish)
 - March 22, 2007 Public Workshop
 - April 3, 2007 Public Meeting

- Public Workshop Meeting Minutes
 - Attendees (sign-in sheet)
 - Meeting Minutes

Public Hearing Notices

Urban Water Management Plan WORKSHOP

Thursday
March 22, 2007

5:30 p. m.

Santa Maria City Hall
Council Chambers

110 E. Cook Street

The City of Santa Maria will be presenting its Urban Water Management Plan Update. This workshop will inform the community regarding the plan, including information pertaining to water supplies, projected water demands, alternative water supplies, and water conservation measures. All those interested are encouraged to attend.

The public review draft is available at the following locations:

- Utilities Department, 2065 E. Main Street
- City Clerk's Office, 110 E. Cook Street, Rm. 3
- Reference Section of the City Library, 420 S. Broadway

For more information please contact the Utilities Department at (805) 925-0951 ext. 7270.



CITY OF SANTA MARIA
UTILITIES DEPT

Questions? Call 925-0951 ext. 7270



Discusión

sobre el Plan Urbano
de la Administración
de

Agua

Jueves, Marzo 22, 2007 • 5:30 p.m.

Alcaldía de la Ciudad de Santa María (City Hall)
Cámara de Concilio • 110 E. Cook Street

La Ciudad de Santa María estará presentando su Plan Urbano de la Administración de Agua. Esta discusión informará a la comunidad sobre el plan incluyendo información sobre la reserva de agua, las demandas de agua en el futuro, provisiones alternativas de agua, y medidas de conservación. Todas las personas interesadas se les recomienda atender a esta discusión.

La versión para revisión pública está disponible en las siguientes locaciones:

- Departamento de Utilidades, 2065 E. Main St.
- Oficina Secretarial, 110 E. Cook St., Cuarto #3
- Sección de Referencia en la Biblioteca Pública, 420 S. Broadway

Para mas información, por favor lláme al Departamento de Utilidades al (805) 925-0951 ext. 7270.



**CITY OF SANTA MARIA
UTILITIES DEPT**

Questions? Call 925-0951 ext. 7270



Urban Water Management Plan UPDATE

CITY OF SANTA MARIA • PUBLIC HEARING NOTICE

NOTICE IS HEREBY GIVEN that the City Council of the City of Santa Maria will conduct a public hearing on Tuesday, April 3, 2007, at 6:30 p.m. in the Council Chambers, 110 East Cook Street, Santa Maria, California, to consider:

URBAN WATER MANAGEMENT PLAN UPDATE. The City Council will consider the Urban Water Management Plan Update as mandated by AB797 which requires medium and large urban water purveyors to prepare and adopt an Urban Water Management Plan and update it every five years. The City's original Plan was adopted in June of 1988 with updates adopted in October 1991, May 1996, and December 2000.

Information and copies of the supporting data are on file in the Utilities Department, 2065 E. Main Street, ext. 7270. Copies of the staff report regarding this item will be available for public review in the City Clerk's Office at 110 E. Cook Street, Rm.3, the Reference Section of the City Library at 420 S. Broadway, and on the City's Web Site at www.ci.santa-maria.ca.us on Friday, March 30, 2007.

All interested persons are invited to attend. If you challenge the above-noticed project in court, you may be limited to raising those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the City of Santa Maria at, or prior to, the public hearing.

The City of Santa Maria welcomes orderly participation at its meetings from all members of the public. Participation includes assistance under the Americans with Disabilities Act to provide an equally effective opportunity for individuals with a disability to participate in and benefit from City activities. To request assistance, please call 925-0951, Ext. 307, or the California Relay Service at (800) 735-2929 for TDD (Telecommunications Devices for the Deaf). Notification at least by the Friday before the meeting would enable the City to make reasonable arrangements to ensure accessibility to this meeting.

Dated: March 12, 2007
PATRICIA A. PEREZ
CHIEF DEPUTY CITY CLERK



CITY OF SANTA MARIA UTILITIES DEPT

Questions? Call 925-0951 ext. 7270



La Actualización del Plan Urbano de la Administración de Agua

CIUDAD DE SANTA MARIA • ANUNCIO DE AUDIENCIA PÚBLICA

NOTIFICACIÓN ESTÁ DADA POR ESTE MEDIO

que los Miembros del Consejo de la Ciudad de Santa María estarán conduciendo una audiencia pública el Martes, 3 de Abril del 2007 a las 6:30 p.m. en la Cámara de Concilio, 110 E. Cook St., Santa María, California, para considerar lo siguiente:

LA ACTUALIZACIÓN DE EL PLAN URBANO DE LA ADMINISTRACIÓN DE AGUA.

Los miembros del Consejo considerarán el Plan Urbano de la Administración de Agua como está mandado por la ley AB797 que requiere que proveedores de agua de ciudades medianas y grandes preparen y adopten un Plan Urbano de Administración de Agua y lo actualicen cada cinco años. El plan original de la Ciudad fue adoptado en Junio de 1988 con actualizaciones adoptadas en Octubre 1991, Mayo 1996, y Diciembre 2000.

Información y copias de los datos de apoyo se encuentran guardados en el Departamento de Utilidades, 2065 E. Main St., ext. 7270. Copias de este reporte estarán disponibles para la revisión pública en la Oficina de la Secretaría Municipal en el 110 E. Cook St. Cuarto #3, la Sección de Referencia de la Biblioteca Pública en el 420 S. Broadway, y en la página Web de la Ciudad en el www.ci.santa-maria.ca.us, el Viernes, 30 de Marzo, 2007.

Todas las personas interesadas se les recomienda atender. Si usted llega a disputar este proyecto en corte, puede que usted sea limitado a mencionar los puntos que usted o alguien más presentó en la audiencia pública escrita en esta notificación, o en correspondencias enviadas a la Ciudad de Santa María al momento, o antes, de la audiencia pública.

La Ciudad de Santa María da la bienvenida a la participación pacífica de todos los miembros del público en sus juntas. La participación incluye asistencia bajo la Ley de Estadounidenses con Discapacidades (ADA) para proveer una plano de igualdad hacia las personas con discapacidades que desean participar y beneficiarse de las actividades organizadas por la Ciudad. Para pedir asistencia, por favor llame al 925-0951, Ext. 307, o el Servicio de Revelo al (800) 735-2929 para el TDD (Servicios de Telecomunicaciones para personas con problemas de audición). Para este servicio notificaciones necesitan ser recibidas el Viernes antes de la audiencia para que la Ciudad haga los arreglos correspondientes y así se pueda asegurar la accesibilidad a esta junta.

Fecha: Marzo 12, 2007

PATRICIA A. PEREZ
SECRETARIA DIPUTADA PRINCIPAL



CITY OF SANTA MARIA UTILITIES DEPT

Questions? Call 925-0951 ext. 7270



Public Workshop Meeting Minutes

URBAN WATER MANAGEMENT PLAN WORKSHOP

Thursday, March 22nd, 2007, 5:30 P.M.

PLEASE SIGN IN...

(Please Print)

NAME	AFFILIATION	ADDRESS	PHONE	Would you like to request additional information?	If so, what specific information?
Tammy Jones	Weston Benschhof				
Sylvia Gonzales	Urban Planning Conc			Yes	sylvia@urbanplann Plan in PDF
Richard Adams	refused declined				
Rodger one other	declined				
Jeannette Gibson	UPC			idea	
Hilda Zacarias	citizen				don't know yet!
Mary Rose	homeowner				
Joan Leon	citizen			?	?
FRANK J. ARTUSIO	citizen				
Lynette Noyes	UPC				
Brian Smith	City - Com Dev.				

URBAN WATER MANAGEMENT PLAN

Meeting Minutes

March 22, 2007

5:30 PM

See attached attendance sheet

Discussion

Director of Utilities Rick Sweet provided a PowerPoint presentation highlighted the Urban Water Management Plan and answered questions from the audience.

Comments were as follows:

It was suggested that City staff look in to grants for low-income to assist in their payment of water bills.

It was also suggested that a breakdown of the tiered payment system related to water bills be shown on the water bills.

Appendix C
Public Comments on the Draft UWMP

Comments Received at Public Workshop

March 22, 2007

Response to Comments Received at Public Workshop

*Received: March 22, 2007
5:30 PM*

Comments were as follows:

1. **Comment:** It was suggested that City staff look in to grants for low-income to assist in their payment of water bills.

Response: This comment is not applicable to the Urban Water Management Plan. As a result, no changes to the plan were made based on this comment.

2. **Comment:** It was also suggested that a breakdown of the tiered payment system related to water bills be shown on the water bills.

Response: This comment is not applicable to the Urban Water Management Plan. As a result, no changes to the plan were made based on this comment.

Written Comments Received in Mail

March 22, 2007

VIA E-MAIL AND U.S. MAIL

Jill Willis, Esq.
Best Best & Krieger LLP
3750 University Avenue
P.O. Box 1028
Riverside, CA 92502

Re: 2005 Urban Water Management Plan –
City of Santa Maria – North Hills Site

Dear Jill:

As you know, we represent the North Hills project located in the County of Santa Barbara. While North Hills appreciates the City of Santa Maria's consideration of the North Hills project in the draft 2005 Urban Water Management Plan, Figure 4-4 on page 4-7 of the Plan incorrectly depicts the location of the North Hills site. We have attached an aerial with the location of the North Hills site (a portion of APN 101-020-074). Please let us know if we can be of any further assistance in this matter.

Very truly yours,

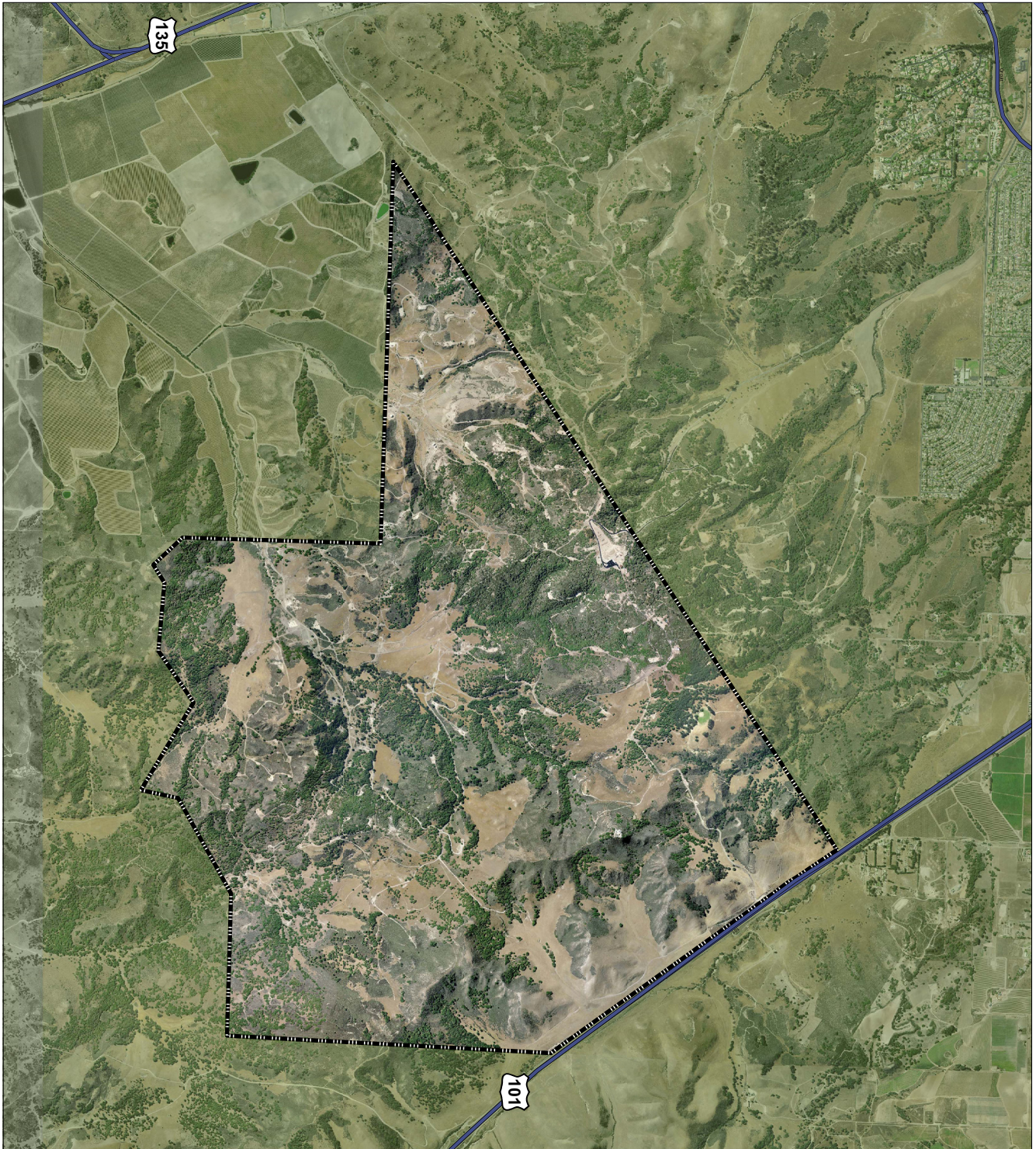


Nicki Carlsen

WESTON, BENSHOOF,
ROCHEFORT, RUBALCAVA & MacCUISH LLP

NC/amm
Enclosure

cc: Ed Casey, Esq.



APN 101-020-074

**Response to Comments Received by Weston, Benshoof, Rochefort,
Rubalcava, and MacCuish, LLC**

Received: March 22, 2007

Comments were as follows:

1. **Comment:** It was noted that Figure 4-4 of the Urban Water Management Plan did not depict the correct location of the North Hills project.

Response: Figure 4-4 has been updated to correctly depict the location of the North Hills project.

Appendix D
Economic Analysis of Selected Demand
Management Measures

Santa Maria Customer Service Area
Table D-1. Assumptions Used for Economic Analysis

General Assumptions
1. Value of conserved water equal to \$150 per acre foot. Provided by Santa Maria
2. Interest rate to discount costs and benefits of water conservation equal to 4%. Provided by Santa Maria.

Santa Maria Customer Service Area
Table D-1. Assumptions Used for Economic Analysis

BMP 2 – Residential Plumbing Retrofit
<p>Assumptions:</p> <p>1. Plumbing retrofit devices will be installed at a minimum of 10% of residences per reporting period until it can be demonstrated that 75% of pre-1992 single-family residences and 75% of pre-1992 multi-family residences have low flow showerheads (LFSHs).</p> <p>MOU, page 19.</p> <p>2. 0% of single-family and 0% of multi-family residences have low-water-use fixtures.</p> <p>Based on reported data</p> <p>3. Average number of fixtures per residence includes: 1.3 showers, 2.0 toilets, and 3.0 faucets (1 kitchen faucet and 2 other faucets).</p> <p>4. Water savings from one low-flow showerhead = 5.5 gpd A & N Technical Services report (2003, page 2-38).</p> <p>5. Water savings from one faucet aerator = 1.5 gpd A & N Technical Services report (2003, page 2-38).</p> <p>6. Water savings from one toilet flapper = 8 gpd; assume 20 percent of toilets leak. A & N Technical Services report (2003, page 2-38).</p> <p>7. Water savings from kitchen “flip” faucet aerator = 3.0 gpd.</p> <p>8. Indoor water savings = 16.4 gpd/unit</p> <p>The following equation to calculate indoor water savings, based on assumptions 4 through 8: $(1.3*5.5) + (1.0*3.0) + (2*1.5) + (2*8*0.20)$.</p> <p>9. The BMP will cost an average of \$48 per residence.</p> <p>Based on industry data.</p> <p>10. The life span of the retrofit devices is four years. A & N Technical Services report (2003, page 2-38) gives life spans for a various components of a water survey. Four years selected as a reasonable average value.</p> <p>11. Base year dwelling units include 13,778 single-family and 8,049 multi-family units.</p>

Santa Maria Customer Service Area
Table D-1. Assumptions Used for Economic Analysis

BMP 3 – System Water Audits, Leak Detection and Repair
<p>Assumptions:</p> <ol style="list-style-type: none">3. 20% of the distribution system will be surveyed and repaired each year.4. Leak repairs will result in annual savings of approximately 0.6 acre-feet of water per mile of pipe. Average based on industry data5. System water audits, leak detection and leak repair will cost approximately \$1000 per mile of pipe. Average based on industry data.

Santa Maria Customer Service Area
Table D-1. Assumptions Used for Economic Analysis

BMP 5 – Large Landscape Conservation Programs and Incentives

Assumptions:

1. Develop Eto-based water use budgets for 90 percent of the CII accounts with dedicated irrigation meters and provide irrigation water use surveys to 15 percent of CII accounts with mixed use meters.

MOU (Page 28)

2. For the base year, there are no dedicated landscape accounts?

Based on reported data.

3. Average size of 0.1 acres for CII mixed use accounts.

4. Water use prior to the survey is 4.5 ft per year.

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

5. Surveys will reduce water usage by 15%.

MOU, page 30.

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

A & N Technical Services report (2003) gives a life span of four years for turf audits (page 2-34). *Water surveys for large landscapes are assumed to have a similar life span.*

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

The estimate includes labor, administration, evaluation and overhead.

Santa Maria Customer Service Area
Table D-1. Assumptions Used for Economic Analysis

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

Assumptions:

1. Provide water-use surveys to 10% of CII accounts within 10 years of the date implementation is to commence. *MOU, pages 43 and 44.*
2. The life span of a water survey is four years.

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

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

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

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

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

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

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

Santa Maria Customer Service Area
Table D-1. Assumptions Used for Economic Analysis

BMP 14 – Residential ULFT Replacement Programs

Assumptions:

1. Water savings from ULFTs are 33.9 gpd/unit for single-family residences and 49.3 gpd/unit for multi-family residences

MOU, Exhibit 6, Table 1 and Table 2.

2. Homes constructed after 1991 already have ULFTs.

As of January 1992, California legislation requires that ULFTs be installed in all newly constructed homes.

3. Natural toilet replacement rate is 4% per year.

MOU, page 79.

4. The cost of toilets, advertising, administration, overhead, and toilet recycling is \$134 per ULFT. The cost does not include installation, which will be covered by the customer.

Average based on industry cost data.

Santa Maria Customer Service Area
 BMP 2. Residential Plumbing Retrofit

Calendar Year	Water Saving Calculations						Benefits (\$)					Costs (\$)					New present Value	
	Single-Family Intervention	Multi-Family Intervention	Percent Units Surveyed Single-Family	Percent Units Surveyed Multi-Family	Incremental Water Savings (AF/yr)	Annual Water Savings	Avoided Capital Costs	Avoided Variable Costs	Avoided Purchase Costs	Total Undiscounted Benefits	Total Discounted Benefits	Capital Costs	Financial Incentives	Operating Expenses	Total Undiscounted Costs	Total Discounted Costs		
Pre 2005			0%	0%														
2006	689	402	5.0%	5.0%	20.0	20.0	\$0	\$0	\$3,007	\$3,007	\$3,007	\$0	\$0	\$52,385	\$52,385	\$52,385	-\$49,378	
2007	689	402	5.0%	5.0%	20.0	40.1	\$0	\$0	\$6,014	\$6,014	\$5,782	\$0	\$0	\$52,385	\$52,385	\$50,370	-\$44,588	
2008	689	402	5.0%	5.0%	20.0	60.1	\$0	\$0	\$9,020	\$9,020	\$8,340	\$0	\$0	\$52,385	\$52,385	\$48,433	-\$40,093	
2009	689	402	5.0%	5.0%	20.0	80.2	\$0	\$0	\$12,027	\$12,027	\$10,692	\$0	\$0	\$52,385	\$52,385	\$46,570	-\$35,878	
2010	689	402	5.0%	5.0%	20.0	80.2	\$0	\$0	\$12,027	\$12,027	\$10,281	\$0	\$0	\$52,385	\$52,385	\$44,779	-\$34,498	
2011	689	402	5.0%	5.0%	20.0	80.2	\$0	\$0	\$12,027	\$12,027	\$9,886	\$0	\$0	\$52,385	\$52,385	\$43,056	-\$33,171	
2012	689	402	5.0%	5.0%	20.0	80.2	\$0	\$0	\$12,027	\$12,027	\$9,505	\$0	\$0	\$52,385	\$52,385	\$41,400	-\$31,895	
2013	689	402	5.0%	5.0%	20.0	80.2	\$0	\$0	\$12,027	\$12,027	\$9,140	\$0	\$0	\$52,385	\$52,385	\$39,808	-\$30,668	
2014	689	402	5.0%	5.0%	20.0	80.2	\$0	\$0	\$12,027	\$12,027	\$8,788	\$0	\$0	\$52,385	\$52,385	\$38,277	-\$29,489	
2015	689	402	5.0%	5.0%	20.0	80.2	\$0	\$0	\$12,027	\$12,027	\$8,450	\$0	\$0	\$52,385	\$52,385	\$36,805	-\$28,355	
2016	689	402	5.0%	5.0%	20.0	80.2	\$0	\$0	\$12,027	\$12,027	\$8,125	\$0	\$0	\$52,385	\$52,385	\$35,389	-\$27,264	
2017	689	402	5.0%	5.0%	20.0	80.2	\$0	\$0	\$12,027	\$12,027	\$7,813	\$0	\$0	\$52,385	\$52,385	\$34,028	-\$26,215	
2018	689	402	5.0%	5.0%	20.0	80.2	\$0	\$0	\$12,027	\$12,027	\$7,512	\$0	\$0	\$52,385	\$52,385	\$32,719	-\$25,207	
2019	689	402	5.0%	5.0%	20.0	80.2	\$0	\$0	\$12,027	\$12,027	\$7,223	\$0	\$0	\$52,385	\$52,385	\$31,461	-\$24,238	
2020	689	402	5.0%	5.0%	20.0	80.2	\$0	\$0	\$12,027	\$12,027	\$6,945	\$0	\$0	\$52,385	\$52,385	\$30,251	-\$23,305	
2021						60.1	\$0	\$0	\$9,020	\$9,020	\$5,009	\$0	\$0	\$0	\$0	\$0	\$0	\$5,009
2022						40.1	\$0	\$0	\$6,014	\$6,014	\$3,211	\$0	\$0	\$0	\$0	\$0	\$0	\$3,211
2023						20.0	\$0	\$0	\$3,007	\$3,007	\$1,544	\$0	\$0	\$0	\$0	\$0	\$0	\$1,544
2024																		
2025																		
2026																		
2027																		
2028																		
2029																		
2030																		
Totals	10334	6037	75%	75%	301	1,203	\$0	\$0	\$180,409	\$180,409	\$131,253	\$0	\$0	\$785,772	\$785,772	\$605,732	-\$474,479	

Percent of Residences Having Low-Water-Use Fixtures			
Year	Single-Family	Multi-Family	
Pre-2005	0%	0%	
Annual Replacement			
2006	5%	5%	
2007	5%	5%	
2008	5%	5%	
2009	5%	5%	
2010	5%	5%	
2011	5%	5%	
2012	5%	5%	
2013	5%	5%	
2014	5%	5%	
2015	5%	5%	
2016	5%	5%	
2017	5%	5%	
2018	5%	5%	
2019	5%	5%	
2020	5%	5%	
2021	0%	0%	

Value of conserved water (\$/AF) = 150
 Discount rate (real) = 4.00%
 Water savings (gpd/unit) = 16.4
 Conservation measure unit cost (\$) = \$48
 Percent units receiving retrofits = 0.05
 1991 Single family units = 13,778
 1991 Multi-family units = 8,049
 Life span of retrofit devices (years) = 4

Benefit cost ratio = 0.2
 Simple pay-back period (years) = 83
 Discounted cost/water saved (\$acre-feet) = 504
 NPV/ water saved (acre-feet) = -395

**Santa Maria Customer Service Area
BMP 3. System Water Audits, Leak Detection, and Repair**

Calendar Year	Water Savings		Benefits (\$)					Costs (\$)					New present Value
	Length of Pipe Surveyed (miles)	Annual Water Savings	Avoided Capital Costs	Avoided Variable Costs	Avoided Purchase Costs	Total Undiscounted Benefits	Total Discounted Benefits	Capital Costs	Financial Incentives	Operating Expenses	Total Undiscounted Costs	Total Discounted Costs	
Pre 1998													
2006	90.0	54.0	\$0	\$0	\$8,100	\$8,100	\$8,100	\$0	\$0	\$90,000	\$90,000	\$90,000	-\$81,900
2007	90.0	108.0	\$0	\$0	\$16,200	\$16,200	\$15,577	\$0	\$0	\$90,000	\$90,000	\$86,538	-\$70,962
2008	90.0	162.0	\$0	\$0	\$24,300	\$24,300	\$22,467	\$0	\$0	\$90,000	\$90,000	\$83,210	-\$60,743
2009	90.0	216.0	\$0	\$0	\$32,400	\$32,400	\$28,803	\$0	\$0	\$90,000	\$90,000	\$80,010	-\$51,206
2010	90.0	270.0	\$0	\$0	\$40,500	\$40,500	\$34,620	\$0	\$0	\$90,000	\$90,000	\$76,932	-\$42,313
2011	90.0	270.0	\$0	\$0	\$40,500	\$40,500	\$33,288	\$0	\$0	\$90,000	\$90,000	\$73,973	-\$40,685
2012	90.0	270.0	\$0	\$0	\$40,500	\$40,500	\$32,008	\$0	\$0	\$90,000	\$90,000	\$71,128	-\$39,121
2013	90.0	270.0	\$0	\$0	\$40,500	\$40,500	\$30,777	\$0	\$0	\$90,000	\$90,000	\$68,393	-\$37,616
2014	90.0	270.0	\$0	\$0	\$40,500	\$40,500	\$29,593	\$0	\$0	\$90,000	\$90,000	\$65,762	-\$36,169
2015	90.0	270.0	\$0	\$0	\$40,500	\$40,500	\$28,455	\$0	\$0	\$90,000	\$90,000	\$63,233	-\$34,778
2016	90.0	270.0	\$0	\$0	\$40,500	\$40,500	\$27,360	\$0	\$0	\$90,000	\$90,000	\$60,801	-\$33,440
2017	90.0	270.0	\$0	\$0	\$40,500	\$40,500	\$26,308	\$0	\$0	\$90,000	\$90,000	\$58,462	-\$32,154
2018	90.0	270.0	\$0	\$0	\$40,500	\$40,500	\$25,296	\$0	\$0	\$90,000	\$90,000	\$56,214	-\$30,918
2019	90.0	270.0	\$0	\$0	\$40,500	\$40,500	\$24,323	\$0	\$0	\$90,000	\$90,000	\$54,052	-\$29,728
2020	90.0	270.0	\$0	\$0	\$40,500	\$40,500	\$23,388	\$0	\$0	\$90,000	\$90,000	\$51,973	-\$28,585
2021	90.0	270.0	\$0	\$0	\$40,500	\$40,500	\$22,488	\$0	\$0	\$90,000	\$90,000	\$49,974	-\$27,486
2022	90.0	270.0	\$0	\$0	\$40,500	\$40,500	\$21,623	\$0	\$0	\$90,000	\$90,000	\$48,052	-\$26,428
2023	90.0	270.0	\$0	\$0	\$40,500	\$40,500	\$20,792	\$0	\$0	\$90,000	\$90,000	\$46,204	-\$25,412
2024	90.0	270.0	\$0	\$0	\$40,500	\$40,500	\$19,992	\$0	\$0	\$90,000	\$90,000	\$44,427	-\$24,435
2025	90.0	270.0	\$0	\$0	\$40,500	\$40,500	\$19,223	\$0	\$0	\$90,000	\$90,000	\$42,718	-\$23,495
2026	90.0	270.0	\$0	\$0	\$40,500	\$40,500	\$18,484	\$0	\$0	\$90,000	\$90,000	\$41,075	-\$22,591
2027	90.0	270.0	\$0	\$0	\$40,500	\$40,500	\$17,773	\$0	\$0	\$90,000	\$90,000	\$39,495	-\$21,722
2028	90.0	270.0	\$0	\$0	\$40,500	\$40,500	\$17,089	\$0	\$0	\$90,000	\$90,000	\$37,976	-\$20,887
2029	90.0	270.0	\$0	\$0	\$40,500	\$40,500	\$16,432	\$0	\$0	\$90,000	\$90,000	\$36,515	-\$20,083
2030	90.0	270.0	\$0	\$0	\$40,500	\$40,500	\$15,800	\$0	\$0	\$90,000	\$90,000	\$35,111	-\$19,311
Totals	2,250	6,210	\$0	\$0	\$931,500	\$931,500	\$580,058	\$0	\$0	\$2,250,000	\$2,250,000	\$1,462,227	-\$882,169
<p align="center"> Value of conserved water (\$/AF) = 150 Discount rate (real) = 4.00% Annual water savings (AF/mile) = 0.6 Conservation measure unit cost (\$) = \$1,000 Percent of pipe surveyed = 0.2 Total length of pipe in system (miles) = 450 Life span of leak repairs (years) = 5 </p> <p align="right"> Benefit cost ratio = 0.4 Simple pay-back period (years) = 33 Discounted cost/water saved (\$acre-feet) = 235 NPV/ water saved (acre-feet) = -142 </p>													

Santa Maria Customer Service Area
 BMP 5. Large Landscape Conservation Programs and Incentives

Calendar Year	Water Saving Calculations						Benefits					Costs					Net Present Value
	CII Accounts w/Dedicated Irr. Meters Interventions	CII Accounts w/Mixed Use Meters Offered Surveys	CII Accounts w/Mixed Use Meters % Surveyed	CII Accounts w/Mixed Use Meters Interventions	Incremental Water Savings (AF/Yr)	Cumulative Water Savings (AF/Yr)	Avoided Capital Costs	Avoided Variable Costs	Avoided Purchase Costs	Total Undiscounted Benefits	Total Discounted Benefits	Capital Costs	Financial Incentives	Operating Expenses	Total Undiscounted Costs	Total Discounted Costs	
2005	0	0	0.00%	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2006	0	146	4.80%	70	5	5	\$0	\$0	\$709	\$709	\$682	\$0	\$0	\$10,505	\$10,505	\$10,101	-\$9,419
2007	0	146	4.80%	70	5	9	\$0	\$0	\$1,418	\$1,418	\$1,311	\$0	\$0	\$10,505	\$10,505	\$9,712	-\$8,401
2008	0	146	1.95%	28	2	11	\$0	\$0	\$1,706	\$1,706	\$1,517	\$0	\$0	\$4,268	\$4,268	\$3,794	-\$2,277
2009	0	146	1.95%	28	2	13	\$0	\$0	\$1,994	\$1,994	\$1,705	\$0	\$0	\$4,268	\$4,268	\$3,648	-\$1,943
2010		146	0.75%	11	1	9	\$0	\$0	\$1,396	\$1,396	\$1,147	\$0	\$0	\$1,641	\$1,641	\$1,349	-\$202
2011		146	0.75%	11	1	5	\$0	\$0	\$798	\$798	\$630	\$0	\$0	\$1,641	\$1,641	\$1,297	-\$667
2012		146	0.00%	0	0	3	\$0	\$0	\$510	\$510	\$387	\$0	\$0	\$0	\$0	\$0	\$387
2013		146	0.00%	0	0	1	\$0	\$0	\$222	\$222	\$162	\$0	\$0	\$0	\$0	\$0	\$162
2014		146	0.00%	0	0	1	\$0	\$0	\$111	\$111	\$78	\$0	\$0	\$0	\$0	\$0	\$78
2015		146	0.00%	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2016																	
2017																	
2018																	
2019																	
2020																	
2021																	
2022																	
2023																	
2024																	
2025																	
2026																	
2027																	
2028																	
2029																	
2030																	
Totals:	0	1459	15%	219	15	59	\$0	\$0	\$8,863	\$8,863	\$7,619	\$0	\$0	\$32,828	\$32,828	\$29,901	-\$22,282

Value of Conserved Water (\$/AF) =	\$150	Benefit Cost Ratio:	0.3
Discount Rate (Real) =	4.00%	Simple Pay-Back Period (years):	39.2
Acres/CII accounts with dedicated irrigation meters =	0.0	Discounted Cost / Water Saved (\$/AF):	\$506
Acres/CII accounts with mixed use meters =	0.1	NPV / Water Saved (\$/AF):	-\$377
Annual water use (ac-ft/acre) =	4.5		
Water Savings =	15%		
Conservation Measure Unit Cost (\$/Acre) =	\$425		
Minimum Conservation Measure Unit Cost (\$/Account) =	\$150		
Number of CII accounts with dedicated irrigation meters in 2004 =	0		
Number of CII accounts with mixed use meters in 2004 =	1459		
Lifespan of Benefit (Years) =	4		

Santa Maria Customer Service Area
 BMP 9. Conservation Programs for Commercial, Industrial, and Institutional (CII) Accounts

Calendar Year	Percent Surveyed	Commercial Interventions	Industrial Interventions	Institutional Interventions	Incremental Savings (Surveys) (AF/yr)	Annual Savings Total (AF/yr)	Benefits (\$)					Costs (\$)					Net Present Value	
							Avoided Capital Costs	Avoided Variable Costs	Avoided Purchase Costs	Total Undiscounted Benefits	Total Discounted Benefits	Capital Costs	Financial Incentives	Operating Expenses	Total Undiscounted Costs	Total Discounted Costs		
Pre 1998		0	0	0														
2006	1.00%	9	1	4	14.0	14.0	\$0	\$0	\$2,095	\$2,095	\$2,095	\$0	\$0	\$10,068	\$10,068	\$10,068	\$9,681	-\$7,973
2007	1.00%	9	1	4	14.0	27.9	\$0	\$0	\$4,189	\$4,189	\$4,028	\$0	\$0	\$10,068	\$10,068	\$9,681	\$9,681	-\$5,653
2008	1.00%	9	1	4	14.0	27.9	\$0	\$0	\$4,189	\$4,189	\$3,873	\$0	\$0	\$10,068	\$10,068	\$9,308	\$9,308	-\$5,435
2009	1.00%	9	1	4	14.0	27.9	\$0	\$0	\$4,189	\$4,189	\$3,724	\$0	\$0	\$10,068	\$10,068	\$8,950	\$8,950	-\$5,226
2010	1.00%	9	1	4	14.0	14.0	\$0	\$0	\$2,095	\$2,095	\$1,790	\$0	\$0	\$10,068	\$10,068	\$8,606	\$8,606	-\$6,816
2011	1.00%	9	1	4	14.0	0.0												
2012	1.00%	9	1	4	14.0	0.0												
2013	1.00%	9	1	4	14.0	0.0												
2014	1.00%	9	1	4	14.0	0.0												
2015	1.00%	9	1	4	14.0	0.0												
2016																		
2017																		
2018																		
2019																		
2020																		
2021																		
2022																		
2023																		
2024																		
2025																		
2026																		
2027																		
2028																		
2029																		
2030																		
Totals	10%	88	15	43	140	112	\$0	\$0	\$16,757	\$16,757	\$15,510	\$0	\$0	\$50,340	\$50,340	\$46,614	\$46,614	-\$31,103

Credit for Previously Completed Surveys				Value of conserved water (\$/AF) =	150	Benefit cost ratio =	0.33
				Discount rate (real) =	4.00%	Simple pay-back period (years) =	15
				Annual survey - Annual water savings (AF/unit) =	0.83	Discounted cost/water saved (\$acre-feet) =	417
				Annual survey - Conservation measure unit cost (\$) =	\$600	NPV/ water saved (acre-feet) =	-278
				Consultant survey - Annual water savings (AF/unit) =	2.1		
				Consultant survey - Conservation measure unit cost (\$) =	\$1,500		
				Number of commercial accounts in 2005 =	879		
				Number of industrial accounts in 2005 =	146		
				Number of institutional accounts in 2005 =	434		
				Percent units surveyed =	10%		
				Life span of water survey (years) =	4		

Santa Maria Customer Service Area
 BMP 14. Residential ULFT Replacement Programs (page 1 of 3)

Determination of Water Conservation Goal: Single-Family Units											
Calendar Year	Single-Family Units	SF Units Naturally Retrofitted	SF Toilets Naturally Retrofitted	Water Savings from Natural Replacement SF (AF/yr)	Single-Family Units	Single-Family Retrofitted	Single-Family Turnover	Combined SF Homes Retrofitted	Combined SF Toilets Retrofitted	Water Savings from Natural Replacement and Turnover SF (AF/yr)	Water Savings from Natural Turnover SF (AF/yr)
2004	8104	0	0	0	8104	0	0	0	0	0	0
2005	7780	324	519	12	6929	324	851	1175	1,880	44.6	32
2006	7469	311	498	12	5924	277	728	1005	1,608	38.1	26
2007	7170	299	478	11	5065	237	622	859	1,374	32.6	21
2008	6883	287	459	11	4331	203	532	734	1,175	27.9	17
2009	6608	275	441	10	3703	173	455	628	1,005	23.8	13
2010	6344	264	423	10	3166	148	389	537	859	20.4	10
2011	6090	254	406	10	2707	127	332	459	735	17.4	8
2012	5846	244	390	9	2314	108	284	393	628	14.9	6
2013	5612	234	374	9	1979	93	243	336	537	12.7	4
2014	5388	224	359	9	1692	79	208	287	459	10.9	2
2015	5172	216	345	8	1447	68	178	245	393	9.3	1
2016	4966	207	331	8	1237	58	152	210	336	8.0	0
2017	4767	199	318	8	1057	49	130	179	287	6.8	0
2018	4576	191	305	7	904	42	111	153	245	5.8	0
2019	4393	183	293	7	773	36	95	131	210	5.0	0
2020	4217	176	281	7	661	31	81	112	179	4.3	0
2021	4049	169	270	6	565	26	69	96	153	3.6	0
2022	3887	162	259	6	483	23	59	82	131	3.1	0
2023	3731	155	249	6	413	19	51	70	112	2.7	0
2024	3582	149	239	6	353	17	43	60	96	2.3	0
2025	3439	143	229	5	302	14	37	51	82	1.9	0
Totals		4,665	7,465	177		2,152		7,802	12,484	296	142

Credit Table for Previously Installed ULFT				
Year	Single Family	Multi-family	Incremental Total Water Savings (AF/Yr)	Cumulative Total Water Savings (AF/Yr)
1991				0
1992				0
1993				0
1994				0
1995				0
1996				0
1997				0
1998				0
1999				0
2000				0
2001				0
2002				0
2003				0
2004				0
Total	0	0	0	0

Santa Maria Customer Service Area
BMP 14. Residential ULFT Replacement Program (page 2 of 3)

Calendar Year	Determination of Water Conservation Goal: Multi-Family Units										Conservation Goal - Combined		
	Multi-Family Units	MF Units Naturally Retrofited	MF Toilets Naturally Retrofited	Water Savings from Natural Replacement MF (AF/yr)	Multi-Family Units	MF Units Naturally Retrofited	Multi-Family Turnover	Combined MF Homes Retrofitted	Combined MF Toilets Retrofitted	Water Savings from Natural Replacement and Turnover	Water Savings from Natural Turnover MF (AF/yr)	Annual Water Savings from Turnover (AF/yr)	Cummulative Water Savings from Turnover (AF/yr)
2004	4734	0	0	0	4734	0	0	0	0	0	0	0	0
2005	4545	189	227	9	4379	189	166	355	426	17.6	8	41	41
2006	4363	182	218	9	4051	175	153	328	394	16.3	7	74	115
2007	4189	175	209	9	3747	162	142	304	365	15.1	6	102	216
2008	4021	168	201	8	3466	150	131	281	337	13.9	6	124	341
2009	3860	161	193	8	3206	139	121	260	312	12.9	5	143	484
2010	3706	154	185	8	2966	128	112	240	289	11.9	4	157	641
2011	3558	148	178	7	2743	119	104	222	267	11.0	4	169	810
2012	3415	142	171	7	2537	110	96	206	247	10.2	3	178	988
2013	3279	137	164	7	2347	101	89	190	228	9.4	3	184	1172
2014	3148	131	157	7	2171	94	82	176	211	8.7	2	189	1361
2015	3022	126	151	6	2008	87	76	163	195	8.1	2	192	1552
2016	2901	121	145	6	1858	80	70	151	181	7.5	1	193	1746
2017	2785	116	139	6	1718	74	65	139	167	6.9	1	194	1940
2018	2673	111	134	6	1589	69	60	129	155	6.4	1	195	2135
2019	2566	107	128	5	1470	64	56	119	143	5.9	1	196	2331
2020	2464	103	123	5	1360	59	51	110	132	5.5	0	196	2528
2021	2365	99	118	5	1258	54	48	102	122	5.1	0	197	2724
2022	2271	95	114	5	1164	50	44	94	113	4.7	0	197	2921
2023	2180	91	109	5	1076	47	41	87	105	4.3	0	197	3117
2024	2093	87	105	4	996	43	38	81	97	4.0	0	197	3314
2025	2009	84	100	4	921	40	35	75	90	3.7	0	197	3510
Totals	70,147	2726	3271	135.2		2,034		3,813	4,576	189	54.9	3,510	33,986

Table D-2

Santa Maria Customer Service Area
 BMP 14. Residential ULFT Replacement Programs (page 3 of 3)

Calendar Year	Water Savings							Benefits (\$)					Costs (\$)					Net Present Value
	No. of SF Toilets Required to be Replaced	Incremental Water Savings SF (AF/yr)	No. of MF Toilets Required to be Replaced	Incremental Water Savings (AF/yr)	Annual Water Savings (AF/yr)	Incremental Total Water Savings (AF/Yr)	Cumulative Total Water Savings (AF/Yr)	Avoided Capital Costs	Avoided Variable Costs	Avoided Purchase Costs	Total Undiscounted Benefits	Total Discounted Benefits	Capital Costs	Financial Incentives	Operating Expenses	Total Undiscounted Costs	Total Discounted Costs	
Pre 2005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2005	1056	25	612	25	50	50	50	0	0	7,558	7,558	7,558	0	0	131,810	131,810	131,810	-124,252
2006	1056	25	612	25	101	101	151	0	0	15,116	15,116	14,535	0	0	131,810	131,810	126,740	-112,206
2007	1056	25	612	25	151	151	302	0	0	22,674	22,674	20,964	0	0	131,810	131,810	121,866	-100,902
2008	1056	25	612	25	202	151	453	0	0	22,674	22,674	20,157	0	0	131,810	131,810	117,179	-97,021
2009	1056	25	612	25	252	151	605	0	0	22,674	22,674	19,382	0	0	131,810	131,810	112,672	-93,290
2010	1056	25	612	25	302	151	756	0	0	22,674	22,674	18,637	0	0	131,810	131,810	108,338	-89,702
2011	1056	25	612	25	353	151	907	0	0	22,674	22,674	17,920	0	0	131,810	131,810	104,171	-86,251
2012	1056	25	612	25	403	151	1058	0	0	22,674	22,674	17,231	0	0	131,810	131,810	100,165	-82,934
2013	1056	25	612	25	453	151	1209	0	0	22,674	22,674	16,568	0	0	131,810	131,810	96,312	-79,744
2014	1056	25	612	25	504	151	1360	0	0	22,674	22,674	15,931	0	0	131,810	131,810	92,608	-76,677
2015						151	1512	0	0	22,674	22,674	15,318	0	0	0	0	0	15,318
2016						151	1663	0	0	22,674	22,674	14,729	0	0	0	0	0	14,729
2017						151	1814	0	0	22,674	22,674	14,162	0	0	0	0	0	14,162
2018						151	1965	0	0	22,674	22,674	13,618	0	0	0	0	0	13,618
2019						151	2116	0	0	22,674	22,674	13,094	0	0	0	0	0	13,094
2020						151	2267	0	0	22,674	22,674	12,590	0	0	0	0	0	12,590
2021						151	2419	0	0	22,674	22,674	12,106	0	0	0	0	0	12,106
2022						151	2570	0	0	22,674	22,674	11,640	0	0	0	0	0	11,640
2023						151	2721	0	0	22,674	22,674	11,193	0	0	0	0	0	11,193
2024						151	2872	0	0	22,674	22,674	10,762	0	0	0	0	0	10,762
2025						151	3023	0	0	22,674	22,674	10,348	0	0	0	0	0	10,348
2026						151	3174	0	0	22,674	22,674	9,950	0	0	0	0	0	9,950
2027						151	3326	0	0	22,674	22,674	9,568	0	0	0	0	0	9,568
2028						151	3477	0	0	22,674	22,674	9,200	0	0	0	0	0	9,200
2029						151	3628	0	0	22,674	22,674	8,846	0	0	0	0	0	8,846
2030						151	3779	0	0	22,674	22,674	8,505	0	0	0	0	0	8,505
Totals	4224.0	100		101.3	2771.3	3,779		0	0	566,857	566,857	354,510	0	0	1,318,099	1,318,099	1,111,860	-757,350

Value of conserved water (\$/AF) (=	150	Benefit cost ratio =	0.3
Discount rate (real) =	4.00%	Simple pay-back period (years) =	72
Natural toilet replacement rate =	4%	Discounted cost/water saved (\$acre-feet) =	294
Annual single-family housing turnover rate =	10.5%	NPV/ water saved (acre-feet) =	-200
Annual multi-family housing turnover rate =	3.5%		
Water savings due to toilet replacement at SF homes (gal/dwelling unit/day =	33.9		
Water savings due to toilet replacement at MF homes (gal/dwelling unit/day =	44.3		
Number of toilets per SF home =	1.6		
Number of toilets per MF home =	1.2		
Cost of conservation measure =	\$79		
1991 single-family units =	13,778		
1991 multi-family units =	8,049		

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

Term	Definition	Comments
Benefits:		
Avoided Capital Costs	Capital costs that are avoided by implementing the BMP	Example is the cost of a well that would not have to be installed due to implementation of the BMP.
Avoided Variable Costs	Variable costs that are avoided by implementing the BMP.	Example is the cost of electricity that would be saved if the BMP were implemented.
Avoided Purchase Costs	Purchase costs that are avoided by implementing the BMP.	Example is the cost of purchasing water that would not be required due to implementation of the BMP.
Total Undiscounted Benefits	The sum of avoided capital, variable, and purchase costs.	
Total Discounted Benefits	The present value of the sum of avoided capital, variable, and purchase costs.	The discount rate is used to calculate the present value of avoided costs.
Costs:		
Capital Costs	Capital costs incurred by implementing the BMP.	
Financial Incentives	Financial incentives paid to customers.	Example is the rebate for purchasing low-flow plumbing devices.
Operating Expenses	Operating expenses incurred implementing the BMP.	Example is the administrative cost of conducting surveys.
Total Undiscounted Costs	The sum of capital, financial incentives and operating expenses.	
Total Discounted Costs	The present value of the sum of capital, financial incentives and operating expenses.	The discount rate is used to calculate the present value of incurred costs.
Results:		
Net Present Value	Total discounted benefits minus total discounted costs.	A value greater than zero indicates an economically justifiable BMP.
Benefit/Cost Ratio	The sum of the total discounted benefits divided by the sum of the total discounted costs.	A ratio greater than one indicates an economically justifiable BMP.
Simple Pay-Back Period	The sum of the total discounted costs divided by the average annual total discounted benefits.	Indicates the number of years required for the benefits to pay back the costs of the BMP.
Discounted Cost/Water Saved	The sum of the total discounted costs divided by the total acre-feet of water saved over the study period.	Indicates the present-value cost to save one acre-foot of water. A low value is considered economically attractive.
Net Present Value/Water Saved	The sum of the net present value divided by the total acre-feet of water saved over the study period.	Indicates the net value of saving one acre-foot of water. A high value is considered economically attractive.

Appendix E
Council Annual Reports for Demand
Management Measures



California
Urban Water
Conservation
Council

Memorandum of
Understanding

Back to
BMP Reports
List

Best Management Practices Report Filing

City of Santa Maria's BMP Coverage/Credit Overview	
Credit Summary Report	
	<div style="display: flex; align-items: center; justify-content: center;"> ◀ YRs ▶ </div> <div style="text-align: center; font-size: 0.8em; margin-top: 2px;">DN - UP</div>
BMP COVERAGE FORM NAME	Reporting Period
	2005-2006
BMP 01: Water Survey Programs for Single-Family and Multi-Family Residential Customers	
BMP 02: Residential Plumbing Retrofit	
BMP 03: System Water Audits, Leak Detection and Repair	
BMP 04: Metering with Commodity Rates for all New Connections and Retrofit of Existing	
BMP 05: Large Landscape Conservation Programs and Incentives	
BMP 06: High-Efficiency Washing Machine Rebate Programs	
BMP 07: Public Information Programs	
BMP 08: School Education Programs	
BMP 09: Conservation Programs for CII Accounts	
BMP 11: Conservation Pricing	
BMP 12: Conservation Coordinator	
BMP 13: Water Waste Prohibition	
BMP 14: Residential ULFT Replacement Programs	
	<input type="button" value="Print All"/>

Reported as of 2/9/07

Water Supply & Reuse

Reporting Unit:

City of Santa Maria

Year:

2005**Water Supply Source Information**

Supply Source Name	Quantity (AF) Supplied	Supply Type
CCWA/DWR	12960	Imported
City of Santa Maria	897	Groundwater

Total AF: 13857

Reported as of 2/9/07

Accounts & Water UseReporting Unit Name:
City of Santa MariaSubmitted to
CUWCC
12/08/2006Year:
2005**A. Service Area Population Information:**

1. Total service area population 88793

B. Number of Accounts and Water Deliveries (AF)

Type	Metered		Unmetered	
	No. of Accounts	Water Deliveries (AF)	No. of Accounts	Water Deliveries (AF)
1. Single-Family	18121	6994	0	0
2. Multi-Family	817	2105	0	0
3. Commercial	1311	1970	0	0
4. Industrial	96	383	0	0
5. Institutional	562	844	0	0
6. Dedicated Irrigation	48	47	0	0
7. Recycled Water	0	0	0	0
8. Other	249	10	0	0
9. Unaccounted	NA	0	NA	0
Total	21204	12353	0	0
	Metered		Unmetered	

Reported as of 2/9/07

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

Reporting Unit: **City of Santa Maria** BMP Form Status: **100% Complete** Year: **2005**

A. Implementation

- | | |
|--|------------|
| 1. Based on your signed MOU date, 12/08/2004, your Agency STRATEGY DUE DATE is: | 12/08/2006 |
| 2. Has your agency developed and implemented a targeting/marketing strategy for SINGLE-FAMILY residential water use surveys? | yes |
| a. If YES, when was it implemented? | 01/21/2001 |
| 3. Has your agency developed and implemented a targeting/marketing strategy for MULTI-FAMILY residential water use surveys? | yes |
| a. If YES, when was it implemented? | 01/21/2001 |

B. Water Survey Data

Survey Counts:	Single Family Accounts	Multi-Family Units
1. Number of surveys offered:	18121	817
2. Number of surveys completed:	635	242

Indoor Survey:

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

Outdoor Survey:

- | | | |
|--|-----|-----------------|
| 6. Check irrigation system and timers | yes | yes |
| 7. Review or develop customer irrigation schedule | yes | yes |
| 8. Measure landscaped area (Recommended but not required for surveys) | no | no |
| 9. Measure total irrigable area (Recommended but not required for surveys) | no | no |
| 10. Which measurement method is typically used (Recommended but not required for surveys) | | None |
| 11. Were customers provided with information packets that included evaluation results and water savings recommendations? | yes | yes |
| 12. Have the number of surveys offered and completed, survey results, and survey costs been tracked? | yes | yes |
| a. If yes, in what form are surveys tracked? | | manual activity |

b. Describe how your agency tracks this information.

There is a customer service log that is maintained daily.

C. "At Least As Effective As"

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

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

D. Comments

Reported as of 2/9/07

BMP 02: Residential Plumbing Retrofit

Reporting Unit:

City of Santa Maria

BMP Form Status:

100% Complete

Year:

2005**A. Implementation**

1. Is there an enforceable ordinance in effect in your service area requiring replacement of high-flow showerheads and other water use fixtures with their low-flow counterparts? no
 - a. If YES, list local jurisdictions in your service area and code or ordinance in each:

2. Has your agency satisfied the 75% saturation requirement for single-family housing units? no
3. Estimated percent of single-family households with low-flow showerheads: %
4. Has your agency satisfied the 75% saturation requirement for multi-family housing units? no
5. Estimated percent of multi-family households with low-flow showerheads: %
6. If YES to 2 OR 4 above, please describe how saturation was determined, including the dates and results of any survey research.

B. Low-Flow Device Distribution Information

1. Has your agency developed a targeting/ marketing strategy for distributing low-flow devices? yes
 - a. If YES, when did your agency begin implementing this strategy? 01/21/2001
 - b. Describe your targeting/ marketing strategy.

We employ many methods to get the information out about low-flow devices. At all the public events the City schedules low-flow devices are distributed. The services directory and city webpage provides information about the low-flow kits. Some of our bus ads promote the low-flow kits.

Low-Flow Devices Distributed/ Installed	SF Accounts	MF Units
2. Number of low-flow showerheads distributed:	800	200
3. Number of toilet-displacement devices distributed:	1000	440
4. Number of toilet flappers distributed:	300	700
5. Number of faucet aerators distributed:	800	200
6. Does your agency track the distribution and cost of low-flow devices?		yes
a. If YES, in what format are low-flow devices tracked?		Manual Activity
b. If yes, describe your tracking and distribution system :		

The Conservation Specialist and our Utilities Technician attend the public events where the low-flow kits are distributed. They keep records in a customer log.

C. "At Least As Effective As"

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

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

D. Comments

Reported as of 2/9/07

BMP 03: System Water Audits, Leak Detection and Repair

Reporting Unit:

BMP Form Status:

Year:

City of Santa Maria**100% Complete****2005****A. Implementation**

1. Does your agency own or operate a water distribution system? yes
2. Has your agency completed a pre-screening system audit for this reporting year? no
3. If YES, enter the values (AF/Year) used to calculate verifiable use as a percent of total production:
 - a. Determine metered sales (AF)
 - b. Determine other system verifiable uses (AF)
 - c. Determine total supply into the system (AF)
 - d. Using the numbers above, if $(\text{Metered Sales} + \text{Other Verifiable Uses}) / \text{Total Supply} < 0.9$ then a full-scale system audit is required. 0.00
4. Does your agency keep necessary data on file to verify the values entered in question 3? yes
5. Did your agency complete a full-scale audit during this report year? no
6. Does your agency maintain in-house records of audit results or completed AWWA M36 audit worksheets for the completed audit which could be forwarded to CUWCC? no
7. Does your agency operate a system leak detection program? no
 - a. If yes, describe the leak detection program:

B. Survey Data

1. Total number of miles of distribution system line. 453
2. Number of miles of distribution system line surveyed. 0

C. "At Least As Effective As"

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

D. Comments

The software the customer service personnel uses to input data has a function for High Utility Bills. When this reports come in one of our Water Services personnel goes to the address and checks for any leaks inside and outside the location. If there are any leaks in the City's equipment they are fixed and if any leaks are found in the customers equipment they are pointed out and advised to call a plumber to fix them or they can fix them themselves. At this time the water services member shows the customer if there are any leaks and they also explain ways to help conserve water. The water services division also monitors the water use at that location for at least a week to make sure the water use is not too high. Our current billing system may be updated soon. When this occurs we will be able to do a system audit.

Voluntary Questions (Not used to calculate compliance)

E. Volumes

	Estimated	Verified
1. Volume of raw water supplied to the system:		
2. Volume treated water supplied into the system:		
3. Volume of water exported from the system:		
4. Volume of billed authorized metered consumption:		
5. Volume of billed authorized unmetered consumption:		
6. Volume of unbilled authorized metered consumption:		
7. Volume of unbilled authorized unmetered consumption:		

F. Infrastructure and Hydraulics

1. System input (source or master meter) volumes metered at the entry to the:		
2. How frequently are they tested and calibrated?		
3. Length of mains:		
4. What % of distribution mains are rigid pipes (metal, ac, concrete)?		
5. Number of service connections:		
6. What % of service connections are rigid pipes (metal)?		
7. Are residential properties fully metered?		
8. Are non-residential properties fully metered?		
9. Provide an estimate of customer meter under-registration:		
10. Average length of customer service line from the main to the point of the meter:		
11. Average system pressure:		
12. Range of system pressures:		From to
13. What percentage of the system is fed from gravity feed?		
14. What percentage of the system is fed by pumping and re-pumping?		

G. Maintenance Questions

1. Who is responsible for providing, testing, repairing and replacing customer meters?		Utility
2. Does your agency test, repair and replace your meters on a regular timed schedule?		
a. If yes, does your agency test by meter size or customer category?:		
b. If yes to meter size, please provide the frequency of testing by meter size:		

Less than or equal to 1"

1.5" to 2"

3" and Larger

c. If yes to customer category, provide the frequency of testing by customer category:

SF residential

MF residential

Commercial

Industrial & Institutional

3. Who is responsible for repairs to the customer lateral or customer service line?

4. Who is responsible for service line repairs downstream of the customer meter?

5. Does your agency proactively search for leaks using leak survey techniques or does your utility reactively repair leaks which are called in, or both?

6. What is the utility budget breakdown for:

Leak Detection	\$
Leak Repair	\$
Auditing and Water Loss Evaluation	\$
Meter Testing	\$

H. Comments

Reported as of 2/9/07

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

Reporting Unit: **City of Santa Maria** BMP Form Status: **100% Complete** Year: **2005**

A. Implementation

1. Please fill out the following matrix:

Types of Billed Accounts	% Accounts Metered	% Accounts Measured (Not Metered)	% Accounts Volumetric Billing
Treated Water SF Residential Accounts	100		0
Treated Water MF Residential Accounts	100		0
Treated Water Commercial Accounts	100		0
Treated Water Industrial Accounts	100		0
Treated Water Institutional Accounts	100		0
Raw Water Residential Deliveries	0	0	0
Raw Water Non-Residential Deliveries	0	0	0

2. If your agency does not meter 100% of all treated water accounts:

- a. Does your agency have a plan or program for retrofitting existing unmetered treated water connections? No
- b. By what date would 100% of all treated water accounts be metered?
- c. Number of previously unmetered accounts fitted with meters during report year: 0

3. If your agency does bill 100% of all treated water accounts by volume of use:

- a. By what date (Year must be four digit mm/dd/yyyy) will all customers with meters be billed by volume of use? 01/01/1990

4. If your agency does not meter or measure 100% of all raw water delivery fields (as listed in question 1f & 1g), does your agency intend to develop a program for measuring all raw water deliveries? No

5. If your agency does not volumetrically bill 100% of all raw water delivery, does your agency intend to develop a program for billing all raw water deliveries by volume of use? No

6. Does your agency meter by volume of use all municipal or governmental accounts?: Yes

a. If no, which types of accounts are not included:

7. Does your agency bill by volume of use all municipal or governmental accounts? Yes

a. If no, which types of accounts are not included:

B. Feasibility Study

1. Has your agency conducted a feasibility study to assess the merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters? no

a. If YES, when was the feasibility study conducted? (mm/dd/yy)

b. Describe the feasibility study:

2. Number of CII accounts with mixed-use meters: 0

3. Number of CII accounts with mixed-use meters retrofitted with dedicated irrigation meters during reporting period 0

D. "At Least As Effective As"

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

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

E. Comments

All of our connections are metered.

Reported as of 2/9/07

BMP 05: Large Landscape Conservation Programs and Incentives

Reporting Unit: **City of Santa Maria** BMP Form Status: **100% Complete** Year: **2005**

A. Water Use Budgets

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

B. Landscape Surveys

- | | |
|--|----|
| 1. Has your agency developed a marketing / targeting strategy for landscape surveys? | no |
| a. If YES, when did your agency begin implementing this strategy? | |
| b. Description of marketing / targeting strategy: | |
| 2. Number of Surveys Offered during reporting year. | 0 |
| 3. Number of Surveys Completed during reporting year. | 0 |
| 4. Indicate which of the following Landscape Elements are part of your survey: | |
| a. Irrigation System Check | no |
| b. Distribution Uniformity Analysis | no |
| c. Review / Develop Irrigation Schedules | no |
| d. Measure Landscape Area | no |
| e. Measure Total Irrigable Area | no |
| f. Provide Customer Report / Information | no |
| 5. Do you track survey offers and results? | no |
| 6. Does your agency provide follow-up surveys for previously completed surveys? | no |
| a. If YES, describe below: | |

C. Other BMP 5 Actions

- | | |
|---|----|
| 1. An agency can provide mixed-use accounts with ETo-based landscape budgets in lieu of a large landscape survey program. Does your agency provide mixed-use accounts with landscape budgets? | no |
| 2. Number of CII mixed-use accounts with landscape budgets. | 0 |
| Number of CII accounts with mixed-use meters retrofitted with dedicated irrigation meters during reporting period. (From BMP 4 report) | 0 |

Total number of change-outs from mixed-use to dedicated irrigation meters since Base Year.

- 3. Do you offer landscape irrigation training? no
- 4. Does your agency offer financial incentives to improve landscape water use efficiency? no

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

- 5. Do you provide landscape water use efficiency information to new customers and customers changing services? No

a. If YES, describe below:

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

D. "At Least As Effective As"

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

E. Comments

When new customers sign up for water the Billing Personnel will give them a verbal recommendation to water their lawn every third day during the summer and every fifth day during the winter.

Reported as of 2/9/07

BMP 06: High-Efficiency Washing Machine Rebate Programs

Reporting Unit: **City of Santa Maria** BMP Form Status: **100% Complete** Year: **2005**

A. Coverage Goal

	Single Family	Multi-Family
1. Number of residential dwelling units in the agency service area.	18,121	817
2. Coverage Goal = Total Dwelling Units x 0.048	= 909 Points	

B. Implementation

1. Does your agency offer rebates for **residential** high-efficiency washers? no

HEW Water Factor	Number of Financial Incentives Issued	Total Value of Financial Incentives			TOTAL	POINTS AWARDED
		Retail Water Agency	Wholesaler/ Grants (if applicable)	Energy Utility (if applicable)		
2. Greater than 8.5 but not exceeding 9.5 (1 point)		\$ 0	\$ 0	\$ 0	\$ 0	
3. Greater than 6.0 but not exceeding 8.5 (2 points)		\$ 0	\$ 0	\$ 0	\$ 0	
4. Less than or equal to 6.0 (3 points)		\$ 0	\$ 0	\$ 0	\$ 0	
TOTALS:		\$ 0	\$ 0	\$ 0	\$ 0	0

C. Past Credit Points

For HEW incentives issued before July 1, 2004, select ONE of the following TWO options:

- Method One: Points based on HEW Water Factor
- Method Two: Agency earns 1 point for each HEW.

NOTE: Agency shall not receive credit for any HEW incentives where the agency did not provide a financial incentive of \$25 or more.

Method One: Points based on HEW Water Factor

HEW Water Factor	Number of Financial Incentives Issued	Total Value of Financial Incentives			TOTAL	POINTS AWARDED
		Retail Water Agency	Wholesaler/ Grants (if applicable)	Energy Utility (if applicable)		
1. Greater than 8.5 but not exceeding 9.5 (1 point each)		\$ 0	\$ 0	\$ 0	\$ 0	

<p>2. Greater than 6.0 but not exceeding 8.5 (2 points each)</p>	<p>\$ 0 \$ 0 \$ 0 \$ 0</p>
<p>3. Less than or equal to 6.0 (3 points each)</p>	<p>\$ 0 \$ 0 \$ 0 \$ 0</p>

Method Two: Agency earns 1 point for each HEW

	Number of Financial Incentives Issued	Total Value of Water Agency Financial Incentives				POINTS AWARDED
4. Total HEWs installed						
PAST CREDIT TOTALS:	0	\$0	\$0	\$0	\$0	0

D. Rebate Program Expenditures

- 1. Average or Estimated Administration and Overhead \$ 0
- 2. Is the financial incentive offered per HEW at least equal to the marginal benefits of the water savings per HEW? no

E. "At Least As Effective As"

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

F. Comments

We are currently working with the Santa Barbara County Water Agency to offer rebates for high-efficiency washers to commercial, institutional, and industrial customers.

Reported as of 2/9/07

BMP 07: Public Information Programs

Reporting Unit:

City of Santa Maria

BMP Form Status:

100% Complete

Year:

2005**A. Implementation**

1. How is your public information program implemented?

Retailer runs program without wholesaler sponsorship

2. Describe the program and how it's organized:

Public events are scheduled throughout the year. The Water Conservation Specialist attends the events and passes out information to the public.

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

Public Information Program Activity in Retail Service Area	Yes/No	Number of Events
a. Paid Advertising	yes	38
b. Public Service Announcement	yes	2
c. Bill Inserts / Newsletters / Brochures	yes	3
d. Bill showing water usage in comparison to previous year's usage	no	
e. Demonstration Gardens	yes	2
f. Special Events, Media Events	yes	12
g. Speaker's Bureau	yes	3
h. Program to coordinate with other government agencies, industry and public interest groups and media	yes	

B. Conservation Information Program Expenditures

1. Annual Expenditures (Excluding Staffing)

6434.03

C. "At Least As Effective As"

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

yes

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

The City of Santa Maria Utilities Department has a full-time Water Conservation Specialist and a part-time Utilities Technician that handles most of all the marketing and public relations. Both positions interact with all of the water conservation, recycling, and solid waste programs. Our staff attends and participated in all public events handing out informative brochures, water conservation kits, and other promotional items to local residents.

D. Comments

The bills that show ater usage in comparison to previous year's usage are those bills that have been ongoing for more than a year. New bills do not show anything about past years because there is nothing to report from the past.

Reported as of 2/9/07

BMP 08: School Education Programs

Reporting Unit:

City of Santa Maria

BMP Form Status:

100% Complete

Year:

2005**A. Implementation**

1. How is your public information program implemented?

Retailer runs program without wholesaler sponsorship

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

Grade	Are grade-appropriate materials distributed?	No. of class presentations	No. of students reached	No. of teachers' workshops
Grades K-3rd	yes	35	680	0
Grades 4th-6th	yes	22	311	0
Grades 7th-8th	yes	4	89	0
High School	yes	3	73	0

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

5. When did your Agency begin implementing this program? 09/01/1985

B. School Education Program Expenditures

1. Annual Expenditures (Excluding Staffing)

C. "At Least As Effective As"

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

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

The

D. Comments

In 1985, we started doing the tours at the Wastewater Treatment Plant. The classroom presentations started in 1992. We do a video contest for the high school students.

Reported as of 2/9/07

BMP 09: Conservation Programs for CII Accounts

Reporting Unit: **City of Santa Maria** BMP Form Status: **100% Complete** Year: **2005**

A. Implementation

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

Option A: CII Water Use Survey and Customer Incentives Program

4. Is your agency operating a CII water use survey and customer incentives program for the purpose of complying with BMP 9 under this option? If so, please describe activity during reporting period: no

	CII Surveys	Commercial Accounts	Industrial Accounts	Institutional Accounts
a. Number of New Surveys Offered				
b. Number of New Surveys Completed				
c. Number of Site Follow-ups of Previous Surveys (within 1 yr)				
d. Number of Phone Follow-ups of Previous Surveys (within 1 yr)				
CII Survey Components	Commercial Accounts	Industrial Accounts	Institutional Accounts	
e. Site Visit				
f. Evaluation of all water-using apparatus and processes				
g. Customer report identifying recommended efficiency measures, paybacks and agency incentives				
Agency CII Customer Incentives	Budget (\$/Year)	# Awarded to Customers	Total \$ Amount Awarded	
h. Rebates				
i. Loans				
j. Grants				
k. Others				

Option B: CII Conservation Program Targets

5. Does your agency track CII program interventions and water savings for the purpose of complying with BMP 9 under this option? no

6. Does your agency document and maintain records on how savings were realized and the method of calculation for estimated savings? no

7. **System Calculated** annual savings (AF/yr):

CII Programs	# Device Installations
a. Ultra Low Flush Toilets	
b. Dual Flush Toilets	
c. High Efficiency Toilets	
d. High Efficiency Urinals	
e. Non-Water Urinals	
f. Commercial Clothes Washers (coin-op only; not industrial)	
g. Cooling Tower Controllers	
h. Food Steamers	
i. Ice Machines	
j. Pre-Rinse Spray Valves	
k. Steam Sterilizer Retrofits	
l. X-ray Film Processors	

8. **Estimated** annual savings (AF/yr) from agency programs not including the devices listed in Option B. 7., above:

CII Programs	Annual Savings (AF/yr)
a. Site-verified actions taken by agency:	
b. Non-site-verified actions taken by agency:	

B. Conservation Program Expenditures for CII Accounts

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

C. "At Least As Effective As"

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

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

D. Comments

The City is working with the Santa Barbara County Water Agency to promote the replacement of toilets with ULFT by offering a \$75.00 - \$150.00 rebate. There is also a \$150.00 rebate being offered for replacing urinals with ultra low flush or waterless urinals. This program is set up to benefit commercial, industrial, and institutional customers. There is no limit to the amount of rebates a customer can receive;

however, the rebate is on a first come first serve basis.

Reported as of 2/9/07

BMP 11: Conservation Pricing

Reporting Unit:
City of Santa Maria

BMP Form
 Status: **100%
 Complete** Year: **2005**

A. Implementation**Water Service Rate Structure Data by Customer Class****Number of schedules:**

For the following accounts, how many rate schedules does agency offer/use?

		Use of classification:
		This agency:
1. Single-family residential	0	Does not serve this type of customer
2. Multi-family residential	0	Does not serve this type of customer
3. Commercial	0	Does not serve this type of customer
4. Industrial	0	Does not serve this type of customer
5. Institutional/ government	0	Does not serve this type of customer
6. Dedicated irrigation (potable water)	0	Does not serve this type of customer
7. Other	0	Does not serve this type of customer
8. Recycled-reclaimed water	0	Does not offer this type of water
9. Raw water (urban use)	0	Does not offer this type of water
10. Wholesale (urban use)	0	Does not offer this type of water

Sewer Service

11. Does your agency provide sewer service to your water customers?	yes
12. If yes, does sewer service use conservation rate structures?	no
13. Has your agency made the required efforts (as prescribed in BMP 11) to have sewer services billed on conservation rates?	no
14. What water agency activities have been undertaken during the reporting period to achieve waste water agency volumetric billing in your water agency service area?	None

B. "At Least As Effective As"

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

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

C. Comments

The sewer rate structure is non-volumetric flat rate for all residential customers. Our commercial, institutional, industrial, and other

customers do not really fit into the structures provided by the CUWCC. The sewer charges for these customers are tied to the strength of their wastewater.

Reported as of 2/9/07

BMP 12: Conservation Coordinator

Reporting Unit:

City of Santa Maria

BMP Form Status:

100% Complete

Year:

2005**A. Implementation**

- | | |
|---|-------------------------------|
| 1. Does your Agency have a conservation coordinator? | yes |
| 2. Is a coordinator position supplied by another agency with which you cooperate in a regional conservation program ? | no |
| a. Partner agency's name: | |
| 3. If your agency supplies the conservation coordinator: | |
| a. What percent is this conservation coordinator's position? | 100% |
| b. Coordinator's Name | Myra Ritchie |
| c. Coordinator's Title | Water Conservation Specialist |
| d. Coordinator's Experience in Number of Years | 3 years |
| e. Date Coordinator's position was created (mm/dd/yyyy) | 07/01/2000 |
| 4. Number of conservation staff (FTEs), including Conservation Coordinator. | 3 |

B. Conservation Staff Program Expenditures

- | | |
|--|-------|
| 1. Staffing Expenditures (In-house Only) | 35464 |
| 2. BMP Program Implementation Expenditures | 14 |

C. "At Least As Effective As"

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

We have a full-time Water Conservation Specialists who handles all WC issues and other programs related to all the CUWCC's BMP's.

D. Comments

Reported as of 2/9/07

BMP 13: Water Waste Prohibition

Reporting Unit:

City of Santa Maria

BMP Form Status:

100% Complete

Year:

2005**A. Requirements for Documenting BMP Implementation**

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

a. If YES, describe the ordinance:

The ordinances 8-10-32 and 8-10-33 states that all customers are required to maintain in good repair all of their pipes, faucets, valves, plumbing fixtures or any other appliances, at all times to prevent the waste of water. The City has the right to shut off the water and sealed by the water division and will not be turned on again until repairs are made to the satisfaction of the water division. The water can be shut of and sealed by the water division if the customer wilfully and negligently wastes water through the sprinklers or any other facility. In both cases the water will not be turned back on until a turn-on fee is paid. This ordinance is designed to promote the best use of water. 8-12.402 states that water use cannot be increased in an attempt to dilute discharge.

2. Is a copy of the most current ordinance(s) on file with CUWCC? no

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

Santa Maria City Limits 8-10-32 8-10-33 8-12.402

B. Implementation

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

a. Gutter flooding	yes
b. Single-pass cooling systems for new connections	no
c. Non-recirculating systems in all new conveyor or car wash systems	yes
d. Non-recirculating systems in all new commercial laundry systems	no
e. Non-recirculating systems in all new decorative fountains	no
f. Other, please name	no

2. Describe measures that prohibit water uses listed above:

Section 8-10.33 states that the water may be shut off and sealed by the Utilities Department until a turn on fee is paid if the customer is found to willfully and negligently wastes water through the misuse of sprinklers. 9-4.08 states that all commercial car wash facilities, including self wash, shall have a water recycling system and the design installations of these systems shall be approved by the administrative authority.

Water Softeners:

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

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

regenerating DIR models.

b. Develop minimum appliance efficiency standards that:

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

ii.) Implement an identified maximum number of gallons discharged per gallon of soft water produced. no

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

4. Does your agency include water softener checks in home water audit programs? no

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

C. "At Least As Effective As"

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

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

D. Comments

Reported as of 2/9/07

BMP 14: Residential ULFT Replacement Programs

Reporting Unit: **City of Santa Maria** BMP Form Status: **100% Complete** Year: **2005**

A. Implementation

Number of Non-Efficient Toilets Replaced With 1.6 gpf Toilets During Report Year

	Single-Family Accounts	Multi-Family Units
1. Does your Agency have program(s) for replacing high-water-using toilets with ultra-low flush toilets?	no	no
Replacement Method	SF Accounts	MF Units
2. Rebate	0	0
3. Direct Install	0	0
4. CBO Distribution	0	0
5. Other	0	0
Total	0	0

Number of Non-Efficient Toilets Replaced With 1.28 gpf High-Efficiency Toilets (HETs) During Report Year

	Single-Family Accounts	Multi-Family Units
6. Does your Agency have program(s) for replacing high-water-using toilets with ultra-low flush toilets?	no	no
Replacement Method	SF Accounts	MF Units
7. Rebate		
8. Direct Install		
9. CBO Distribution		
10. Other		
Total		

Number of Non-Efficient Toilets Replaced With 1.2 gpf HETs (Dual-Flush) During Report Year

	Single-Family Accounts	Multi-Family Units
11. Does your Agency have program(s) for replacing high-water-using toilets with ultra-low flush toilets?	no	no
Replacement Method	SF Accounts	MF Units
12. Rebate		
13. Direct Install		
14. CBO Distribution		

15. Other

Total

16. Describe your agency's ULFT, HET, and/or Dual-Flush Toilet programs for single-family residences.

We currently do not have a program.

17. Describe your agency's ULFT, HET, and/or Dual-Flush Toilet programs for multi-family residences.

We currently do not have a program.

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

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

Santa Maria City limits.

We currently do not have an ordinance.

B. Residential ULFT Program Expenditures

1. Estimated cost per replacement: \$ 0

C. "At Least As Effective As"

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

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

D. Comments

Reported as of 2/9/07

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

Reporting Unit:
City of Santa Maria

Reporting Period:
05-06

MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period? Yes

Warning: The BMP 1 form is not 100% complete for one or more report years. This may produce inaccurate results for this report.

A Reporting Unit (RU) must meet three conditions to satisfy strict compliance for BMP 1.

Condition 1: Adopt survey targeting and marketing strategy on time

Condition 2: Offer surveys to 20% of SF accounts and 20% of MF units during report period

Condition 3: Be on track to survey 15% of SF accounts and 15% of MF units within 10 years of implementation start date.

Test for Condition 1

City of Santa Maria to Implement Targeting/Marketing Program by:	2006		
		<u>Single-Family</u>	<u>Multi-Family</u>
Year City of Santa Maria Reported Implementing Targeting/Marketing Program:	2001	2001	2001
City of Santa Maria Met Targeting/Marketing Coverage Requirement:	YES	YES	YES

Test for Condition 2

			<u>Single-Family</u>	<u>Multi-Family</u>
Survey Program to Start by:	2005	Residential Survey Offers (%)	100.90%	9.83%
Reporting Period:	05-06	Survey Offers ≥ 20%	YES	NO

Test for Condition 3

			Completed Residential Surveys	
			<u>Single Family</u>	<u>Multi-Family</u>
Total Completed Surveys 1999 - 2006:			2,955	824
Past Credit for Surveys Completed Prior to 1999 (Implementation of Reporting Database):				
Total + Credit			2,955	824

Residential Accounts in Base Year	17,959	8,309
City of Santa Maria Survey Coverage as % of Base Year Residential Accounts	16.45%	9.92%
Coverage Requirement by Year 1 of Implementation per Exhibit 1	0.70%	0.70%
City of Santa Maria on Schedule to Meet 10-Year Coverage Requirement	YES	ON TRACK

BMP 1 COVERAGE STATUS SUMMARY:

Coverage status cannot be calculated. Water supplier data is missing that is required to calculate coverage status for this BMP.

Reported as of 2/9/07

BMP 02 Coverage: Residential Plumbing RetrofitReporting Unit:
City of Santa MariaReporting Period:
05-06**MOU Exhibit 1 Coverage Requirement**

No exemption request filed

Agency indicated "at least as effective as" implementation during report period?

No

Warning: The BMP 2 form is not 100% complete for one or more report years. This may produce inaccurate results for this report.

An agency must meet one of three conditions to satisfy strict compliance for BMP 2.

Condition 1: The agency has demonstrated that 75% of SF accounts and 75% of MF units constructed prior to 1992 are fitted with low-flow showerheads.

Condition 2: An enforceable ordinance requiring the replacement of high-flow showerheads and other water use fixtures with their low-flow counterparts is in place for the agency's service area.

Condition 3: The agency has distributed or directly installed low-flow showerheads and other low-flow plumbing devices to not less than 10% of single-family accounts and 10% of multi-family units constructed prior to 1992 during the reporting period.

Test for Condition 1

Report Year	Report Period	Single-Family		Multi-Family	
		Reported Saturation	Saturation > 75%?	Reported Saturation	Saturation > 75%?
1999	99-00		NO		NO
2000	99-00		NO		NO
2001	01-02		NO		NO
2002	01-02		NO		NO
2003	03-04		NO		NO
2004	03-04		NO		NO
2005	05-06		NO		NO
2006	05-06		NO		NO

Test for Condition 2

Report Year	Report Period	City of Santa Maria has ordinance requiring showerhead retrofit?
1999	99-00	NO
2000	99-00	NO
2001	01-02	NO
2002	01-02	NO
2003	03-04	NO
2004	03-04	NO
2005	05-06	NO
2006	05-06	NO

Test for Condition 3

Reporting Period: 05-06

<u>1992 SF Accounts</u>	<u>Num. Showerheads Distributed to SF Accounts</u>	<u>Single-Family Coverage Ratio</u>	<u>SF Coverage Ratio > 10%</u>
13,778	800	5.8%	NO
<u>1992 MF Accounts</u>	<u>Num. Showerheads Distributed to MF Accounts</u>	<u>Multi-Family Coverage Ratio</u>	<u>MF Coverage Ratio > 10%</u>
8,049	200	2.5%	NO

BMP 2 COVERAGE STATUS SUMMARY:

Coverage status cannot be calculated. Water supplier data is missing that is required to calculate coverage status for this BMP.

Reported as of 2/9/07

BMP 03 Coverage: System Water Audits, Leak Detection and Repair

Reporting Unit:
City of Santa Maria

Reporting Period:
05-06

MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period?

No

Warning: The BMP 3 form is not 100% complete for one or more report years. This may produce inaccurate results for this report.

An agency must meet one of two conditions to be in compliance with BMP 3:

Condition 1: Perform a prescreening audit. If the result is equal to or greater than 0.9 nothing more needs be done.

Condition 2: Perform a prescreening audit. If the result is less than 0.9, perform a full audit in accordance with AWWA's Manual of Water Supply Practices, Water Audits, and Leak Detection.

Test for Conditions 1 and 2

<u>Report Year</u>	<u>Report Period</u>	<u>Pre-Screen Completed</u>	<u>Pre-Screen Result</u>	<u>Full Audit Indicated</u>	<u>Full Audit Completed</u>
1999	99-00	NO			NO
2000	99-00	NO			NO
2001	01-02	NO			NO
2002	01-02	NO			NO
2003	03-04	NO			NO
2004	03-04	NO			NO
2005	05-06	NO			NO
2006	05-06	NO			NO

BMP 3 COVERAGE STATUS SUMMARY:

Coverage status cannot be calculated. Water supplier data is missing that is required to calculate coverage status for this BMP.

Reported as of 2/9/07

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

Reporting Unit:

City of Santa Maria

Reporting Period:

05-06

MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period?

No

Warning: The BMP 4 form is not 100% complete for one or more report years. This may produce inaccurate results for this report.

An agency must be on track to retrofit 100% of its unmetered accounts within 10 years to be in compliance with BMP 4.

Test for Compliance

Total Meter Retrofits

Reported through 2006

No. of Unmetered Accounts
in Base YearMeter Retrofit Coverage as
% of Base Year Unmetered
AccountsCoverage Requirement by
Year 0 of Implementation per
Exhibit 1RU on Schedule to meet 10
Year Coverage Requirement

YES

BMP 4 COVERAGE STATUS SUMMARY:

Coverage status cannot be calculated. Water supplier data is missing that is required to calculate coverage status for this BMP.

Reported as of 2/9/07

BMP 05 Coverage: Large Landscape Conservation Programs and Incentives

Reporting Unit:
City of Santa Maria

Reporting Period:
05-06

MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period?

No

Warning: The BMP 5 form is not 100% complete for one or more report years. This may produce inaccurate results for this report.

An agency must meet three conditions to comply with BMP 5.

Condition 1: Develop water budgets for 90% of its dedicated landscape meter accounts within four years of the date implementation is to start.

Condition 2: (a) Offer landscape surveys to at least 20% of its CII accounts with mixed use meters each report cycle and be on track to survey at least 15% of its CII accounts with mixed use meters within 10 years of the date implementation is to start OR (b) Implement a dedicated landscape meter retrofit program for CII accounts with mixed use meters or assign landscape budgets to mixed use meters.

Condition 3: Implement and maintain customer incentive program(s) for irrigation equipment retrofits.

Test for Condition 1

<u>Year</u>	<u>Report Period</u>	<u>BMP 5 Implementation Year</u>	<u>No. of Irrigation Meter Accounts</u>	<u>No. of Irrigation Accounts with Budgets</u>	<u>Budget Coverage Ratio</u>	<u>90% Coverage Met by Year 4</u>
1999	99-00					NA
2000	99-00					NA
2001	01-02					NA
2002	01-02					NA
2003	03-04					NA
2004	03-04					NA
2005	05-06					NA
2006	05-06					NA

Test for Condition 2a (survey offers)

Select Reporting Period: 05-06

Large Landscape Survey Offers as % of Mixed Use Meter CII Accounts

Survey Offers Equal or Exceed 20% Coverage Requirement NO

Test for Condition 2a (surveys completed)

Total Completed Landscape Surveys Reported through Credit for Surveys Completed Prior to Implementation of Reporting Database

Total + Credit

CII Accounts in Base Year 1,459

RU Survey Coverage as a % of Base Year CII Accounts
 Coverage Requirement by Year of Implementation per
 Exhibit 1

RU on Schedule to Meet 10 Year Coverage
 Requirement

ON TRACK

Test for Condition 2b (mixed use budget or meter retrofit program)

<u>Report Year</u>	<u>Report Period</u>	<u>BMP 5 Implementation Year</u>	<u>Agency has mix-use budget program</u>	<u>No. of mixed-use budgets</u>
1999	99-00		NO	
2000	99-00		NO	
2001	01-02		NO	
2002	01-02		NO	
2003	03-04		NO	
2004	03-04		NO	
2005	05-06		NO	
2006	05-06		NO	

<u>Report Year</u>	<u>Report Period</u>	<u>BMP 4 Implementation Year</u>	<u>No. of mixed use CII accounts</u>	<u>No. of mixed use CII accounts fitted with irrig. meters</u>
1999	99-00			
2000	99-00			
2001	01-02			
2002	01-02			
2003	03-04			
2004	03-04			
2005	05-06			
2006	05-06			

Test for Condition 3

<u>Report Year</u>	<u>Report Period</u>	<u>BMP 5 Implementation Year</u>	<u>RU offers financial incentives?</u>	<u>No. of Loans</u>	<u>Total Amt. Loans</u>
1999	99-00		NO		
2000	99-00		NO		
2001	01-02		NO		
2002	01-02		NO		
2003	03-04		NO		
2004	03-04		NO		
2005	05-06		NO		
2006	05-06		NO		

<u>Report Year</u>	<u>Report Period</u>	<u>No. of Grants</u>	<u>Total Amt. Grants</u>	<u>No. of rebates</u>	<u>Total Amt. Rebates</u>
1999	99-00				
2000	99-00				
2001	01-02				
2002	01-02				
2003	03-04				

2004	03-04
2005	05-06
2006	05-06

BMP 5 COVERAGE STATUS SUMMARY:

Coverage status cannot be calculated. Water supplier data is missing that is required to calculate coverage status for this BMP.

Reported as of 2/9/07

BMP 06 Coverage: High-Efficiency Washing Machine Rebate Programs

Reporting Unit:
City of Santa Maria

Reporting Period:
05-06

MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period? No

An agency must meet one condition to comply with BMP 6.

Condition 1: Offer a cost-effective financial incentive for high-efficiency washers if one or more energy service providers in service area offer financial incentives for high-efficiency washers.

Test for Condition 1

<u>Year</u>	<u>Report Period</u>	<u>BMP 6 Implementation Year</u>	<u>Rebate Offered by ESP?</u>	<u>Rebate Offered by RU?</u>	<u>Rebate Amount</u>
-------------	----------------------	----------------------------------	-------------------------------	------------------------------	----------------------

<u>Year</u>	<u>Report Period</u>	<u>BMP 6 Implementation Year</u>	<u>No. Rebates Awarded</u>	<u>Coverage Met?</u>
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BMP 6 COVERAGE STATUS SUMMARY:
Water supplier is not currently on track to meet the coverage requirements for this BMP.

Reported as of 2/9/07

BMP 07 Coverage: Public Information ProgramsReporting Unit:
City of Santa MariaReporting Period:
05-06**MOU Exhibit 1 Coverage Requirement**

No exemption request filed

Agency indicated "at least as effective as" implementation during report period?

Yes

An agency must meet one condition to comply with BMP 7.

Condition 1: Implement and maintain a public information program consistent with BMP 7's definition.

Test for Condition 1

<u>Year</u>	<u>Report Period</u>	<u>BMP 7 Implementation Year</u>	<u>RU Has Public Information Program?</u>
1999	99-00		
2000	99-00		
2001	01-02		
2002	01-02		
2003	03-04		
2004	03-04		
2005	05-06		
2006	05-06	1	

BMP 7 COVERAGE STATUS SUMMARY:**Water supplier has met the coverage requirements for this BMP.**

Reported as of 2/9/07

BMP 08 Coverage: School Education ProgramsReporting Unit:
City of Santa MariaReporting Period:
05-06**MOU Exhibit 1 Coverage Requirement**

No exemption request filed

Agency indicated "at least as effective as" implementation during report period?

Yes

An agency must meet one condition to comply with BMP 8.

Condition 1: Implement and maintain a school education program consistent with BMP 8's definition.

Test for Condition 1

<u>Year</u>	<u>Report Period</u>	<u>BMP 8 Implementation Year</u>	<u>RU Has School Education Program?</u>
1999	99-00		
2000	99-00		
2001	01-02		
2002	01-02		
2003	03-04		
2004	03-04		
2005	05-06		
2006	05-06	1	

BMP 8 COVERAGE STATUS SUMMARY:

Water supplier is not currently on track to meet the coverage requirements for this BMP.

Reported as of 2/9/07

BMP 09 Coverage: Conservation Programs for CII Accounts

Reporting Unit:
City of Santa Maria

Reporting Period:
05-06

MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period? No

An agency must meet three conditions to comply with BMP 9.

Condition 1: Agency has identified and ranked by use commercial, industrial, and institutional accounts.

Condition 2(a): Agency is on track to survey 10% of commercial accounts, 10% of industrial accounts, and 10% of institutional accounts within 10 years of date implementation to commence.

OR

Condition 2(b): Agency is on track to reduce CII water use by an amount equal to 10% of baseline use within 10 years of date implementation to commence.

OR

Condition 2(c): Agency is on track to meet the combined target as described in Exhibit 1 BMP 9 documentation.

Test for Condition 1

Year	Report Period	BMP 9 Implementation Year	Ranked Com. Use	Ranked Ind. Use	Ranked Inst. Use
1999	99-00		YES	YES	YES
2000	99-00		YES	YES	YES
2001	01-02		YES	YES	YES
2002	01-02		YES	YES	YES
2003	03-04		YES	YES	YES
2004	03-04		YES	YES	YES
2005	05-06		YES	YES	YES
2006	05-06				

Test for Condition 2a

	Commercial	Industrial	Institutional
Total Completed Surveys Reported through 2006			
Credit for Surveys Completed Prior to Implementation of Reporting Databases			
Total + Credit			
CII Accounts in Base Year	879	146	434
RU Survey Coverage as % of Base Year CII Accounts			
Coverage Requirement by Year 0 of Implementation per Exhibit 1			
RU on Schedule to Meet 10 Year Coverage Requirement	YES	YES	YES

Test for Condition 2a

<u>Year</u>	<u>Report Period</u>	<u>BMP 9 Implementation Year</u>	<u>Performance Target Savings (AF/yr)</u>	<u>Performance Target Savings Coverage</u>	<u>Performance Target Savings Coverage Requirement</u>	<u>Coverage Requirement Met</u>
1999	99-00					
2000	99-00					
2001	01-02					
2002	01-02					
2003	03-04					
2004	03-04					
2005	05-06					
2006	05-06					

Test for Condition 2c

Total BMP 9 Surveys + Credit
 BMP 9 Survey Coverage
 BMP 9 Performance Target Coverage
 BMP 9 Survey + Performance Target Coverage
 Combined Coverage Equals or Exceeds Coverage Requirement? YES

BMP 9 COVERAGE STATUS SUMMARY:

Water supplier is on track to meet the coverage requirements for this BMP.

Reported as of 2/9/07

BMP 11 Coverage: Conservation Pricing

Reporting Unit:
City of Santa Maria

Reporting
 Period:
05-06

MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period? No

An agency must meet one condition to comply with BMP 11.

Agency shall maintain rate structure consistent with BMP 11's definition of conservation pricing. Implementation methods shall be at least as effective as eliminating non-conserving pricing and adopting conserving pricing. For signatories supplying both water and sewer service, this BMP applies to pricing of both water and sewer service. Signatories that supply water but not sewer service shall make good faith efforts to work with sewer agencies so that those sewer agencies adopt conservation pricing for sewer service.

a) Non-conserving pricing provides no incentives to customers to reduce use. Such pricing is characterized by one or more of the following components: rates in which the unit price decreases as the quantity used increases (declining block rates); rates that involve charging customers a fixed amount per billing cycle regardless of the quantity used; pricing in which the typical bill is determined by high fixed charges and low commodity charges.

b) Conservation pricing provides incentives to customers to reduce average or peak use, or both. Such pricing includes: rates designed to recover the cost of providing service; and billing for water and sewer service based on metered water use. Conservation pricing is also characterized by one or more of the following components: rates in which the unit rate is constant regardless of the quantity used (uniform rates) or increases as the quantity used increases (increasing block rates); seasonal rates or excess-use surcharges to reduce peak demands during summer months; rates based upon the longrun marginal cost or the cost of adding the next unit of capacity to the system.

Test for Condition 1

<u>Year</u>	<u>Report Period</u>	<u>RU Employed Conserving WATER Rate Structure</u>	<u>RU Employed Conserving SEWER Rate Structure</u>	<u>RU Meets BMP 11 Coverage Requirement</u>
1999	99-00			
2000	99-00			
2001	01-02			
2002	01-02			
2003	03-04			
2004	03-04			
2005	05-06	YES	YES	YES
2006	05-06			

BMP 11 COVERAGE STATUS SUMMARY:

Water supplier is not currently on track to meet the coverage requirements for this BMP.

Reported as of 2/9/07

BMP 12 Coverage: Conservation CoordinatorReporting Unit:
City of Santa MariaReporting Period:
05-06**MOU Exhibit 1 Coverage Requirement**

No exemption request filed

Agency indicated "at least as effective as" implementation during report period?

Yes

Warning: The BMP 12 form is not 100% complete for one or more report years.
This may produce inaccurate results for this report.

Agency shall staff and maintain the position of conservation coordinator and provide support staff as necessary.

Test for Compliance

<u>Report Year</u>	<u>Report Period</u>	<u>Conservation Coordinator Position Staffed?</u>	<u>Total Staff on Team (incl. CC)</u>
1999	99-00	NO	2
2000	99-00	NO	2
2001	01-02	YES	3
2002	01-02	YES	3
2003	03-04	YES	3
2004	03-04	YES	3
2005	05-06	YES	3
2006	05-06	YES	3

BMP 12 COVERAGE STATUS SUMMARY:

Coverage status cannot be calculated. Water supplier data is missing that is required to calculate coverage status for this BMP.

Reported as of 2/9/07

BMP 13 Coverage: Water Waste Prohibition

Reporting Unit:

Reporting Period:

City of Santa Maria

05-06

MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period?

No

An agency must meet one condition to comply with BMP 13.

Implementation methods shall be enacting and enforcing measures prohibiting gutter flooding, single pass cooling systems in new connections, non-recirculating systems in all new conveyer car wash and commercial laundry systems, and non-recycling decorative water fountains.

Test for Condition 1

Agency or service area prohibits:

<u>Year</u>	<u>Gutter Flooding</u>	<u>Single-Pass Cooling Systems</u>	<u>Single-Pass Car Wash</u>	<u>Single-Pass Laundry</u>	<u>Single-Pass Fountains</u>	<u>Other</u>	<u>RU has ordinance that meets coverage requirement</u>
1999	YES	NO	YES	NO	NO	NO	NO
2000	YES	NO	YES	NO	NO	NO	NO
2001	YES	NO	YES	NO	NO	NO	NO
2002	YES	NO	YES	NO	NO	NO	NO
2003	YES	NO	YES	NO	NO	NO	NO
2004	YES	NO	YES	NO	NO	NO	NO
2005	YES	NO	YES	NO	NO	NO	NO
2006	YES	NO	YES	NO	NO	NO	NO

BMP 13 COVERAGE STATUS SUMMARY:

Water supplier is not currently on track to meet the coverage requirements for this BMP.

Reported as of 2/9/07

BMP 14 Coverage: Residential ULFT Replacement Programs

Reporting Unit: **City of Santa Maria**

MOU Exhibit 1 Coverage Requirement

A Reporting Unit (RU) must meet one of the following conditions to be in compliance with BMP 14.

Condition 1: Retrofit-on-resale (ROR) ordinance in effect in service area.

Condition 2: Water savings from toilet replacement programs equal to 90% of Exhibit 6 coverage requirement.

An agency with an exemption for BMP 14 is not required to meet one of the above conditions. This report treats an agency with missing base year data required to compute the Exhibit 6 coverage requirement as out of compliance with BMP 14.

Status: Water supplier is not currently on track to meet the coverage requirements for this BMP. as of 2006

<u>Coverage Year</u>	<u>BMP 14 Data Submitted to CUWCC</u>	<u>Exemption Filed with CUWCC</u>	<u>ROR Ordinance in Effect</u>	<u>Exhibit 6 Coverage Req'mt (AF)</u>	<u>Toilet Replacement Program Water Savings* (AF)</u>
2005	YES	NO	NO	45.15	
2006	NO	NO	NO	128.00	
2007	NO	NO	NO	242.12	
2008	NO	NO	NO	381.99	
2009	NO	NO	NO	542.87	
2010	NO	NO	NO	720.69	
2011	NO	NO	NO	911.95	
2012	NO	NO	NO	1113.67	
2013	NO	NO	NO	1323.29	
2014	NO	NO	NO	1538.61	

*NOTE: Program water savings listed are net of the plumbing code. Savings are cumulative (not annual) between 1991 and the given year. Residential ULFT count data from unsubmitted forms are NOT included in the calculation.

BMP 14 COVERAGE STATUS SUMMARY:

Water supplier is not currently on track to meet the coverage requirements for this BMP.

A copy of the complete document is available for public review during normal business hours at the following locations:

City of Santa Maria Utilities Department
2065 East Main Street
Santa Maria, CA 93454
(805) 925-0951 ext. 7270

or

City of Santa Maria, City Clerk's Office
110 East Cook Street, Room 3
Santa Maria, CA 93454
(805) 925-0951 ext. 307

Appendix F
Santa Maria Valley Groundwater Basin
Stipulation

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SUPERIOR COURT OF THE STATE OF CALIFORNIA
COUNTY OF SANTA CLARA

SANTA MARIA VALLEY WATER
CONSERVATION DISTRICT,

Plaintiff,

v.

CITY OF SANTA MARIA, et al.,

Defendants.

) SANTA MARIA GROUNDWATER
) LITIGATION
) Lead Case No. CV 770214
) (CONSOLIDATED FOR ALL PURPOSES)

) [Consolidated With Case Numbers:
) CV 784900; CV 785509; CV 785522;
) CV 787150; CV 784921; CV 785511;
) CV 785936; CV 787151; CV 784926;
) CV 785515; CV 786791; CV 787152;
) CV 036410]

AND RELATED CROSS-ACTIONS AND
ACTIONS CONSOLIDATED FOR ALL
PURPOSES

) San Luis Obispo County Superior Court Case
) Nos. 990738 and 990739

) [Assigned to Judge Jack Komar for All
) Purposes]

AMENDMENTS TO STIPULATION
POSTED ON JUNE 23, 2005

1 The following changes have been made to the Stipulation posted on June 23, 2005 by
2 Robert J. Saperstein of Hatch & Parent to the Santa Clara County Superior Court's Complex
3 Litigation website (<http://www.sccomplex.org/home/index.htm>). A revised Stipulation
4 containing the following changes has been posted concurrently with this document.

5 1. The title of the Stipulation has been changed to "Stipulation (June 30, 2005
6 version)".

7 2. Page 16, line 24:

8 "of Groundwater" has been inserted between "use" and "to".

9 3. Page 20, lines 6-8:

10 The text in Paragraph (g) has been deleted and replaced with:

11 "The cost of TMA-sponsored Extraordinary Project Opera-
12 tions and Capital Improvement Projects shall be divided
13 among Twitchell Participants on the same basis as the
allocation of their Twitchell Yield."

14 4. Page 21, lines 2-3:

15 The text of Paragraph 3 has been deleted and replaced with:

16 "No modification of land use authority. This Stipulation
17 does not modify the authority of the entity holding land use
approval authority over the proposed New Urban Uses."

18 5. Page 24, line 19:

19 A period has been added after "groups.yahoo.com/group/
20 NipomoCommunity/".

21 6. Exhibits. Page numbers have been placed at the bottom right-hand side of the
22 exhibits.

23 7. Exhibit B. Page 7 of the January 17, 2002 Brief of Conoco, et al. has been
24 included as the last page of Exhibit B.

25 8. Exhibit D. The entire description in the title page for Exhibit D has been deleted
26 and replaced with:

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- I. Maps Identifying Those Lands as of January 1, 2005:
 - a. within the boundaries of a municipality or its sphere of influence, or within the process of inclusion in its sphere of influence; or
 - b. within the certificated service area of a publicly regulated utility.
- II. List of selected parcels that are nearby the boundaries identified on the incorporated maps, which in addition to more distant parcels, are excluded from these new urban use areas.”

9. Exhibit D. The list of selected excluded parcels has been physically placed after the maps.

10. Exhibit D. Parcel 129-210-017 has been added to the list of selected excluded parcels.

11. Exhibit F. A final form of the “Santa Maria Valley Public Water Purveyor Water Management Agreement” has replaced the draft agreement previously posted. This final agreement includes the following changes to the draft agreement:

- a. Recital B. The phrase, “within its municipal boundaries” was deleted.
- b. Recital C. The phrase “and is attached as Exhibit A” has been added to the end of the recital. Exhibit A and its own attached exhibits have now been included in the revised posting.
- c. Correction of Section Numbering. Beginning with section 8 of the June 23, 2005 posting, the section numbers have been corrected into proper sequential order (e.g., old section 8 is now section 6, etc.)
- d. Section 4.1. The allocations of Twitchell Yield for the City of Santa Maria and the City of Guadalupe have been inserted.
- e. Section 5.3.2. “Exhibit A” has become “Exhibit B”.
- f. Section 6.1. The following has been added to the end of that section:

“The entities that have entered into the Reservation/
Purchase Agreements identified on Exhibit C to this Agree-
ment and Exhibit B to the 2004 Agreement are deemed to

1 have satisfied the requirements of this Section and are
2 exempt from the requirements of Section 6.2, below.”

- 3 g. Section 6.2. The following changes have been made to section 6.2, as
4 shown in the additions/deletions below:

5 “In addition to the fee paid to secure Supplemental Water
6 pursuant to the 2004 Agreement, an additional 20% shall be
7 charged to the SCWC Project Proponent by Santa Maria and
8 shall be placed into either the Twitchell operational fund or
9 the Twitchell capital fund. That incremental charge
10 deposited in the ~~Twitchell operational~~ applicable fund, shall
11 be deemed a SCWC contribution to offset any SCWC TMA
12 funding requirements.”

- 13 h. Section 7 (including sections 7.1 through 7.5), The “New Urban Uses –
14 Guadalupe,” provision has been added in its entirety:

15 “7.1 Guadalupe and Santa Maria agree that it is within
16 their mutual interests to cooperate and coordinate their
17 efforts to provide retail water service within their respective
18 service areas.

19 7.2 Guadalupe and Santa Maria mutually acknowledge
20 the benefits of importing SWP supplies to augment their use
21 of local groundwater.

22 7.3 It is to the mutual advantage of Guadalupe and Santa
23 Maria to have several alternatives for making use of their
24 SWP Entitlements, Return Flows and Twitchell Yield to
25 create flexibility, reliability, and cost effectiveness in their
26 water supply systems. Santa Maria and Guadalupe shall
27 each have the right to use the other’s unused Twitchell
28 Yield in any given year if needed.

7.4 Guadalupe and Santa Maria agree to work cooper-
atively to provide a reliable and cost effective mechanism
through which Santa Maria and Guadalupe can maximize
the use of their respective SWP supplies and Return Flows
within the Basin. Santa Maria agrees not to oppose any
effort by Guadalupe that is based on reliable data to increase
the fixed percentage of Guadalupe’s SWP Return Flow.

7.5 Santa Maria agrees to work cooperatively with
Guadalupe to provide Guadalupe with additional SWP
supplies. Guadalupe shall compensate Santa Maria through
a specified dollar amount or through an exchange of water
resources, as Guadalupe and Santa Maria deem appropriate.
As further consideration, Santa Maria shall have a right of
first refusal to purchase any SWP Return Flows that
Guadalupe elects to sell from its existing SWP Entitlement,
and any future SWP Entitlement, that are not for use within
or adjacent to Guadalupe's service area.”


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i. Section 20. The word “only” was added between “This Agreement shall”
and “be binding on...”

11. Exhibit H. The June 23, 2005 proposed versions of Exhibit H (two proposed forms) have been replaced in their entirety with two new forms. One form is intended to be used for recordation of notice of the Stipulation for properties located within Santa Barbara County, and the other form for properties located within San Luis Obispo County.

DATED: June 30, 2005

HATCH & PARENT

By 
Robert J. Saperstein
Attorneys for Defendants, Cross-Complainants and Cross-Defendants,
Southern California Water Company
and Rural Water Company

1 **PROOF OF SERVICE**

2 I am a resident of the State of California, over the age of eighteen years, and not a party to
3 the within action. My business address is HATCH & PARENT, 21 E. Carrillo Street, Santa
4 Barbara, California 93101.

5 Pursuant to the Court's Order dated June 28, 2000, I, Gina Lane, did the following:

- 6 • Posted the following document at approximately 4:30 p.m. on June 30, 2005.

7 AMENDMENTS TO STIPULATION POSTED ON JUNE 23, 2005

- 8 • Mailed a Notice of Availability to all parties (designating or defaulting to mail
9 service) on the current website's service list.

10 I am readily familiar with the firm's practice of collection and processing correspondence for
11 mailing. Under that practice it would be deposited with the U.S. Postal Service on that same day
12 with postage thereon fully prepaid in the ordinary course of business. I am aware that on motion
13 of the party served, service is presumed invalid if postal cancellation date or postage meter date is
14 more than one day after date of deposit for mailing in affidavit.

15 I declare under penalty of perjury under the laws of the State of California that the above
16 is true and correct.

17 Executed on June 30, 2005, at Santa Barbara, California.

18 
19 _____
20 GINA M. LANE

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SUPERIOR COURT OF THE STATE OF CALIFORNIA
COUNTY OF SANTA CLARA

SANTA MARIA VALLEY WATER
CONSERVATION DISTRICT,

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CITY OF SANTA MARIA, et al.,

Defendants.

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AND RELATED CROSS-ACTIONS AND
ACTIONS CONSOLIDATED FOR ALL
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) San Luis Obispo County Superior Court Case
) Nos. 990738 and 990739

) [Assigned to Judge Jack Komar for All
) Purposes]

STIPULATION (JUNE 30, 2005 VERSION)

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1 **I. INTRODUCTION -- ALL MANAGEMENT AREAS**

2 The Stipulating Parties hereby stipulate and agree to entry of judgment containing the
3 terms and conditions of this Stipulation.

4 **A. Parties and Jurisdiction**

5 1. Plaintiff and Cross-Defendant Santa Maria Valley Water Conservation District
6 (“District”) is a water conservation district organized under California Water Code section 74000,
7 *et seq.* The District does not pump Groundwater from the Basin.

8 2. Defendants, Cross-Complainants and Cross-Defendants the City of Santa Maria
9 (“Santa Maria”), City of Guadalupe (“Guadalupe”), Southern California Water Company
10 (“SCWC”), Nipomo Community Services District (“NCS D”), Rural Water Company (“RWC”),
11 City of Arroyo Grande (“Arroyo Grande”), City of Pismo Beach (“Pismo Beach”), City of Grover
12 Beach (“Grover Beach”) and Oceano Community Services District (“Oceano”) rely, in part, on
13 Groundwater to provide public water service to customers within the Basin.

14 3. Cross-Defendant County of San Luis Obispo (“San Luis Obispo”) is a subdivision
15 of the State of California. Cross-Defendant San Luis Obispo County Flood Control and Water
16 Conservation District (“SLO District”) is a public entity organized pursuant to the laws of the
17 State of California. Neither San Luis Obispo nor SLO District pumps Groundwater from the
18 Basin.

19 4. Cross-Defendant County of Santa Barbara (“Santa Barbara”) is a subdivision of
20 the State of California. Santa Barbara does not pump Groundwater from the Basin.

21 5. Numerous other Cross-Defendants and Cross-Complainants are Overlying
22 Owners. Many of these Overlying Owners pump Groundwater from the Basin, while others do
23 not currently exercise their Overlying Rights. Those Overlying Owners who are Stipulating
24 Parties are identified on Exhibit “A”.

25 6. This action presents an *inter se* adjudication of the claims alleged between and
26 among all Parties. This Court has jurisdiction over the subject matter of this action and over the
27 Parties herein.

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1 **B. Further Trial**

2 The Stipulating Parties recognize that not all Parties have entered into this Stipulation and
3 that a trial will be necessary as to all non-Stipulating Parties. No Stipulating Party shall interfere
4 or oppose the effort of any other Stipulating Party in the preparation and conduct of any such
5 trial. All Stipulating Parties agree to cooperate and coordinate their efforts in any trial or hearing
6 necessary to obtain entry of a judgment containing the terms and conditions of this Stipulation.
7 No Stipulating Party shall have any obligation to contribute financially to any future trial.

8 **C. Definitions**

9 As used in this Stipulation, the following terms shall have the meanings herein set forth:

- 10 1. Annual or Year – That period beginning January 1 and ending December
11 31.
- 12 2. Annual Report – The report prepared and filed with the Court annually for
13 each Management Area.
- 14 3. Appropriative Rights – The right to use surplus Native Groundwater for
15 reasonable and beneficial use.
- 16 4. Available State Water Project Water – The amount of SWP Water an
17 Importer is entitled to receive in a given Year based upon the California Department of Water
18 Resources final Table A allocation.
- 19 5. Basin - The groundwater basin described in the Phase I and II orders of the
20 Court, as modified, and presented in Exhibit “B”.
- 21 6. Developed Water – Groundwater derived from human intervention as of
22 the date of this Stipulation, which shall be limited to Twitchell Yield, Lopez Water, Return
23 Flows, and recharge resulting from storm water percolation ponds.
- 24 7. Groundwater – Twitchell Yield, Lopez Water, Return Flows, storm water
25 percolation, Native Groundwater and all other recharge percolating within the Basin.
- 26 8. Importer(s) – Any Party who brings Imported Water into the Basin. At the
27 date of this Stipulation, the Importers are Santa Maria, SCWC, Guadalupe, Pismo Beach, and
28 Oceano.

1 9. Imported Water – Water within the Basin, originating outside the Basin
2 that absent human intervention would not recharge or be used in the Basin.

3 10. Lopez Project – Lopez Dam and Reservoir located on Arroyo Grande
4 Creek, together with the associated water treatment plant, delivery pipeline and all associated
5 facilities, pursuant to State Water Resources Control Board permit No. 12814 (A-18375) and
6 pending application No. A-30826.

7 11. Lopez Water – Groundwater within the Basin derived from the operation of
8 the Lopez Project.

9 12. Management Areas – The three areas within the Basin that have sufficient
10 distinguishing characteristics to permit the water resources and facilities of each area to be
11 individually managed. The Management Areas are: the Northern Cities Management Area, the
12 Nipomo Mesa Management Area, and the Santa Maria Valley Management Area, as shown on
13 Exhibit "C".

14 13. Management Area Engineer – The individual(s) or consulting firm(s) that
15 are hired to prepare the Monitoring Plan(s) and Annual Report(s) for one or more of the
16 Management Areas.

17 14. Monitoring Parties – Those Parties responsible for conducting and funding
18 each Monitoring Program.

19 15. Monitoring Program – The data collection and analysis program to be con-
20 ducted within each Management Area sufficient to allow the preparation of the Annual Report.

21 16. Native Groundwater – Groundwater within the Basin, not derived from
22 human intervention, that replenishes the Basin through precipitation, stream channel infiltration,
23 tributary runoff, or other natural processes.

24 17. New Developed Water – Groundwater derived from human intervention
25 through programs or projects implemented after the date of this Stipulation.

26 18. New Urban Uses – Municipal and industrial use which may occur on land
27 that, as of January 1, 2005, was located: 1) within the boundaries of a municipality or its sphere of
28 influence, or within the process of inclusion in its sphere of influence; or 2) within the certificated

1 service area of a publicly regulated utility. The New Urban Use areas are identified in Exhibit
2 “D”. New Urban Uses does not include the current DJ Farms development within Guadalupe
3 City limits (including Santa Barbara County APN 113-080-18, 113-080-24).

4 19. Nipomo Mesa Management Area or NMMA – That Management Area
5 shown on Exhibit “C”.

6 20. Nipomo Mesa Management Area Technical Group – The committee
7 formed to administer the relevant provisions of the Stipulation regarding the Nipomo Mesa
8 Management Area.

9 21. Northern Cities Management Area – That Management Area which is part
10 of Zone #3 of the San Luis Obispo County Flood Control and Water Conservation District as
11 shown on Exhibit “C”.

12 22. Northern Cities – Arroyo Grande, Pismo Beach, Grover Beach and
13 Oceano.

14 23. Northern Parties – The Northern Cities, the Overlying Owners within the
15 Northern Cities Management Area, San Luis Obispo and the SLO District.

16 24. Overlying Right – The appurtenant right of an Overlying Owner to use
17 Native Groundwater for overlying, reasonable and beneficial use.

18 25. Overlying Owner(s) – Owners of land overlying the Basin who hold an
19 Overlying Right.

20 26. Party – Each Person in this consolidated action, whether a Stipulating
21 Party or a non-Stipulating Party.

22 27. Person – Any natural person, firm, association, organization, joint venture,
23 partnership, business, trust, corporation, or public entity.

24 28. Public Hearing – A hearing after notice to all Parties and to any other
25 person legally entitled to notice.

26 29. Return Flows – Groundwater derived from use and recharge within the
27 Basin of water delivered through State Water Project facilities.

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1 30. Santa Maria Valley Management Area – That Management Area shown on
2 Exhibit “C”.

3 31. Severe Water Shortage Conditions – Those conditions, as separately
4 defined in a Severe Water Shortage Response Plan for each Management Area, that trigger
5 certain discretionary and mandatory responses by the Stipulating Parties upon order of the Court.

6 32. Severe Water Shortage Response Plan – The discretionary and mandatory
7 responses for each Management Area that are to be implemented when Severe Water Shortage
8 Conditions exist.

9 33. State Water Project Water or SWP Water – Water imported through the
10 State of California State Water Resources Development System pursuant to Division 6, Part 6,
11 Chapter 8, of the California Water Code.

12 34. Stipulating Party – A Party that has signed this Stipulation, as listed in
13 Exhibit “A”, or its heirs, executors, administrators, trustees, successors, assigns, and agents.

14 35. Storage Space – The portion of the Basin capable of holding water for sub-
15 sequent reasonable and beneficial uses.

16 36. SWP Contract(s) – Those series of contracts that entitle the Importers to
17 use SWP facilities to bring Imported Water into the Basin.

18 37. Twitchell Management Authority or TMA – The committee formed to
19 administer the relevant provisions of the Stipulation regarding the Santa Maria Valley Manage-
20 ment Area.

21 38. Twitchell Participants – Those Stipulating Parties holding rights to
22 Twitchell Yield.

23 39. Twitchell Project – Dam and reservoir authorized by Congress as the
24 “Santa Maria Project” on September 3, 1954 (Public Law 774, 83d Congress, ch. 1258, 2d
25 session, 68 Stat. 1190) and located on the Cuyama River, approximately six miles upstream from
26 its junction with the Sisquoc River, pursuant to that certain License For Diversion And Use of
27 Water, License No. 10416, issued by the State Water Resources Control Board.

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1 40. *Twitchell Water* – Groundwater derived from operation of the Twitchell
2 Project.

3 41. *Twitchell Yield* – The total amount of Groundwater allocated annually to
4 the Twitchell Participants.

5 **II. EXHIBITS**

6 The following Exhibits are attached to this Stipulation and incorporated herein:

7 1. *Exhibit "A"*, list identifying the Stipulating Parties and the parcels of land
8 bound by the terms of this Stipulation.

9 2. *Exhibit "B"*, Phase I and II Orders, as modified, and the attached map
10 depicting the Santa Maria Basin.

11 3. *Exhibit "C"*, map of the Basin and boundaries of the three Management
12 Areas.

13 4. *Exhibit "D"*, map identifying those lands as of January 1, 2005: 1) within
14 the boundaries of a municipality or its sphere of influence, or within the process of inclusion in its
15 sphere of influence; or 2) within the certificated service area of a publicly regulated utility; and a
16 list of selected parcels that are nearby these boundaries which are excluded from within these
17 areas.

18 5. *Exhibit "E"*, 2002 Settlement Agreement between the Northern Cities and
19 Northern Landowners.

20 6. *Exhibit "F"*, the agreement among Santa Maria, SCWC and Guadalupe
21 regarding the Twitchell Project and the TMA.

22 7. *Exhibit "G"*, the Court's Order Concerning Electronic Service of Pleadings
23 and Electronic Posting of Discovery Documents dated June 27, 2000.

24 8. *Exhibit "H"*, the form of memorandum of agreement to be recorded.

25 **III. DECLARATION OF RIGHTS -- ALL MANAGEMENT AREAS**

26 The terms and conditions of this Stipulation set forth a physical solution concerning
27 Groundwater, SWP Water and Storage Space, consistent with common law water rights priorities.

28 ///

1 **A. Recognition of Priority of Overlying Rights**

2 Except as expressly modified by the settlement agreement among the Northern Parties
3 (Exhibit “E”), all Overlying Owners that are also Stipulating Parties have a prior and paramount
4 Overlying Right, whether or not yet exercised.

5 **B. Prescriptive Rights**

6 As to the Stipulating Parties, no Party has proved prescriptive rights to any Native
7 Groundwater. Future use by the Stipulating Parties will not be adverse and will not ripen into a
8 prescriptive right as between the Stipulating Parties.

9 **C. Appropriative Rights**

10 Consistent with the specific provisions governing each Management Area, the Stipulating
11 Parties owning and exercising Appropriative Rights have the right to the reasonable and bene-
12 ficial use of Native Groundwater that is surplus to the reasonable and beneficial uses of the
13 Stipulating Parties that are Overlying Owners. New appropriative uses shall be subordinate to
14 existing appropriations and shall be prioritized on a first in time, first in right basis.

15 **D. Developed Water Rights**

16 The Stipulating Parties owning Developed Water or New Developed Water have the right
17 to its reasonable and beneficial use, consistent with the specific provisions governing each
18 Management Area. The right to use Developed Water is a right to use commingled Groundwater
19 and is not limited to the corpus of that water.

20 **E. Rights to Storage Space**

21 The Court shall reserve jurisdiction over the use of the Storage Space, and any Party may
22 apply to the Court for the approval of a project using Storage Space. The Court must approve any
23 project using Storage Space before any Party can claim a right to stored water from that project.
24 The Stipulating Parties agree that Groundwater derived from Developed Water is exempt from
25 the Court approval requirements of this Paragraph.

26 **F. Other Surface Water Rights**

27 Nothing in this Stipulation affects or otherwise alters common law riparian rights or any
28 surface water rights, unless expressly provided in this Stipulation.

1 **IV. PHYSICAL SOLUTION – ALL MANAGEMENT AREAS**

2 **A. Authority**

3 Pursuant to Article X, section 2 of the California Constitution, the Stipulating Parties
4 agree that the Court has the authority to enter a judgment and physical solution containing the
5 terms and conditions of this Stipulation. Unless the Court imposes this physical solution, poten-
6 tial changes in water use could affect Basin adequacy and integrity. The Declaration of Rights is
7 a component of this physical solution.

8 **B. Purposes and Objectives**

9 The terms and conditions of this Stipulation are intended to impose a physical solution
10 establishing a legal and practical means for ensuring the Basin’s long-term sustainability. This
11 physical solution governs Groundwater, SWP Water and Storage Space, and is intended to ensure
12 that the Basin continues to be capable of supporting all existing and future reasonable and
13 beneficial uses. This physical solution is: 1) a fair and equitable basis for the allocation of water
14 rights in the Basin; 2) in furtherance of the mandates of the State Constitution and the water
15 policy of the State of California; and 3) a remedy that gives due consideration to applicable
16 common law rights and priorities to use Groundwater and Storage Space, without substantially
17 impairing any such right.

18 **C. Basin Management Areas**

19 Development and use of Groundwater, SWP Water and Storage Space have historically
20 been financed and managed separately in three Management Areas. For example, only the
21 Northern Parties have paid for, managed, and benefited from the Lopez Project; whereas only
22 Santa Maria Valley parties have paid for, managed, and benefited from the Twitchell Project. In
23 contrast, the Nipomo Mesa parties have not been involved in the funding or management of either
24 the Twitchell or Lopez Projects.

25 The Stipulating Parties agree that Groundwater, SWP Water and Storage Space can be
26 more efficiently allocated and managed in three Management Areas, given the physical, geo-
27 graphical, political, economic, and historic conditions. The three Management Areas, as shown
28 on Exhibit “C,” are as follows: Northern Cities Management Area; Nipomo Mesa Management

1 Area; and Santa Maria Valley Management Area. The Stipulating Parties intend that manage-
2 ment through three Management Areas will preserve the Basin's integrity.

3 **D. Groundwater Monitoring**

4 1. Monitoring Program. A Monitoring Program shall be established in each
5 of the three Management Areas to collect and analyze data regarding water supply and demand
6 conditions. Data collection and monitoring shall be sufficient to determine land and water uses in
7 the Basin, sources of supply to meet those uses, groundwater conditions including groundwater
8 levels and quality, the amount and disposition of Developed Water supplies, and the amount and
9 disposition of any other sources of water supply in the Basin. The Northern Cities Management
10 Area shall not be required to include in its Monitoring Program or Annual Reports quantification
11 of groundwater recharge from the Lopez Project or storm water percolation ponds, unless the
12 Court orders inclusion of this information.

13 Within one hundred and eighty days after entry of judgment, representatives of the Moni-
14 toring Parties from each Management Area will present to the Court for its approval their
15 proposed Monitoring Program. The Management Area Engineers shall freely share available well
16 data, groundwater models, and other products and tools utilized in monitoring and analysis of
17 conditions in the three Management Areas, consistent with the confidentiality provisions of this
18 Stipulation.

19 Absent a Court order to the contrary, all Stipulating Parties shall make available relevant
20 information regarding groundwater elevations and water quality data necessary to implement the
21 Monitoring Program approved for their respective Management Area. The Monitoring Parties
22 shall coordinate with the Stipulating Parties to obtain any needed data on reasonable terms and
23 conditions. Metering may only be imposed on Stipulating Parties upon a Court order following a
24 showing that such data is necessary to monitor groundwater conditions in the Basin, and in the
25 case of an Overlying Owner, that Overlying Owner has failed to provide information comparable
26 to that provided by other Overlying Owners. The confidentiality of well data from individual
27 owners and operators will be preserved, absent a Court order or written consent.

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2. Monitoring Parties. The Monitoring Parties are as follows:

- (a) Santa Maria Valley Management Area – The Twitchell Management Authority.
- (b) Northern Cities Management Area – The Northern Cities.
- (c) Nipomo Mesa Management Area – The NMMA Technical Group.

3. Annual Reports. Within one hundred and twenty days after each Year, the Management Area Engineers will file an Annual Report with the Court. The Annual Report will summarize the results of the Monitoring Program, changes in groundwater supplies, and any threats to Groundwater supplies. The Annual Report shall also include a tabulation of Management Area water use, including Imported Water availability and use, Return Flow entitlement and use, other Developed Water availability and use, and Groundwater use. Any Stipulating Party may object to the Monitoring Program, the reported results, or the Annual Report by motion.

4. Management Area Engineer. The Monitoring Parties may hire individuals or consulting firms to assist in the preparation of the Monitoring Programs and the Annual Reports. Except as provided below for the Santa Maria Valley Management Area, the Monitoring Parties, in their sole discretion, shall select, retain and replace the Management Area Engineer.

E. New Developed Water

1. Stipulating Parties in each Management Area may prepare and implement plans to develop, salvage or import additional water supplies.

2. The Stipulating Parties that pay, or otherwise provide consideration, for New Developed Water are entitled to use it to the extent the New Developed Water augments the water supplies in that Management Area. If more than one Stipulating Party finances or participates in generating New Developed Water, rights to the supply of New Developed Water shall be proportional to each Stipulating Party's financial contribution or other consideration, or as otherwise mutually agreed to by the participating Stipulating Parties. This paragraph does not apply to Return Flows.

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1 3. The Stipulating Parties who desire to claim New Developed Water supplies
2 must bring a motion, and obtain an order from the Court, quantifying and allocating the rights to
3 the New Developed Water, before they have the prior right to the New Developed Water.

4 **F. Severe Water Shortage Response**

5 This physical solution sets forth a Severe Water Shortage Plan for each Management Area
6 which is intended to provide an effective response to Severe Water Shortage Conditions that may
7 develop within each or all of the Management Areas. The specific Severe Water Shortage Plans
8 for each Management Area are incorporated herein and made a part of the physical solution.

9 **V. PHYSICAL SOLUTION: PROVISIONS SPECIFIC TO SANTA MARIA VALLEY**
10 **MANAGEMENT AREA**

11 As supplemented by the provisions of this Stipulation that apply to all Management Areas,
12 the following terms govern rights to Groundwater, SWP Water and Storage Space in the Santa
13 Maria Valley Management Area.

14 **A. Water Rights to Sources of Supply**

15 1. Overlying Rights. The Stipulating Parties who are Overlying Owners
16 within the Santa Maria Valley Management Area each have the prior and paramount right to use
17 Native Groundwater. Subject to Paragraph V(C)(2)(b)(vi), all Overlying Rights are appurtenant
18 to the overlying land and cannot be assigned or conveyed separate or apart from those lands.

19 2. Appropriative Rights. The Parties listed in Exhibit "A" are the owners of
20 Appropriative Rights exercised in the Santa Maria Valley Management Area. Each Appropriative
21 Right is limited to Native Groundwater that is surplus to reasonable and beneficial uses of the
22 Stipulating Parties that are Overlying Owners in the Santa Maria Valley Management Area. New
23 appropriative uses shall be subordinate to existing Appropriative Rights and shall be prioritized
24 on a first in time, first in right basis.

25 3. Developed Water. The Stipulating Parties owning Developed Water have
26 the right to its reasonable and beneficial use, subject only to the Severe Water Shortage Plan. On
27 an annual basis, the Stipulating Parties shall have the right to the reasonable and beneficial use of
28 Developed Water that is surplus to the reasonable and beneficial uses of the owners of that

1 Developed Water. The right to use Developed Water is a right to use commingled Groundwater
2 and is not limited to the corpus of that water.

3 (a) New Developed Water. The ownership and use of New Developed
4 Water shall be subject to Court order.

5 (b) Twitchell Water.

6 (i) *Amount*. The Twitchell Project annually provides a variable
7 amount of Developed Water that augments the Groundwater in the Santa Maria Valley Manage-
8 ment Area. Twitchell Yield is thirty-two thousand acre-feet per year (“afy”).

9 (ii) *Division of Twitchell Yield*. Twitchell Yield shall be
10 divided as follows: 80% to Santa Maria, SCWC and Guadalupe, and 20% to the Overlying
11 Owners within the District who are Stipulating Parties.

12 a. The Twitchell Yield allocated to Santa Maria,
13 SCWC and Guadalupe is suballocated pursuant to the agreement among Santa Maria, SCWC and
14 Guadalupe, as attached and incorporated herein as Exhibit “F”.

15 b. The Twitchell Yield allocated to the Overlying
16 Owners who are Stipulating Parties within the District shall be equally allocated to each acre of
17 land within the District owned by these Stipulating Parties. Concurrently with the execution of
18 this Stipulation, each of these Stipulating Parties shall report their acreage of overlying land
19 within the District on a parcel specific basis. Within one hundred and twenty days of the effec-
20 tive date of this Stipulation, the Management Area Engineer shall create a list of all the Stipu-
21 lating Parties and their respective allocation of the Twitchell Yield.

22 (iii) *Recapture of Twitchell Yield*. The right to use Twitchell
23 Yield is a right to use commingled Groundwater and is not limited to the corpus of that water.

24 (iv) *Transfer of Twitchell Yield*. Twitchell Yield may be trans-
25 ferred, temporarily or permanently, only between Stipulating Parties and the transfer market shall
26 be as open and competitive as practical. A memorandum of agreement summarizing each transfer
27 shall be filed with the Court and provided to the TMA. Any such memorandum of agreement
28 shall state the Parties to the transfer, the amount of Twitchell Yield transferred, the price per acre-

1 foot, and the Party responsible for the financial obligation associated with the Twitchell Yield.

2 (v) *Carryover.* Any portion of Twitchell Yield that is not used
3 in a given Year shall not be carried over into the following Year.

4 (c) State Water Project Water.

5 (i) *Import and Use of State Water Project Water.* Santa Maria,
6 SCWC and Guadalupe all have SWP Contracts. Santa Maria will import and use within the Santa
7 Maria Valley Management Area not less than 10,000 acre-feet each Year of Available SWP
8 Water, or the full amount of Available SWP Water if the amount physically available is less than
9 10,000 acre-feet in a given Year under Santa Maria's SWP Contract. Guadalupe will import and
10 use within the Santa Maria Valley Management Area a minimum of 75% of its Available SWP
11 Water. SCWC will import and use within the Basin all its Available SWP Water. Santa Maria,
12 SCWC and Guadalupe will not voluntarily relinquish or terminate their current SWP Contracts,
13 and shall seek renewal of these SWP Contracts.

14 (ii) *Return Flows.*

15 a. *Fixed Amount.* The Return Flows available to each
16 Importer is fixed based on a percentage of the annual amount of SWP Water the Importer uses
17 within the Basin. The fixed percentage for each importer is as follows: (a) Santa Maria 65%; (b)
18 SCWC 45%; and (c) Guadalupe 45%. The percentage provided to SCWC and Guadalupe shall
19 be adjusted through a Court order if: a) either entity increases its use of water imported into the
20 Basin, b) the applicable method of wastewater treatment and discharge to the Basin is altered, or
21 c) good cause is shown.

22 b. *Recapture.* The right to use Return Flows does not
23 attach to the corpus of SWP water deliveries or the treated SWP wastewater discharged into the
24 Basin but is a right to use the commingled Groundwater. The Importer's right to Return Flows is
25 assignable in whole or in part, subject to necessary accounting.

26 c. *Quantification of Return Flows.* Return Flows equal
27 the total amount of SWP Water used by the Importer in the prior five Years, divided by five, and
28 then multiplied by the Importer's percentage as provided in Paragraph V(A)(3)(c)(ii)(a) above.

1 d. Carryover. Any portion of Return Flows that is not
2 used in a given Year shall not be carried over into the following Year.

3 **B. Monitoring and Management**

4 1. Status of Management Area. Current Groundwater and SWP Water sup-
5 plies are sustaining existing water uses. Changes in land and water use and demographic con-
6 ditions can be expected to occur, possibly resulting in changes in water supply or demand
7 requirements.

8 2. Need for Monitoring. Monitoring and reporting of changes in land and
9 water use and demographic conditions are necessary to ensure that water supplies continue to be
10 sufficient to support water uses.

11 3. Monitoring Program.

12 (a) Annual Report: Content and Processing.

13 The Annual Report shall include an analysis of the relationship between projected water demands
14 and projected water supplies.

15 (i) The Annual Report shall be prepared and signed by the
16 Management Area Engineer, and shall be simultaneously submitted to the Court and the TMA.

17 (ii) Within forty-five days of submission, the TMA shall hold a
18 noticed public hearing to take comments on and consider for adoption the Annual Report. No
19 later than forty-five days from the date of the public hearing, the TMA shall submit to the Court
20 its recommendations regarding the Annual Report.

21 (iii) Within one hundred and twenty days of the date of the
22 submission of the Annual Report to the Court, it shall conduct a noticed hearing on the Annual
23 Report. Any Party may submit comments on the Annual Report. After the hearing, the Court
24 shall accept the Annual Report or direct its modification.

25 (b) Management Area Engineer

26 (i) Absent the unanimous consent of the TMA, the Manage-
27 ment Area Engineer shall not concurrently be employed by any Party holding rights to use
28 Groundwater in the Santa Maria Valley Management Area.

1 (ii) The Management Area Engineer shall initially be the engin-
2 eering firm of Luhdorff & Scalmanini. Luhdorff & Scalmanini shall be the Management Area
3 Engineer for a minimum of the shorter of five years from the date of this Stipulation or the date
4 upon which Mr. Joseph Scalmanini discontinues full time work for that firm.

5 (iii) The TMA shall employ the following process to replace the
6 Management Area Engineer:

7 a. The TMA shall solicit candidates for Management
8 Area Engineer through a public process. All submissions and candidate materials shall be avail-
9 able to any Party upon request. The TMA shall conduct its interview through a public process to
10 the extent practical, and include District and Overlying Owner representatives in the candidate
11 review process.

12 b. Once a short list of candidates (less than five) for
13 Management Area Engineer is obtained, the TMA shall hold a noticed public hearing to take
14 comments on and consider the candidates for Management Area Engineer. The TMA shall make
15 a reasonable effort to select the Management Area Engineer with a unanimous vote. If the TMA
16 unanimously endorses a candidate, that nominee shall be recommended to the Court. Otherwise,
17 the short list of candidates shall be submitted.

18 c. The Court shall appoint the Management Area
19 Engineer following a noticed hearing.

20 4. Funding. The TMA shall pay for the Monitoring Program for the Santa
21 Maria Valley Management Area, which includes the cost of the Management Area Engineer and
22 the Annual Report. The cost of the Monitoring Program shall be divided among the Twitchell
23 Participants on the same basis as the allocation of their Twitchell Yield.

24 **C. Response to Varying Conditions**

25 1. Early Response to Avoid Severe Water Shortage Conditions. If the Man-
26 agement Area Engineer determines that projected demands are expected to materially exceed
27 projected water supplies, then the Management Area Engineer may recommend programs and
28 projects to augment the Management Area's water supplies. The Stipulating Parties will collabo-

1 rate on a response based upon current conditions, but absent Severe Water Shortage Conditions,
2 implementation of programs and projects will not be mandated.

3 The Stipulating Parties may voluntarily participate in any recommended program or
4 project, either through financial or other contributions. The Stipulating Parties that contribute to
5 such a program or project shall have a priority to the water supplies generated by that program or
6 project with Court approval. The Stipulating Parties agree to aggressively pursue New
7 Developed Water sources, including necessary funding.

8 2. Severe Water Shortage Conditions and Response.

9 (a) Determination. Severe Water Shortage Conditions shall be found
10 to exist when the Management Area Engineer, based on the results of the ongoing Monitoring
11 Program, finds the following: 1) groundwater levels in the Management Area are in a condition of
12 chronic decline over a period of not less than five Years; 2) the groundwater decline has not been
13 caused by drought; 3) there has been a material increase in Groundwater use during the five-Year
14 period; and 4) monitoring wells indicate that groundwater levels in the Santa Maria Valley
15 Management Area are below the lowest recorded levels.

16 (b) Response.

17 (i) If the Management Area Engineer determines that Severe
18 Water Shortage Conditions exist within the Santa Maria Valley Management Area, the Manage-
19 ment Area Engineer shall file and serve, as part of its Annual Report, findings and recommen-
20 dations to alleviate such shortage conditions or the adverse effects caused by such water shortage.

21 (ii) Upon the filing of the Annual Report, the Court shall hold a
22 noticed hearing regarding the existence and appropriate response to the Severe Water Shortage
23 Conditions. If, after that hearing, the Court finds that Severe Water Shortage Conditions exist in
24 the Santa Maria Valley Management Area, the Court shall first order all use of Groundwater to be
25 limited to: (a) for Guadalupe, Santa Maria and SCWC, their Developed Water; (b) entitled
26 Stipulating Parties to their New Developed Water; and (c) for the Overlying Owners, the Native
27 Groundwater plus any Developed Water to which individual Overlying Owners are entitled.

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1 (iii) The Court may also order Stipulating Parties to address
2 specific adverse effects caused by the Severe Water Shortage Conditions. The responses may
3 include, but are not limited to: (a) measures recommended in the Annual Report and the related
4 Court proceedings; and (b) other measures intended to address localized problems in the Santa
5 Maria Valley Management Area directly related to the Severe Water Shortage Conditions.

6 (iv) The Court may adjust the Groundwater use limitations
7 imposed on any Stipulating Party(ies) who implement programs or projects providing additional
8 water supplies within the Santa Maria Valley Management Area.

9 (v) If the Court finds that Management Area conditions have
10 deteriorated since it first found Severe Water Shortage Conditions, the Court may impose further
11 limitations on Groundwater use. If the Court imposes further limitations on Groundwater use, a
12 Stipulating Party shall be exempt from those limitations to the extent: (a) the Stipulating Party can
13 demonstrate that it has already implemented limitations in its Groundwater use, equivalent to
14 those ordered by the Court; or (b) the Stipulating Party can demonstrate that further limitations
15 would not avoid or reduce the deteriorating conditions.

16 (vi) During Severe Water Shortage Conditions, the Stipulating
17 Parties may make agreements for temporary transfer of rights to pump Native Groundwater,
18 voluntary fallowing, or the implementation of extraordinary conservation measures. Transfers of
19 Native Groundwater must benefit the Management Area and be approved by the Court.

20 **D. Management and Administration of the Twitchell Project**

21 1. Operational Parameters. All Twitchell Project operations (operation and
22 maintenance and capital projects) will be performed consistent with the following parameters
23 (Operational Parameters):

24 (a) Maximize recharge of the Santa Maria Valley Management Area
25 from Twitchell Water, including without limitation, the avoidance of impacts on recharge
26 resulting from ongoing accumulation of silt to the maximum extent practical.

27 (b) Operate the Twitchell Project in accordance with the requirements
28 of applicable law including, without limitation, the requirements of the Bureau of Reclamation

1 and Army Corps of Engineers.

2 (c) Operate the Twitchell Project in accordance with industry standards
3 and best management practices.

4 2. Twitchell Project Manual.

5 (a) The TMA will hire and pay for a professional engineering con-
6 sulting firm with expertise in dam and reservoir operations and maintenance, acceptable to the
7 District and the TMA, to develop an integrated operation and maintenance procedure manual
8 (“Twitchell Project Manual”) and provide recommendations for capital and maintenance projects
9 that are consistent with the Operational Parameters.

10 (b) The District shall hold one or more public hearings to solicit input
11 regarding the content of the Twitchell Project Manual.

12 (c) Within eighteen months of entry of the judgment, the TMA and the
13 District shall adopt a final Twitchell Project Manual.

14 (d) Any disagreement between the District and the TMA regarding the
15 content of the final Twitchell Project Manual shall be presented for Court review and determina-
16 tion pursuant to the judicial review provisions provided in this Stipulation.

17 (e) The District will exercise its discretionary authority to conduct all
18 its operation and maintenance activities for the Twitchell Project in accordance with the Twitchell
19 Project Manual.

20 3. Twitchell Project Funding.

21 (a) District will maintain its current operation and maintenance (O&M)
22 assessments. These funds will be used for District staff salaries, property, equipment, rent,
23 expenses, and other day-to-day operations, and will be expended consistent with the Twitchell
24 Project Manual to the extent it is applicable.

25 (b) The TMA will separately fund, administer, construct and manage
26 any additional Twitchell Project expenses or projects, including Capital Improvement Projects
27 (see below) and O&M, (Extraordinary Project Operations) consistent with the Twitchell Project
28 Manual. The TMA and the District will make reasonable efforts to work cooperatively to imple-

1 ment Extraordinary Project Operations.

2 (c) Consistent with the provisions of this Paragraph V(D), the District
3 and the TMA shall be responsible for ensuring the ongoing operational integrity of the Twitchell
4 Project and the maintenance of the Twitchell Yield. The Stipulating Parties expect that this
5 ongoing responsibility may involve significant expenditures. Within 120 days of the effective
6 date of this Stipulation, and annually thereafter, the Twitchell Participants shall establish an
7 operating budget for the TMA to fund its responsibilities set forth in this Stipulation. For the first
8 five years following the PUC approval as provided below, the TMA's annual budget shall be
9 established at an amount between \$500,000 to \$700,000. Following the initial budgeting period,
10 the TMA shall set its budget in three- to five-year increments, as it deems necessary to meet its
11 obligations to preserve the Twitchell Yield. Any unused revenues shall be segregated into a
12 reserve account, for future funding needs of the Twitchell Project. The Stipulating Parties agree
13 to cooperate and coordinate their efforts to enable the TMA to fulfill its responsibilities as pro-
14 vided in this Stipulation.

15 4. Twitchell Management Authority.

16 (a) The TMA shall be comprised of one representative of each of the
17 following parties: Santa Maria, Guadalupe, Southern California Water Company, the District, and
18 Overlying Landowners holding rights to Twitchell Yield.

19 (b) Only those parties holding an allocation of Twitchell Yield shall be
20 voting members of the TMA. Voting shall be based on each party's proportionate allocation of
21 Twitchell Yield.

22 (c) The TMA shall be responsible for all the Extraordinary Project
23 Operations.

24 (d) The TMA shall be responsible for developing proposals for Capital
25 Improvement Projects relating to the Twitchell Project. Capital Improvement Projects shall mean
26 projects involving the expenditure of funds for the improvement or enhancement of the Twitchell
27 Project, but shall not include normal operation, maintenance or repair activities.

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1 (e) Upon the development of a proposal for a Capital Improvement
2 Project, the TMA shall, in cooperation with the District, hold one or more public hearings to
3 solicit input.

4 (f) Following the public hearing process, the TMA may vote on
5 whether to implement the Capital Improvement Project.

6 (g) The cost of TMA-sponsored Extraordinary Project Operations and
7 Capital Improvement Projects shall be divided among Twitchell Participants on the same basis as
8 the allocation of their Twitchell Yield.

9 (h) The District shall assume operation and maintenance responsibility
10 for any TMA sponsored Capital Improvement Project to the extent practical within the District's
11 day-to-day operations.

12 5. Regulatory Compliance. The TMA or the District shall provide advance
13 notice to the Court and all Parties of the initiation of any regulatory proceeding relating to the
14 Twitchell Project.

15 6. Existing Contracts. The Twitchell Reservoir Project will continue to be
16 governed by and subject to the terms and conditions of the December 1955 agreement between
17 the District and the Santa Barbara County Water Agency and nothing in this Stipulation is
18 intended to modify the rights or obligations provided in that agreement. To the extent that the
19 approval of Santa Barbara County Water Agency or the United States Bureau of Reclamation is
20 required in connection with the implementation of this Stipulation, the Stipulating Parties agree to
21 work cooperatively to obtain such approval(s).

22 **E. New Urban Uses – Santa Maria Valley Management Area**

23 1. New Urban Uses shall obtain water service from the local public water
24 supplier. The local public water supplier shall provide water service on a reasonable and non-
25 discriminatory basis.

26 2. New municipal and industrial uses on land adjacent to or within one-
27 quarter mile of the boundary line depicted in Exhibit D shall comply with any applicable Cor-
28 porations Code provisions and negotiate in good faith to obtain water service from the local

1 public water supplier, before forming a mutual water company to provide water service.

2 3. No modification of land use authority. This Stipulation does not modify
3 the authority of the entity holding land use approval authority over the proposed New Urban
4 Uses.

5 4. New Urban Uses shall provide a source of supplemental water to offset the
6 water demand associated with that development. For the purposes of this section, supplemental
7 water shall include all sources of Developed Water, except: i) Twitchell Water, ii) storm water
8 percolation ponds existing as of the date of entry of the judgment, or iii) Overlying Owners' right
9 to use of surplus Developed Water.

10 **VI. PHYSICAL SOLUTION: PROVISIONS SPECIFIC TO NIPOMO MESA MAN-**
11 **AGEMENT AREA**

12 As supplemented by the provisions of this Stipulation that apply to all Management Areas,
13 the following terms shall apply to the Nipomo Mesa Management Area.

14 **A. Supplemental Water**

15 1. MOU. NCS D has entered into a Memorandum of Understanding
16 ("MOU") with Santa Maria which contemplates the wholesale purchase and transmission from
17 Santa Maria to the NMMA of a certain amount of water each Year (the "Nipomo Supplemental
18 Water"). All water delivered pursuant to the MOU for delivery by NCS D to its ratepayers shall
19 be applied within the NCS D or the NCS D's sphere of influence as it exists at the time of the
20 transmission of that water.

21 2. The NCS D agrees to purchase and transmit to the NMMA a minimum of
22 2,500 acre-feet of Nipomo Supplemental Water each Year. However, the NMMA Technical
23 Group may require NCS D in any given Year to purchase and transmit to the NMMA an amount
24 in excess of 2,500 acre-feet and up to the maximum amount of Nipomo Supplemental Water
25 which the NCS D is entitled to receive under the MOU if the Technical Group concludes that such
26 an amount is necessary to protect or sustain Groundwater supplies in the NMMA. The NMMA
27 Technical Group also may periodically reduce the required amount of Nipomo Supplemental
28 Water used in the NMMA so long as it finds that groundwater supplies in the NMMA are not

1 endangered in any way or to any degree whatsoever by such a reduction.

2 3. The Stipulating Parties agree to support (and, conversely, not to oppose in
3 any way or to encourage or assist any other Person or party in opposing or challenging) the imple-
4 mentation of the MOU, which includes environmental and regulatory permits and approvals, the
5 approval of a wholesale water supply agreement between Santa Maria and NCSD, and the
6 alignment and construction of a pipeline and related infrastructure necessary to deliver the
7 Nipomo Supplemental Water from Santa Maria to the NMMA (“Nipomo Supplemental Water
8 Project”). ConocoPhillips retains the right to object to or provide input on the alignment of any
9 pipelines associated with the Nipomo Supplemental Water Project if they might interfere with the
10 location of existing ConocoPhillips pipelines. The Stipulating Parties retain their rights to be
11 compensated for any interest or property acquired in implementing the Nipomo Supplemental
12 Water Project.

13 4. NCSD and Santa Maria shall employ their best efforts to timely implement
14 the Nipomo Supplemental Water Project, subject to their quasi-judicial obligations specified for
15 administrative actions and in the California Environmental Quality Act.

16 5. The enforcement of the provisions of Paragraph VI(D) below is condi-
17 tioned upon the full implementation of the Nipomo Supplemental Water Project, including the
18 Yearly use of at least 2,500 acre-feet of Nipomo Supplemental Water (subject to the provisions of
19 Paragraph VI(A)(2) above) within the NMMA. In the event that Potentially Severe Water
20 Shortage Conditions or Severe Water Shortage Conditions are triggered as referenced in Para-
21 graph VI(D) before Nipomo Supplemental Water is used in the NMMA, NCSD, SCWC,
22 Woodlands and RWC agree to develop a well management plan that is acceptable to the NMMA
23 Technical Group, and which may include such steps as imposing conservation measures, seeking
24 sources of supplemental water to serve new customers, and declaring or obtaining approval to
25 declare a moratorium on the granting of further intent to serve or will serve letters. In the event
26 that it becomes apparent that the Nipomo Supplemental Water will not be fully capable of being
27 delivered, any Stipulating Party may apply to the Court, pursuant to a noticed motion, for appro-
28 priate modifications to this portion of the Stipulation and the judgment entered based upon the

1 terms and conditions of this Stipulation, including declaring this Paragraph VI to be null and void,
2 and of no legal or binding effect.

3 6. Once the Nipomo Supplemental Water is capable of being delivered, those
4 certain Stipulating Parties listed below shall purchase the following portions of the Nipomo
5 Supplemental Water Yearly:

6 NCS D - 66.68%

7 Woodlands Mutual Water Company - 16.66%

8 SCWC - 8.33%

9 RWC - 8.33%

10 **B. Rights to Use Groundwater**

11 1. ConocoPhillips and its successors-in-interest shall have the right to the
12 reasonable and beneficial use of Groundwater on the property it owns as of the date of this Stipu-
13 lation located in the NMMA (“ConocoPhillips Property”) without limitation, except in the event
14 the mandatory action trigger point (Severe Water Shortage conditions) described in Paragraph
15 VI(D) (2) below is reached. Further, any public water supplier which provides water service to
16 the ConocoPhillips Property may exercise that right subject to the limitation described in Para-
17 graph VI(D)(2).

18 2. Overlying Owners that are Stipulating Parties that own land located in the
19 NMMA as of the date of this Stipulation shall have the right to the reasonable and beneficial use
20 of Groundwater on their property within the NMMA without limitation, except in the event the
21 mandatory action trigger point (Severe Water Shortage Conditions) described in Paragraph
22 VI(D)(2) below is reached.

23 3. The Woodlands Mutual Water Company shall not be subject to restriction
24 in its reasonable and beneficial use of Groundwater, provided it is concurrently using or has made
25 arrangements for other NMMA parties to use within the NMMA, the Nipomo Supplemental
26 Water allocated to the Woodlands in Paragraph VI(A)(5). Otherwise, the Woodlands Mutual
27 Water Company shall be subject to reductions equivalent to those imposed on NCS D, RWC and
28 SCWC, as provided in Paragraph VI(D)(1-2).

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2 **C. NMMA Technical Group**

3 1. The NMMA Technical Group shall include representatives appointed by
4 NCSD, SCWC, ConocoPhillips, Woodlands Mutual Water Company and an agricultural Over-
5 lying Owner who is also a Stipulating Party.

6 2. The NMMA Technical Group shall develop a Monitoring Program for the
7 NMMA (“NMMA Monitoring Program”), which shall be consistent with the Monitoring
8 Program described in Paragraph IV(D). The NMMA Monitoring Program shall also include the
9 setting of well elevation and water quality criteria that trigger the responses set forth in Paragraph
10 D below. The Stipulating Parties shall provide monitoring and other production data to the
11 NMMA Technical Group at no charge, to the extent that such data has been generated and is
12 readily available. The NMMA Technical Group shall adopt rules and regulations concerning
13 measuring devices and production reports that are, to the extent feasible, consistent with the
14 Monitoring Programs for other Management Areas. If the NMMA Technical Group is unable to
15 agree on any aspect of the NMMA Monitoring Program, the matter may be resolved by the Court
16 pursuant to a noticed motion.

17 3. The NMMA Technical Group meetings shall be open to any Stipulating
18 Party. NMMA Technical Group files and records shall be available to any Stipulating Party upon
19 written request. Notices of the NMMA Technical Group meetings, as well as all its final work
20 product (documents) shall be posted to groups.yahoo.com/group/NipomoCommunity/

21 4. The NMMA Technical Group functions shall be funded by contribution
22 levels to be negotiated by NCSD, SCWC, RWC, ConocoPhillips, and Woodlands Mutual Water
23 Company. In-lieu contributions through engineering services may be provided, subject to agree-
24 ment by those parties. The budget of the NMMA Technical Group shall not exceed \$75,000 per
25 year without prior approval of the Court pursuant to a noticed motion.

26 5. Any final NMMA Technical Group actions shall be subject to *de novo*
27 Court review by motion.

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2 **D. Potentially Severe and Severe Water Shortage Conditions**

3 1. Caution trigger point (Potentially Severe Water Shortage Conditions)

4 (a) Characteristics. The NMMA Technical Group shall develop
5 criteria for declaring the existence of Potentially Severe Water Shortage Conditions. These
6 criteria shall be approved by the Court and entered as a modification to this Stipulation or the
7 judgment to be entered based upon this Stipulation. Such criteria shall be designed to reflect that
8 water levels beneath the NMMA as a whole are at a point at which voluntary conservation
9 measures, augmentation of supply, or other steps may be desirable or necessary to avoid further
10 declines in water levels.

11 (b) Responses. If the NMMA Technical Group determines that Poten-
12 tially Severe Water Shortage Conditions have been reached, the Stipulating Parties shall coordi-
13 nate their efforts to implement voluntary conservation measures, adopt programs to increase the
14 supply of Nipomo Supplemental Water if available, use within the NMMA other sources of
15 Developed Water or New Developed Water, or implement other measures to reduce Groundwater
16 use.

17 2. Mandatory action trigger point (Severe Water Shortage Conditions)

18 (a) Characteristics. The NMMA Technical Group shall develop the
19 criteria for declaring that the lowest historic water levels beneath the NMMA as a whole have
20 been reached or that conditions constituting seawater intrusion have been reached. These criteria
21 shall be approved by the Court and entered as a modification to this Stipulation or the judgment to
22 be entered based upon this Stipulation.

23 (b) Responses. As a first response, subparagraphs (i) through (iii) shall
24 be imposed concurrently upon order of the Court. The Court may also order the Stipulating
25 Parties to implement all or some portion of the additional responses provided in subparagraph (iv)
26 below.

27 (i) For Overlying Owners other than Woodlands Mutual Water
28 Company and ConocoPhillips, a reduction in the use of Groundwater to no more than 110% of

1 the highest pooled amount previously collectively used by those Stipulating Parties in a Year,
2 prorated for any partial Year in which implementation shall occur, unless one or more of those
3 Stipulating Parties agrees to forego production for consideration received. Such forbearance shall
4 cause an equivalent reduction in the pooled allowance. The base Year from which the calculation
5 of any reduction is to be made may include any prior single Year up to the Year in which the
6 Nipomo Supplemental Water is transmitted. The method of reducing pooled production to 110%
7 is to be prescribed by the NMMA Technical Group and approved by the Court. The quantifica-
8 tion of the pooled amount pursuant to this subsection shall be determined at the time the manda-
9 tory action trigger point (Severe Water Shortage Conditions) described in Paragraph VI(D)(2) is
10 reached. The NMMA Technical Group shall determine a technically responsible and consistent
11 method to determine the pooled amount and any individual's contribution to the pooled amount.
12 If the NMMA Technical Group cannot agree upon a technically responsible and consistent
13 method to determine the pooled amount, the matter may be determined by the Court pursuant to a
14 noticed motion.

15 (ii) ConocoPhillips shall reduce its Yearly Groundwater use to
16 no more than 110% of the highest amount it previously used in a single Year, unless it agrees in
17 writing to use less Groundwater for consideration received. The base Year from which the calcu-
18 lation of any reduction is to be made may include any prior single Year up to the Year in which
19 the Nipomo Supplemental Water is transmitted. ConocoPhillips shall have discretion in deter-
20 mining how reduction of its Groundwater use is achieved.

21 (iii) NCSD, RWC, SCWC, and Woodlands (if applicable as
22 provided in Paragraph VI(B)(3) above) shall implement those mandatory conservation measures
23 prescribed by the NMMA Technical Group and approved by the Court.

24 (iv) If the Court finds that Management Area conditions have
25 deteriorated since it first found Severe Water Shortage Conditions, the Court may impose further
26 mandatory limitations on Groundwater use by NCSD, SCWC, RWC and the Woodlands. Manda-
27 tory measures designed to reduce water consumption, such as water reductions, water restrictions,
28 and rate increases for the purveyors, shall be considered.

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2 (v) During Severe Water Shortage Conditions, the Stipulating
3 Parties may make agreements for temporary transfer of rights to pump Native Groundwater,
4 voluntary fallowing, or the implementation of extraordinary conservation measures. Transfer of
5 Native Groundwater must benefit the Management Area and be approved by the Court.

6 **E. New Urban Uses**

7 1. Within the sphere of influence or service area. New Urban Uses shall
8 obtain water service from the local public water supplier. The local public water supplier shall
9 provide water service on a reasonable and non-discriminatory basis.

10 2. Outside the sphere of influence or service area. New municipal and indus-
11 trial uses on land adjacent to or within one quarter mile of the boundary line depicted in Exhibit D
12 shall comply with any applicable Corporations Code provisions, including good faith negotiations
13 with the local water purveyor(s), prior to forming a mutual water company to provide water
14 service.

15 3. The ConocoPhillips property, owned as of the date of this Stipulation and
16 located within the NMMA, is not in the sphere of influence or service area, nor is it in the process
17 of being included in the sphere of influence, of a municipality or within the certificated service
18 area of a publicly regulated utility as of the date of this Stipulation, nor is it adjacent to or in close
19 proximity to the sphere of influence of a municipality or the certificated service area of a publicly
20 regulated utility as of the date of this Stipulation, as those terms are used in Paragraphs VI(E)(1
21 and 2).

22 4. No modification of land use authority. This Stipulation does not modify the
23 authority of the entity holding land use approval authority over the proposed New Urban Uses.

24 5. New Urban Uses as provided in Paragraph VI(E)(1) above and new muni-
25 cipal and industrial uses as provided in Paragraph VI(E)(2) above shall provide a source of
26 supplemental water, or a water resource development fee, to offset the water demand associated
27 with that development. For the purposes of this Paragraph, supplemental water shall include all
28 sources of Developed Water or New Developed Water.

1 **VII. PHYSICAL SOLUTION: PROVISIONS SPECIFIC TO NORTHERN CITIES**
2 **MANAGEMENT AREA**

3 These terms, supplemented by the provisions of this Stipulation that apply to all
4 Management Areas, govern water rights and resources in the Northern Cities Management Area.

5 1. Groundwater Monitoring. Groundwater monitoring in the Northern Cities
6 Management Area will be conducted by the Northern Cities in the manner described above.

7 2. Lopez Project. The Lopez Project will continue to be managed by the SLO
8 District. The Northern Cities and Landowners will continue to bear costs of the Lopez Reservoir
9 and no costs of the Twitchell Reservoir.

10 3. Independent Management Per Settlement Agreement.

11 (a) Existing Groundwater, SWP Water and Storage Space in the
12 Northern Cities Management Area will continue to be allocated and independently managed by
13 the Northern Parties in accordance with the Northern Cities and Northern Landowners' 2002
14 Settlement Agreement (Exhibit "E") for the purpose of preserving the long-term integrity of water
15 supplies in the Northern Cities Management Area. That Settlement Agreement initially allocates
16 57% of the safe yield of groundwater in Zone 3 to the farmers and 43% to the cities; and it
17 provides *inter alia* that any increase or decrease in the safe yield will be shared by the cities and
18 landowners on a pro rata basis. That Settlement Agreement is reaffirmed as part of this Stipula-
19 tion and its terms are incorporated into this Stipulation, except that the provisions regarding con-
20 tinuing jurisdiction (§ 4), groundwater monitoring, reporting, and the Technical Oversight
21 Committee (§§ 7-20) are canceled and superseded by the provisions of this Stipulation dealing
22 with those issues.

23 (b) Without the written agreement of each of the Northern Cities, no
24 party other than Northern Parties shall have any right to:

25 (i) pump, store, or use Groundwater or surface water within the
26 Northern Cities Management Area; or

27 (ii) limit or interfere with the pumping, storage, management or
28 usage of Groundwater or surface water by the Northern Parties within the Northern Cities

1 Management Area.

2 (c) For drought protection, conservation, or other management pur-
3 poses, the Northern Parties may engage in contractual transfers, leases, licenses, or sales of any of
4 their water rights, including voluntary fallowing programs. However, no Groundwater produced
5 within the Northern Cities Management Area may be transported outside of the Northern Cities
6 Management Area without the written agreement of each of the Northern Cities.

7 4. Current and future deliveries of water within the spheres of influence of the
8 Northern Cities as they exist on January 1, 2005 shall be considered existing uses and within the
9 Northern Cities Management Area.

10 **VIII. INJUNCTION – ALL MANAGEMENT AREAS**

11 **A. Use Only Pursuant to Stipulation**

12 Each and every Stipulating Party, their officers, agents, employees, successors and
13 assigns, are enjoined and restrained from exercising the rights and obligations provided through
14 this Stipulation in a manner inconsistent with the express provisions of this Stipulation.

15 **B. Injunction Against Transportation From the Basin**

16 Except upon further order of the Court, each and every Stipulating Party and its officers,
17 agents, employees, successors and assigns, is enjoined and restrained from transporting Ground-
18 water to areas outside the Basin, except for those uses in existence as of the date of this Stipula-
19 tion; provided, however, that Groundwater may be delivered for use outside the Basin as long as
20 the wastewater generated by that use of water is discharged within the Basin, or agricultural
21 return flows resulting from that use return to the Basin.

22 **C. No Third Party Beneficiaries**

23 This Stipulation is intended to benefit the Stipulating Parties and no other Parties. Only a
24 Stipulating Party may enforce the terms of this Stipulation or assert a right to any benefits of, or
25 enforce any obligations contained in this Stipulation.

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1 **IX. RESERVED JURISDICTION – ALL MANAGEMENT AREAS**

2 **A. Reserved Jurisdiction; Modifications, Cancellations, Amendments**

3 Jurisdiction, power and authority are retained by and reserved to the Court as set forth in
4 this Paragraph. Nothing in the Court's reserved jurisdiction shall authorize modification, cancel-
5 lation or amendment of the rights provided under Paragraphs III; V(A, E); VI(A, B, D); VII(2, 3);
6 VIII(A); IX(A, C); and X(A, D) of this Stipulation. Subject to this limitation, the Court shall
7 make such further or supplemental orders as may be necessary or appropriate regarding the
8 following:

- 9 1. enforcement of this Stipulation;
- 10 2. claims regarding waste/unreasonable use of water;
- 11 3. disputes between Stipulating Parties across Management Area boundaries;
- 12 4. interpretation and enforcement of the judgment;
- 13 5. consider the content or implementation of a Monitoring Program;
- 14 6. consider the content, conclusions, or recommendations contained in an
15 Annual Report;
- 16 7. consider Twitchell Project operations, including, but not limited to: i) the
17 content of the Twitchell Project Manual; ii) TMA or District compliance
18 with the Twitchell Project Manual; iii) decisions to implement Extraor-
19 dinary Project Operations; or iv) the maintenance of Twitchell Yield;
- 20 8. claims of localized physical interference between the Stipulating Parties in
21 exercising their rights pursuant to this Stipulation; provided, however,
22 rights to use Groundwater under this Stipulation shall have equal status;
23 and
- 24 9. modify, clarify, amend or amplify the judgment and the Northern Parties
25 Settlement Agreement; Provided, however, that all of the foregoing shall
26 be consistent with the spirit and intent of this Stipulation.

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1 **B. Noticed Motion**

2 Any party that seeks the Court’s exercise of reserved jurisdiction shall file a noticed
3 motion with the Court. Any noticed motion shall be made pursuant to the Court’s Order Con-
4 cerning Electronic Service of Pleadings and Electronic Posting of Discovery Documents dated
5 June 27, 2000, attached and incorporated as Exhibit “G”. Any request for judicial review shall be
6 filed within sixty days of the act or omission giving rise to the claim. Upon a showing of good
7 cause, the Court may extend the sixty-day time limitation.

8 **C. De Novo Nature of Proceeding**

9 The Court shall exercise *de novo* review in all proceedings. The actions or decisions of
10 any Party, the Monitoring Parties, the TMA, or the Management Area Engineer shall have no
11 heightened evidentiary weight in any proceedings before the Court.

12 **D. Filing and Notice**

13 As long as the Court’s electronic filing system remains available, all Court filings shall be
14 made pursuant to Exhibit “G”. If the Court’s electronic filing system is eliminated and not
15 replaced, the Stipulating Parties shall promptly establish a substitute electronic filing system and
16 abide by the same rules as contained in the Court’s Order.

17 **X. MISCELLANEOUS PROVISIONS – ALL MANAGEMENT AREAS**

18 **A. Unenforceable Terms**

19 The Stipulating Parties agree that if any provision of this Stipulation or the judgment
20 entered based on this Stipulation is held to be invalid, void, or unenforceable, the remaining pro-
21 visions shall nevertheless continue in full force and effect; provided, however, any order which
22 invalidates, voids, deems unenforceable, or materially alters those Paragraphs enumerated in
23 Paragraph IX(A) or any of them, shall render the entirety of the Stipulation and the judgment
24 entered based on this Stipulation voidable and unenforceable, as to any Stipulating Party who
25 files and serves a motion to be released from the Stipulation and the judgment based upon the
26 Stipulation within sixty days of entry of that order, and whose motion is granted upon a showing
27 of good cause.

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1 **B. Water Quality**

2 Nothing in the Stipulation shall be interpreted as relieving any Stipulating Party of its
3 responsibilities to comply with state or federal laws for the protection of water quality or the
4 provisions of any permits, standards, requirements, or orders promulgated thereunder.

5 **C. Duty to Cooperate**

6 The Stipulating Parties agree not to oppose, or in any way encourage or assist any other
7 party in opposing or challenging, any action, approval, or proceeding necessary to obtain
8 approval of or make effective this Stipulation or the judgment to be entered on terms consistent
9 with this Stipulation.

10 **D. Stipulating Parties Under Public Utilities Commission Regulation**

11 1. To the extent allowed by law, SCWC and RWC shall comply with this
12 Stipulation, prior to obtaining California Public Utilities Commission (“PUC”) approval. If the
13 PUC fails to approve SCWC’s and RWC’s participation or fails to provide approval of the neces-
14 sary rate adjustments so that SCWC and RWC may meet their respective financial obligations,
15 including the participation in Developed Water projects, Monitoring Programs, TMA and as
16 otherwise provided in this Stipulation, shall render the entirety of the Stipulation and those terms
17 of any judgment based on this Stipulation invalid, void and unenforceable, as to any Stipulating
18 Party who files and serves a notice of rescission within sixty days of notice by SCWC or RWC of
19 a final PUC Order.

20 2. Any Party, or its successors or assigns, agreeing to become a new customer
21 of SCWC or RWC, or an existing customer proposing to increase its water use through a change
22 in land use requiring a discretionary land use permit or other form of land use entitlement, that
23 has not executed reservation contracts for supplemental water as specified in Exhibit F will
24 provide the following, once approved by the PUC:

25 (a) If in the Santa Maria Valley Management Area, a water resource
26 development fee as specified in Exhibit F or a source of supplemental water sufficient to offset
27 the consumptive demand associated with the new use as provided in Paragraph V(E); or

28 ///

1 (b) If in the NMMA, a water resource development fee, or a source of
2 supplemental water sufficient to offset the consumptive demand associated with the new use.

3 3. Any Person who is not engaged in a New Urban Use and who agrees to
4 become a customer of SCWC or RWC shall retain its right to contest the applicable water
5 resource development fee, should that fee ever become applicable to that Person.

6 **E. Designation of Address, for Notice and Service**

7 Each Stipulating Party shall designate the name, address and e-mail address, if any, to be
8 used for purposes of all subsequent notices and service, either by its endorsement on the Stipula-
9 tion for entry of judgment or by a separate designation to be filed within thirty days after execu-
10 tion of this Stipulation. This designation may be changed from time to time by filing a written
11 notice with the Court. Any Stipulating Party desiring to be relieved of receiving notices may file
12 a waiver of notice on a form approved by the Court. The Court shall maintain at all times a
13 current list of Parties to whom notices are to be sent and their addresses for purposes of service.
14 The Court shall also maintain a full current list of names, addresses, and e-mail addresses of all
15 Parties or their successors, as filed herein. Copies of such lists shall be available to any Person.
16 If no designation is made, a Stipulating Party's designee shall be deemed to be, in order of
17 priority: i) the Party's attorney of record; ii) if the Party does not have an attorney of record, the
18 Party itself at the address specified.

19 **F. No Loss of Rights**

20 Nothing in this Stipulation shall be interpreted to require or encourage any Stipulating
21 Party to use more water in any Year than is actually required. As between the Stipulating Parties,
22 failure to use all of the water to which a Stipulating Party is entitled hereunder shall not, no matter
23 how long continued, be deemed or constitute an abandonment or forfeiture of such Stipulating
24 Party's rights, in whole or in part.

25 **G. Intervention After Judgment**

26 Any Person who is not a Party or successor to a Party, who proposes to use Groundwater
27 or Storage Space, may seek to become a Party to the judgment through a petition for intervention.
28 The Court will consider an order confirming intervention following thirty days notice to the

1 Parties. Thereafter, if approved by the Court, such intervenor shall then be a Party bound by the
2 judgment as provided by the Court.

3 **H. Stipulation and Judgment Binding on Successors, Assigns, etc.**

4 The Stipulating Parties agree that all property owned by them within the Basin is subject
5 to this Stipulation and the judgment to be entered based upon the terms and conditions of this
6 Stipulation. This Stipulation and the judgment will be binding upon and inure to the benefit of
7 each Stipulating Party and their respective heirs, executors, administrators, trustees, successors,
8 assigns, and agents. This Stipulation and the judgment to be entered based the terms and condi-
9 tions of this Stipulation shall not bind the Stipulating Parties that cease to own property within the
10 Basin, or cease to use Groundwater. As soon as practical after the effective date of this Stipula-
11 tion, a memorandum of agreement referencing this Stipulation shall be recorded in Santa Barbara
12 and San Luis Obispo Counties by Santa Maria, in cooperation with the Northern Cities and
13 SCWC. The document to be recorded shall be in the format provided in Exhibit "H".

14 **I. Costs**

15 No Stipulating Party shall recover any costs or attorneys fees from another Stipulating
16 Party incurred prior to the entry of a judgment based on this Stipulation.

17 **J. Non-Stipulating Parties**

18 It is anticipated that the Court will enter a single judgment governing the rights of all
19 Parties in this matter. The Stipulating Parties enter into this Stipulation with the expectation that
20 the Court will enter, as a part of the judgment, the terms and conditions of this Stipulation. This
21 Stipulation shall not compromise, in any way, the Court's legal and equitable powers to enter a
22 single judgment that includes provisions applicable to the non-Stipulating Parties that may
23 impose differing rights and obligations than those applicable to the Stipulating Parties. As against
24 non-Stipulating Parties, each Stipulating Party expressly reserves and does not waive its right to
25 appeal any prior or subsequent ruling or order of the Court, and assert any and all claims and
26 defenses, including prescriptive claims. The Stipulating Parties agree they will not voluntarily
27 enter into a further settlement or stipulation with non-Stipulating Parties that provides those non-
28 Stipulating Parties with terms and conditions more beneficial than those provided to similarly

1 situated Stipulating Parties.

2 **K. Counterparts**

3 This Stipulation may be signed in any number of counterparts, including counterparts by
4 facsimile signature, each of which shall be deemed an original, but all of which shall together
5 constitute one and the same instrument. The original signature pages shall be filed with Court.

6 **L. Effective Date**

7 This Stipulation shall be effective when signed by the Stipulating Parties listed on Exhibit
8 “A” and accepted by the Court.

Party	Signature, title, and date	Parcels Subject to Stipulation
Attorney of Record	Approved as to form: By: _____ Date: _____	

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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 HATCH & PARENT, 21 E. Carrillo Street, Santa Barbara, California 93101.

Pursuant to the Court's Order dated June 28, 2000, I, Gina Lane, did the following:

- Posted the following document at approximately 4:30 p.m. on June 30, 2005.

STIPULATION (JUNE 30, 2005 VERSION)

- Mailed a Notice of Availability to all parties (designating or defaulting to mail service) on the current website's service 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.

I declare under penalty of perjury under the laws of the State of California that the above is true and correct.

Executed on June 30, 2005, at Santa Barbara, California.



GINA M. LANE

EXHIBIT A

**Stipulating Parties and Parcels of Land
Bound by Terms of Stipulation**

Santa Maria Valley Water Conservation District v. City of Santa Maria
Santa Clara County Superior Court Case No. CV 770214

Awaiting complete list of Stipulating Parties

EXHIBIT B

**Phase I and II Orders (as modified)
and Santa Maria Basin Map**

Santa Maria Valley Water Conservation District v. City of Santa Maria
Santa Clara County Superior Court Case No. CV 770214

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA
IN AND FOR THE COUNTY OF SANTA CLARA
DEPARTMENT 17

SANTA MARIA VALLEY WATER)	Case No. CV 770214
CONSERVATION DISTRICTS, A PUBLIC)	
ENTITY,)	ORDER AFTER HEARING GRANTING
) NIPOMO COMMUNITY SERVICES)	
Plaintiff,)	DISTRICT'S MOTION FOR SUMMARY
)	ADJUDICATION
vs.)	
)	
CITY OF SANTA MARIA, A MUNICIPAL)	
CORPORATION, ET AL.)	
)	
_____)	
AND RELATED CROSS-ACTIONS.)	
)	
_____)	

The above-entitled matter came on regularly for hearing on January 8, 2001, at 1:30 p.m., the Honorable Conrad L. Rushing presiding. Counsel Robert Dougherty appeared on behalf of the Land Owner Group Parties and Steven Saxton, appeared on behalf of Plaintiffs and James Markman appeared on behalf of Nipomo Community Services District, Henry Weinstock appeared on behalf of Northern Cities and Ryan Bezzera appeared on behalf of Rancho Maria, et al. The Court, having read and considered the supporting and opposing papers, and having heard and considered the arguments of counsel, and good cause appearing therefor, makes the following order:

IT IS ORDERED THAT:

Nipomo Community Services District's Motion for Summary Adjudication is GRANTED. The Court grants all joinders. Based on the Land Owner Group's concession that the adoption of the "Foreman Line" is appropriate, as well as the concession offered by Mr. Slade that he does not disagree with Mr. Foreman on the "outermost" basin boundary, the Court finds that there is no triable issue of material fact as to the "outermost" basin boundary as articulated in the Declaration of Terry Foreman, dated December 8, 2000, and as depicted on Exhibit 1 thereto¹. (See Nipomo's Statement of Material Fact #3, evidence in support and in opposition thereto.) Therefore, the moving parties are entitled to judgment on all affirmative defenses dealing with uncertainty of the basin boundaries.

The Court finds that the outermost lateral boundary of the Santa Maria Valley Groundwater Basin ("the Basin") lies along a type of material that does not readily transmit water, that is, for the purposes of this case, it is impermeable (impermeable is used here to mean only that the rocks, sediments and other materials do not readily transmit water). Thus, material (rock, sediments, sand, etc.) that do readily transmit water are within the basin.

Those that do not readily store and transmit water are the Foxen Formation or older, including the Franciscan Formation, the Knoxville Formation, the Monterey Formation, the Obispo Formation, and the Sisquoc Formation; and those that do readily store and transmit water are the Careaga Sandstone or younger, including the Careaga Formation, the Pismo Formation, the Paso Robles Formation, time-

¹The boundary described herein is shown on that certain map marked Exhibit 1, by a black dash double dot line and said Exhibit is in evidence and a part of this Order.

equivalent Paso Robles Formation, Orcutt Formation, terrace deposits, young and old alluvium, and dune and sand deposits, with the following three exceptions:

- a. The southern boundary along the Solomon Hills is located on the axis of antic lines where the Careaga Sandstone and Paso Robles Formation dip in the Basin on the north side of the axis and dip into a separate basin, the San Antonio Basin, on the south side of the axis;
- b. Where the Basin boundary crosses tributary streams, the boundary is located across the mouth of each such stream to directly connect the closest bedrock contacts on each side of that stream; and,
- c. The western boundary of the Basin is the Pacific Ocean.

The vertical boundary of the Basin is located at the contact between those rocks and sediments that readily store and transmit water (generally, the Careaga Formation and younger) and those rocks and sediments that do not readily store and transmit water (generally, the Foxen Formation and older) as described above in reference to the lateral boundary of the Basin, except that in the northeast portion of the area north of the Santa Maria River, the vertical Basin boundary extends to the base of the Obispo tuffs of the Obispo Formation. The Obispo tuffs underlie the alluvium of the Nipomo Valley, and extend beneath the Paso Robles Formation northerly to the Arroyo Grande Valley.

SO ORDERED.

Dated: January 9, 2001

[ORIGINAL SIGNED]
CONRAD L. RUSHING

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KIRI TORPE
Clerk of the Court
State of California County of Santa Clara
BY: [Signature] DEPUTY

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**SUPERIOR COURT OF CALIFORNIA
COUNTY OF SANTA CLARA
DEPARTMENT 17C**

SANTA MARIA VALLEY WATER
CONSERVATION DISTRICTS, a
public entity,

Plaintiff,

vs.

CITY OF SANTA MARIA, a municipal
corporation, et al.,

Defendants,

Case No. CV 770214

ORDER AFTER HEARING RE:
TRIAL (PHASE II)

Hearing Date: October 9, 2001
Time: 8:45 a.m.
Dept.: 17C

Judge: Hon. Conrad L. Rushing

AND RELATED CROSS-ACTIONS

Trial of Phase II of the above-entitled matter came on regularly on October 9, 2001, at 10:00 a.m., the Honorable Conrad L. Rushing presiding. The Court, having considered the testimony, declarations and exhibits, and good cause appearing therefor, issues the following decision and order:

Plaintiff's motion for an order establishing the geographic area constituting the Santa Maria Groundwater Basin (hereinafter "Basin"), for the purposes of this case, is hereby GRANTED.

The Court finds that the boundary of the Basin is that described on the map filed as Exhibit 5 with the Declaration of Robert C. Wagner dated November 20, 2001 (which can be found currently at <http://www.sccomplex.org/docfiles/QD0CB28E06D5.pdf>), hereinafter referred to as the

1 "Boundary Line." Each of the parties to the Phase II proceedings on October 9, 2001, stipulated to
2 the Court's determining the Boundary Line of the Basin. The Basin shall also include for purposes
3 of adjudication herein all those parcels of land, which are shown on the said Exhibit 5 and listed on
4 Exhibit 6 to the said Declaration of Robert C. Wagner, which either touch or are intersected by the
5 Boundary Line, to the full extent of the perimeter of such parcels. The Court has not at this time
6 received full briefing as to whether there are legal issues as to such parcels which touch or are
7 intersected by the Boundary Line, concerning whether owners of such parcels may appropriate water
8 from the Basin for the use of the remainder of the subject parcels, whether the owners of such parcels
9 are considered to be landowners or purveyors, or whether their rights to extract or export water are
10 affected by their parcels not being fully within the Basin. Thus, at this time, until further order, the
11 Court orders that those parcels are to be considered within the Basin.

12 The Court finds on the basis of the evidence presented that the Boundary Line demarcates
13 the boundary of the Basin, and that the Basin constitutes the area beneath which groundwater exists
14 in sufficient quantities to be meaningfully included in this lawsuit. The Court also finds that the
15 area previously included in the "outermost basin boundary," but excluded by the Boundary Line,
16 contains potentially water-bearing materials, but nevertheless lacks actual groundwater in amounts
17 sufficient to justify including that area in this case for purposes of adjudicating the various claims
18 to groundwater in the Basin. Owners of lands beneath which no significant groundwater supply
19 exists do not have property right claims concerning such water that present a justiciable issue.
20 Similarly, owners of lands beneath which no significant groundwater supply exists should not be
21 permitted to assert, by virtue of their ownership of such lands, claims respecting groundwater
22 supplies underlying adjacent or nearby lands.

23 The Court further finds that the Declaration of Robert C. Wagner dated November 20, 2001,
24 attached to this Order, along with Mr. Wagner's map and table of parcels, attached as Exhibits 5 and
25 6, set forth sufficient detail regarding the specific parcels traversed by the Basin Boundary Line so
26 as to apprise potentially affected landowners and other interested parties of the location of the Basin
27 and Boundary Line fixed by this Order. A digital rendition of the map prepared by Mr. Wagner to
28 depict affected parcels is posted for inspection on the Court's website.

2 The Court determines that only the lands, groundwater extraction claims and claims to
3 groundwater storage rights within the Boundary Line shall be subject to claims in this lawsuit. The
4 Court has considered the possibility that ground water charging and storage might extend the
5 boundaries of the basin but finds at this point that there is insufficient evidence of that affecting the
6 prospective orders to be made by this Court.

7 The motion of the Northern Cities (joined by other parties) that the Northern Cities Area be
8 conditionally severed from this litigation, is denied. The Northern Cities Area is also shown on the
9 map which is attached as Exhibit 5 to the Declaration of Wagner. That area shall remain within the
10 Basin and Boundary Line fixed in this Order. The Court finds that a comprehensive judgment in this
11 litigation is advisable and necessary, in that only such a comprehensive judgment would prevent later
12 litigation of the same issues, prevent the risk of rulings which are inconsistent, and prevent erroneous
13 rulings which may be affected by facts which would be adduced if the interests of all parties who
14 may be affected by these rulings were represented and involved throughout this litigation. Cases
15 cited by the proponents of severance can also be read as indicating that retaining the Northern Cities
16 Area in the litigation is necessary to render an effective judgment. Orange County Water District
17 v. City of Riverside (1959) 173 Cal.App.2d 137, 173 ("Undoubtedly the preferable course is, so
18 far at least as is practicable, to 'have all owners of lands on the watershed and all appropriators who
19 use water in court at the same time"); City of Chino v. Superior Court (1967) 255 Cal.App.2d
20 747, 752 ("Because of the failure of OCWD in that earlier suit to join as defendants all claimants to
21 prescriptive rights to water from the Upper and Middle Basins, many questions were left
22 unanswered").

23 The Court has listened to the testimony and read the exhibits submitted, and additionally the
24 supplemental memorandum of Richard C. Slade and supplemental declaration of Terry L. Foreman.
25 The Court finds that there is no substantial controversy that the Northern Cities Area, the Nipomo
26 Mesa and the Santa Maria Valley area all overlie one large groundwater basin. Each area is subject
27 to the same general climatologic and hydrologic conditions. The Court concludes there are no
28 geologic or hydrologic features that separate the Northern Cities Area from the remainder of the
Basin encompassed by this litigation. The Court must consider that the water rights to be

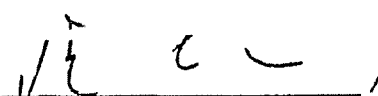
1 determined in this litigation will apply to situations that might occur in other than a "best case"
2 scenario. Future conditions could produce adverse impacts, such as drought, earthquake, failure of
3 the Lopez Reservoir, or failure of the Northern Cities for other reasons to adhere to the so-called
4 'gentlemen's agreement' governing groundwater pumping in the Northern Cities Area.
5 Representatives of the Northern Cities failed to stipulate to quieting title in other parties who have
6 sued the Northern Cities for whatever rights they may possess, and failed to stipulate that they would
7 desist from claiming water rights in the remainder of the Basin in such an eventuality. Indeed, it
8 appears from the testimony that groundwater pumping in the Northern Cities area can potentially
9 increase the flow of water to it from other parts of the Basin.

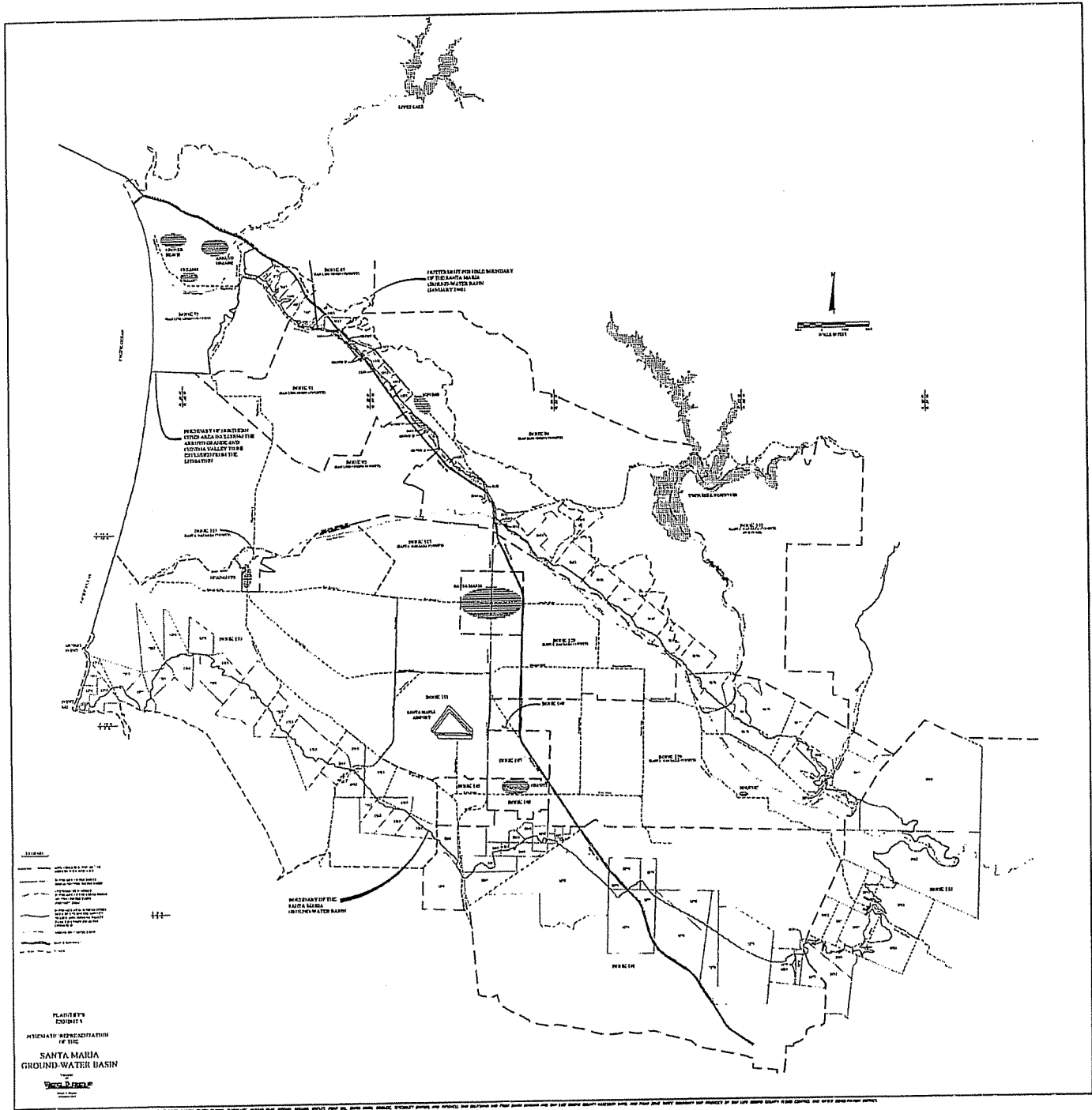
10 The parties reluctance to retain the Northern Cities area in the litigation appears to stem from
11 the prospect of joining and serving all landowners in the Northern Cities area whose rights may
12 potentially be affected. It may be possible, however, to obtain effective representation and due
13 process for such landowners by means of a class action, after due notice is provided, in which such
14 landowners are a defendant class. United States v. Truckee-Carson Irrigation District (D.Nev. 1975)
15 71 F.R.D. 10. The Court would entertain a motion to amend the cross-complaints or other pleadings
16 to join the landowners in that area as a defendant class, represented by a handful of interested
17 landowners who are similarly situated, in lieu of joinder of each owner. The Court would also
18 entertain a motion, briefing and argument as to why it may be inappropriate or inconvenient to
19 adjudicate the matter by means of a defendant class.

20 Any litigant now in the action who is asserting a quiet title claim concerning property outside
21 of the Boundary Line must move for severance of that claim from this action and must file such a
22 motion on or before thirty (30) days following service of this Order. Any such claims for which no
23 motion to sever is filed will be dismissed without prejudice on motion of any party or by the Court
24 on its own motion.

25 SO ORDERED.

26
27 Dated DEC 21 2001

28 
CONRAD L. RUSHING
Judge of the Superior Court



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FILED

JAN 25 2002

KARL TORRE
Chief Justice
Superior Court of the County of Santa Clara
BY: RICHARD D. SALKER Deputy

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**SUPERIOR COURT OF CALIFORNIA
COUNTY OF SANTA CLARA
DEPARTMENT 17C**

SANTA MARIA VALLEY WATER
CONSERVATION DISTRICTS, a
public entity,

Plaintiff,

vs.

CITY OF SANTA MARIA, a municipal
corporation, et al.,

Defendants,

AND RELATED CROSS-ACTIONS

Case No. CV 770214

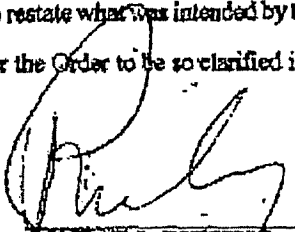
ORDER WITH RESPECT TO BRIEF OF
CONOCO, INC., NUEVO ENERGY
COMPANY, AERA ENERGY LLC,
TEXACO EXPLORATION AND
PRODUCTION, INC. AND CHEVRON
USA, INC.

IT IS HEREBY ORDERED:

The Court shall not be holding a hearing with respect to the brief of Conoco, Inc., Nuevo Energy Company, Aero Energy LLC, Texaco Exploration And Production Inc., and Chevron USA Inc., or request for clarification requested therein. The Court finds that the request for clarification found in the Conclusion section of the said Brief appears to restate what was intended by the Court's Order filed December 21, 2002. The parties may consider the Order to be so clarified if it aids in further proceedings in this matter.

SO ORDERED.

Dated: JAN 25 2002


CONRAD L. RUSHING
Judge of the Superior Court

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SCOTT K. KUNEY, Esq., SB# 111115
 ERNEST A. CONANT, Esq., SB# 89111
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 (661) 327-9661

Attorneys for Cross-Defendants, Conoco Inc.,
 Nuevo Energy Company, Aera Energy LLC
 and ChevronTexaco

ENDORSED
FILED
 JAN 17 2002
 OFFICE OF THE CLERK
 Santa Clara County
 BY Neil Gage DEPUTY

**SUPERIOR COURT OF THE STATE OF CALIFORNIA
 IN AND FOR THE COUNTY OF SANTA CLARA**

SANTA MARIA VALLEY WATER)	SANTA MARIA GROUNDWATER
CONSERVATION DISTRICT, a public)	LITIGATION
entity,)	
)	Lead Case No. CV 770214
Plaintiff,)	
)	Judge Conrad L. Rushing
vs.)	
)	
CITY OF SANTA MARIA, et al)	
)	
Defendants.)	

AND RELATED CROSS-ACTIONS		

**BRIEF OF CONOCO, INC., NUEVO ENERGY COMPANY,
 AERA ENERGY LLC, TEXACO EXPLORATION AND
 PRODUCTION INC., AND CHEVRON USA INC.**

I.

INTRODUCTION

This Brief is filed on behalf of Defendants/Cross-Complainants Conoco Inc., Nuevo Energy Company, Aera Energy LLC and Texaco Exploration and Production Inc. and Chevron USA Inc,

1 (recently merged and hereinafter known as ChevronTexaco), (collectively referred to as "Oil
2 Group") parties.

3
4 On January 8, 2001, this Court entered its order after hearing granting the Santa Maria Valley
5 Water Conservation District and Nipomo Community Service District's motion for summary
6 judgment. The Oil Group joined in that motion as a moving party. The Court ruled that "the
7 moving parties are entitled to judgment on all affirmative defenses dealing with uncertainty of
8 the basin boundaries.¹ (Summary Judgment Order, page 2.) More particularly, this Court
9 adjudged, declared and decreed in its January 9, 2001 Order that the "outermost lateral boundary
10 of the Santa Maria Valley Groundwater Basin ("Basin") lies along a type of material that does
11 not readily transmit water . . . [and that] material (rock, sediments, sand, etc.) that do readily
12 transmit water are within the basin". (Id.) Further, that there was "no triable issue of material
13 fact as to the 'outermost' basin boundary as articulated in the Declaration of Terry Foreman,
14 dated December 8, 2000, and as depicted on Exhibit 1 thereto".² (Id.)

15
16 The Court's Case Management Order No. 6, dated January 9, 2001, provided that "this Court
17 ordered that the hydrogeological boundaries of the . . . Basin . . . be adjudicated separately as the
18 Phase I; of this action. The Court now finds that there is need to determine the boundaries of the
19 area to be adjudicated in this case in order to determine which parties should be excluded from or
20 included in it." (Case Management Order No. 6, page 1) Further, that "Phase II, will decide the
21 limits of the area that will be included in this groundwater adjudication and the areas . . . that
22 may be excluded from this case . . .". (Id.)

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26 ¹ The Oil Group parties alleged as a affirmative defense, as against each cross-complainant, that
27 the Santa Maria Basin boundary as alleged in the cross-complaints were insufficiently described
28 and were therefore insufficient on grounds of uncertainty. The Oil Group requests this Court to
take judicial notice of such affirmative defenses alleged in each answer to the cross-complaints
on file with this Court pursuant to Evidence Code Section 452(d).

1 This Court has now rendered its decision and order, in part providing, that the Santa Maria
2 Valley Conservation District's motion for an order "establishing the geographic area constituting
3 the . . . Basin . . . for the purposes of this case, is hereby GRANTED." (Order, page 2) In sum,
4 the Court stated that it "finds the boundary of the Basin is that described on the map field as
5 Exhibit 5 with the Declaration of Robert C. Wagner, dated November 20, 2001." (Id.)

7 This brief is prepared pursuant to this Court's December 21, 2001 Order After Hearing Re:
8 Trial (Phase II) ("Order") requesting receipt of full briefing as to whether there are legal issues
9 raised with regard to parcels which touch or are intersected by the Boundary Line adjudicated as
10 part of the Phase II proceedings. No other provision or issue addressed in the Order is addressed
11 in this Brief.

13 Without waiving further objections, the Oil Group parties request this Court to reevaluate and
14 correct its Decision and Order as stated in this Brief. California Code of Civil Procedure Section
15 128(a)(8); Darling, Hall & Rae v. Kritt (1999) 75 Cal.App. 4th 1148, 1156; Berstein v.
16 Consolidated American Ins. Co. (1995) 37 Cal.App. 4th 763, 774; and Nave v. Taggart (1995) 34
17 Cal.App. 4th 1173, 1177.

19 **II.**

20 **BRIEFING**

21 With regard to that portion of the Court's Order determining the boundary of the Basin, the
22 Court addressed two (2) separate and distinct issues. First, a determination of the boundary line
23 of the Basin. Second, a conditional provision for potential further adjudication of certain parcels
24 identified to be proximate to the boundary line of the Basin.
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² The summary judgment order incorporated the map depicting the "outermost" boundary as part of that January 8, 2001 Order.

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Fundamentally, the Order finds and specifically determines that the boundary of the Basin is that line described in Mr. Wagner's Declaration and depicted as the solid magenta line on the incorporated map, Exhibit 5. In Mr. Wagner's Declaration he declared that,

"The line identified as the boundary of the Santa Maria Ground-Water basin is based on geologic and hydrologic considerations and represents the extent of the aquifers comprising the groundwater basin. This line was developed in part during the meetings of the Technical Committee and to the extent that the boundary encompasses the water bearing sediments with the basin, represents the view of the Technical Committee and its members. This is the same line that was presented to the Court on October 9, 2001 on maps prepared by Mr. Joseph Scalmanini." (Emphasis added.)

Specifically, the Court has stated that it ". . . finds that the boundary of the Basin is that described on the map filed as Exhibit 5 . . . hereinafter referred to as the Boundary Line."

(Order, page 2) (Emphasis added.) More particularly, the ". . . Court finds on the basis of the evidence presented that the Boundary Line demarcates the boundary of the Basin, and that the Basin constitutes the area beneath which groundwater exists in sufficient quantities to be meaningfully included in this lawsuit." (Order, page 2.) "The Court determines that only the lands, groundwater extraction claims and claims to groundwater storage rights within the Boundary Line shall be subject to claims in this lawsuit." (Order, page 3.) (Emphasis added.)

Finally with regard to issues of notice and due process the Court decreed that it ". . . finds that the Declaration of Robert C. Wagner . . . map and table to parcels, attached as Exhibits 5 and 6, set forth sufficient detail regarding the specific parcels traversed by the Basin Boundary Line so as to apprise potentially affected landowners and other interested parties of the location of the Basin and Boundary Line fixed by this Order." (Order, page 3.) (Emphasis added.) Based on

1 these specific findings and determinations, the Court has clearly held that the Basin boundary is
2 that area interior to the solid magenta line depicted on Exhibit 5.

3
4 However, in that portion of the Order addressing those parcels which are touched or
5 intersected by the adjudicated Boundary Line, the Court utilizes a significantly different
6 definition. For example, the Order provides that the "Basin shall also include for purposes of
7 adjudication herein all those parcels of land, which are shown on Exhibit 5 and listed on Exhibit
8 6 . . . to the full extent of the perimeter of such parcels." (Order, page 2). (Emphasis added.)

9
10 "Thus, at this time, until further order, the Court orders that those parcels are to be considered
11 within the Basin." (Order, page 2). (Emphasis added.) Under this definition, the Basin
12 boundary could be construed to be that area interior to the solid orange line representative of the
13 several Assessors' Parcel Lines depicted on the Exhibit 5 and not the solid magenta identified by
14 Mr. Wagner and Mr. Scalmanini. Such a construction is directly contradicted by the Court's
15 specific findings and determinations regarding the Basin Boundary and this Court's earlier order
16 adjudicating the "outermost lateral boundary" of the Basin. (Summary Judgment Order, page 2.)

17
18 Further, such a construction is not consistent with the Court's stated rationale for
19 conditionally including the entirety of such parcels in this adjudication. Specifically, the Court's
20 Order provides that, at this time and pending further briefing and order from the Court, that such
21 parcels should be included in the area adjudicated by this groundwater litigation. Importantly,
22 the Court has indicated that, while not deciding any such matters, such parcels may raise further
23 legal issues regarding the use of water from the Basin. Therefore, while the Court has held that
24 the full extent of the perimeter of such parcels should, at this time, be included in the area the
25 subject of this groundwater adjudication, not all such lands have been found by the Court to be
26 within the limits of the adjudged Basin Boundary as depicted on Exhibit 5. Importantly, the
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Court has made no determination with regard to the rights of such parcels and landowners to the use of water from the Basin.

This Court has the ability, on its own motion, to reevaluate its own interim rulings, or to correct an erroneous ruling. Darling, Hall & Rae v. Kritt (1999) 75 Cal.App. 4th 1148, 1156; Berstein v. Consolidated American Ins. Co. (1995) 37 Cal.App. 4th 763, 774; California Code of Civil Procedure Section 128(a)(8). “Until entry of judgment, the court retains complete power to change its decision as the court may determine; it may change its conclusions of law or findings of fact”. Nave v. Taggart (1995) 34 Cal.App. 4th 1173, 1177.

III.

CONCLUSION

In light of this Court’s prior orders and decrees, the provisions of the Order, and the above-cited authorities, the Oil Group parties respectfully request confirmation from the Court that the December 21, 2001 order and decision provides, with regard to the issues raised in this Brief, as follows:

(1) That the boundary of the Basin is as depicted on the Exhibit 5 to the Declaration of Robert C. Wagner, dated November 20, 2001. Specifically, the boundary of the Basin is that line identified on the legend to the map as “boundary of the Santa Maria Ground-Water Basin” depicted on the map as a solid magenta colored line;

(2) That the Basin boundary is not that line identified on the legend to the map as the “Assessors’ Parcel Lines” depicted on the map as a solid orange colored line;

(3) that those parcels identified on Exhibit 5, which either touch or are intersected by the Boundary Line, are until further order of this Court, provisionally included for purposes of adjudication in this case; and

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(4) that any further order of this Court regarding the adjudication of the rights and duties of such parcels will be determined in subsequent proceedings of this litigation following presentation of evidence and legal briefing on any such issues.

Dated: December 31, 2001

THE LAW OFFICES OF YOUNG WOOLDRIDGE LLP


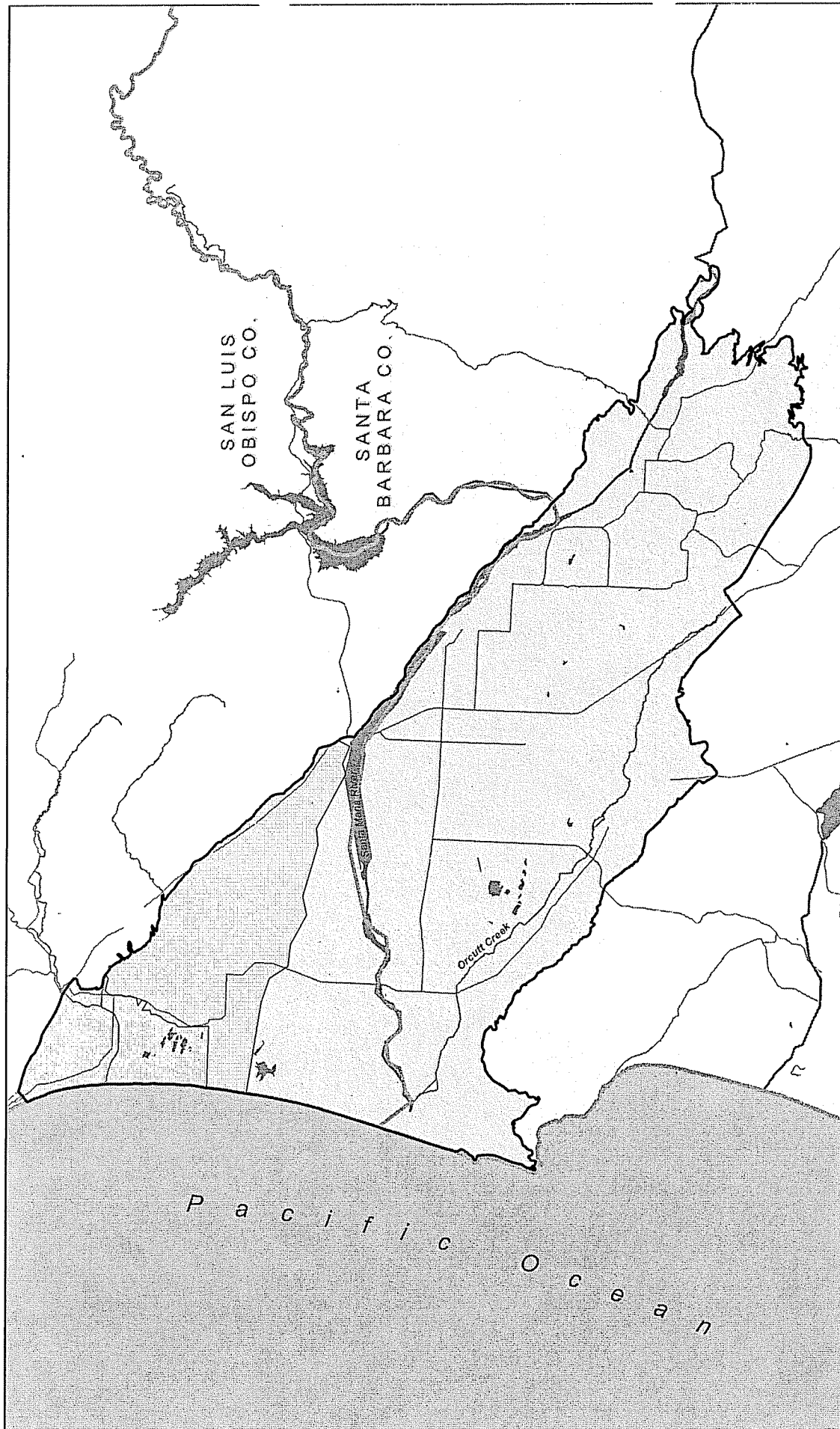
By: 
SCOTT K. KUNEY, Esq.
Attorneys for Cross-Defendants, Conoco, Inc.,
ChevronTexaco, Nuevo Energy Company, and
Aera Energy LLC

EXHIBIT C

**Map of the Basin and Boundaries
of the Three Management Areas**

Santa Maria Valley Water Conservation District v. City of Santa Maria
Santa Clara County Superior Court Case No. CV 770214



Management Areas
 Santa Maria Groundwater Basin

- Legend**
- Nipomo Mesa Management Area
 - Santa Maria Groundwater Basin
 - Northern Cities Management Area
 - Santa Maria Valley Management Area
- Note: Management Area boundaries are approximate*



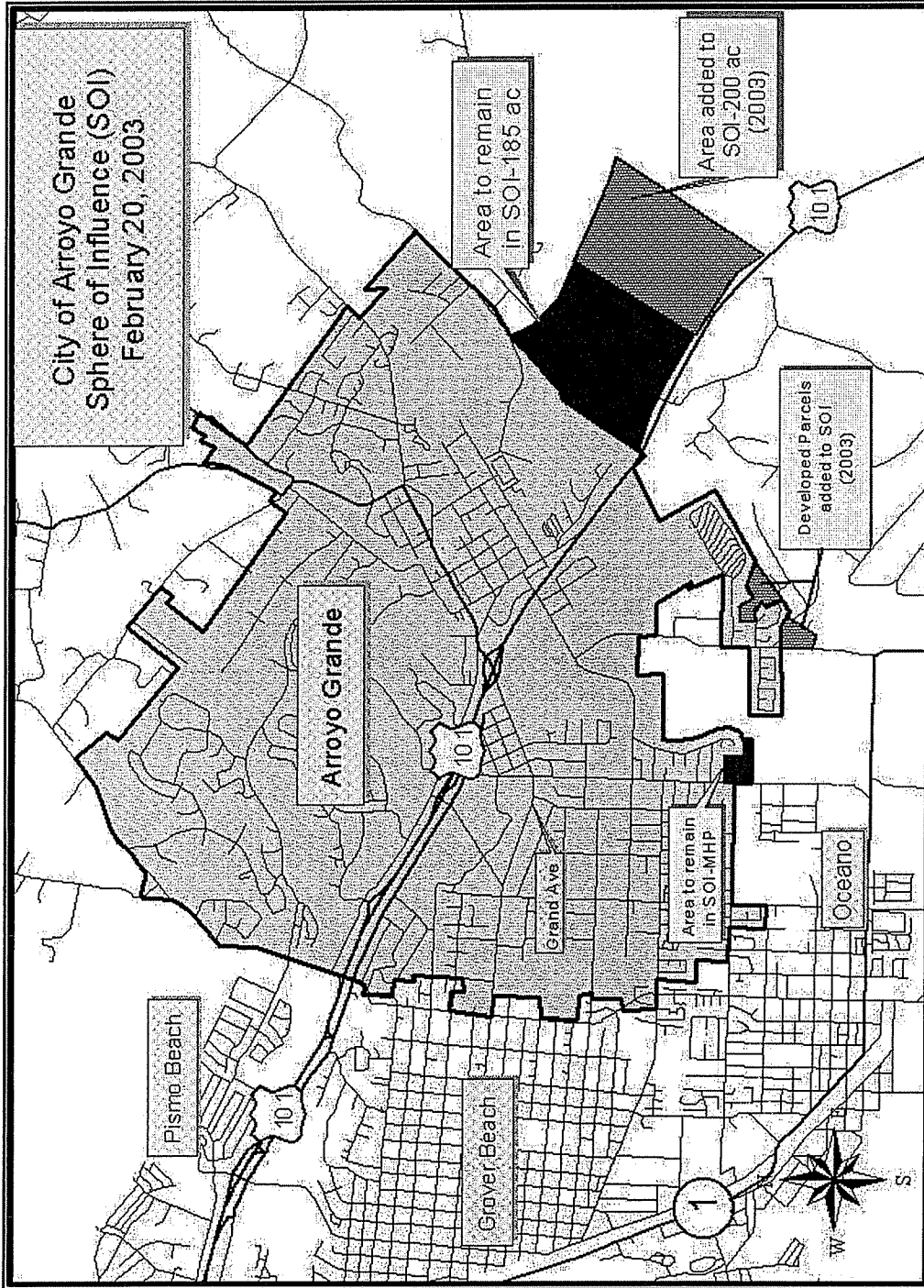
EXHIBIT D

Santa Maria Valley Water Conservation District v. City of Santa Maria
Santa Clara County Superior Court Case No. CV 770214

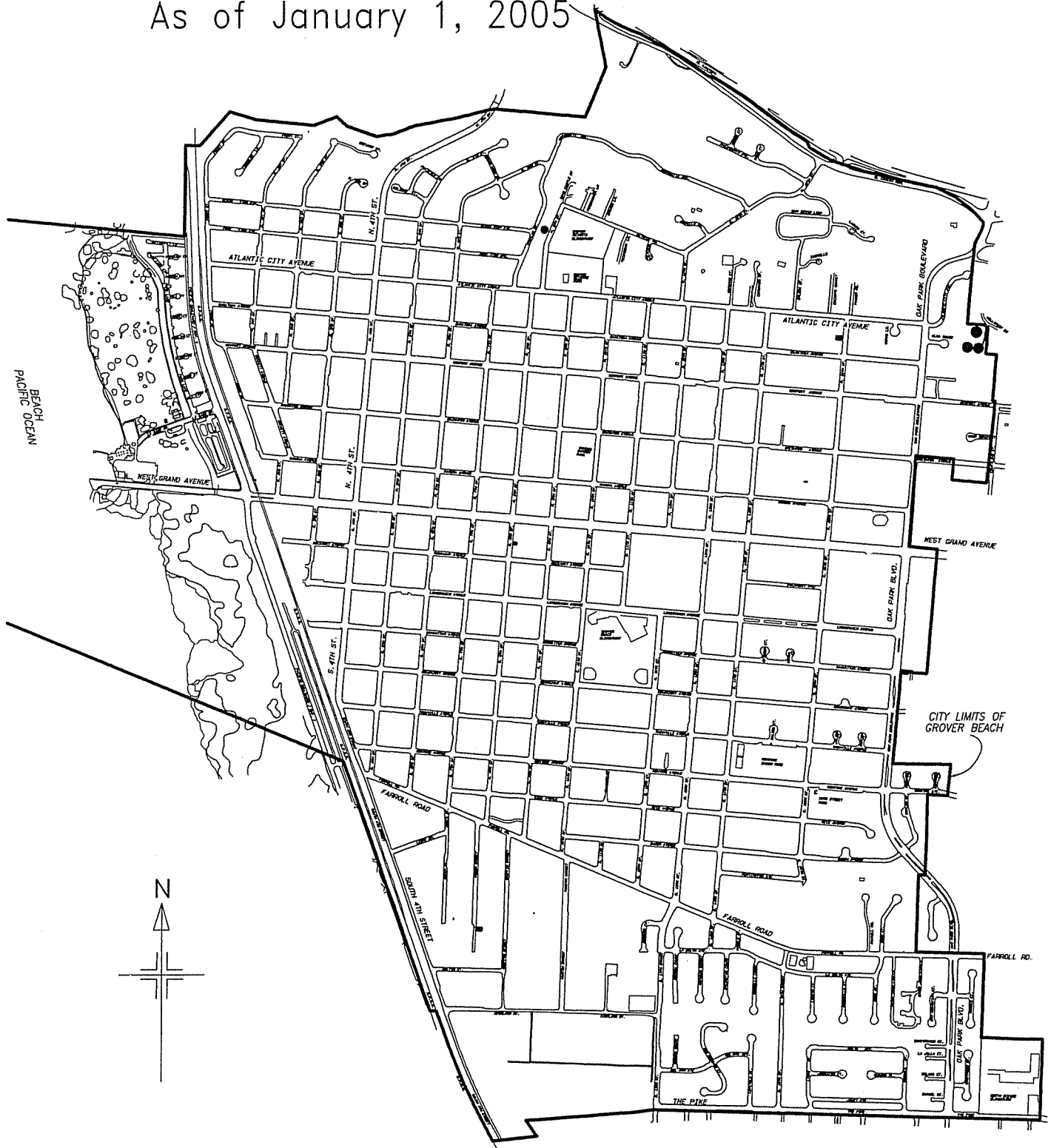
- I. Maps Identifying Those Lands as of January 1, 2005:
 - a. within the boundaries of a municipality or its sphere of influence, or within the process of inclusion in its sphere of influence; or
 - b. within the certificated service area of a publicly regulated utility.

- II. List of selected parcels that are nearby the boundaries identified on the incorporated maps, which in addition to more distant parcels, are excluded from these new urban use areas.

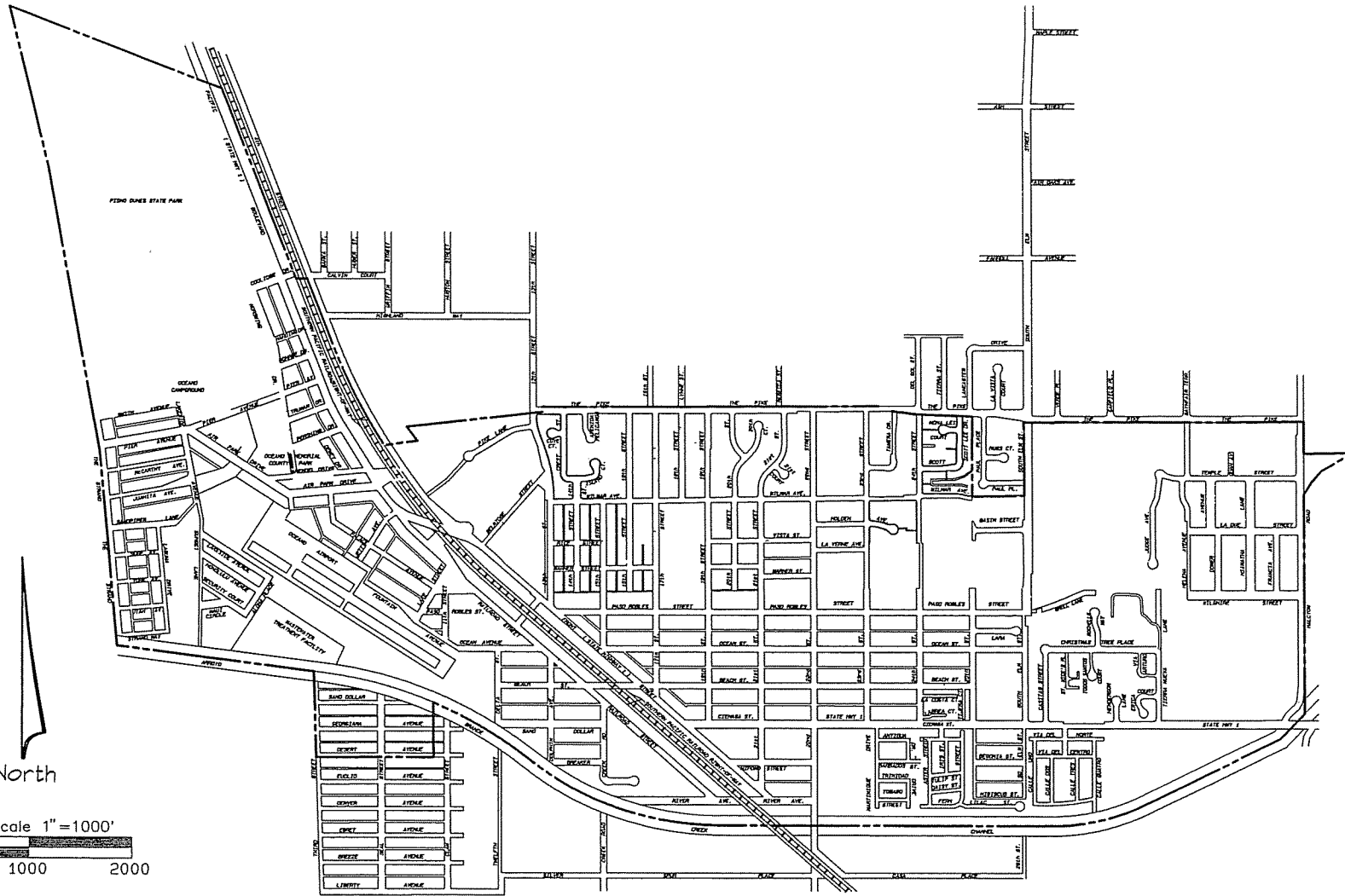
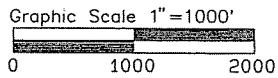
Figure 1 – Sphere of Influence
 City of Arroyo Grande



CITY OF GROVER BEACH Sphere of Influence and City Boundary As of January 1, 2005



North



Oceano Community Services District
P.O. Box 549
1655 Front Street
Oceano, CA 93445-0549
tel (805)481-6730

Service Area and Sphere of Influence January 1, 2005
OCEANO COMMUNITY SERVICES DISTRICT



Civil Engineering
Surveying
Project Development
141 South Elm Street
Arroyo Grande, CA 93420
805/489-1321

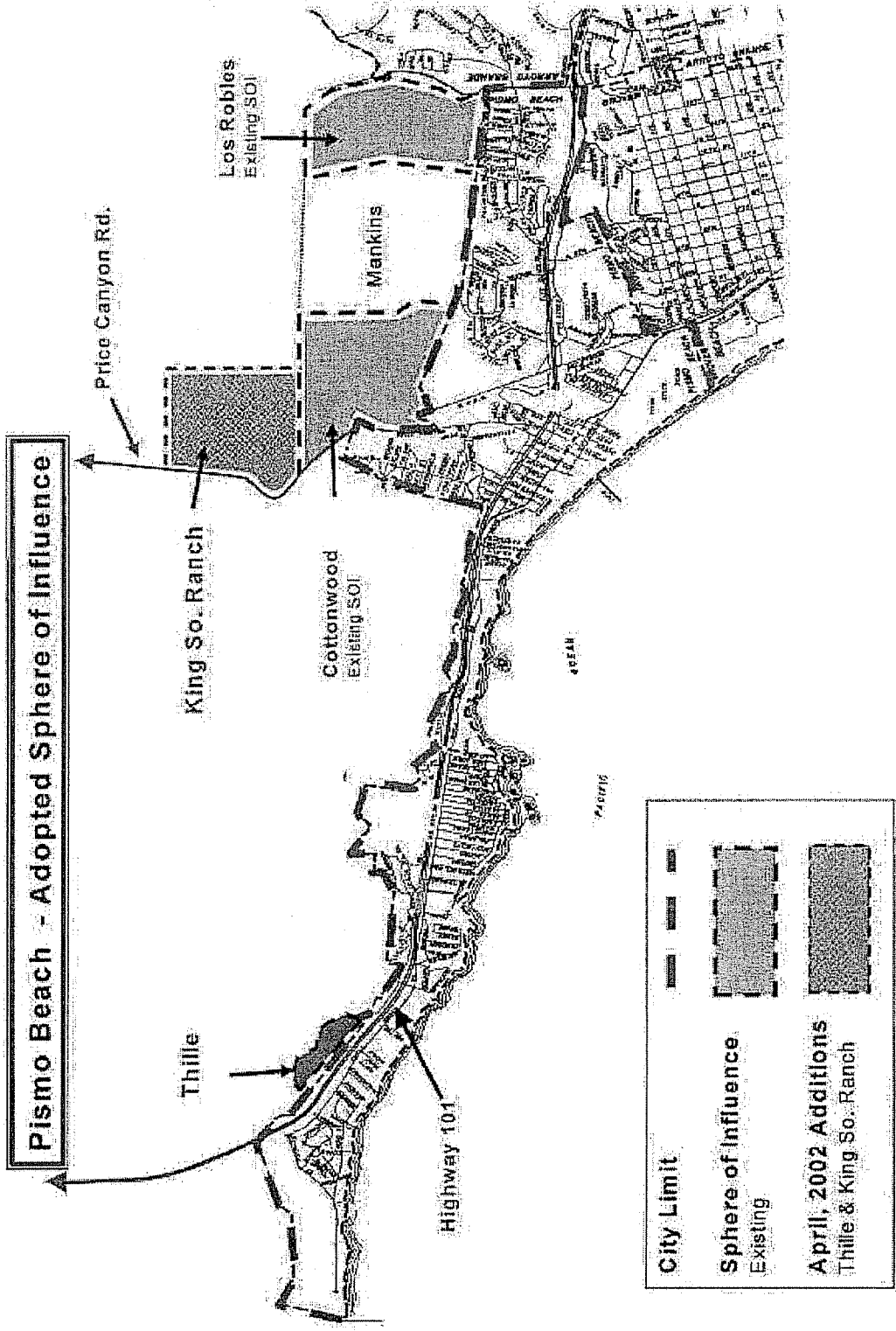
Scale: 1" = 1000'

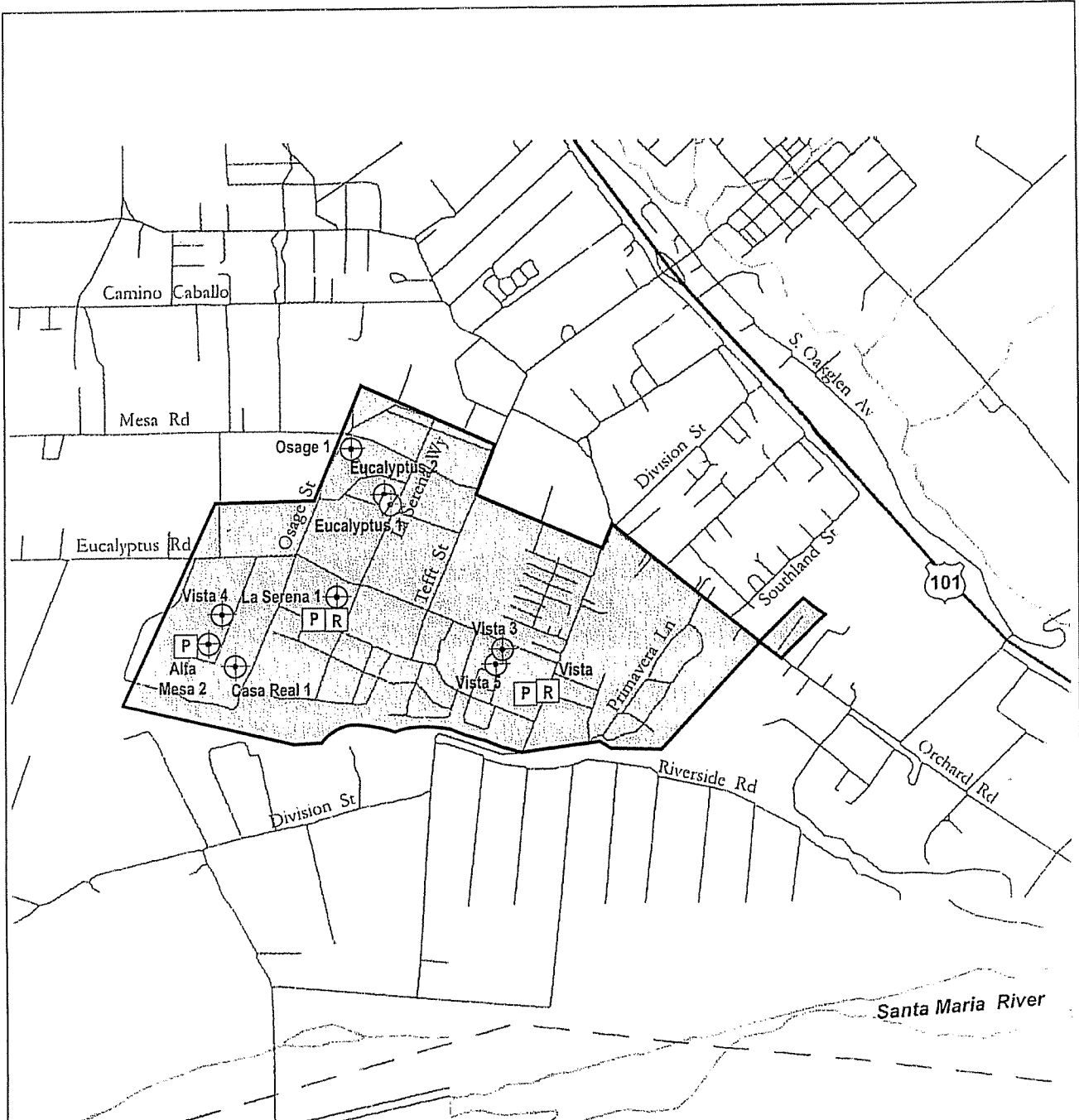
W.O. No. OD01-007

File Name
OCSD_Boundary_and_SOI
_01-01-2005.pro

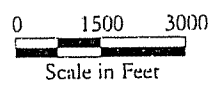
Plot date 6/20/2005

Figure 1 – Existing SOI and Proposed Additions





- SCWC-Well, DHS Permitted
- SCWC Well, Destroyed
- SCWC Well, Inactive
- Booster Pump Station
- Reservoir
- System Boundary

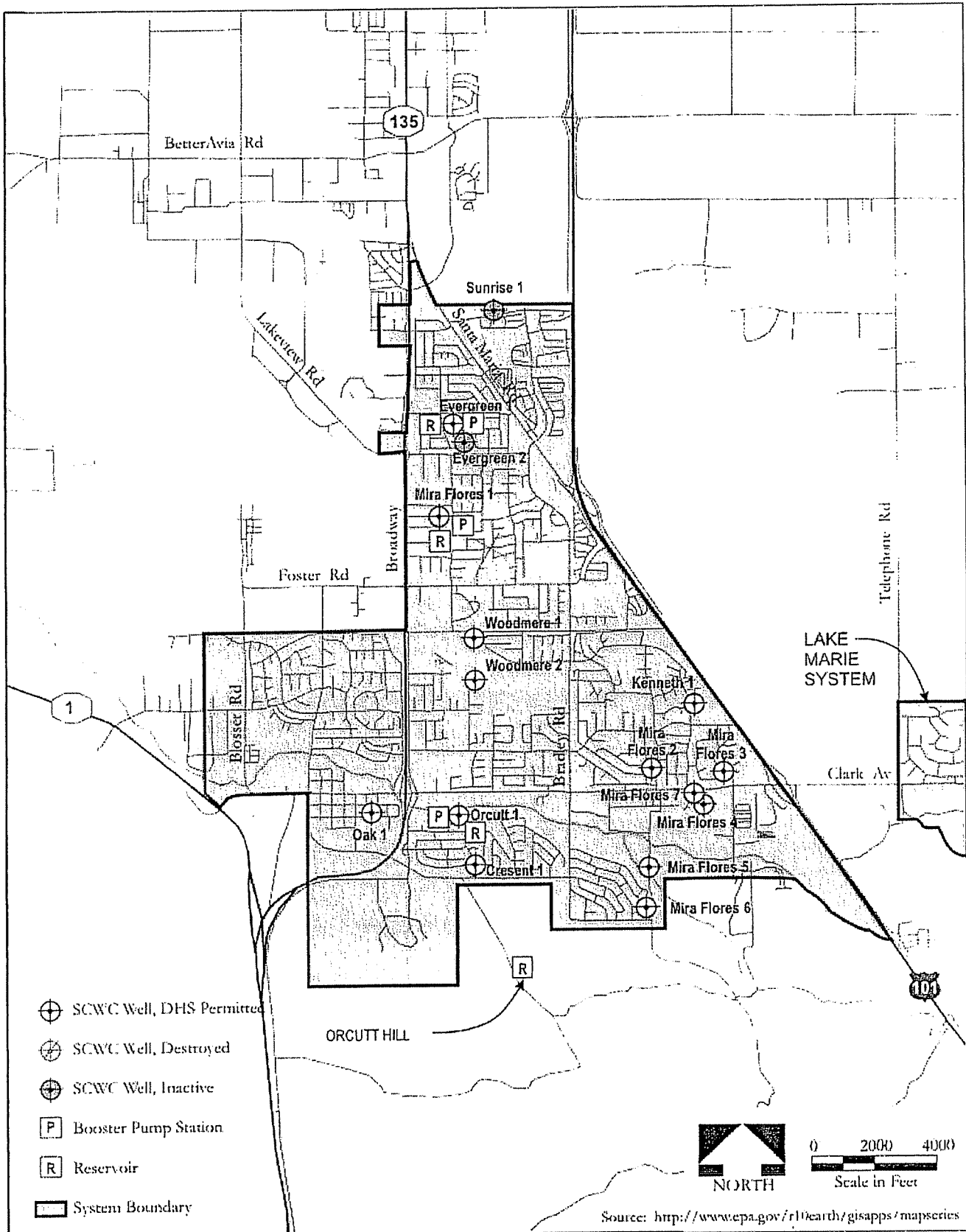


Source: <http://www.epa.gov/r10earth/gisapps/mapseries>

REVISED: 8/2004

Southern California Water Company

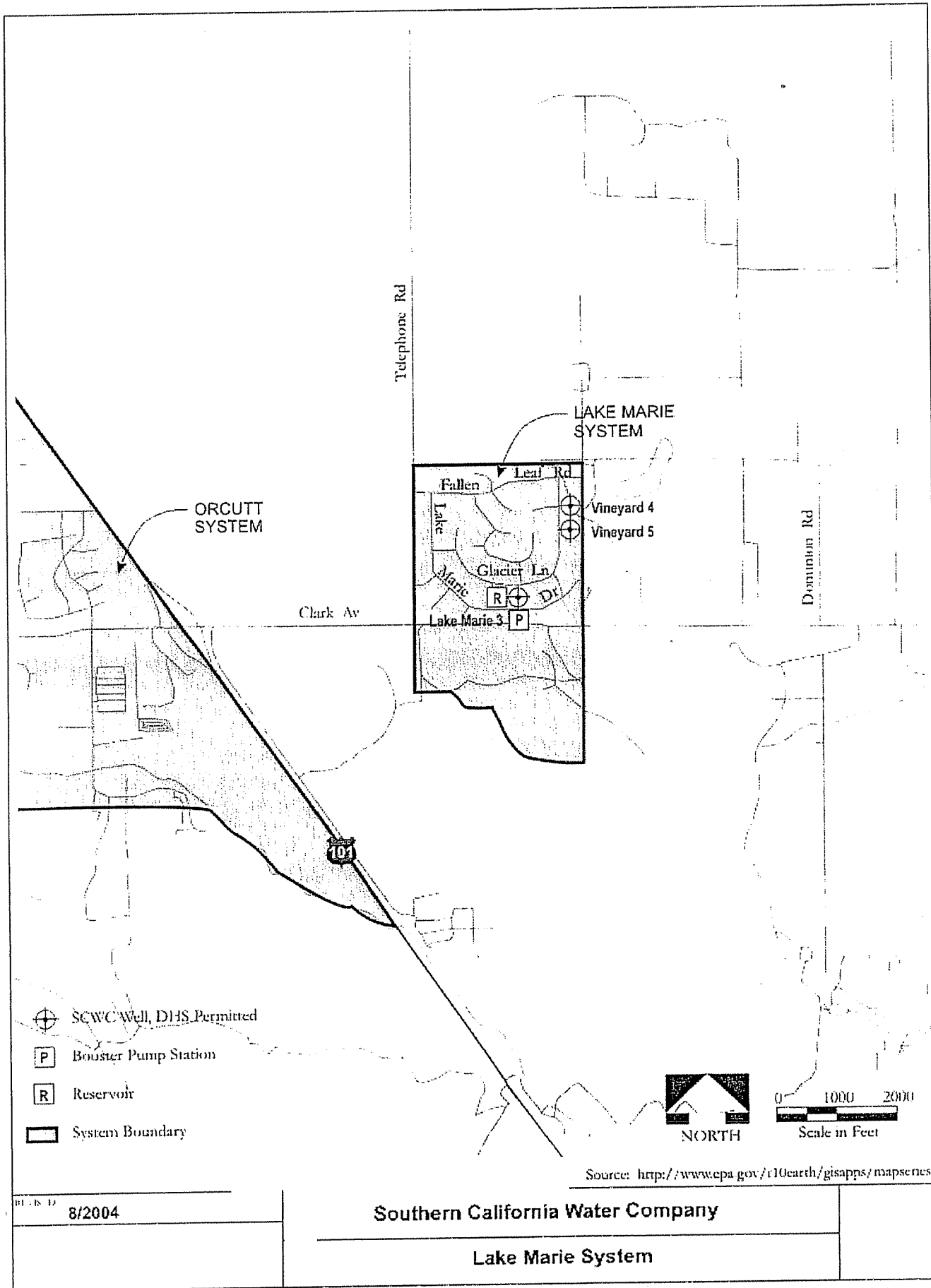
Nipomo System



8/2004

Southern California Water Company

Orcutt System



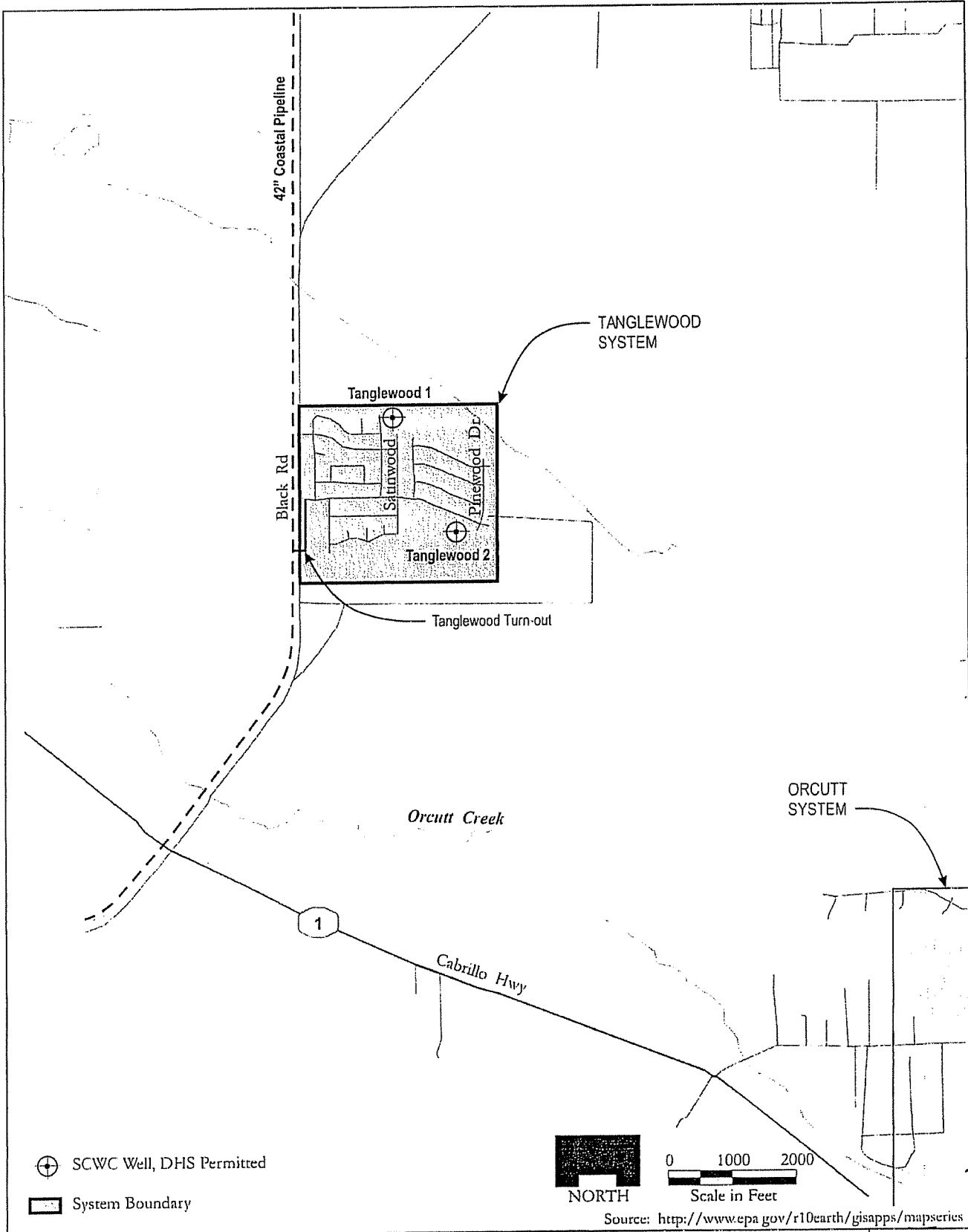
Source: <http://www.epa.gov/r10earth/gisapps/mapseries>

8/2004

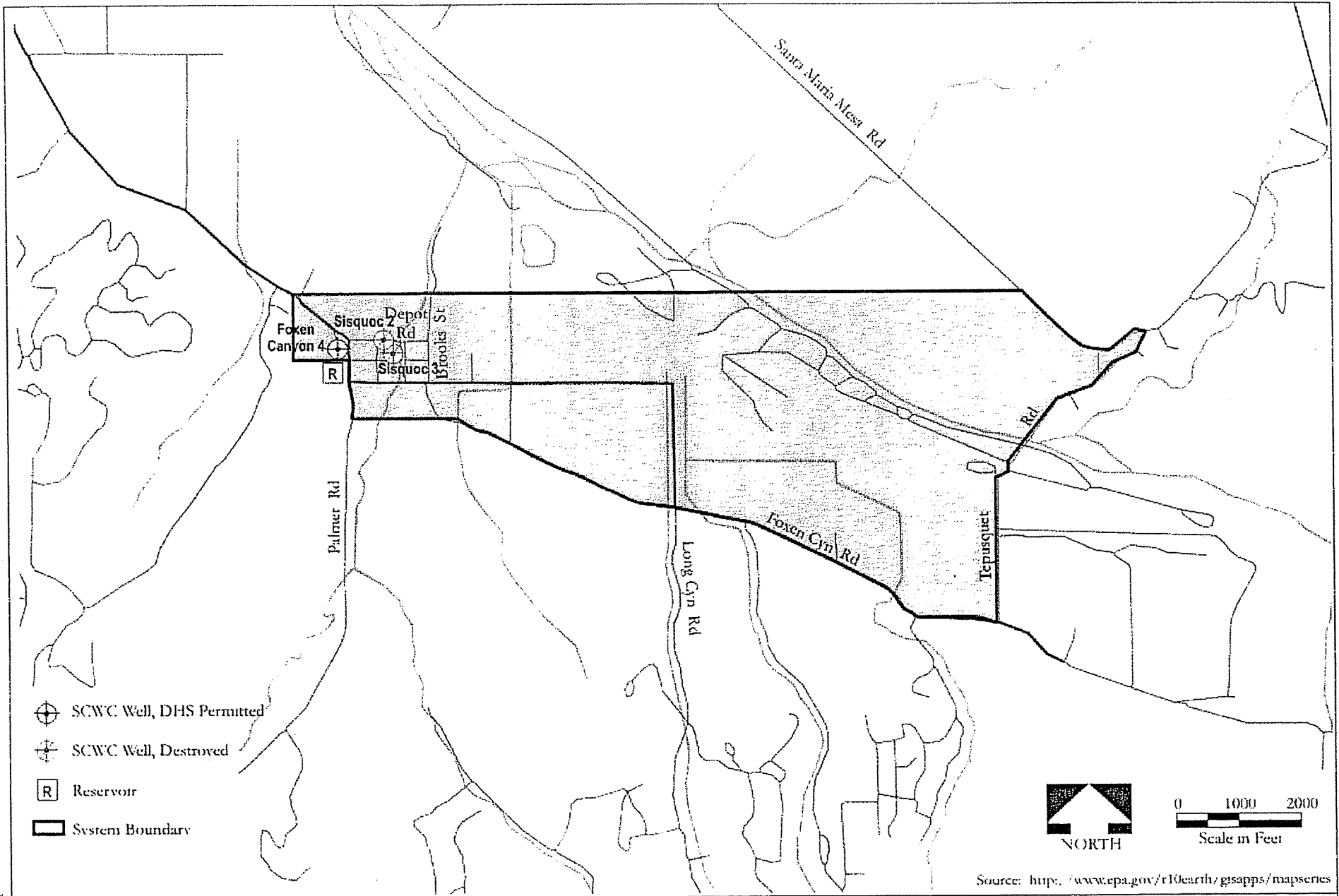
8/2004





Southern California Water Company

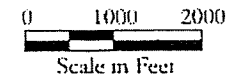
Lake Marie System



REVISED: 8/2004	Southern California Water Company	FIGURE
	Tanglewood System	



-  SCWC Well, DHS Permitted
-  SCWC Well, Destroyed
-  Reservoir
-  System Boundary

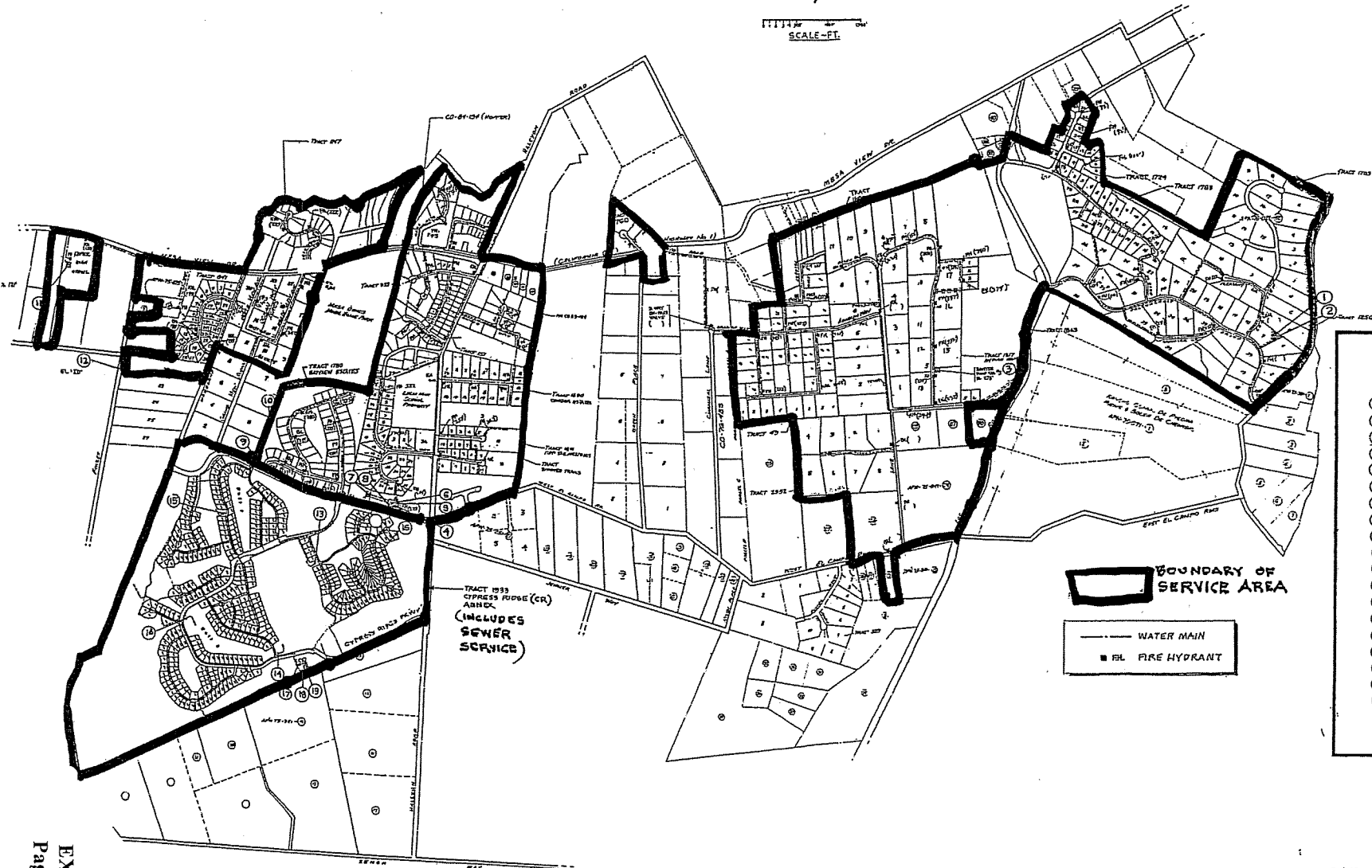


Source: <http://www.epa.gov/r10earth/gisapps/mapsseries>

REVISED 8/2004

Southern California Water Company
Sisquoc System


17114
SCALE-FT.

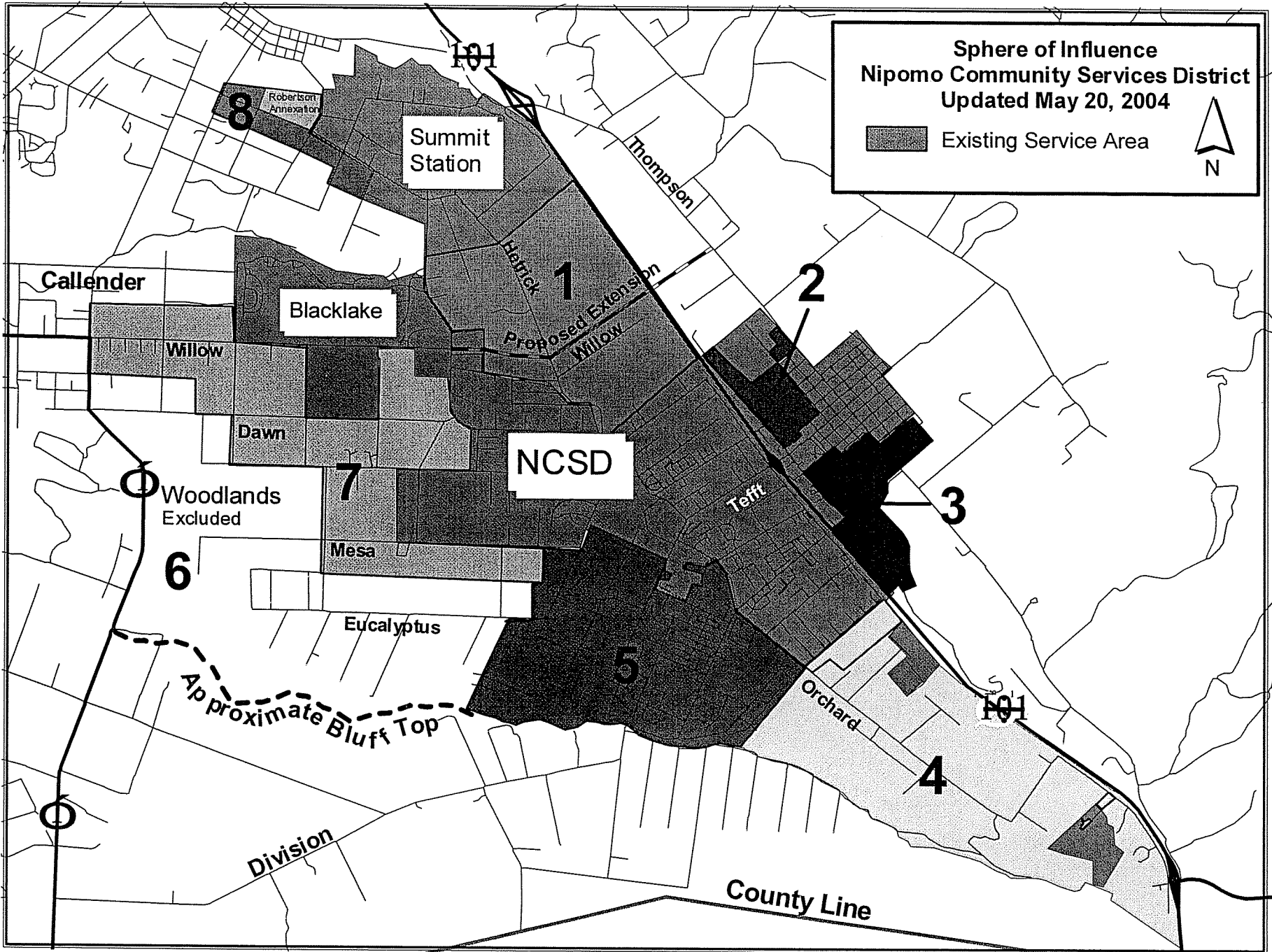


- RURAL WATER COMPANY, INC.**
- ① PUMP STA #2
 - ② STORAGE TANK, 210,000 GAL
 - ③ PUMP STA #3
 - ④ PUMP STA #1, CHLORINATION BLD.
 - ⑤ STORAGE TANK, 245,000 GAL
 - ⑥ STORAGE TANK, 245,000 GAL
 - ⑦ WELL #2
 - ⑧ WELL #6
 - ⑨ WELL #4
 - ⑩ WELL #5
 - ⑪ WELL #8 (WITH CHLORINATION)
 - ⑫ WELL #3 (WITH CHLORINATION)
 - ⑬ CR WELL #4
 - ⑭ CR WELL #5
 - ⑮ CR WELL #6
 - ⑯ CR WELLS #7 & #8 (inactive)
 - ⑰ CR STORAGE TANK, 275,000 GAL
 - ⑱ CR STORAGE TANK, 275,000 GAL
 - ⑲ CR PUMP STA, CHLORINATION BLD.

RURAL WATER COMPANY, INC.		SCALE
RURAL WATER COMP		1" = 50'
SERVICE AREA MA		
DATE	BY	CHKD
10-17-2000	CHB	CHB
10-17-2000	CHB	CHB
10-17-2000	CHB	CHB

**Sphere of Influence
Nipomo Community Services District
Updated May 20, 2004**

 Existing Service Area



Stipulation
Santa Maria Valley Water Conservation District v. City of Santa Maria

EXHIBIT D

List of Selected Excluded Parcels Nearby the Boundaries of New Urban Use Areas

103-070-004	128-099-001
107-300-007	128-100-001
107-300-008	128-100-003
107-300-012	128-100-020
128-056-024	128-100-021
128-094-018	128-100-022
128-094-019	128-100-027
128-094-020	128-100-028
128-094-021	128-100-029
128-094-023	128-100-030
128-094-024	128-100-031
128-094-029	128-101-010
128-094-031	128-101-012
128-095-001	129-100-008
128-095-002	129-110-020
128-095-003	129-120-001
128-095-004	129-120-023
128-095-006	129-151-029
128-095-008	129-151-031
128-096-001	129-151-032
128-096-002	129-151-033
128-096-003	129-180-010
128-096-004	129-180-011
128-096-006	129-210-017
128-096-009	
128-098-005	

EXHIBIT E

**2002 Settlement Agreement
between the Northern Cities and Northern Landowners**

Santa Maria Valley Water Conservation District v. City of Santa Maria
Santa Clara County Superior Court Case No. CV 770214

1 NOSSAMAN, GUTHNER, KNOX & ELLIOTT, LLP
Frederic A. Fudacz, State Bar No. 50546
2 Henry S. Weinstock, State Bar No. 89765
Alfred E. Smith, State Bar No. 186257
3 445 South Figueroa Street, 31st Floor
Los Angeles, California 90071
4 Telephone: (213) 612-7800
Facsimile: (213) 612-7801

5 Attorneys for Defendants City of Arroyo Grande,
6 City of Grover Beach, City of Pismo Beach,
Oceano Community Services District
7

8 SUPERIOR COURT OF THE STATE OF CALIFORNIA
9 FOR THE COUNTY OF SANTA CLARA
10

11 SANTA MARIA VALLEY WATER)
CONSERVATION DISTRICT, a public)
12 entity,)

13 Plaintiff,

14 v.

15 CITY OF SANTA MARIA, et al.,)

16 Defendants.)

17 _____)
18 AND ALL RELATED ACTIONS.)
19 _____)

SANTA MARIA GROUNDWATER
LITIGATION, LEAD CASE No. CV 770214
(Consolidated with CV 784900, 784921,
784926, 785509, 785511, 785515, 785522,
785936, 786971, 787150, 787151, 787152,
990738, 990739)

**SETTLEMENT AGREEMENT BETWEEN
NORTHERN CITIES, NORTHERN
LANDOWNERS, AND OTHER PARTIES**

20 **PARTIES AND EFFECTIVE DATE**

21 This Agreement is entered into among the Cities of Arroyo Grande, Pismo
22 Beach, Grover Beach and the Oceano Community Services District (collectively "Northern
23 Cities"), owners/lessors of land located in the Northern Cities Area ("Northern Landowners"),
24 and other parties who execute this Agreement. This Agreement is entered into as of April 30,
25 2002.

26 **STIPULATIONS OF FACT**

27 A. In 1997, the Santa Maria Valley Water Conservation District initiated this
28 action, Santa Clara Superior Court Case Number CV 770214, consolidated with Case

1 Numbers 784900, 784921, 784926, 785509, 785511, 785515, 785522, 785936, 786971,
2 787150, 787151, 787152, 990738, and 990739 (the "Action"), to adjudicate groundwater rights
3 in the Santa Maria Groundwater Basin;

4 B. Numerous parties have filed complaints and/or cross-complaints in the
5 Action with respect to rights to produce water in the Santa Maria Groundwater Basin;

6 C. By Order dated December 21, 2001, the Court determined the geographic
7 area constituting the Santa Maria Groundwater Basin ("Basin") and ruled that the Northern
8 Cities Area (identified on the map attached hereto as Exhibit A) is within the Basin;

9 D. Under current water supply and demand conditions, the groundwater
10 basin in the Northern Cities Area is in rough equilibrium, and groundwater pumping in the
11 Northern Cities Area does not negatively affect water supplies in the remainder of the Basin;

12 E. For more than 30 years, there have been separate funding, management
13 and usage of groundwater in the Northern Cities Area from groundwater in the Santa Maria
14 Valley. For example, the Northern Cities and Northern Landowners have paid and are paying
15 tens of millions of dollars for the construction and retrofit of the Lopez Reservoir, which
16 benefits the Northern Cities Area; whereas the Twitchell Reservoir has been paid for by parties
17 in the Santa Maria Valley who benefit from it.

18 F. The Northern Cities and Northern Landowners have agreed among
19 themselves and do hereby reaffirm their agreement to cooperatively share and manage
20 groundwater resources in the Northern Cities Area in accordance with a "Gentlemen's
21 Agreement" that was originally developed in 1983 and amended thereafter. Said Agreement
22 confers no rights on any third parties;

23 G. It is in the interest of all of the parties to this litigation that the parties settle
24 their claims and potential claims on the basis of the continued separate funding, management,
25 and usage of the waters conserved by the Lopez Reservoir in the Northern Cities Area and by
26 the Twitchell Reservoir in the remainder of the Basin, to preserve and protect water resources
27 in those separate management areas.

28 H. This Settlement Agreement is also intended to provide the parties with

1 advance notice of changes in the groundwater conditions in the Northern Cities Area and
2 Nipomo Mesa, as water supplies and demands may change with time. (The Nipomo Mesa is
3 southeast of the Zone 3 Line, and north of the Santa Maria River.); and

4 I. The parties to this Settlement Agreement have agreed to settle and
5 resolve their cross-claims and potential cross-claims on the conditions set forth below:

6 **NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS**

7 1. Separate Management Areas. Subject to the conditions set forth below,
8 water resources and water production facilities in the Northern Cities Area shall continue to be
9 independently managed by the Northern Cities, the San Luis Obispo County Flood Control and
10 Water Conservation District, and the Northern Landowners, with the intention of preserving the
11 long-term integrity of water supplies in the Northern Cities Area. For example, the Northern
12 Cities and Northern Landowners will not be responsible to pay for any of the costs of the
13 Twitchell Reservoir; and the parties outside of the Northern Cities Area (Zone 3) shall not be
14 responsible to pay any of the costs relating to the Lopez Reservoir.

15 2. Effects on Litigation. Except as provided below, the parties in the
16 Northern Cities Area, on the one hand, and the other parties hereto, on the other hand, agree
17 not to pursue or assert any claims against one another relating to water rights in the Santa
18 Maria Groundwater Basin. Each of the Northern Landowners who execute this Agreement will
19 be deemed to have been served by each of the water purveyor parties in this action who have
20 signed this Agreement with cross-complaints seeking declaratory and other relief in the form of
21 the cross-complaints previously filed by the City of Santa Maria; and each of the Northern
22 Landowners who execute this Agreement shall be deemed to have served and filed answers to
23 said cross-complaints denying all of their material allegations and asserting all available
24 affirmative defenses. The Northern Cities and Landowners shall continue to be subject to
25 reasonable discovery requests that are relevant to the remaining issues in the case.

26 3. Court Approval. This Settlement Agreement shall be submitted to the
27 Court for approval. If approved, this Settlement Agreement shall be included in and attached
28 as an exhibit to the final judgment in this Action, and the Northern Cities Area shall be treated

1 separately under the judgment in accordance with the provisions set forth herein. Paragraphs
2 4 and 7-20 of this Agreement shall take effect only upon Court approval of this Agreement.

3 4. Consent to Continuing Jurisdiction. Prior to this Agreement, there has
4 been no adjudication of the water rights of the Northern Cities, Northern Landowners, or any
5 other party, other than the determination of the boundaries of the Basin. Except ¶ 5 below,
6 nothing in this Agreement authorizes the Court to restrict or affect the right of any party to
7 pump, divert, use, or store groundwater or surface water without first according that party all of
8 its substantive, procedural, and due process rights under constitutional, statutory, and common
9 law requirements. Subject to the above and to the limitations of paragraphs 5-6 below, the
10 parties hereto agree that the Court reserves and retains full jurisdiction, power, and authority
11 over the Northern Cities Area, the Northern Cities, and the Northern Landowners, to enable the
12 Court, upon motion of any party, to make such further orders or directions (1) to interpret,
13 enforce, amend, or amplify any of the provisions of this Agreement; (2) to enforce, protect, or
14 preserve the rights of the respective parties, consistent with the rights herein decreed; or (3) to
15 issue such additional orders and/or injunctions to prevent injury to any party that might result
16 from any material adverse change in the availability or quality of the water supplies in the
17 Northern Cities Area, or the Nipomo Mesa Area, or any part of the Basin.

18 5. Reaffirmation of Gentlemen's Agreement. The Northern Cities and
19 Northern Landowners hereby reaffirm their Agreement to cooperatively share and manage
20 groundwater resources in the Northern Cities' Area in accordance with their AGREEMENT
21 REGARDING MANAGEMENT OF THE ARROYO GRANDE GROUNDWATER BASIN, aka
22 the "Gentlemen's Agreement." (A copy of the current version of this Agreement is attached
23 hereto as Exhibit B.) In particular, the Northern Cities and the Northern Landowners agree
24 with each other to continue to divide the safe yield of groundwater in the Northern Cities' Area,
25 including any increases or decreases of the safe yield, in accordance with ¶ 1 of Exhibit B
26 hereto. Said water-sharing Agreement and this paragraph 5 shall only be binding on and
27 enforceable by the Northern Cities and Northern Landowners.

28 6. No Effect on Water Rights: Except as provided in ¶ 5 above, nothing in

1 this Agreement shall be construed to create, eliminate, increase, or reduce any substantive
2 right of any party to pump, divert, use, or store groundwater or surface water; and nothing in
3 this Agreement shall be construed to prove or disprove, directly or indirectly, any element of
4 prescriptive rights to groundwater.

5 **TECHNICAL OVERSIGHT COMMITTEE**

6 7. Formation. A Technical Oversight Committee (TOC) shall be established
7 to carry out the ongoing monitoring and analysis program ("MAP," see below).

8 8. Composition. The TOC shall be comprised of two voting representatives
9 of the Northern Cities and two voting representatives of parties providing public water service
10 on the Nipomo Mesa ("Mesa Parties," which include the Nipomo Community Services District,
11 Rural Water Company and Southern California Water Company, and their successors or
12 assigns). At least one of the two representatives from the Northern Cities and the Mesa
13 Parties shall be technically qualified to carry out the MAP duties described below. The other
14 TOC representatives may be technical, policy, managerial, or legal in nature. The voting
15 representatives shall attempt to operate by consensus. However, if consensus cannot be
16 achieved, TOC decisions may be made by majority vote of the voting representatives.

17 9. Responsibility. The TOC shall implement and carry out the MAP.

18 10. Meetings. The TOC shall meet at least semi-annually for the first five (5)
19 years of implementing the MAP, and at least annually thereafter.

20 11. Procedures of the TOC. The TOC shall establish procedures for the
21 fulfillment of its responsibilities under this Agreement.

22 **MONITORING AND ANALYSIS PROGRAM**

23 12. Purpose and Legal Effect. A monitoring and analysis program (MAP) shall
24 be established to provide ongoing data collection and analysis of water supplies and demands
25 in the Northern Cities Area and the Nipomo Mesa. The purpose of the MAP is to regularly
26 assess the potential impact on the water supplies on either side of the Zone 3 boundary line
27 resulting from changing conditions regarding the water supplies and demands in the Northern
28 Cities Area and the Nipomo Mesa, and the resulting changes in the surface and groundwater

1 flow conditions adjacent to and across the Zone 3 boundary line.

2 13. The Water Management Plans and the Annual Reports (collectively
3 "Plans") prepared pursuant to this Agreement are for information purposes only. They shall
4 not independently create in the party(ies) preparing them any affirmative obligation to act, or
5 implement any part of the Plans, nor shall they independently provide any other party or the
6 Court any right to compel Action or enforce any obligation. However, any party may challenge
7 the sufficiency of any Plan produced pursuant to this Agreement by showing that it has not
8 been completed in substantial compliance with the requirements of this Agreement, except that
9 any challenge to a Water Management Plan created pursuant to Paragraph 15 below may only
10 be undertaken in a proceeding and under the standards set forth under Water Code sections
11 10650, *et seq.*

12 14. The Parties shall be excused from the preparation of the Plans required in
13 this Agreement when the Court enters a final judgment in this litigation.

14 15. Water Supply Planning and Reports. Within two years after Court
15 approval of this Settlement, each of the Northern Cities and the Mesa Parties shall evaluate
16 their current and future water supplies and prepare a Water Management Plan. The Water
17 Management Plan shall generally include the content and analysis described in Water Code
18 sections 10630 through 10635, and shall also include an analysis of the ongoing availability of
19 groundwater in the Northern Cities Area given the changing urban and agricultural water
20 demands in the Northern Cities Area. Each of the Northern Cities and the Mesa Parties shall
21 update and revise their previously prepared Water Management Plans prior to December 31,
22 2006, and every five years thereafter; provided however, that this requirement to prepare a
23 Water Management Plan is not intended to expand or impose upon any party rights or
24 obligations with respect to such Water Management Plans, other than those specifically stated
25 in this Section. Copies of the Water Management Plans shall be provided to the Northern
26 Cities, the Mesa Parties, the Santa Maria Valley Water Conservation District and the City of
27 Santa Maria.

28 16. Monitoring and Data Collection. The TOC shall implement a MAP that

1 shall include the data collection and analysis elements described below, and any other
2 monitoring and analysis, if the TOC deems them appropriate and cost-effective to fulfill the
3 purpose of this Agreement. The data collection and database development shall be created so
4 that the data can be shared and transferred between the TOC members for review and
5 evaluation in electronic format. The MAP shall include the following elements.

6 a. Design. Within six months after Court approval of this Agreement,
7 the TOC shall review existing data to select existing wells to include in the MAP. The TOC
8 shall define the list of wells to be monitored and specific information to be obtained from each
9 well, such as groundwater levels and groundwater quality constituents. The MAP shall also
10 include data collection to provide for early detection of seawater intrusion and collection of
11 other related data (e.g., deliveries of supplemental water, precipitation, discharge of treated
12 waste water, etc.) as are necessary for preparation of the analyses and reports required by this
13 Agreement. To the extent practical to adequately meet the purpose of this Agreement, the
14 TOC shall use existing facilities, rather than new facilities, in the design of the MAP.

15 b. Data Collection. As soon as the design of the MAP is complete, the
16 TOC shall commence collection of groundwater monitoring data, with data collection to occur
17 at intervals determined by the TOC.

18 c. Changing Groundwater Use Patterns. The TOC may also monitor
19 the groundwater pumping patterns in the Northern Cities Area and the Nipomo Mesa. The
20 monitoring shall be based on either observed changes (municipal pumping) or estimated
21 changes (private or agricultural pumping). The TOC may review the changes in pumping to
22 assess the potential impacts on groundwater flow conditions along the Zone 3 boundary line
23 and include its findings in the Annual Report, described below.

24 d. MAP Assessment. Within two years of Court approval of this
25 Agreement, and annually thereafter, the TOC shall evaluate data from the monitoring program,
26 assess data gaps, and make recommendations to revise the monitoring program, including the
27 use of other wells or installation of new monitoring wells, as appropriate. The TOC may
28 recommend to the Northern Cities and the Mesa Parties or to the Court any additional

1 monitoring of hydrologic characteristics that may be prudent and cost-effective to meet the
2 goals of this Agreement, to provide a higher level of confidence in the data and analyses than
3 that which is based on existing wells, stream gages, etc.

4 17. Annual Report. Based upon the MAP and other relevant information, the
5 TOC shall annually prepare a Report on Water Supply and Groundwater Conditions (Annual
6 Report) for the Northern Cities Area and Nipomo Mesa. The Annual Report shall be filed with
7 the Court, posted on the Court's website, and served on the Northern Cities, the Mesa Parties,
8 the Santa Maria Valley Water Conservation District, and the City of Santa Maria. The first
9 Annual Report shall be completed, filed and served, as described in the previous sentence, on
10 or before the second (2nd) anniversary of this Court's approval of this Agreement, and
11 annually thereafter. The Annual Report shall assess the adequacy of the water supplies in
12 each area in comparison to the corresponding demands, and shall include an analysis and
13 discussion of the estimates of the volume of groundwater in storage, an updated water budget
14 assessment, and anticipated water supply constraints, if any.

15 18. Cost Sharing. Unless otherwise agreed, each of the Northern Cities and
16 the Mesa Parties shall bear their own costs in participating in the TOC, gathering and
17 analyzing data, and producing any written documents as may be required by this Agreement.
18 To the extent the construction of new facilities may be required to implement this Agreement,
19 the Northern Cities and the Mesa Parties shall develop an equitable cost sharing agreement.
20 The parties will use their best efforts to minimize the costs of compliance in undertaking the
21 obligations of this Agreement.

22 19. Cooperation of all Parties. All parties to this litigation and this Agreement
23 shall provide any documents, information, access to wells, and well data, and take any other
24 actions reasonably requested to implement the MAP, subject to prior protective orders and
25 reasonable confidentiality restrictions.

26 **ADVANCE NOTICE OF INCREASED WATER PRODUCTION**

27 20. The Mesa Parties, the Northern Cities, and the Northern Landowners shall
28 provide prior written notice to each other of their intent to drill new wells, materially increase

1 the production capacity of existing wells or take over the use of an existing well, if the well is to
2 be used for water production (not monitoring). The notice must be served prior to or
3 concurrent with the initiation of environmental review under the California Environmental
4 Quality Act (CEQA), if required, or at least ninety (90) days prior to the construction of a new
5 well or the takeover or increase in capacity of an existing well. This ninety (90) day notice
6 requirement shall not apply in the event of emergencies, such as replacement of a collapsed
7 well, in which case notice will be provided as promptly as possible. The notice should provide
8 a description of the location, intended capacity and use of the well.

9 GENERAL PROVISIONS

10 21. No Third Party Beneficiary. Nothing in this Agreement, whether express
11 or implied, shall confer any rights or remedies under this Agreement on any persons other than
12 the Parties to it and their respective successors and assigns. Nothing in this Agreement shall
13 relieve or discharge the obligation or liability of any third parties to any Party to this Agreement.

14 22. Legal Capacity. The Parties warrant that all necessary approvals and
15 authorizations have been obtained to bind them to all terms of this Agreement, and further
16 warrant that the persons signing have authority to sign on behalf of their respective Parties.

17 23. Amendment. No amendment to this Agreement will be binding unless it
18 is either signed by an authorized representative of all of the Parties or approved by the Court.

19 24. Governing Law. This Agreement will be construed in accordance with,
20 and governed by, the laws of the State of California as applied to contracts that are executed
21 and performed entirely in California.

22 25 Severability. If any provision of this Agreement is held invalid or
23 unenforceable by any court, it is the intent of the Parties that all other provisions of this
24 Agreement be construed so as to remain fully valid, enforceable, and binding on the Parties.

25 26. Counterparts. This Agreement may be executed in one or more
26 counterparts, each of which will be considered an original, but all of which together will
27 constitute one and the same instrument. Any party that is currently a party to this Action and
28 any Northern Landowner may become a party to this Agreement by agreeing in writing to be

1 bound by its terms at any time prior to the entry of judgment in this Action. Future signatories
2 to this Agreement shall sign the signature pages attached hereto as Exhibits C (for Northern
3 Landowners) or D (for other parties to this litigation) to confirm their acceptance of its terms.

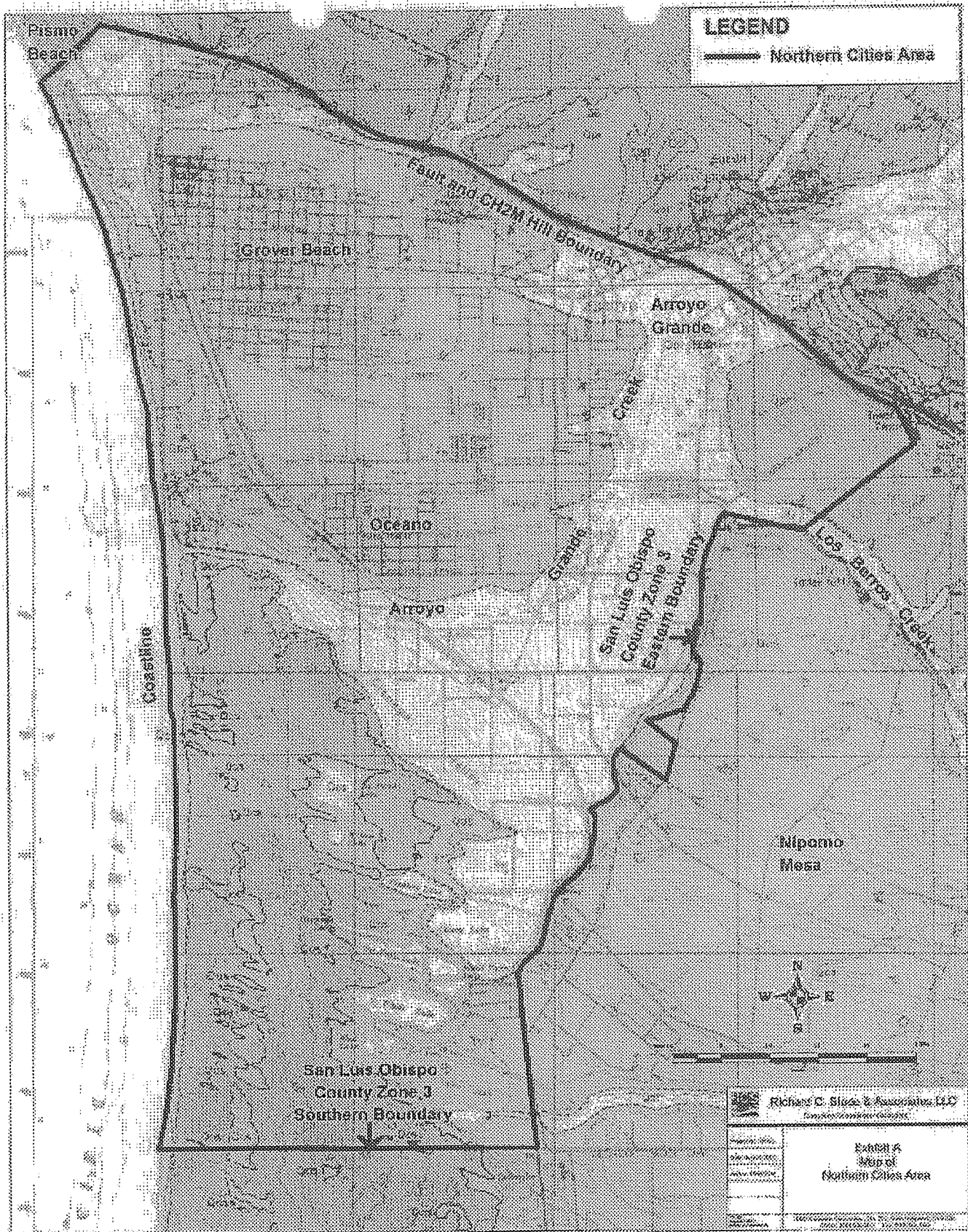
4 27. Merger Clause. This Agreement supersedes and replaces all prior
5 settlement negotiations and agreements, written or oral. It is the complete, final, and exclusive
6 statement of the parties' agreement. The parties hereto acknowledge that no party, agent or
7 attorney of any party has made any promise, representation or warranty whatsoever, express
8 or implied, not contained herein, to induce them to execute this Agreement. Each party has
9 executed this Agreement in reliance on the advice of his/her or its own attorney.

10 Dated: April __, 2002 CITY OF ARROYO GRANDE
11
12 By: Signature Page Filed with Court
13 Title: _____

14 Dated: April __, 2002 CITY OF GROVER BEACH
15
16 By: Signature Page Filed with Court
17 Title: _____

18 Dated: April __, 2002 CITY OF PISMO BEACH
19
20 By: Signature Page Filed with Court
21 Title: _____

22 Dated: April __, 2002 OCEANO COMMUNITY SERVICES DISTRICT
23
24 By: Signature Page Filed with Court
25 Title: _____



**AGREEMENT REGARDING
MANAGEMENT OF THE
ARROYO GRANDE GROUNDWATER BASIN**

A. Parties

This Agreement is entered into among the Cities of Arroyo Grande, Pismo Beach, Grover Beach and the Oceano Community Services District (collectively referred to hereinafter as "Parties" or "Urban Parties").

B. Recitals

WHEREAS, in January 1983, a Technical Advisory Committee consisting of representatives of Arroyo Grande, Grover City, Pismo Beach, Oceano Community Services District, Port San Luis Harbor District, the Farm Bureau, Avila Beach County Water District and the County of San Luis Obispo ("Committee") determined in reliance on the 1979 Report of the Department of Water Resources entitled Ground Water in the Arroyo Grande Area that the safe yield of the Arroyo Grande Groundwater Basin ("Basin") is 9,500 acre feet per year;

WHEREAS, in or about February 1983, the Parties agreed to enter into a voluntary groundwater management plan to provide for effective management of groundwater resources in the Basin through which each party was given sufficient water to meet its needs as then projected; such needs being met in part by the City of Arroyo Grande foregoing 358 acre feet per year of its historical use and the City of Pismo Beach foregoing 20 acre feet per year of its historical use;

WHEREAS, this management plan provided a reasonable division of the safe yield of the Basin without court imposed groundwater basin adjudication;

WHEREAS, on February 9, 1983, the terms of the management plan were incorporated into Resolution No. 83-1 of the South San Luis Obispo County Water Association Approving the Recommendations of the Committee relating to the Basin (the "Resolution");

WHEREAS, each of the Parties have adopted individual resolutions endorsing the provisions of the Resolution;

WHEREAS, the Parties have generally complied with the terms and conditions of the Resolution; and

WHEREAS, general compliance with the Resolution has proven to be a fair and efficient means of managing and protecting groundwater resources in the Basin as confirmed by the revised final draft report prepared by the Department of Water Resources entitled, Water Resources of Arroyo Grande and Nipomo Mesa, January 2000.

NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:

1. Division of Safe Yield.

a. The Parties agree to a division of the safe yield of the Basin as follows:

Applied Irrigation 5,300 acre feet

Subsurface flow to ocean 200 acre feet

Urban Use:

City of Arroyo Grande 1,202 acre feet

City of Grover Beach 1,198 acre feet

City of Pismo Beach 700 acre feet

Oceano Community Services District 900 acre feet

b. Any increase or decrease in the safe yield of the Basin attributable to changed operation of the Lopez Reservoir, or any other cause, shall first be divided between the Urban Parties and applied irrigation on a pro rata basis using the formula from the 1983 Gentlemen's Agreement, fifty-seven percent (57%) to applied irrigation and forty-three percent (43%) to the Urban Parties. Thereafter, the first 378 acre feet per year of any increase of safe yield allocated to the Urban Parties shall be divided between the City of Arroyo Grande and the City of Pismo Beach on a pro rata basis (95% to Arroyo Grande and 5% to Pismo Beach).

c. The entitlements of each respective Urban Party may be increased based upon the conversion of irrigated agricultural lands to urban use. An Urban Party to this Agreement may increase its entitlement for urban use by a factor of three (3) acre feet per acre per year minus the calculated urban usage per acre per year upon the conversion of irrigated agricultural land to urban usage. "Irrigated agricultural land" shall be that land within the corporate limits of the party that was identified as irrigated agricultural land in the 1979 Department of Water Resources Report entitled Ground Water in the Arroyo Grande Area. This agricultural conversion factor may be applied to all acreage converted to urban use from January 1, 1983, throughout the life of this Agreement. Such an agricultural conversion factor is in the best interests of the overall Basin in that it will not result in any decline in the groundwater service over time. The Parties agree that no water should be converted to urban use within the Basin without establishing that it was irrigated agricultural land as defined in the 1979 Department of Water Resources Report, Groundwater in the Arroyo Grande Area.

d. The Parties agree and understand that the safe yield figures utilized in this Agreement are a product of the 1979 Department of Water Resources Report regarding the Arroyo Grande Basin as adjusted by the 1983 ad hoc Technical Advisory Committee and that the division of the resources is based upon the historical use of each party and a practical accommodation of each Party's needs as they existed at the time of the adoption of the 1983

agreement. It is agreed that the Parties will meet and confer on issues related to safe yield and division of existing water resources upon the final adoption of the new Arroyo Grande Basin study performed by the Department of Water Resources, which is currently in draft.

2. Shared Information and Monitoring: The Urban Parties to this Agreement shall freely share information with each other regarding each of their respective uses of groundwater in the Basin, including all pumping data such as amounts of water extracted, well static water levels, and water quality. The Urban Parties to this Agreement shall meet on a quarterly basis to share this information and to discuss water usage and impacts upon the Basin. The Parties shall conduct a review of water usage and the impacts on Basin hydrology in 2010 and 2020.

3. Term:

a. This Agreement shall bind the Parties indefinitely absent a significant change of circumstances as to available water, water quality, or hydrogeology of the Arroyo Grande Basin. A significant change of circumstances shall allow any Party to opt out of this Agreement if the significant change of circumstances put that Party at risk of not being able to meet its potable water needs.

b. Significant changed circumstances shall include changes within the Basin or outside of the Basin, including but not restricted to, a change in the Lopez Reservoir safe yield or an increase in Lopez Reservoir discharges for conservation purposes that threatens the ability of the Urban Parties to obtain their contractual allotments under their Lopez agreements, or a significant change in groundwater yields or quality, or a reduction in foreign water imported by any Urban Party. The Parties recognize that rainfall within the watershed is the most significant factor affecting the yield of Lopez Reservoir and the Basin.

c. The Parties shall revisit the issue of the allocation of groundwater resources within the Arroyo Grande Basin in 2010 and 2020 in the context of the review provided for in section 2 of this Agreement. The Parties shall make new allocations of groundwater resources at that time if circumstances justify it and if no harm will result to other groundwater users. Priority shall be given to reallocation of historical use of groundwater to Arroyo Grande and Pismo Beach that those agencies chose not to pursue in the entering into of the original Gentlemen's Agreement in 1983 should such new allocations be made.

d. A Party may opt out of this Agreement if significant changed circumstances arise as defined in this section. Such a party shall give all other parties to the agreement not less than six months written notice of its intention to opt out. The written notice shall describe in detail the significant changed circumstances upon which the Party bases its election to opt out of the Agreement.

4. Mediation Agreement: The Parties agree to mediate any disputes that arise out of the Parties' performance under this Agreement, or the interpretation of the terms of this Agreement, prior to instituting any litigation against or between any other Party to this Agreement. Should a Party institute litigation without first offering in good faith to mediate any such dispute, any Party may move for an order compelling mediation and staying the proceedings in the litigation until

after mediation has been completed. The prevailing party on a motion to compel mediation shall be entitled to recover its attorney's fees against any resisting party or any party who filed litigation without first making a good faith attempt to mediate the dispute. This mediation requirement shall not apply where the health and safety of any of the Parties, or any of the Parties' residents, is threatened and they must seek, and have obtained, preliminary relief for the purposes of preserving health and safety.

5. No Third Party Beneficiaries: The Parties are entering into this Agreement in order to reasonably allocate existing groundwater resources between themselves and not to benefit any third parties. This agreement shall only be enforceable between the Parties themselves. This Agreement does not create any right enforceable by any person or entity that is not a party to this Agreement.

6. General Provisions:

a. The Parties warrant that all necessary approvals and authorizations have been obtained to bind them to all terms of this Agreement, and further warrant that the persons signing have authority to sign on behalf of their respective Parties.

b. Written notice under this Agreement shall be given by placing such notice in the first class mail, postage prepaid, or by hand delivery to the current address of the office of any Party to this Agreement.

c. No amendment to this Agreement will be binding on any of the Parties unless it is in writing and signed by an authorized representative of all of the Parties.

d. This Agreement will be construed in accordance with, and governed by, the laws of the State of California as applied to contracts that are executed and performed entirely in California.

e. If any provision of this Agreement is held invalid or unenforceable by any final judgment, it is the intent of the Parties that all other provisions of this Agreement be construed to remain fully valid, enforceable, and binding on the Parties.

f. This Agreement may be executed simultaneously in one or more counterparts, each of which will be considered an original, but all of which together will constitute one and the same instrument.

g. The Parties represent that prior to the execution of this Agreement, they consulted independent legal counsel of their own selection regarding the substance of this Agreement.

WHEREFORE, the Parties publicly consent to the terms and conditions of this Agreement by executing the same as set forth below.

Dated: _____, 2001. City of Arroyo Grande

By: _____

Print Name and Title: _____

Dated: _____, 2001. City of Pismo Beach

By: _____

Print Name and Title: _____

Dated: _____, 2001. City of Grover Beach

By: _____

Richard W. Neufeld, Mayor

Dated: _____, 2001. Oceano Community Services District

By: _____

Print Name and Title: _____

1 **EXHIBIT D – SIGNATURE PAGE FOR OTHER PARTIES – WATER PURVEYORS**
2 **AND LANDOWNERS OUTSIDE NORTHERN CITIES AREA**

3 1. I am a party to the Santa Maria Groundwater Litigation, or the legal
4 representative of such a party.

5 2. I have read this Settlement Agreement. I have obtained such legal advice
6 or other counsel regarding its terms as I deem appropriate. I understand and agree to its
7 terms.

8
9
10 Dated: _____, 2002

11
12 Print Name of Party(ies): _____

13
14 Title of Signer: _____

15
16 Signature: _____ *Signature Page Filed with Court*

EXHIBIT F

**Agreement Among City of Santa Maria, Southern California
Water Company and City of Guadalupe
Regarding the Twitchell Project and the TMA**

Santa Maria Valley Water Conservation District v. City of Santa Maria
Santa Clara County Superior Court Case No. CV 770214

SANTA MARIA VALLEY PUBLIC WATER PURVEYOR WATER MANAGEMENT
AGREEMENT

The CITY OF SANTA MARIA (“Santa Maria”), the CITY OF GUADALUPE (“Guadalupe”), and SOUTHERN CALIFORNIA WATER COMPANY (“SCWC”) enter into this SANTA MARIA VALLEY PUBLIC WATER PURVEYOR WATER MANAGEMENT AGREEMENT (“Agreement”) on this ___ day of _____. Santa Maria, Guadalupe and SCWC are referred to individually as a “Party” and collectively as the “Parties”.

RECITALS

A. Santa Maria is a Charter City, providing potable water service to customers within and adjacent to its municipal boundaries.

B. Guadalupe is a general law city, providing potable water service to customers.

C. SCWC is an investor-owned public utility within the meaning of Public Utilities Code section 2400 *et seq.* and operates pursuant to the California Public Utility Act, Public Utilities Code section 200 *et seq.* SCWC provides potable water service to customers within its certificated service area in Santa Barbara County, generally referred to as the “Santa Maria Customer Service Area,” which includes four unincorporated areas of Santa Barbara County, commonly known as “Orcutt,” “Tanglewood,” “Lake Marie,” and “Sisquoc,” and one unincorporated area in San Luis Obispo County, commonly referred to as the “Nipomo Mesa.”

D. On July 20, 2004, Santa Maria and SCWC entered into a Water Management Agreement (“2004 Agreement”), which formalized certain efforts to coordinate the provision of potable water service within their respective service areas. The 2004 Agreement is incorporated herein by reference and remains in full force and effect and is attached as Exhibit A.

E. The Parties have historically relied on local groundwater to provide potable water service to their respective customers and hold rights to pump groundwater (“Groundwater Rights”) from the Santa Maria Groundwater Basin (“Basin”).

F. The Parties also each hold contracts to receive water from the State Water Project (“SWP Entitlement,” collectively, and “Santa Maria SWP Entitlement,” “Guadalupe SWP Entitlement,” or “SCWC SWP Entitlement,” individually). Santa Maria’s contract is for 17,800

acre feet, SCWC's contract is for 550 acre feet and Guadalupe's contract is for 610 acre feet. Collectively, the SWP Entitlement totals 18,960 acre-feet per year.

G. The Parties are also litigants in the Santa Maria groundwater basin (*Santa Maria Valley Water Conservation District v. City of Santa Maria, et al.*, Superior Court, County of Santa Clara, Lead Case No. CV 770214 ("Basin Adjudication").

H. The Parties, along with a large number of other litigants, intend to enter into a stipulation ("Stipulation") which will settle the Basin Adjudication among the stipulating parties.

I. This Agreement is that agreement described as Exhibit F in the Stipulation.

NOW THEREFORE, in consideration of the foregoing recitals and the promises and covenants contained herein, the Parties agree as follows:

Section 1. Definitions. The terms used in this Agreement shall have the same definition as provided in the Stipulation, unless expressly provided otherwise in this Agreement.

Section 2. Purpose. The purpose of this Agreement is to provide the mechanism through which the Parties shall meet their obligations as intended in the Stipulation, through that certain agreement designated as Exhibit F.

Section 3. Term. This Agreement shall be effective concurrently with and on the same terms as the Stipulation, and shall remain in effect concurrent with the Stipulation.

Section 4. Twitchell Yield.

4.1 Division. The Parties agree that the 80% of the 32,000 acre-feet of Twitchell Yield shall be allocated as follows: Santa Maria 14,300 acre-feet; Guadalupe 1,300 acre-feet and SCWC 10,000 acre-feet. The Parties acknowledge that the remaining 20% of the Twitchell Yield (6,400 acre-feet) is allocated to the Overlying Owners within the District who are Stipulating Parties, subject to the terms of the Stipulation.

4.2 Transfer of Twitchell Yield. The Parties agree that any proposed transfer of Twitchell Yield to one of the Parties shall be made available to all Parties. Each Party shall be given 30 days advance notice to elect to participate in any proposed transfer. The amount of transferred Twitchell Yield shall be divided between the Parties participating in the transfer in proportion to those Parties' then existing Twitchell Yield. If only one Party participates in the transfer, that Party shall be entitled to the full amount of transferred Twitchell Yield.

Section 5. Twitchell Management Authority.

5.1 All decisionmaking of the TMA shall be conducted, to the extent reasonably practical, on a consensus basis. Provided, however, if consensus cannot be achieved, TMA decisions shall be made by majority vote. Unless otherwise specified, the weight of each Party's voting rights shall be equivalent to its then-existing Twitchell Yield.

5.2 The Parties will work with the other Twitchell Participants to develop rules and regulations governing the TMA.

5.3 Budget. Each Stipulating Party holding Twitchell Yield shall be obligated to fund the TMA in proportion to that Party's then existing Twitchell Yield.

5.3.1 The TMA shall establish its members' funding obligations through a duly adopted budget, which shall project the TMA funding needs in 3-5 year increments, as it deems necessary to meet its obligations to preserve Twitchell Yield. Any TMA budget shall be adopted at least 18 months in advance of its intended implementation to provide adequate time for SCWC to secure PUC approval to fulfill its financial obligations as a member of the TMA. The Parties will to work cooperatively to achieve consensus on the TMA operating budget. If Santa Maria and SCWC are unable to agree on the operating budget, SCWC shall grant Santa Maria a proxy for purposes of the TMA vote on the operating budget. If SCWC grants such a proxy and an operating budget is subsequently approved, SCWC retains the right to challenge any such operating budget through the Court's reserved jurisdiction provided in the Stipulation. SCWC's obligations with respect to any such operating budget is subject to final approval by the PUC.

5.3.2 Consistent with Section V(D)(3)(c) of the Stipulation, the TMA's annual budget for the first five years following PUC approval of the Stipulation shall be as provided in Exhibit B to this Agreement. As provided in Exhibit B, the TMA budget shall include anticipated costs necessary to fund:

5.3.2.1 The Management Area Engineer activities for the Valley Management Area, including the implementation of the Valley Management Area Monitoring Program and the associated preparation of the Annual Report; and

5.3.2.2 The preparation and implementation of the Twitchell Project Manual; and

5.3.2.3 The funding of Twitchell Project operations and capital funds that the TMA determines are necessary to preserve the Twitchell Yield. The requirements for the Twitchell operational fund shall take into account the amount collected by the District from its current operation and maintenance assessment. The Twitchell capital fund shall consist of any unused revenues from the Twitchell operating fund, plus other funds necessary to implement approved Capital Improvement Projects.

5.4 Capital Improvement Projects.

5.4.1 The Parties agree that if one Party proposes a TMA Capital Improvement Project, that Party shall make available to the other Parties the opportunity to participate in the funding of the TMA Capital Improvement Project in proportion to the Parties' share of Twitchell Yield.

5.4.1.1 If a Party chooses not to participate in the funding of the TMA Capital Improvement Project, and that Party's participation is required to implement the Project, the Parties may petition the Court to resolve the issue on an expedited basis.

5.4.1.2 If a Party chooses not to participate in the funding of the TMA Capital Improvement Project, and that Party's participation is not required to implement the Project, the Party or Parties choosing not to participate in the Project shall grant the Party proposing the Project a proxy for purposes of the TMA vote to approve the Project, so long as the proposed Project will not adversely affect a Party's share of Twitchell Yield or otherwise cause material injury to a Party.

5.4.1.3 If fewer than all Parties participate in the funding of a TMA Capital Improvement Project, the Parties who participate in the funding of the Project shall be entitled to the benefits received from the Project in proportion to their financial contribution.

5.4.2 If an emergency situation exists such that a TMA Capital Improvement Project is necessary to abate the emergency, the Parties may petition the Court for an order approving the Project on an expedited basis.

Section 6. New Urban Uses - SCWC. The 2004 Agreement is expressed modified only as follows:

6.1 All new customers of SCWC, or existing customers proposing to increase their water use through a change in land use requiring a discretionary land use permit or other form of land use entitlement, as specified in Section X(D)(2) of the Stipulation ("SCWC Project

Proponents”) shall provide Supplemental Water to offset the demand associated with that prospective use, through the protocol provided in the 2004 Agreement. The entities that have entered into the Reservation/Purchase Agreements identified on Exhibit C to this Agreement and Exhibit B to the 2004 Agreement are deemed to have satisfied the requirements of this Section and are exempt from the requirements of Section 6.2, below.

6.2 In addition to the fee paid to secure Supplemental Water pursuant to the 2004 Agreement, an additional 20% shall be charged to the SCWC Project Proponent by Santa Maria and shall be placed into either the Twitchell operational fund or the Twitchell capital fund. That incremental charge deposited in the applicable fund, shall be deemed a SCWC contribution to offset any SCWC TMA funding requirements.

Section 7. New Urban Uses – Guadalupe.

7.1 Guadalupe and Santa Maria agree that it is within their mutual interests to cooperate and coordinate their efforts to provide retail water service within their respective service areas.

7.2 Guadalupe and Santa Maria mutually acknowledge the benefits of importing SWP supplies to augment their use of local groundwater.

7.3 It is to the mutual advantage of Guadalupe and Santa Maria to have several alternatives for making use of their SWP Entitlements, Return Flows and Twitchell Yield to create flexibility, reliability, and cost effectiveness in their water supply systems. Santa Maria and Guadalupe shall each have the right to use the other’s unused Twitchell Yield in any given year if needed.

7.4 Guadalupe and Santa Maria agree to work cooperatively to provide a reliable and cost effective mechanism through which Santa Maria and Guadalupe can maximize the use of their respective SWP supplies and Return Flows within the Basin. Santa Maria agrees not to oppose any effort by Guadalupe that is based on reliable data to increase the fixed percentage of Guadalupe’s SWP Return Flow.

7.5 Santa Maria agrees to work cooperatively with Guadalupe to provide Guadalupe with additional SWP supplies. Guadalupe shall compensate Santa Maria through a specified dollar amount or through an exchange of water resources, as Guadalupe and Santa Maria deem appropriate. As further consideration, Santa Maria shall have a right of first refusal to purchase any SWP Return Flows that Guadalupe elects to sell from its existing SWP Entitle-

ment, and any future SWP Entitlement, that are not for use within or adjacent to Guadalupe's service area.

Section 8. Representations or Warranties of Guadalupe. Guadalupe makes the following representations, warranties and covenants to SCWC and Santa Maria:

8.1 Power and Authority to Execute and Perform this Agreement. Guadalupe has the power and authority to enter into this Agreement and to perform its obligations and all necessary approvals and authorizations have been obtained.

8.2 Enforceability. This Agreement constitutes a legal, valid and binding obligation of Guadalupe, and is enforceable against Guadalupe in accordance with its terms.

Section 9. Representations or Warranties of Santa Maria. Santa Maria makes the following representations, warranties and covenants to SCWC and Guadalupe:

9.1 Power and Authority to Execute and Perform this Agreement. Santa Maria has the power and authority to enter into this Agreement and to perform its obligations and all necessary approvals and authorizations have been obtained.

9.2 Enforceability. This Agreement constitutes a legal, valid and binding obligation of Santa Maria, and is enforceable against Santa Maria in accordance with its terms.

Section 10. Representations or Warranties of SCWC. SCWC makes the following representations, warranties and covenants to Santa Maria and Guadalupe:

10.1 Power and Authority to Execute and Perform this Agreement. SCWC is a corporation duly formed and in good standing in the State of California. Subject to California Public Utility Commission approval, expressly including the ability to recover the costs of implementing this agreement through its authorized regulated utility rates, SCWC has the corporate power and authority to enter into this Agreement and to perform its obligations and all necessary corporate approvals and authorizations have been obtained.

10.2 Enforceability. Subject to California Public Utility Commission approval as provided in section 10.1, this Agreement constitutes a legal, valid and binding obligation of SCWC, enforceable against SCWC in accordance with its terms.

Section 11. Remedies Not Exclusive. Remedies provided in this Agreement for enforcement of its terms are intended and shall be construed as cumulative rather than exclusive and shall not be deemed to deprive any Party from also using any other remedies provided by this Agreement or by law.

Section 12. Subject to Applicable Law. The Parties acknowledge and agree that this Agreement and the rights and obligations of the Parties shall be subject to the laws governing municipal corporations as they now exist and as they may be amended or codified by the Legislature of the State of California.

Section 13. Integration. This Agreement shall be integrated with, and interpreted in companion with the 2004 Agreement, the Stipulation, and the final judgment entered in the Basin Adjudication that is based upon the Stipulation. These set of agreements contain the entire understanding between SCWC, Santa Maria and Guadalupe with respect to the subject matter, and supersede all prior agreements, oral or written, and all prior or contemporaneous discussions or negotiations between SCWC, Santa Maria and Guadalupe. This Agreement cannot be amended except in writing signed by all Parties.

Section 14. No Waiver. Any failure or delay on the part any Party to exercise any right under this Agreement shall not constitute a waiver of the right, and shall not preclude such Party from exercising or enforcing the right, or any other provision of this Agreement, on any subsequent occasion.

Section 15. Notices. All notices or other communications required or desired to be given pursuant to this Agreement shall be in writing and shall be hand-delivered, or mailed by certified mail, return receipt requested, or sent by a reputable overnight courier service providing delivery confirmation. Each such notice or communication shall be deemed to be duly given when hand-delivered, or three (3) days after being mailed in any depository maintained by the United States Postal Service, with prepaid postage, certified, return receipt requested or one (1) day after being deposited for next day delivery with Federal Express or other reputable overnight courier. Each such notice or communication shall be addressed to the Parties at their respective addresses set forth next to their signatures below, or such other address as a Party notifies the other in writing.

Section 16. Headings; Section References. Captions and headings appearing in this Agreement are inserted solely as reference aids for the ease and convenience; they shall not be deemed to define or limit the scope or substance of the provisions they introduce, nor shall they be used in construing the intent or effect of such provisions.

Section 17. Separability. If any provision of this Agreement is finally determined by a court to be invalid or unenforceable as written, the provision shall, if possible, be enforced to

the extent reasonable under the circumstances and otherwise shall be deemed deleted from this Agreement. The other provisions of this Agreement shall remain in full force and effect so long as the material purposes of the Agreement and understandings of the Parties are not impaired.

Section 18. Binding Effect Assignment. This Agreement shall only be binding on and inure to the benefit of the Parties, and their respective successors and permitted assigns. No Party shall assign this Agreement except with the prior written approval of the other Parties. Any unauthorized attempt to assign this Agreement shall be null and void. Notwithstanding the foregoing, SCWC shall have the right to assign this Agreement to any affiliate.

Section 19. Attorneys Fees. In the event that any action or proceeding is brought to enforce one or more of the terms of this Agreement, to restrain an alleged violation of this Agreement, or to determine the validity of this Agreement or any part, the prevailing Party in any such action or proceeding shall be entitled to recover from the other its reasonable costs and attorneys' fees, in addition to any other remedies available to it in law or equity. If all Parties are successful in one or more causes of action during any such proceeding, the costs and fees shall be apportioned as determined by the Court.

Section 20. Force Majeure. If by reason of acts of God, earthquakes, floods, storms, explosion, fires, labor troubles, strikes, insurrection, riots, acts of the public enemy, or federal, state, or local law, order, rule, or regulation, any Party is prevented from complying with any condition of this Agreement, then while so prevented the condition shall be suspended and the Party shall be relieved of the obligation of complying with such covenant and shall not be liable for damages for failure to comply with it. Any obligation of any Party shall be extended for as long as it is so prevented from complying with any condition or covenant in the Agreement.

Section 21. Dispute Resolution, Governing Law and Venue. This Agreement is a contract governed in accordance with the laws of the State of California. The Parties agree that if any dispute arises with respect to any provision of this Agreement, the Parties shall meet and confer in an attempt to resolve any such disputes. If, after 90 days, the meet and confer process is unsuccessful, the dispute shall be presented for Court review and determination pursuant to the Court's reserved jurisdiction and judicial review provisions provided in the Stipulation.

Section 22. Counterparts. This Agreement may be signed in any number of counterparts, including counterparts by facsimile signature, each of which shall be deemed an original,

but all of which shall together constitute one and the same instrument. The original signature pages shall be filed with the Court as Exhibit F to the Stipulation.

IN WITNESS WHEREOF, the parties have executed this agreement as of the date first written above.

CITY OF SANTA MARIA:

SCWC:

City of Santa Maria
a California municipal corporation

Southern California Water Company,
a California corporation

By: _____

By: _____

Name: _____

Name: Denise L. Kruger

Title: _____

Title: Senior Vice President of Operations

Address: _____

Address: 3035 Prospect Park, Suite 60
Rancho Cordova, CA 95670

Fax: _____

Fax: (916) 853-3674

Phone: _____

Phone: (916) 853-3606

CITY OF GUADALUPE

City of Guadalupe,
a California municipal corporation

By: _____

Name: _____

Title: _____

Address: _____

Fax: _____

Phone: _____

APPROVED AS TO FORM:

By: _____

Guadalupe City Attorney

EXHIBIT A
to
STIPULATION EXHIBIT F

WATER MANAGEMENT AGREEMENT

This Water Management Agreement (“Agreement”) is made and entered into this ~~30th~~ day of ~~July~~ 2004, by and between the CITY OF SANTA MARIA ("City"), a California municipal corporation, and SOUTHERN CALIFORNIA WATER COMPANY, a California corporation ("SCWC"). The City and SCWC are referred to individually as a “Party” and collectively as the “Parties”.

RECITALS

A. The City is a Charter City. The City provides potable water service to customers within the greater Santa Maria area of Santa Barbara County.

B. SCWC is an investor-owned public utility within the meaning of Public Utilities Code Section 2400, *et seq.* and operates pursuant to the California Public Utility Act, Public Utilities Code Section 200, *et seq.* SCWC provides potable water service to customers within its certificated service area in Santa Barbara County, generally referred to as the “Santa Maria Customer Service Area”, which includes four unincorporated areas of Northern Santa Barbara County, commonly known as “Orcutt,” “Tanglewood,” “Lake Marie,” and “Sisquoc,” and one unincorporated area in San Luis Obispo County, commonly referred to as the “Nipomo Mesa.”

C. The City and SCWC have historically cooperated and coordinated their efforts to provide retail water service within their respective service areas.

D. Both the City and SCWC have historically relied on local groundwater to provide potable water service to their respective customers and both hold rights to pump groundwater (“Groundwater Rights”) from the Santa Maria Groundwater Basin (“Basin”).

E. The City and SCWC also each hold contracts to receive water from the State Water Project (“SWP Entitlement,” collectively, and “City SWP Entitlement” or “SCWC SWP Entitlement,” individually). Collectively, their contract entitlements total 18,350 acre-feet per year.

F. Both the City and SCWC are legally entitled to retain and recapture that portion of their respective SWP Entitlement that recharges the Basin after the consumptive use of the SWP Entitlement (“Return Flows”).

G. The City and SCWC mutually acknowledge the benefits of importing SWP supplies to augment their use of local groundwater.

H. It is to the mutual advantage of the City and SCWC to have several alternatives for making use of their SWP Entitlements, Return Flows and Groundwater Rights, to create flexibility, reliability and cost-effective redundancy in their water supply systems.

I. The County of Santa Barbara ("County") regulates the land use activities within Orcutt. In 1997, the County adopted the Orcutt Community Plan ("OCP"), which establishes, among other things, certain policies regarding water supplies to be secured for new development projects in Orcutt ("Project" or "Projects"). The OCP was amended in 2001. In particular, the OCP requires that the water demand associated with Projects be offset by "supplemental" water supplies that do not result in further overdraft of the Basin ("OCP Water Policies").

J. As of the date of this Agreement, SCWC has fully reserved the SCWC SWP Entitlement for the benefit of Projects (See Section 3 below). In addition, without significant investment in and construction of additional capital facilities and/or the access to City facilities as provided in this Agreement, SCWC is unable to take delivery of the full extent of its SCWC SWP Entitlement.

K. Without the construction of additional capital facilities that extend the SCWC SWP turnout from Tanglewood to Orcutt, SCWC is unable to take delivery of any additional alternative sources of water that may comply with the OCP Water Policies, except as provided in this Agreement.

L. The City has elected to make available to certain Project proponents within Orcutt supplemental water supplies that will satisfy the OCP Water Policies applicable to Projects. (See City Resolution 2003-150, attached as Exhibit "A" ("Resolution 2003-150").)

M. SCWC and the City are also parties to litigation regarding water rights in the Santa Maria groundwater basin (*Santa Maria Valley Water Conservation District v. City of Santa Maria, et al.*, Superior Court, County of Santa Clara, Lead Case No. CV 770214 ("Basin Adjudication"))

N. The Parties intend that this Agreement provide a reliable and cost effective mechanism through which the City and SCWC can maximize the use of their respective SWP supplies within the Basin, while making the most efficient use of existing facilities to take delivery of the Parties' respective SWP supplies.

O. The Parties also intend that this Agreement establish a mechanism through which potential new SCWC customers in Orcutt may access supplemental water through the City, consistent with the OCP Water Policies.

NOW THEREFORE, in consideration of the foregoing recitals and the promises and covenants contained herein, the Parties agree as follows:

Section 1. Purpose. The purposes of this Agreement are to: (a) provide a reliable and cost effective mechanism through which the City and SCWC can maximize the use of their respective SWP supplies within the Basin, (b) make the most efficient use of existing facilities to take delivery of the Parties' respective SWP supplies, (c) secure a reliable means of accessing Supplemental Water (defined below), and (d) fairly allocate the costs of obtaining and using Supplemental Water within the Basin. Nothing in this Agreement shall be interpreted to impose on either Party any obligation that might arise out of the final judgment entered in the Basin Adjudication, other than as expressly provided in this Agreement.

Section 2. Term.

2.1 This Agreement shall be effective on the date first written above ("Effective Date") and shall continue to February 25, 2038, and thereafter shall remain in effect for so long as both the City and SCWC remain SWP contractors ("Term").

2.2 While the Parties contend PUC approval of this Agreement is not required, should the PUC rule that PUC approval is required and that approval of the Agreement as written is denied, the Parties shall make every reasonable effort to modify the Agreement in a manner that the PUC will approve and that also preserves its original, essential terms.

Section 3. Right to Acquire Water.

3.1 The Parties acknowledge that given the limits of existing facilities, SCWC is unable to take full delivery of the SCWC SWP Entitlement through its existing SWP facilities because the water demand in the area with direct access to the SCWC SWP Entitlement (Tanglewood) is significantly less than the full SCWC SWP Entitlement. Further, SCWC has fully committed to those Projects listed in Exhibit "B" ("Committed Projects") SCWC's SWP Entitlement and the use of SCWC's existing facilities to make use of the SCWC SWP Entitlement reserved to the benefit of the Committed Projects. To take delivery of the entirety of the SCWC SWP Entitlement, SCWC must either construct additional capital facilities to extend the

SWP turnout from Tanglewood to Orcutt, and/or obtain the rights to rely on the interconnection between the SCWC and City systems, as provided in this Agreement.

3.2 SCWC agrees that, given its geographic proximity to and existing interconnection with SCWC, the City provides the best, most cost effective, and logical source of Supplemental Water for the benefit of Projects in Orcutt to which SCWC would provide retail potable water service.

3.3 For the purpose of this Agreement, "Supplemental Water" shall mean a portion of the yield of the SWP Entitlement held by the City, or a portion of the historic groundwater rights to the Basin held by the City in accordance with the final judgment entered in the Basin Adjudication.

3.4 In working with Project proponents, SCWC agrees that prior to accepting any water that is intended to satisfy the OCP Water Policies, other than the SCWC SWP Entitlement, Supplemental Water and that obtained under Section 7.1, SCWC shall:

3.4.1 Refer to the City any Project proponent that requests water service from SCWC that is also subject to the OCP Water Policies; and

3.4.2 Allow sufficient time for the City and the Project proponent to attempt to make arrangements consistent with the OCP Water Policies, this Agreement and other applicable considerations.

3.5 The City shall make available Supplemental Water to Projects in Orcutt pursuant to Resolution 2003-150 or a substantially similar policy. The City shall not unreasonably withhold Supplemental Water from Projects in Orcutt.

3.6 If any portion of SCWC's SWP Entitlement becomes uncommitted (i.e., a Committed Project is not approved for development or if the County adjusts upward the reliability factor it applies to SCWC SWP Entitlement), SCWC shall use the uncommitted SCWC SWP Entitlement as specified in this Section 3.6 and the Parties shall undertake the following:

3.6.1 SCWC shall provide written notice to the City of the availability of the SCWC SWP Entitlement ("Notice of Availability"), specifying the quantity of SCWC SWP Entitlement that has become available. Within 45 days of the Notice of Availability, the City shall pay to SCWC \$22,000 per acre foot, adjusted annually based on the consumer price index (Los Angeles-Riverside-Orange County), for the SCWC SWP Entitlement specified in the Notice of Availability. Upon provision of payment to SCWC, the City, at its sole discretion, may make

available to Project(s) in Orcutt, as otherwise provided in this Agreement, this SCWC SWP Entitlement as though it is Supplemental Water. SCWC shall continue to use the SCWC SWP Entitlement as though it is fully committed for the benefit of Projects in Orcutt.

3.7 SCWC shall be relieved of its obligation to refer the Project proponent to the City as provided in subsection 3.4, during any period which:

3.7.1 The City determines that the City has no additional Supplemental Water available for use in Orcutt, or the County determines that the City has no additional Supplemental Water available for use in Orcutt. If the Parties disagree with the County's determination, the Parties agree to use their reasonable best efforts to convince the County that the City does have available Supplemental Water.

3.8 After January 1, 2014, SCWC shall be relieved of its obligation to refer the Project Proponent to the City as provided in subsection 3.4, if one or more of the following conditions applies:

3.8.1 A source of water becomes available to SCWC for use in the Basin at a cost less than the cost of the City's Supplemental Water, on a per acre foot basis;

3.8.2 The Parties agree to meet and confer in good faith to attempt to resolve any issues that arise pursuant to this Section 3.8 prior to SCWC seeking an alternative source of water.

3.9 The Parties acknowledge and agree that this Agreement is not a mechanism through which SCWC may use the City's water distribution system to access alternative sources of water, either directly or indirectly, except as expressly provided in this Agreement.

Section 4. Interconnection. The Parties have previously established an interconnection between their respective water distribution facilities, consisting of a two-way meter, meter vault and appurtenances located inside the meter vault ("Interconnection"). The Interconnection is located at Miller Street and Santa Maria Way. The maintenance, repair and improvements to the Interconnection shall be managed as follows:

4.1 The Parties shall share equally the costs of all maintenance and repairs on the Interconnection. SCWC shall be responsible for physically implementing the ongoing maintenance and repair of the Interconnection, subject to the City's prior review of the maintenance and repair plans.

4.2 The Parties shall share the costs of any needed improvements to the Interconnection one-fourth ($\frac{1}{4}$) by the City and three-fourths ($\frac{3}{4}$) by SCWC. Unless otherwise arranged between the Parties, SCWC shall be responsible for physically implementing any improvements to the Interconnection. The City shall provide prior input and approval of any improvements to the Interconnection.

4.3 Both the City and SCWC shall have reasonable access to the meter at the Interconnection.

Section 5. Delivery of Water Through the Interconnection. Either Party may take delivery of water through the Interconnection subject to the following conditions (for the purpose of this Agreement, the Party taking delivery shall be referred to as the “Receiving Party” and the Party supplying the water shall be referred to as the “Supplying Party”):

5.1 As a Receiving Party, SCWC shall have a first priority right to use the Interconnection to take delivery each Year (defined below) of only that amount of SCWC SWP Entitlement that SCWC cannot take delivery of through SCWC’s own facilities. In addition, each Year, SCWC’s receipt of water through the Interconnection pursuant to this Section shall be limited to that quantity of SCWC’s SWP Entitlement SCWC has made available for the City’s receipt during that Year, at the City’s SWP turnout within the City. The City may impose reasonable limitations on the rate of water SCWC takes through the Interconnection subject to this subsection 5.1.

5.2 Subject to SCWC’s use of the Interconnection as provided in Section 5.1, either Party may use the Interconnection to take delivery of water by providing the Supplying Party at least 48 hours advance notice of the quantity and rate at which water will be taken.

5.3 Other than as provided in subsection 5.1, the Supplying Party may impose reasonable limitations on the rate and quantity of water to be taken through the Interconnection. Each Party is under an affirmative obligation to accommodate reasonable requests for use of the Interconnection, subject to SCWC’s priority right provided in Section 5.1. Unless otherwise agreed between the Parties, the use of the Interconnection other than as provided in Section 5.1 shall be interim and temporary in nature.

5.4 Payment for receipt of water through the Interconnection shall be made in accordance with Section 6.

Section 6. Payments for Delivered Water. The Receiving Party shall pay to the Supplying Party for receipt of water through the Interconnection, as follows:

6.1 Section 5.1 deliveries. For use of the Interconnection as provided in Section 5.1, SCWC shall pay to the Central Coast Water Authority ("CCWA") all costs associated with making available to the City, at the City's SWP turnout within the City, that quantity of the SCWC SWP Entitlement equivalent to that amount of water SCWC intends to receive through the Interconnection. Payment shall be made in accordance with applicable CCWA policies.

6.2 Section 5.2 deliveries. For delivery of water obtained through the Interconnection pursuant to Section 5.2, the Receiving Party shall pay the Supplying Party a per acre-foot charge equivalent to the Supplying Party's cost of producing the water for that Year. The Supplying Party shall determine cost of producing water and shall provide the Receiving Party with an itemized statement summarizing those costs. The Parties agree to meet and confer in good faith regarding any dispute in determining the cost of producing water.

6.3 Neither Party shall be obligated to pay any charge, other than as provided in this Section.

6.4 For the purpose of this Agreement, a "Year" shall refer to a water year commencing on October 1 and ending in the subsequent year on September 30. The Payments required in Section 6.2 shall be made annually, on or before November 1 of each Year, based on actual metered receipt of water through the Interconnection.

Section 7. Additional Supplemental Water. In exchange for the commitments in Section 3 and as an element of consideration for those commitments, the City hereby provides to SCWC, upon the Effective Date, the right to take delivery of 20 acre-feet of Supplemental Water annually for the Term of this Agreement, at no cost to SCWC. The City provides these 20 acre-feet of Supplemental Water under the same terms and conditions provided in Resolution 2003-150. If the County determines that Supplemental Water provided pursuant to Resolution 2003-150 does not satisfy the OCP Water Policies, the City shall provide SCWC at no cost, 20 acre-feet per year of water through the Interconnection, in addition and subject to the same priority as that amount of water SCWC can obtain under Section 5.1. SCWC shall have the right to use 20 acre-feet of water provided in this Section 7 for the benefit of any residential Project.

Section 8. Service Area Integrity. Nothing in this Agreement is intended nor shall it be interpreted to waive either Party's rights to provide water service to current or future areas within or adjacent to their existing service areas. Should the City seek to acquire (by any means) any portion of, or all of the SCWC certificated service area in SCWC's Santa Maria Customer Service Area, the City shall pay as fair compensation, the greater of 10 times the SCWC rate base or the court-approved fair compensation.

Section 9. Representations or Warranties of City. The City makes the following representations, warranties and covenants to SCWC:

9.1 Power and Authority to Execute and Perform this Agreement. The City has the power and authority to enter into this Agreement and to perform its obligations and all necessary approvals and authorizations have been obtained.

9.2 Enforceability. This Agreement constitutes a legal, valid and binding obligation of the City, and is enforceable against the City in accordance with its terms.

Section 10. Representations or Warranties of SCWC. SCWC makes the following representations, warranties and covenants to City:

10.1 Power and Authority to Execute and Perform this Agreement. SCWC is a corporation duly formed and in good standing in the State of California. Subject to the conditions of Section 2.2, SCWC has the corporate power and authority to enter into this Agreement and to perform its obligations and all necessary corporate approvals and authorizations have been obtained. The City agrees that nothing in this representation, warranty or covenant shall be interpreted or applied to negate the City's indemnity obligations provided in Section 12.

10.2 Enforceability. This Agreement constitutes a legal, valid and binding obligation of SCWC, enforceable against SCWC in accordance with its terms.

Section 11. Termination. This Agreement shall terminate as described in Section 2. If this Agreement is terminated prior to the expiration of the Term, its termination shall not impact: (a) any other agreements regarding Supplemental Water between the City and Project proponents, and SCWC and Project proponents, (b) the provision of water to SCWC pursuant to Section 7 and (c) the payments and associated commitments, if any, regarding the SCWC SWP Entitlement between the City and SCWC made pursuant to Section 3.6.

Section 12. Indemnity.

12.1 The City shall hold harmless, defend and indemnify SCWC, its directors, employees, agents, successors and assigns (all of which are herein referred to as the "SCWC Indemnified Parties") from and against all liabilities, obligations, claims, damages, losses, actions, judgments, suits, costs and expenses, including but not limited to reasonable attorneys' fees (collectively, "Damages"), which may be imposed on, incurred by, or asserted against the SCWC Indemnified Parties as a result of or arising out of the restrictions placed on SCWC's access to Supplemental Water as provided in Section 3, and/or the implementation of this Agreement as of the Effective Date as provided in Section 2. This indemnification shall survive termination of the Agreement.

12.2 Promptly following notice of any claim for which SCWC is indemnified, SCWC shall notify the City of such claim in writing. The City shall thereafter defend against such claim, in consultation with SCWC, in a manner the Parties mutually deem appropriate, including settlement on such terms as SCWC and the City both approve. The City and SCWC shall mutually select counsel. SCWC may also elect to have separate representation at its sole discretion and cost. If the City fails to promptly defend such claim, SCWC may defend the claim in any manner it deems appropriate and with counsel of its choice, including without limitation, settlement of the claim on terms SCWC deems appropriate, and to pursue such remedies as may be available to SCWC against the City.

Section 13. Remedies Not Exclusive. Remedies provided in this Agreement for enforcement of its terms are intended and shall be construed as cumulative rather than exclusive and shall not be deemed to deprive either Party from also using any other remedies provided by this Agreement or by law.

Section 14. No Transfer of Water Rights or Contracts. The rights granted pursuant to this Agreement constitute the right to take delivery of water only and shall not be interpreted as a sale, transfer, or assignment of either Party's water rights or contract entitlements.

Section 15. Subject to Applicable Law. The Parties acknowledge and agree that this Agreement and the rights and obligations of the Parties shall be subject to the laws governing municipal corporations as they now exist and as they may be amended or codified by the Legislature of the State of California.

Section 16. Entire Agreement. This Agreement contain the entire understanding between SCWC and the City with respect to the subject matter, and supersedes all prior agreements, oral or written, and all prior or contemporaneous discussions or negotiations between SCWC and the City. This Agreement cannot be amended except in writing signed by both Parties.

Section 17. No Waiver. Any failure or delay on the part either Party to exercise any right under this Agreement shall not constitute a waiver of the right, and shall not preclude such Party from exercising or enforcing the right, or any other provision of this Agreement, on any subsequent occasion.

Section 18. Notices. All notices or other communications required or desired to be given pursuant to this Agreement shall be in writing and shall be hand-delivered, or mailed by certified mail, return receipt requested, or sent by a reputable overnight courier service providing delivery confirmation. Each such notice or communication shall be deemed to be duly given when hand-delivered, or three (3) days after being mailed in any depository maintained by the United States Postal Service, with prepaid postage, certified, return receipt requested or one (1) day after being deposited for next day delivery with Federal Express or other reputable overnight courier. Each such notice or communication shall be addressed to the Parties at their respective addresses set forth next to their signatures below, or such other address as a Party notifies the other in writing.

Section 19. Headings; Section References. Captions and headings appearing in this Agreement are inserted solely as reference aids for the ease and convenience; they shall not be deemed to define or limit the scope or substance of the provisions they introduce, nor shall they be used in construing the intent or effect of such provisions.

Section 20. Separability. If any provision of this Agreement is finally determined by a court to be invalid or unenforceable as written, the provision shall, if possible, be enforced to the extent reasonable under the circumstances and otherwise shall be deemed deleted from this Agreement. The other provisions of this Agreement shall remain in full force and effect so long as the material purposes of the Agreement and understandings of the Parties are not impaired.

Section 21. Binding Effect Assignment. This Agreement shall be binding on and inure to the benefit of the Parties, and their respective successors and permitted assigns. Neither Party shall assign this Agreement except with the prior written approval of the other Party. Any

unauthorized attempt to assign this Agreement shall be null and void. Notwithstanding the foregoing, SCWC shall have the right to assign this Agreement to any affiliate.

Section 22. Attorneys Fees. In the event that any action or proceeding is brought to enforce one or more of the terms of this Agreement, to restrain an alleged violation of this Agreement, or to determine the validity of this Agreement or any part, the prevailing Party in any such action or proceeding shall be entitled to recover from the other its reasonable costs and attorneys' fees, in addition to any other remedies available to it in law or equity. If both Parties are successful in one or more causes of action during any such proceeding, the costs and fees shall be apportioned as determined by the court.


Section 23. Force Majeure. If by reason of acts of God, earthquakes, floods, storms, explosion, fires, labor troubles, strikes, insurrection, riots, acts of the public enemy, or federal, state, or local law, order, rule, or regulation, either Party is prevented from complying with any condition of this Agreement, then while so prevented the condition shall be suspended and the Party shall be relieved of the obligation of complying with such covenant and shall not be liable for damages for failure to comply with it. Any obligation of either Party shall be extended for as long as it is so prevented from complying with any condition or covenant in the Agreement.

Section 24. Governing Law and Venue. This Agreement is a contract governed in accordance with the laws of the State of California. THE PARTIES HEREBY AGREE THAT VENUE FOR ANY ACTION BROUGHT TO ENFORCE THE TERMS OF THIS AGREEMENT SHALL BE IN A COURT OF COMPETENT JURISDICTION IN THE COUNTY OF SANTA BARBARA, CALIFORNIA, AND CONSENT TO THE JURISDICTION THEREOF.

IN WITNESS WHEREOF, the parties have executed this agreement as of the date first written above.

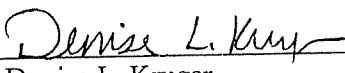
CITY:

City of Santa Maria
a California municipal corporation

By: 
Name: L. J. Lavagnino
Title: Mayor

SCWC:

Southern California Water Company,
a California corporation

By: 
Name: Denise L. Kruger
Title: Senior Vice President of Operations

Address: 110 E. Cook Street
Santa Maria, CA 93454


Fax: (805) 349-0657
Phone: (805) 925-0951, ext. 200

Address: 3035 Prospect Park, Suite 60
Rancho Cordova, CA 95670

Fax: (916) 853-3674
Phone: (916) 853-3606

APPROVED AS TO FORM:

Best Best & Krieger LLP

By: 
Eric Garner, Partner

ATTEST:

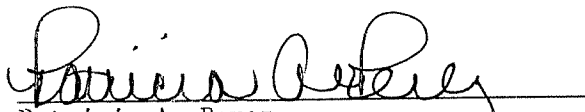

Patricia A. Perez
Chief Deputy City Clerk

EXHIBIT A

RESOLUTION NO. 2003 - 150

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF
SANTA MARIA, CALIFORNIA APPROVING THE SALE OF UP
TO 400 ACRE-FEET ANNUALLY OF SUPPLEMENTAL STATE
WATER PROJECT YIELD AND AUTHORIZING THE CITY
MANAGER TO EXECUTE AGREEMENTS FOR THE SALE OF
UP TO 400 ACRE-FEET ANNUALLY OF SUPPLEMENTAL
STATE WATER PROJECT YIELD**

WHEREAS, the City of Santa Maria ("City") holds contracts to receive water from the State Water Project ("Project"), and can import up to 17,820 acre feet of water per year from the Project; and

WHEREAS, the City also holds rights to pump groundwater from the Santa Maria Valley Groundwater Basin ("Basin"); and

WHEREAS, the County of Santa Barbara ("County") regulates the land use activities within the Orcutt area. In 1997, the County adopted the Orcutt Community Plan ("OCP"), which establishes, among other things, certain policies regarding water supplies to be secured for new development projects in Orcutt. The OCP requires that the water demand associated with projects be offset by "supplemental" water supplies that do not result in further overdraft of the Basin; and

WHEREAS, the City has water available for use in the Orcutt area pursuant to the OCP, that is surplus to that needed to serve the City's current and long-term future anticipated demands; and

WHEREAS, "Supplemental Water" shall mean a portion of the yield of the SWP entitlement held by the City, or a portion of the historic groundwater rights to the Basin held by the City in accordance with the final judgment entered in *Santa Maria Valley Water Conservation District v. City of Santa Maria, et al.*, Superior Court, County of Santa Clara, Lead Case No. CV 770214; and

WHEREAS, the sale of up to 400 acre-feet of Project water will not change the existing setting and will not affect the net amount of water that will be extracted from the Basin; and

WHEREAS, the City is willing to enter into agreements to provide up to 400 acre-feet annually of supplemental water to individual property owners for the benefit of the individual property owners and their associated Projects.

NOW, THEREFORE, IT IS HEREBY RESOLVED by the City Council of the City of Santa Maria as follows:

1. The City Council approves the sale of up to 400 acre-feet annually of Supplemental water.

STATE OF CALIFORNIA)
COUNTY OF SANTA BARBARA) ss.
CITY OF SANTA MARIA)

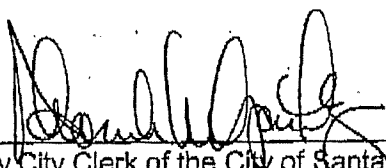
I, **RHONDA M. GARIETZ**, Deputy City Clerk of the City of Santa Maria and ex officio Clerk of the City Council DO HEREBY CERTIFY that the foregoing is a full, true and correct copy of **Resolution No. 2003-150** which was duly and regularly introduced and adopted by said City Council at a regular meeting held **August 5, 2003**, by the following vote:

AYES: **Councilmembers Mariscal, Orach, Patino, Trujillo and Mayor Lavagnino.**

NOES: **None.**

ABSENT: **None.**

ABSTAIN: **None.**



Deputy City Clerk of the City of Santa Maria
and ex officio Clerk of the City Council

EXHIBIT B

SCWC SWP ENTITLEMENT: PROJECT LIST

PROJECT	TYPE	QUANTITY
Oak Knolls South	Residential	3.36 af
Mesa Verde	Residential	33 af
Orthodox Church	Commercial	1.6 af
Fundamental Baptist Church	Commercial	0.6 af
Orcutt Marketplace	Commercial	37 af
Rice Ranch	Residential	350 af
Eskridge Lot Split	Residential	0.5 af
Diamante Estates	Residential	9 af
Hummel Village/Senior Housing	Commercial/Residential	3.5 af
TOTAL		438.6*af

* Because the County of Santa Barbara considers State Water Project water less than 100% reliable, the County applies a reliability factor to the SCWC SWP Entitlement. For the purposes of the projects on this Exhibit B, the County has adopted a 79% reliability factor for the SCWC SWP Entitlement. Based on this reliability factor, the County considers the entirety of the SCWC SWP Entitlement fully committed.

EXHIBIT B
to
STIPULATION EXHIBIT F

DRAFT: Subject to Ratification by the TMA

Exhibit B

**SANTA MARIA VALLEY PUBLIC WATER PURVEYOR WATER
MANAGEMENT AGREEMENT**

**Twitchell Management Authority
Annual Budget
Applicable for 2006-2011**

Item	Amount
Administration	\$50,000
Management Area Engineer	\$100,000
Twitchell Operation (including Twitchell Project Manual)	\$300,000
Monitoring	\$100,000
Program/Annual Report	
Reserves	\$100,000

EXHIBIT C
to
STIPULATION EXHIBIT F

SUPPLEMENTAL WATER PURCHASE AGREEMENTS

City of Santa Maria and OakGlen General Partnership dated July 31, 2003 – Project known as OakGlen – 22 afy.

City of Santa Maria and Ronald Chappell and Raymond Gonzales dated July 31, 2003 – Project known as 1374 Solomon – 1 afy.

City of Santa Maria and SB Clark LLC dated July 31, 2003 – Project known as Clark Ranch Estates – 200 afy.

City of Santa Maria and Wellmack dated August 18, 2003 – Project known as Jensen's Crossing/Cobblestone Creek – 59 afy.

City of Santa Maria and Harpstone Parntership LP dated August 18, 2003 – Project known as Harp Springs – 26.5 afy.

City of Santa Maria and Stonegate Development LP dated August 18, 2003 – Project StoneGate – 11 afy.

City of Santa Maria and Old Mill Orcutt Venture, LLC dated August 18, 2003 – Project known as Old Mill – 26 afy.

City of Santa Maria and Andy Fetyko dated January 15, 2004 – Project known as Keysite 10 – 10 afy.

City of Santa Maria and Steve LeBard and Debbie LeBard dated February 11, 2004 – Project known as LeBard Project – 2 afy.

City of Santa Maria and Knollwood Properties LP dated March 23, 2004 – Project known as Knollwood Meadows Phase II – 10 afy.

City of Santa Maria and Walter Mendoza dated May 19, 2003 – 1 afy.

City of Santa Maria and Darren Hulstine dated November 17, 2004 – Property located at 1430 Solomon Road – 1 afy.

City of Santa Maria and Cameron Realty Partners dated July 28, 2004 – Project known as Keysite 10 – 10 afy.

City of Santa Maria and David Daniels undated – Project known as 520 W. Rice Ranch Road – ½ afy.

City of Santa Maria and Chris Henderson dated November 30, 2004 – Project known as 295 Siles Lane -- +/- ½ afy.

City of Santa Maria and Simonsen & Associates dated March 1, 2005 – Project known as

Hummel Village II – 3.01 afy.

City of Santa Maria and East Clark Avenue Partnership undated but returned signed on May 9, 2005 – Project known as 250 E. Clark Avenue – 4 afy.

City of Santa Maria and Thor Gjerdrum dated May 12, 2005 – Project known as Rice Oak -- .75 afy

EXHIBIT G

**Court's Order Concerning Electronic Service of Pleadings
and Electronic Posting of Discovery Documents
dated June 27, 2000**

Santa Maria Valley Water Conservation District v. City of Santa Maria
Santa Clara County Superior Court Case No. CV 770214

1 the attorneys) and transcripts of Court proceedings (when they are brief) and
2 access to such transcripts by the parties.

3 B. The Website address is <http://www.sccomplex.org>. A dedicated link to the Santa Maria
4 Groundwater Litigation is contained on the home page of this site.

5 C. The Court's Website will be maintained, and the tasks required of the Website will be
6 conducted by, the Court's outside Website Vendor:

7 Andy Jamieson
8 Global Transactions, Inc.
9 519 17th St., Oakland, CA 94612
10 Telephone: 510-548-9050
11 Email: ajam@glotans.com

12 D. This Order supercedes and entirely replaces parts VII ("Document Repository") and
13 VIII ("Filing and Service of Papers") of the Court's Case Management Order No. 4. All
14 other parts of Case Management Order No. 4 remain unaffected.

15 E. The term "Document Repository" as used in Case Management Order No. 4 shall mean
16 the Court's Website.

17 II. SERVICE LISTS

18 A. The firm of Hatch & Parent shall compile an initial service list consisting of the service
19 addresses of all parties to the case.

20 B. On or before July 7, 2000, all parties shall submit to Hatch & Parent the address at
21 which they wish to receive service. Service addresses may be submitted electronically
22 to: GLane@HatchParent.com, or by facsimile to Gina Lane, Hatch & Parent, 805-965-
23 4333.

24 Parties must elect one of the following three service options. All parties who are able
25 must opt for email service.

1. Parties receiving service electronically shall provide a current electronic mail
address, and a backup facsimile number.

1 2. Parties without email who elect fax service shall provide a current facsimile
2 number.

3 3. Other parties receiving service by U.S. Mail shall provide a current U.S. Mail
4 address.

5 The court will notify email recipients that a document has been posted; parties must
6 serve other parties by fax and mail.

7 C. On or before July 10, 2000, Hatch & Parent shall transmit the initial electronic,
8 facsimile and U.S. Mail service lists to the Website Vendor, based on the addresses
9 submitted by the parties.

10 D. All parties are obligated to check their email addresses on the website and notify the
11 vendor immediately of any errors.

12 E. New parties, upon making their first appearance in this case, will be required to elect
13 their preferred method of service (i.e. electronic, facsimile, or U.S. Mail).

14 F. Parties making any additions, corrections or changes to the electronic, facsimile, or U.S.
15 Mail service lists after June 26, 2000, shall submit their changes directly to the Website
16 Vendor. The Website Vendor shall post and keep current the electronic, facsimile, and
17 U.S. Mail service lists on the Website.

18 G. Once a party posts a document, the court, through its website, will make email service.
19 The parties are under a continuing obligation to make fax and mail service of the notice
20 of posting in the normal manner.

21 ///

22 ///

23 ///

24 ///

25 ///

1 **III. PLEADING DOCUMENTS**

2 **A. POSTING OF PLEADING DOCUMENTS**

- 3 1. Commencing on July 11, 2000, all parties, including parties who elect service
4 options two (2) and three (3), will be required to serve all Pleading Documents¹
5 by posting them on the Website. Parties without Internet access will have to
6 seek it out at the public library or at copy stores.
- 7 2. Instructions for posting will be provided on the Website itself. Documents
8 posted shall be catalogued according to the instructions provided. The posting
9 party shall provide: its name, the complete title of the document, and the date of
10 posting. All Pleading Documents will be posted to the Website in xml text
11 format (with a copy in PDF format being optional). All Adobe Acrobat
12 resources can be obtained from www.abode.com.
- 13 3. Once a Pleading Document has been posted to the Website, no change shall be
14 made to that document by any party. No Pleading Document posted to the
15 Website shall be removed from the Website except upon further Order of the
16 Court.
- 17 4. Exhibits attached to Pleading Documents shall be submitted as image file
18 attachments in .GIF or .JPG form.
- 19 5. For all Pleading Documents in this case served prior to July 11, 2000, the
20 serving party shall post a copy of that document to the Website no later than
21 August 10, 2000.

22 ///

23 _____
24 1 "Pleading Document" means: pleadings or any other documents produced in the course of this
25 action and required to be filed with the Court, including, but not limited to: (1) all
complaints, cross-complaints and answers, including amendments thereto; (2) all demurrers,
opposition to demurrers and replies; (3) all writ petitions and orders thereon; (4) all
motions, oppositions to motions and replies; (5) all proposed orders; (6) all expert
designations; and (7) all trial briefs.

1 6. Nothing in this Order modifies the manner of obtaining personal jurisdiction
2 (through service of process) over a party who has not appeared in these
3 consolidated actions. Service of process shall proceed in the regular manner
4 provided under California law.

5 B. ELECTRONIC SERVICE AND CONFIRMATION OF RECEIPT

- 6 1. The Website will be configured to transmit automatically an electronic "Notice
7 of Availability" to all parties on the electronic service list notifying them that a
8 Pleading Document has been served on them and is available for their review on
9 the Website.
- 10 2. Any party posting a Pleading Document on the Website who does not receive
11 electronic notice indicating that service of their document has been made shall,
12 within 12 hours of its posting, notify the Website Vendor of this problem.
- 13 3. All Parties electronically served shall confirm receipt of electronic service by
14 replying to the electronic mail "Notice of Availability" message received by no
15 later than 5:00 p.m. on the next business day following posting of the document
16 served, not including weekends and holidays. (For instance, an electronic
17 "Notice of Availability" transmitted at 4:59 p.m. on a Thursday must be
18 confirmed by 5:00 p.m. on Friday. Electronic Notice of Availability transmitted
19 at 5:01 p.m. on a Thursday must be confirmed by 5:00 p.m. on the following
20 Monday.) To confirm receipt, simply select "Reply" and then "Send."
- 21 4. Parties who fail to confirm receipt of electronic service within the time period
22 specified above will automatically receive a "Notice of Availability" by
23 facsimile from the Court's Website Vendor. A party's repeated failure to timely
24 confirm receipt of electronic service will be reported to the Court, and the court
25

1 will require the party to personally appear to explain his failure to comply with
2 the court's electronic service requirements.

3 C. FACSIMILE AND U.S. MAIL SERVICE

4 1. Commencing on July 11, 2000, in addition to posting all Pleading Documents on
5 the Website, all parties shall serve, by facsimile and U.S. Mail as applicable, a
6 "Notice of Availability" on all parties electing to receive service by facsimile or
7 U.S. Mail shall be sufficient to constitute service of the Pleading Document
8 itself.

9 2. The "Notice of Availability" shall contain; (1) the serving party's name and
10 contact information; (2) the title of the document posted on the Website; and (3)
11 the date of posting; and shall indicate that the document served is available for
12 viewing on the Website.

13 D. PROOF OF SERVICE

14 3. All Pleading Documents posted to the Website shall contain a Proof of
15 Service. The Proof of Service shall be sufficient if it indicates: (1) the
16 title of the Pleading Document posted; (2) the date and time of posting;
17 (3) that a "Notice of Availability" has been faxed to all parties on the
18 Website's current facsimile service list; and (4) that a "Notice of
19 Availability" has been mailed to all parties on the Website's current U.S.
20 Mail service list.

21 ///

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23 ///

24 ///

25 ///

1 **IV. DISCOVERY DOCUMENTS**

2 **A. POSTING OF DISCOVERY DOCUMENTS**

3 1. Commencing on July 11, 2000, Discovery Documents² that are written requests
4 for discovery or written responses to those requests shall be posted to the
5 Website and served in the same manner as Pleading Documents. For all
6 Discovery Documents that are written requests for discovery or written
7 responses to those requests that are produced prior to July 11, 2000, the
8 producing party shall post a copy of that document to the Website no later than
9 August 10, 2000.

10 2. Commencing on July 11, 2000, Discovery Documents that are deposition
11 transcripts (including exhibits), whether party or non-party, shall be posted to the
12 Website and served by the noticing party in the same manner as Pleading
13 Documents. Deposition transcripts shall be posted promptly after receipt of the
14 transcript. For all Discovery Documents that are deposition transcripts
15 (including exhibits) that are produced prior to July 11, 2000, the noticing party
16 shall post a copy of that document to the Website no later than August 10, 2000.

17 3. Commencing on July 11, 2000, documents produced in response to a demand for
18 inspection and copying of documents shall be produced by the
19 producing/responding party as follows:

- 20 a. All parties are required to produce documents electronically.
- 21 b. To ensure quality control and uniformity of imaging and indexing, all
22 parties are required to utilize the Document Services Vendor approved
23

24
25 ²"Discovery Documents" means: non-pleading, discovery documents, including, but limited to:
(1) all written discovery requests; (2) all written responses to discovery requests; (3)
documents produced in response to requests or demands for production of documents; (4) all
deposition transcripts; (5) all privilege logs; and (6) all trial exhibits.

1 by the Court: APS, 3485 Sacramento Drive, Suite H, San Luis Obispo,
2 California 93401, (805) 545-9100. All parties shall contact APS directly
3 to establish their individual accounts with the Document Services
4 Vendor.

5 c. Documents produced by a party shall be provided to the Document
6 Services Vendor not later than 15 days after the date of service of the
7 written response (unless another time is set by agreement of the parties
8 or by Order of Court).

9 d. Upon production of document(s) to the Document Services Vendor, the
10 producing/responding party shall post on the Website a "Notice of
11 Submission of Discovery Documents to the Document Services Vendor"
12 indicating: (1) the name of the producing/responding party; (2) the name
13 of the propounding party; (3) the title of the document requesting the
14 production; and (4) the date of the production.

15 e. The Document Services Vendor will apply a standard indexing protocol
16 (including electronic "Bates" stamping and bibliographic fields).

17 f. The Document Services Vendor will transmit electronic images of the
18 documents produced directly to the Website Vendor. The Website
19 Vendor will then post those documents to the Website on behalf of the
20 producing/responding party, and will notify the producing/responding
21 party of this fact.

22 g. Documents previously produced shall be submitted to the Document
23 Services Vendor on or before July 17, 2000.

24 B. COSTS

25 1. Each party producing Discovery Documents shall be responsible for the
scanning/imaging and indexing costs charged by the Document Services Vendor

1 for those services, and any and all costs associated with transmitting these
2 documents to the Website Vendor, as described below.

- 3 2. A party utilizing the Document Services Vendor for any other services (e.g.,
4 obtaining electronic images of produced documents on CD Rom) shall be
5 responsible for all costs associated with those other services.
- 6 3. For non-party document productions, the requesting party shall be responsible
7 for posting the documents and for the costs charged by the Document Services
8 Vendor to scan/image and index the documents.

9 **C. PROTECTIVE ORDERS**

- 10 1. The Court's standard procedures shall apply to any party seeking to protect or
11 limit disclosure of information in a Discovery Document. In lieu of posting of
12 electronic images for documents subject to Court-ordered protection or
13 limitations on disclosure, the Website shall contain a listing of the document and
14 identifying information (including at least the title and description of the
15 document), information on the nature of the protection or limitation ordered by
16 the Court, and information on how to obtain the document.

17 **V. FILING OF DOCUMENTS WITH THE COURT AND EFFECTIVE DATE OF
18 SERVICE**

- 19 A. Notwithstanding the procedures for posting Pleading Documents on the Website
20 provide by this Order, no party is relieved of its responsibility to file any and all
21 documents required by law with this Court.
- 22 B. All Pleading Documents and any other documents required to be filed with the Court
23 may be filed with the Court by facsimile.
- 24 C. For purposes of a party's obligation to produce and/or serve upon another party a
25 document, that party shall be deemed to have produced/served the document on the date
on which the document was posted to the Website or submitted to the Document

1 Services Vendor (as applicable). Documents posted to the Website or submitted to the
2 Document Services Vendor after the close of a business day (5:00 p.m.) shall be
3 deemed to have been produced/served on the next business day.

4 D. For purposes of a party's obligation to respond to any document served on him, service
5 by electronic posting, facsimile and U.S. Mail in accordance with this Order shall be
6 deemed to be service by facsimile transmission in accordance with Code of Civil
7 Procedure section 1013(e), and the time obligations and duties of the parties shall be
8 governed as if such service had been made by facsimile transmission.

9 E. All parties are under a continuing obligation to post all Pleading Documents and
10 Discovery Documents to the Website, in the manner described in this Order.

11 VI. STAY

12 A. The stay on responsive pleadings imposed by the court at the May 12, 2000 hearing is
13 lifted. Responsive pleadings are due July 17, 2000 and shall be posted in accordance
14 with section III.A.2. of this order.

15
16 Dated this 27th day of June, 2000

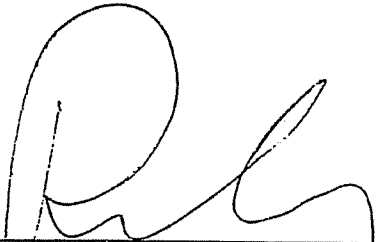
17
18 
19 _____
20 CONRAD L. RUSHING
21 Judge of the Superior Court
22
23
24
25

EXHIBIT H

Form of Memorandum of Agreement to be Recorded

Santa Maria Valley Water Conservation District v. City of Santa Maria
Santa Clara County Superior Court Case No. CV 770214

Attached are two draft forms of Exhibit H. One form is intended to be used for recordation of notice of the Stipulation for properties located within Santa Barbara County, and the other form for properties located within San Luis Obispo County.

RECORDING REQUESTED BY:

XYZ CORPORATION

WHEN RECORDED MAIL TO:

**CITY OF SANTA MARIA
A California municipal corporation
110 E. Cook Street
Santa Maria, CA 903454**

**THIS SPACE RESERVED FOR RECORDER ONLY
(Gov. Code 27361.6)**

NOTICE OF AGREEMENT BY STIPULATION

THIS NOTICE (“Notice”) is authorized and required to be recorded in Santa Barbara County by order of the Superior Court of the County of Santa Clara and Government Code Section 27201.

Effective _____, 2005 the Clerk of the Court for Santa Clara County has entered a written stipulation in the matter of *Santa Maria Valley Water Conservation District v. City of Santa Maria*, Santa Clara County Superior Court, Lead Case No. CV 770214 (hereinafter “Stipulation”) affecting the use of water rights in the Santa Maria Groundwater Basin as more particularly described in the Stipulation. A copy of the Stipulation is on file with and may be viewed at the Santa Clara County Superior Court, City of Santa Maria, City of Guadalupe, and County of Santa Barbara. The below stated Stipulating Party and its real property located in Santa Barbara County bound by the terms of the Stipulation is identified in Exhibit “A” attached hereto and incorporated herein.

XYZ CORPORATION
A California corporation

By:
Name:
Title:

EXHIBIT "A"

STIPULATING PARTY AND PROPERTY DESCRIPTION (Santa Barbara County)

<u>Stipulating Party</u>	<u>Property Description</u>
XYZ Corporation	(APN 101-040-014) NW ¼ of SW ¼, Section 1, R 29E, T 30S, MDB&M (APN 101-040-019) As described in that certain recorded instrument No. 123, Recorded June 29, 2001, Book 123, Page 111, Santa Barbara County Recorder.

RECORDING REQUESTED BY:

XYZ CORPORATION

WHEN RECORDED MAIL TO:

**NIPOMO COMMUNITY SERVICES
DISTRICT
A California CSD
148 South Wilson Street
Nipomo, CA 93444**

**THIS SPACE RESERVED FOR RECORDER ONL
(Gov. Code 27361.6)**

NOTICE OF AGREEMENT BY STIPULATION

THIS NOTICE (“Notice”) is authorized and required to be recorded in San Luis Obispo County by order of the Superior Court of the County of Santa Clara and Government Code Section 27201.

Effective _____, 2005 the Clerk of the Court for Santa Clara County has entered a written stipulation in the matter of *Santa Maria Valley Water Conservation District v. City of Santa Maria*, Santa Clara County Superior Court, Lead Case No. CV 770214 (hereinafter “Stipulation”) affecting the use of water rights in the Santa Maria Groundwater Basin as more particularly described in the Stipulation. A copy of the Stipulation is on file with and may be viewed at the Santa Clara County Superior Court, Nipomo Community Services District, Oceano Community Services District, City of Arroyo Grande, City of Grover Beach, City of Pismo Beach, and County of San Luis Obispo. The below stated Stipulating Party and its real property located in San Luis Obispo County bound by the terms of the Stipulation are identified in Exhibit “A” attached hereto and incorporated herein.

XYZ CORPORATION
A California corporation

By:
Name:
Title:

EXHIBIT "A"

STIPULATING PARTY AND PROPERTY DESCRIPTION (San Luis Obispo County)

<u>Stipulating Party</u>	<u>Assessors Parcel Number</u>
XYZ Corporation	(APN 101-040-014) NW ¼ of SW ¼, Section 1, R 29E, T 30S, MDB&M
	(APN 101-040-019) As described in that certain recorded instrument No. 123, Recorded June 29, 2001, Book 123, Page 111, San Luis Obispo County Recorder.

FILED

JAN - 8 2007

KIRI TORRE
Chief Executive Officer/Clerk
Superior Court of Santa Clara
BY *[Signature]* DEPUTY
ROWENA WALKER

SUPERIOR COURT OF CALIFORNIA
COUNTY OF SANTA CLARA

SANTA MARIA VALLEY WATER
CONSERVATION DISTRICT,

Plaintiff,

vs.

CITY OF SANTA MARIA, ET AL.,

Defendants.

**SANTA MARIA GROUNDWATER
LITIGATION**
Lead Case No. 1-97-CV-770214

(CONSOLIDATED FOR ALL
PURPOSES)

[Consolidated With Case Numbers:
CV 784900; CV 785509; CV 785522;
CV 787150; CV 784921; CV 785511;
CV 785396; CV 787151; CV 784926;
CV 785515; CV 786791; CV 787152;
1-05-CV-036410]

San Luis Obispo County Superior Court
Case Nos. 990738 and 990739

AND RELATED CROSS-ACTIONS AND
ACTIONS CONSOLIDATED FOR ALL
PURPOSES

~~PROPOSED~~ PARTIAL
STATEMENT OF DECISION RE
TRIAL PHASE 4

This Partial Statement of Decision sets forth the court's disposition of the issues tried in Phase IV and responds to the legal and factual issues raised in the Public Water Producers', Land Owner Group (LOG) parties, and Wineman parties' respective requests for statement of decision.

This matter came on for further trial on February 27, 2006 on the respective cross complaints of the LOG and the Wineman parties (collectively, the Land Owners) on the one

1 hand and the Public Water Producers' cross complaints on the other.

2 The Land Owners withdrew at trial all causes of action except their Quiet Title causes
3 of action. The withdrawn causes of action are therefore ordered dismissed. (Code of Civil
4 Procedure § 581(d).) The Land Owner parties seek in the only remaining causes of action of
5 their respective cross complaints to quiet title to the superior priority of their rights to extract
6 and put to reasonable and beneficial use groundwater from the basin on the Land Owner
7 properties.¹

8 The Public Water Producers (referred to as the Purveyors in earlier phases of the trial),
9 comprised of the City of Santa Maria, Golden State Water Company, Rural Water Company,
10 the City of Guadalupe, the Northern Cities, and the Nipomo Community Services District, have
11 each cross complained and seek declaratory relief in multiple causes of action. Essentially,
12 these parties seek a declaration of their water rights from the Santa Maria Groundwater Basin,
13 as that basin is defined in Phase II of this action (the basin) based on prescription, return flows
14 from imported water, water salvaged from the Twitchell Reservoir, the Lopez Reservoir, and
15 percolation ponds, and further seek a declaration that they are entitled to water salvaged by the
16 Twitchell Reservoir pursuant to an agreement with the Plaintiff, the Santa Maria Valley Water
17 Conservation District (District). (See Stipulation for Entry of Judgment dated June 30, 2006
18 [Stipulation] entered into between the District, the Public Water Producers, and multiple other
19 parties.)

20 Pursuant to agreement between the parties, the Land Owner parties presented their
21 evidence regarding their cross complaints to quiet title first. The parties stipulated that, as of
22 February 27, 2006, the commencement of this phase of the trial,² certain Land Owner parties
23 were vested in fee simple in real property described in evidence presented by the Land Owner
24 parties and admitted into evidence. (Phase IV Exhs. 2A and 2B.) The parties' stipulation does

25
26 ¹ Not all parties associated with the LOG have filed cross-complaints (some have filed complaints that were
27 consolidated with the original complaint in this action; some are defendants to the Public Water Producers' cross-
28 complaints only). Additionally, not all LOG parties who have filed cross-complaints (or alternatively, complaints)
have asserted quiet title causes of action. The court's rulings with respect to the LOG quiet title cause of action
pertain only to those LOG parties who have, in fact, filed a quiet title action, whether by cross-complaint or
complaint.

² On February 28, 2006, the Public Water Providers stipulated to the fee title ownership of certain Wineman party
parcels. On March 3, 2006, the Public Water Providers stipulated to the fee title ownership of certain LOG parcels.

1 not purport to apply to any other period of time, or to any parties or real property other than that
2 specifically described in the admitted evidence.

3
4 **PUBLIC WATER PRODUCERS' MOTION FOR JUDGMENT UNDER CCP 631.8**

5 At the close of the Land Owner parties' case, the Public Water Producers moved for
6 judgment under Code of Civil Procedure Section 631.8. Thereafter, the Land Owner parties
7 moved to amend the Quiet Title causes of action to conform to proof to allege ownership as of
8 February 27, 2006 (the commencement of this phase of the trial) instead of the 1997 date as
9 alleged in the original pleadings. The motion to amend was granted.

10 The motion under Code of Civil Procedure Section 631.8 deals with the central issue in
11 the Land Owner parties' cross complaint. The evidence of legal title is undisputed based upon
12 the parties' stipulation that title to the property in question is presently vested in certain Land
13 Owner parties, as described above. The Public Water Producers claim a priority to ground
14 water based upon prescription and other grounds. The Public Water Producers' claims
15 constitute a "rival claim" to ground water and if proven would preclude finding that the Land
16 Owners are entitled to a priority based upon their common law overlying rights without a
17 quantification of such rights.

18 The court declines to use the quiet title remedy to quiet title to the water underlying the
19 land of the Land Owner parties at this time. The court acknowledges that certain water rights
20 are appurtenant to each of the parcels owned (as stipulated) by the Land Owner parties, but the
21 court at this time cannot define what those rights are since every land owner in the basin has
22 certain correlative rights to the basin's limited native supply, except as such rights may have
23 been eroded by prescription or otherwise. The Land Owners failed to join the other land owners
24 as cross-defendants.

25 Accordingly, while no party has raised a question or adverse claim as to legal title to
26 that real property described in Exhibits 2A and 2B, there are outstanding issues relating to the
27 extent to which overlying rights may have been lost by prescription and the District's allocation
28 of the Twitchell yield pursuant to the Stipulation (some of which will be considered in the next
phase of the trial), as well as the prior rights of certain parties to return flows, some or all of

1 which could affect the Land Owner parties' rights to use water in times of shortage. To quiet
2 title to water rights at this time without quantification would be misleading. As the court
3 explained in *Tulare Irrigation District v. Lindsay Strathmore Irrigation District* (1935) 3
4 Cal.2d 489, 525-26, the trial court must fix the specific quantity for reasonable and beneficial
5 use for each riparian, or in this case, overlying owner. (See also *Wright v. Goleta* (1985) 174
6 Cal.App.3d. 74, 93 ["The trial court's solution was in keeping with its duty to fix the quantity
7 required by each user for its actual reasonable use."] [citing *Tulare, supra*, at 524-529].)

8 The court will consider whether any further remedy under the Land Owners' Quiet Title
9 claims is appropriate during the next phase of the trial.

10
11 **LAND OWNER PARTIES' MOTION FOR JUDGMENT**

12 At the close of the Public Water Producers' case, the Land Owner parties moved for
13 judgment on the prescriptive rights claims. The decision on the motion will be the same as the
14 ultimate decision in this phase of the trial. The court declines to parse it in response to the
15 motion.

16
17 **PRESCRIPTION**

18 The court found in Phase III of the Trial that the Public Water Producers had not met
19 the burden of proving that the basin was in hydrologic overdraft, as defined. The court in that
20 phase defined overdraft as "extractions in excess of the safe yield of water from the aquifer,
21 which over time will lead to a depletion of the water supply within a ground water basin as
22 manifested by a *permanent lowering of the water table* (emphasis added)." (Partial Statement
23 Of Decision Re Phase III Trial, p. 4.)³ "Safe yield" is defined as "the maximum quantity of
24 water which can be withdrawn annually from a groundwater supply under a given set of
25 conditions without causing an undesirable result." An "undesirable result" is the "gradual

26
27 ³ The Land Owner group requested clarification that the Phase IV ruling does not alter the Phase III tentative
28 decision, which the Land Owner group refers to as "law of the case." The "law of the case" doctrine applies only to
opinions rendered by the Supreme Court or a Court of Appeal. (*Lennane v. Franchise Tax Bd.* (1996) 51
Cal.App.4th 1180, 1186; *Providence v. Valley Clerks Trust Fund* (1984) 163 Cal.App.3d 249, 256.) Further, a
tentative decision can be modified or changed by the court anytime before entry of judgment. (*CRC 232(a)*; see also
Horning v. Shilberg (2005) 130 Cal.App.4th 197, 203.)

1 lowering of the ground water levels resulting eventually in depletion of the supply.” (*City of*
2 *Los Angeles v. City of San Fernando* (1975) 14 Cal.3d 199, 278 [citing *City of Pasadena v. City*
3 *of Alhambra* (1949) 33 Cal.2d 908, at 929.].) A groundwater basin is in a state of surplus when
4 the amount of water being extracted from it is less than the maximum that could be withdrawn
5 without adverse effects on the basin’s long term supply. (*San Fernando, supra*, at 277.)
6 “Overdraft commences whenever extractions increase, or the withdrawable maximum
7 decreases, or both, to the point where the surplus ends.” (*Id.* at 278.)

8 In its analysis of the claimed overdraft conditions presented during Phase III, the court
9 included all sources of water within the basin, including native ground water, so-called
10 salvaged or developed water, imported water, and return flows from imported water.

11 Prior to the creation of the Twitchell project, there were clearly years in which the
12 valley suffered drought conditions, with pumping exceeding recharge. The Twitchell project
13 was developed and came on line in the 1960’s for the purpose of redressing the basin’s supply
14 shortages. It is clear that in years following the operation of the Twitchell project, with
15 abundant precipitation, there was sufficient recharge to restore water levels in the basin to
16 historic highs. Even if in some years there was greater pumping than recharge, such that water
17 levels fell in those years and there was no surplus of water in the aquifer, the restoration of
18 water levels to historic highs largely as a result of the addition of new water supplies in the
19 basin (from Twitchell and Lopez Reservoirs and the State Water Project) meant that there was
20 no apparent *permanent lowering of water levels in the basin*. By definition, during those years
21 there was no surplus of water within the basin and there remained a risk that sufficient recharge
22 would not continue to occur as population and agricultural use increased, especially if adequate
23 maintenance on Twitchell was neglected such that its capacity was reduced along with a
24 consequent reduction or elimination of the augmented annual recharge into the aquifer.

25 However, evidence of a *permanent lowering* may not be necessary to a finding of
26 prescriptive rights acquired during overdraft. If there is no surplus of water, and if overdraft is
27 defined as extractions exceeding recharge such that there is serious depletion of the water
28 supply, as defined in *City of Barstow et al v. Mojave Water Agency, et al.*, (2000) 23 Cal.4th

1 1224, that may set in motion the prescriptive process because it creates the danger of permanent
2 lowering and exhaustion of the supply. According to the California Supreme Court, “overdraft
3 commences whenever extractions increase, or the withdrawable maximum decreases, or both,
4 to the point where the surplus ends.” (*San Fernando, supra*, 14 Cal.3d at 282 [citing *Pasadena*,
5 33 Cal.2d at 928-29.) “[A]n appropriative taking of water which is not surplus is wrongful and
6 may ripen into a prescriptive right where the use is actual, open and notorious, hostile and
7 adverse to the original owner, continuous and uninterrupted for the statutory period of five
8 years, and under claim of right.” (*California Water Service Co. v. Edward Sidebothan & Son*
9 (1964) 224 Cal.App.2d 715.) If a riparian owner has acquired rights by prescription in times of
10 plentiful water, and reduces pumping to conserve during times of drought, the prescriptive
11 owner loses nothing by virtue of that reduced pumping. And, the opposite should also be true
12 so that where an upstream owner obtains prescriptive rights during periods of drought, merely
13 because the river may in some future years have abundant water, the prescriptive owner should
14 not lose those prescriptive rights during later years of drought following the years of
15 abundance. These principles applicable to riparian rights may apply by analogy to ground
16 water rights. (*Pasadena, supra*.) Prescription, as with adverse possession, is based upon the
17 statute of limitations which bars an action to recover possession, or the right to possession,
18 against a party who has acquired the right by wrongful conduct after a specified period of time.
19 The right to recover having been barred by the statute of limitations, it remains barred to the
20 previous holder of the right absent abandonment by the holder of the prescriptive right or some
21 other legally sufficient act by the parties. (*Smith v. Hawkins* (1895) 110 Cal. 122; *Big Rock*
22 *Mutual Water Co. v. Valyermo Ranch Co.* (1926) 78 Cal.App. 266.)

23 In this case, the evidence presented by the Public Water Producers shows that there
24 were substantial periods of time extending over various periods of five or more continuous
25 years between 1900 and the present time during which there was no surplus, temporary or
26 otherwise, and the Public Water Producer parties continuously produced water from the
27 aquifer. Though there was ultimately recharge during abundant precipitation and run off, the
28 periods of depletion without surplus water exceeded the period of the statute of limitations
multiple times.

1 An appropriative taking of non-surplus water may ripen into a prescriptive right where
2 the use is actual, open and notorious, hostile and adverse to the original owner, continuous and
3 uninterrupted for the statutory period of five years, and under a claim of right. (*San Fernando*,
4 *supra*, at 282 [citing *Pasadena, supra*, at 926-927].) Generally, the conditions amounting to
5 overdraft are sufficient to constitute adversity and also give rise to notice, but notice may occur
6 short of overdraft as it is defined in the Phase III ruling. Upon completion of five years of
7 adverse use, prescriptive title vests in the claimant. (*Pasadena, supra*, at 930-33.) A
8 prescriptive water right is a permanent right to use water acquired when the elements for
9 adverse use are met. The title is sufficient to bar any action for the recovery of that property
10 and therefore is absolute. (Civ. Code § 1007; *Eden Township Water Dist. v. Hayward* (1933)
11 218 Cal. 634, 640 [when the prescriptive period runs the right is vested].) At the end of the
12 five-year period, the adverse claimant owns the property and may defend an action concerning
13 the ownership of the property or bring an action to quiet title in the property. (Code Civ. Proc.
14 § 761.020; see *Mings v. Compton City School Dist.* (1933) 129 Cal.App. 413.)

15 Moreover, any continuous five-year period of adverse use is sufficient to vest title in the
16 adverse user, whether immediately preceding the filing of a complaint to enjoin the adverse use
17 or otherwise. In *Pasadena, supra*, where falling water levels in the wells of the parties were
18 observable between 1919 to 1937, when the complaint was filed, the court found that the
19 prescriptive amount “was measured by the amount taken over a five-year period as to which
20 there had been no cessation of use during any subsequent five-year period.” (*Pasadena, supra*,
21 at 930, 933.) In *Lee v. Pacific Gas & Electric Co.* (1936) 7 Cal.2d 114, 120 the court found
22 that prescriptive use “must be continuous and uninterrupted for a period of five years prior to
23 the commencement of the action, not, however, necessarily next before the commencement of
24 the action.” (emphasis added).

25 26 **Adverse and Hostile Use**

27 The prescriptive period begins when the elements of adverse use are present: “[t]he
28 commencement of overdraft provides the element of adversity which makes the first party’s

1 taking an invasion constituting a basis for injunctive relief to the other party.” (*San Fernando*,
2 *supra*, at 282 [citing *Pasadena, supra*, at 926-927].) The Court in *Pasadena* also found actual
3 adverse use began with the commencement of overdraft because each taking of water in excess
4 of the safe yield was wrongful and injurious. (*Pasadena, supra*, at 929.)

5 Establishing adverse use does not require injury based upon the immediate inability to
6 obtain water. (*Pasadena, supra*, at 929.) Adversity is present for purposes of prescription when
7 overdraft in a basin begins and extractions exceed supply on an annual basis. Overdraft need
8 not be current or cause any immediate signs or problems (*Tulare, supra*, 3 Cal.2d at 525, 529-
9 530; Hutchins, *The Cal. Law of Water Rights*, pp. 498-500; 1 Rogers & Nichols, *Water For*
10 *Cal.*, § 405, pp. 549-550; *Tehachapi-Cummings County Water Dist. v. Armstrong* (1975) 49
11 *Cal.App.3d* 992, 998-999.)

12 As stated above, the evidence here indicates that there were substantial periods of time
13 extending over various periods of five or more continuous years between 1900 and the present
14 time during which there was no surplus, temporary or otherwise, and the Public Water Producer
15 parties produced water from the aquifer. During the period before Twitchell was constructed,
16 only the Basin’s native groundwater supplies were available. Dr. Williams testified in Phase
17 IV that the inflow into the Basin, or the native groundwater, during this period was 60,000
18 acre-feet per year. (Phase IV, Exh. F-10.) In computing this figure, Dr. Williams relied on
19 actual data collected during previous studies of the Basin. Dr. Williams also consulted with
20 other experts who have testified in this matter, including Mr. Foreman and Mr. Scalmanini.
21 (Phase IV RT, p. 389:5-10; 389:23-390:11.) Dr. Williams’ native groundwater figure does not
22 include ocean outflow. During Phase III, Mr. Foreman testified that based on historical
23 conditions, a minimum of 8,000-10,000 acre-feet per year of outflow are necessary to guard
24 against seawater intrusion. (Phase III RT, p. 748.) Mr. Scalmanini testified that significantly
25 more water was actually discharging into the Ocean during this time. (See, e.g., Phase III Exh.
26 F-14; RT 1862-1867.) Taking the lower ocean discharge number, the native groundwater less
27 ocean outflow is 50,000 – 52,000 afy.

28 Both Mr. Scalmanini and Mr. Foreman produced in-depth analyses of Basin
withdrawals dating from 1944 through and beyond the date the Twitchell and Lopez Projects

1 became operational. (See Phase III, Exh. 1-63 (Mr. Scalmanini's Water Budget Summary – No
2 Twitchell Scenario; see also, Phase III, Exh. A-123 (Mr. Foreman's Water Budget Summary –
3 No Twitchell Scenario.) In all years from 1944 through 1962 (and beyond) pumping
4 substantially exceeded Dr. Williams's native yield budget.

5
6
7 Further, the report prepared by Mr. Scalmanini shows falling water levels during the
8 pre-Twitchell period:

9
10 Hydrographs of ground-water elevations in the study area illustrate
11 that a substantial decline in ground-water levels, from historical
12 high to historical low levels, occurred between 1945 and the late
13 1960's with a progressively greater decline inland from the coast....

14 The decline ranged from approximately 20 to 40 feet near the
15 coast, 70 feet near Orcutt, to as much as 100 feet further inland (in
16 the area just east of downtown Santa Maria). (Phase III Exh. F-14,
17 "Development of a Numerical Ground-Water Flow Model and
18 Assessment of Ground-Water Basin Yield, Santa Maria Valley
19 Ground-Water Basin" (March 2000) at 14.)

20 Thus, the undisputed Phase III and Phase IV evidence shows that the Basin was in
21 overdraft and there was no surplus for more than the statutory period prior to the time Twitchell
22 was constructed and in the years immediately after the construction of Twitchell. In particular,
23 the Phase IV evidence, together with the Phase III evidence, indicates that the Basin was in
24 overdraft without any surplus water (and water levels seriously declined) from at least 1944-
25 1951, 1953-1957, and 1959-1967. Thus, the Public Water Producers have now met the burden
26 of proving overdraft in excess of the statutory period for purposes of a claim for prescriptive
27 rights.

28
Open and Notorious Use

The party against whom a prescriptive right is sought must have either actual or
constructive notice of the adverse taking. (*Bennet v. Lew* (1984) 151 Cal.App.3d 1177, 1184

1 ["The requisite elements for a prescriptive easement are designed to insure that the owner of
2 the real property which is being encroached upon has actual or constructive notice of the
3 adverse use." (emphasis added)]; *Kerr Land & Timber Co. v. Emmerson* (1969) 268
4 Cal.App.2d 628, 634 ["It is settled that to establish rights by adverse use the owner must be
5 notified in some way that the use is hostile and adverse but actual notice is not indispensable.
6 Either the owner must have actual knowledge or the use must be so open, visible and notorious
7 as to constitute reasonable notice."].) The standard for notice in groundwater basins is falling
8 water levels or other relevant evidence such that pumpers can reasonably be charged with
9 notice that there is a deficiency of water supply. (*Pasadena, supra*, at 930.) Thus, constructive
10 notice of adverse conditions, by which a party "should reasonably be deemed to have received
11 notice of the commencement of overdraft," is sufficient to establish prescriptive rights. (*San*
12 *Fernando, supra*, at 283.)

13 The conditions of depleted water levels within the basin, during the drought years, were
14 themselves well known, or should have been known, to all who used water within the basin. In
15 short, the parties hereto and their predecessors in interest were on notice of the wide fluctuation
16 in the water levels in the aquifer by virtue of the fluctuating well levels, the actions of political
17 leaders, the Acts of Congress, and the public notoriety surrounding the need and the
18 construction of the Twitchell project (as well as the Lopez project).⁴ And there was ample
19 notice that the municipalities and the water companies within the valley continued to pump
20 during those times of drought just as the Land Owner parties may have continued to pump.

21 Specifically, written historical evidence offered in Phases III and IV confirms that the
22 existence of overdraft prior to 1967 was well and widely known throughout the basin. Basin
23 groundwater has been consumptively used since the late 1800's, with the first indication of

24
25 ⁴ Numerous documents showing these facts were either judicially noticed or admitted into evidence over hearsay
26 objections. Regardless of whether the documents are admissible under an exception to the hearsay rule, the court is
27 relying on these documents not for the truth of the matter asserted, but to show actual or constructive notice of
28 overdraft conditions before and during the time Twitchell was constructed. Thus, the documents are not being relied
upon for hearsay purposes. (Cal. Code Evid. § 1200(a) ["Hearsay evidence' is evidence of a statement that was
made other than by a witness while testifying at the hearing and that is offered to prove the truth of the matter
stated."].) Further, the court rejects LOG's argument that reports and studies shown to be "inaccurate" cannot be
used to impart notice. Even if such documents were shown to be inaccurate (LOG has made no such showing),
inaccuracy does not negate notice. It is the existence of these documents, and the notoriety of groundwater
conditions in the community, that creates notice, not the accuracy or inaccuracy of the documents.

1 overdraft in the 1930's. (See Phase IV, Exh. X (Bureau of Reclamation, Santa Maria Project:
2 Southern Pacific Basin, California, Project Planning Report, at 33-34 (Nov. 1951).) The
3 Bureau of Reclamation reported that by 1936 groundwater levels had reached their lowest
4 levels on record at the time. (*Id.*) By 1951, the Bureau reported a critical water shortage. (*Id.*)
5 The Geological Survey of the Department of Interior reported that the perennial yield was
6 being exceeded by approximately 12,000 AFY and that continued yearly overdrafts with no
7 additional source of supply would result in a permanent depletion of storage and water levels
8 far below their level in 1936. (*Id.*; See Phase III, Exh. F-7 [Worts, Geological Survey Water-
9 Supply Paper 1000, Geology and Ground-Water Resources of the Santa Maria Valley Area,
10 California, at 2, 129 (1951)].) The 1966 USGS report prepared in cooperation with the Santa
11 Barbara County Water Agency reported an decrease in groundwater storage of 3,070,000 acre-
12 feet in 1918 to 2,360,000 acre-feet in 1950, as well as an average annual decrease in storage of
13 21,000 acre-feet between 1918-1959. (Phase III, Exh. F-9, G.A. Miller & R.E. Evenson,
14 Utilization of Ground Water in the Santa Maria Valley Area, California, USGS Water-Supply
15 Paper 1819-A (1966) at A7.)

16 Phase III evidence regarding testimony before Congress prior to the time the Twitchell
17 Reservoir was constructed further shows that the decline in well levels and water in storage was
18 clear to local water users. The District President, Leonald H. Adam, testified before Congress
19 about the severity of the water supply problems in the area:

20
21 My observations over the years indicate to me that we have a
22 continuously diminishing water supply. Each period of years
23 where we have plentiful rainfall the average water level rises
24 considerably but not to the high point of previous years.

25 During each period of years where we have drought conditions, the
26 water level continuously recedes to lower and lower levels. There
27 is only one answer to this situation, and that is that eventually the
28 area east of Santa Maria will be out of water excepting during
years following heavy rainfall when perhaps the land can be
irrigated for a year or so. Each well in the valley is different,
depending upon the sands and gravels penetrated by the wells. The
overall picture, however, indicates a continuously diminishing
supply and eventual exhaustion of the supply.

1 of prescription.⁵ The court notes that none of the parties disputing the claims of the Public
2 Water Producers have presented any evidence of lack of notice to rebut the inferences or notice
3 to be drawn from the public water producers' uncontradicted circumstantial evidence.

4 **Continuous and Uninterrupted Use and Use Under a Claim of Right**

5 The adverse use must be continuous and uninterrupted for the five-year prescriptive
6 period. Undisputed Phase III and IV evidence shows that years of overdraft, or "no surplus"
7 existed from at least 1944-1951, 1953-1957, and 1959-1967, when Twitchell began to produce
8 an augmentation to the water in the aquifer, and the Public Water Producers within the basin
9 pumped regular quantities of water from the aquifer, as follows:

10 City of Santa Maria – 5100 acre feet a year;

11 Golden State – 1900 acre feet a year.

12 These numbers are not based on averages but are instead the lowest continuous amount
13 of water pumped by the City and Golden State, respectively, during five consecutive years of
14 overdraft.

15 Further, as the primary local retail water suppliers to thousands of residents, the City
16 and Golden State always openly claimed such water as their own.

17 These conclusions are un rebutted by any party and are therefore conclusively found to
18 be true.

19 **EFFECT OF SELF HELP**

20 If the overlying owner continues to pump and make reasonable and beneficial use of the
21 water underlying the land at the same time that the appropriator (prospective prescriptive right
22 holder) is pumping from non-surplus water, the overlying owner has not been deprived of the
23 present use of any water. An overlying owner preserves his rights, and limits the appropriator's
24 ability to obtain a prescriptive acquisition of water rights as against an owner who continues to
25 pump the full reasonable and beneficial use amounts of water in the face of an adverse
26

27
28 ⁵ The above evidence demonstrates that notice of adversity was present on a Basin-wide basis. The court rejects the
LOG's assertion that notice must be proven on a parcel-by-parcel basis. Neither *Pasadena* nor *San Fernando*
require notice on a parcel-by-parcel basis. Further, the court is unaware of any California case addressing
prescriptive rights to groundwater that requires such a showing.

1 appropriative use (referred to as self help). (*San Fernando, supra; Pasadena, supra.*)

2 There has been no evidence presented to the court that any of the Land Owner parties
3 currently before the court or that the parties to this litigation, ceased or reduced pumping or
4 otherwise failed to exercise overlying rights during the years when there was no surplus and
5 when pumping may have exceeded recharge within the basin. In fact, evidence of lowering
6 water levels in time of drought may be some evidence of exactly the opposite. There also is no
7 evidence of the type of appropriators' mutual prescription resulting in the proportionate
8 reduction in pumping in *Pasadena, supra*, as it has been characterized as between appropriators
9 in *Hi-Desert County Water District v. Blue Skies Country Club* (1994) 23 Cal.App.4th 1723.

10 However, there is clearly evidence that during these years of "no surplus," from 1957 to
11 1967, when Twitchell began to produce an augmentation to the water in the aquifer, the Public
12 Water Producers within the basin pumped regular quantities of water from the aquifer, in the
13 quantities identified above.

14 The court finds that even after the Twitchell augmentation began, there have been
15 periods in excess of the statute of limitations during which there has been no surplus in the
16 basin and that the Public Water Producers have continued to produce water from the aquifer. It
17 is important for the parties who claim an undiminished right to an overlying right, or any other
18 appropriators of water, to establish their own individual pumping activity during those years to
19 avoid the implications from that use.⁶ The Supreme Court in *Tulare, supra*, 3 Cal. 2d at 535,
20 held that overlying owners have the burden to prove the quantity of water they need for
21 reasonable and beneficial use.

22 The court will hear evidence of the Land Owners' pumping activity in the next phase of
23 the trial, in addition to considering the issues relating to a physical solution as requested by the
24 parties.

25 Even if the Land Owner parties prove that they pumped during these years, their self
26 help would not necessarily fully interrupt prescription. The doctrine of so-called "self help"
27 originated in *Pasadena, supra*. In that case the Supreme Court drew on the early California

28 ⁶ The effect of prescription on any dormant overlying rights cannot be addressed until the extent of self help, if any,
is determined.

1 case of *Smith v. Hampshire* (1906) 4 Cal.App. 8, where appellant had for ten years used a ditch
2 on respondents' land adversely. However, respondents had for six years jointly used the ditch
3 adversely to appellant. It was held that both had rights to the ditch. Although respondents
4 could not acquire a prescriptive right on their own land they could prevent appellant's claim of
5 exclusive right by establishing their own claim of right against appellant. In the groundwater
6 context, *Pasadena* rejected the proposition that a water user's rights are not invaded if he
7 continues to receive the quantity of water to which he is entitled (*Id.* at 931.) It found cases
8 involving adverse use of flowing surface water inapplicable because they do not deal with the
9 problem of gradual depletion of water stored in a basin or lake. Injury in flowing water cases
10 immediately deprives users of water, and the language in the opinions does not apply to an
11 invasion of rights in a stored supply of water. (*Pasadena, supra*, at 931 [citations omitted].)

12 In a groundwater basin where overpumping is gradually depleting the supply, *Pasadena*
13 held that overlying owners can prevent a prescriptive right from usurping their full overlying
14 right by "self-help" pumping. If a landowner engages in self-help, it prevents a prescriptor
15 from completely taking the landowner's overlying right. (*Pasadena, supra*, at 931.)

16 The *Pasadena* court applied what is known as mutual prescription and reduced both the
17 prescriptors and self-help pumpers proportionately. (*Pasadena, supra*, at 933.) Subsequently
18 the Supreme Court in *San Fernando* clearly established that "self help" only partially interrupts
19 the prescriptive right. On remand it ordered that the private defendants could show overlying
20 rights to native ground water for reasonable beneficial use on their overlying land, subject to
21 any prescriptive rights. If appropriators proved a prescriptive right, its effect would be to give
22 to the prescriptor either enough water to make the ratio of the prescriptive right to the
23 remaining rights of the private defendant in a time of shortage as favorable to the prescriptor as
24 it was throughout the prescriptive period or the amount of the prescriptive taking, whichever is
25 less. (*San Fernando, supra*, at 292-93 [citations omitted].)

26 In dicta, *Hi-Desert, supra*, and *Mojave, supra*, discuss self-help. *Hi-Desert* is
27 inapplicable here because it was based on a stipulated judgment that specifically recognized
28 that "overlying rights have been prescribed except to the extent of such maximum annual self

1 help by production during the prescriptive period...” and the stipulated judgment provided a
2 specific self-help amount. (*Hi-Desert, supra*, at 1732-1733.) Thus, *Hi-Desert* did not apply the
3 *San Fernando* formula to determine prescriptive and self-help amounts because the parties had
4 agreed to an alternate formula. Although *Mojave* cites *Hi-Desert*, it does so as dicta because
5 prescription was not claimed in *Mojave* (*Mojave, supra*, at 1253-1254); thus, *Mojave* offers no
6 reason to disregard the above-cited language of *San Fernando*.

7
8 **TWITCHELL ENTITLEMENT**

9 The Public Water Producers contend that the yield from Twitchell is a salvaged or
10 developed water supply and therefore not part of the basin’s native yield. The Public Water
11 Producers rely on: (a) *Lindblom v. Round Valley Water Co.* (1918) 178 Cal. 450 for the
12 proposition that water that has been appropriated up stream of a dam cannot be considered as
13 part of a basin’s native yield, (b) common law principles relating to public improvements
14 financed by special assessments, (c) the fact that the urban lands within the District’s
15 assessment boundaries have paid for the greatest share of the costs associated with building and
16 operating Twitchell over the past 40 years in support of their claim, and (d) the fact that the
17 District has provided for the allocation of the Twitchell yield in the Stipulation. As such, the
18 Public Water Producers argue further that the Land Owners have no rights in the Twitchell
19 yield by virtue of their overlying status and thus that the Twitchell should not be included as
20 water within the basin for purposes of determining overdraft or surplus.

21
22 **PAYMENT FOR TWITCHELL**

23 The Public Water Producers’ contention that the Twitchell yield is not part of the
24 basin’s native supply and therefore that the Land Owners, as overlying owners, have no prior
25 right to the Twitchell yield is based, in part, on the theory that the urban lands within the
26 District’s assessment boundaries have, over the life of the project, contributed more to its cost
27 than other in-District landowners, including the Land Owner parties whose property resides
28 within the District boundaries.

All properties within the District were specially assessed by the District to repay the

1 bond costs for construction and maintenance of the dam. The Public Water Producers
2 presented evidence that residents of the City of Santa Maria, as landowners within the District,
3 have paid the major portion of the costs of the project. The Public Water Producers argue,
4 therefore, that the Twitchell project yield must be distinguished from the basin's native supply
5 because to do otherwise would effectively provide all overlying landowners throughout the
6 basin, irrespective of whether they contributed to the costs of the project, with a priority right to
7 the Twitchell yield when the basin is not in surplus. (At common law, appropriators are
8 permitted to take only that which is surplus to the demands of overlying owners, unless
9 prescriptive rights have been acquired.) This result would unfairly penalize municipal
10 landowners who rely on the City of Santa Maria for their water supply. As such, the Public
11 Water Producers' theory would exclude the Twitchell yield from the basin's overall supply in
12 determining overdraft, and would support prescription, according to this theory of entitlement.

13 If, on the other hand, the salvaged or developed water is available for all users in the
14 basin, it should be counted as part of the ground water yield to determine whether or not there
15 is an overdraft. The answer to this issue requires some discussion of the history of the
16 development of the project.

17 The Twitchell Project is located on the Cuyama River about 6 miles upstream from its
18 junction with the Sisquoc River. The construction of the dam and reservoir was authorized as
19 the "Santa Maria Project" on September 3, 1954, by an act of Congress (Public Law 774, 83d
20 Congress, ch. 1258, 2d session, 68 Stat. 1190). The U.S. Department of the Interior, Bureau of
21 Reclamation, constructed the dam and reservoir. Water stored in and later released from the
22 Twitchell Project is surface water appropriated under California law from the Cuyama River.
23 To appropriate this water under state law, the Bureau was required to seek a permit from the
24 California Department of Water Resources (Cal. Wat. Code §§ 1200 et seq.). The Bureau was
25 issued a permit, which ultimately ripened into a License. The License authorizes the
26 appropriation of the water for irrigation, domestic, salinity control, municipal, industrial, and
27 recreational uses within a place of use that encompasses a portion of the basin, including the
28 District. (Phase III Exh. 1-59.)

The District is not coextensive with the Santa Maria Valley area, or the basin as a

1 whole, and water users outside the District also benefit from the project's salvage or
2 conservation operations. The License that was issued, subject to the right of the U.S.
3 Government to use the project for flood control and the satisfaction of existing water rights,
4 among others, was for the right of the Santa Barbara County Water Agency, on behalf of the
5 District, and District land owners, to have the perpetual right to use all the water generated by
6 the Twitchell Dam and Reservoir. The License must be read in conjunction with 43 U.S.C.
7 Section 372 which limits the water that is produced by the dam to be used for beneficial
8 purposes appurtenant to land.

9 But it is also clear that California water law controls and the license creates no new
10 water rights other than the appropriative rights granted by California law to the Secretary of the
11 Interior subject to the conditions in the license. As a lawful appropriator the Bureau of
12 Reclamation under the authority of the Secretary of the Interior conferred rights on the Santa
13 Barbara County Water Agency by contract. The Santa Barbara County Water Agency then
14 contracted with the District to manage and operate the dam and the reservoir. There is no intent
15 by the federal government to supplant state water rights law. (*California v. United States*
16 (1978) 438 U.S. 645; *Klamath Irrigation District v. United States* (2005) 67 F. Cl. 504.)
17 Further, any allocation of water by the District must be consistent with the purposes of the state
18 License as well as the District's contract with the Santa Barbara County Water Agency.

19 The water that is received and held in the reservoir by the dam is water that would
20 otherwise find its way to into the Santa Maria River and ultimately the ocean. To the point of
21 entrapment by the dam, it is riparian water and subject to the rule of riparian rights. When the
22 water is released it is released in amounts that will permit maximum percolation into the
23 aquifer and land overlying the basin benefits from its percolation into the basin and use. The
24 License was issued so that all land within the District would benefit, including municipalities.
25 The District was charged with assessing land owners, including residents within the urban
26 areas, to repay the bonds. The basin is benefited because in addition to the normal river flow
27 that percolates into the aquifer, the operation of the dam creates an additional supply of water
28 that is stored and later released at times and in quantities that will increase percolation into the

1 aquifer. Without the dam, that water would otherwise be lost to ocean outflow. The District's
2 undisputed evidence establishes that the project net augments the basin, on average, by 32,000
3 acre feet of water a year. This is water that would otherwise flow to the ocean.

4 Wherever a person may reside within the District – urban or rural, farmer, industrial, or
5 city dweller, there is a material benefit derived from the augmented supply the project provides
6 by way of ensuring higher water levels in the wells throughout the District, reducing the need
7 for and cost of imported water, preventing loss of aquifer storage space, and preventing ocean
8 and salt water intrusion into the aquifer in times of diminished precipitation and potential
9 overdraft. That was the specific intent of the Act of Congress, the state-issued water right
10 License granted to the Secretary of the Interior, and the contract that ultimately vested
11 responsibility in the District. The fact that any land owner, municipal or otherwise, was
12 specially assessed with the costs of constructing and maintaining the Twitchell project does not
13 confer a vested right or ownership interest in the improvement or entitle the land owner to a
14 certain allocation of the improvement itself. (*Kalashian v. County of Fresno* (1973) 35
15 Cal.App.3d 429, 433.)

16 Further, there is no prior or historic contract between the District and any land owner or
17 municipality or public water producer within the District that would confer rights to any
18 specific quantity of water prior to the commencement of this litigation. Each individual land
19 owner is assessed on an equitable basis. No party can claim an entitlement to a specific quantity
20 of water based on the amount of the assessment.

21

22

23 **LOPEZ RESERVOIR AND WATER RIGHTS IN NORTHERN CITIES AREA**

24 Because the Santa Maria groundwater basin extends beyond the boundaries of the
25 Santa Maria Valley Water Conservation District, and the issues before the court also involve
26 those other subareas of the basin, it is important to set forth the rights of the Northern Cities as
27 against the non-settling landowners with regard to the Lopez Reservoir water and other water
28 supplies in the Northern Cities Area. Also, all subareas of the basin have been affected by
insufficient recharge, and there is a risk of future overdraft if periods of drought occur and

1 coincide with increased consumption. The Lopez Reservoir was built in the late 1960's to cure
2 declining groundwater levels and prevent seawater intrusion in the Northern Cities Area.

3 The Northern Cities and San Luis Obispo County's relationship to Lopez is similar to
4 the Water Conservation District's relationship to Twitchell. The San Luis Obispo County
5 Flood Control and Water Conservation District obtained Permit 12814 from the State Water
6 Resources Control Board for the creation of the Lopez Reservoir and for appropriation of the
7 waters of Arroyo Grande Creek for use in Zone 3 of the District (the "Northern Cities Area"),
8 and it has the exclusive authority to manage Lopez Reservoir and the water it salvages and to
9 sell its water supplies. (Wat. Code § 74526.) The Northern Cities and landowners in the
10 Northern Cities Area funded construction and operation of Lopez by water purchase contracts
11 and property tax assessments. The non-settling Land Owner parties did not claim or prove that
12 they own any land in the Northern Cities Area or that they paid any money toward the
13 construction or operation of the Lopez Reservoir. The Northern Cities have the right to use
14 water salvaged by the Lopez Reservoir in accordance with the terms of their water purchase
15 contracts and their Settlement Agreement with the San Luis Obispo County parties. As with
16 Twitchell, water is impounded and stored in the reservoir during heavy precipitation and run
17 off so as to avoid waste to the ocean and then is either piped directly to the Northern Cities or is
18 released into the Arroyo Grande Creek to recharge the groundwater supply during the dry
19 months. Approximately 5200 acre feet a year are piped directly to the Northern Cities, and
20 return flows averaging 400 acre feet per year are generated by the Northern Cities' use of this
21 water. In addition, approximately 300 acre feet per year are added to the aquifer as a result of
22 the timed releases from the Lopez Reservoir into Arroyo Grande Creek.

23 The Northern Cities purchase and import an average of 1200 acre feet annually from the
24 State Water project, which saves pumping from the aquifer. Their use of this imported water
25 also augments the groundwater supply by approximately 100 acre feet per year of return flows.

26 The Northern Cities constructed six percolation ponds to capture runoff of rainfall and
27 prevent it from wasting to the ocean. These percolation ponds augment the groundwater supply
28 in the Northern Cities Area by approximately 100 acre feet per year.

1 The Court finds, based on common law, statutory, and contractual principles, that the
2 supplemental water supplies produced or salvaged by the Northern Cities and the San Luis
3 Obispo County Flood Control and Water Conservation District by the combination of the
4 Lopez Reservoir, State Water Project imports, percolation ponds, and return flows equals
5 approximately 7300 acre feet of water per year. That total is water to which the Northern Cities
6 have a prior right, particularly during times of overdraft, should that occur in the future. The
7 Land Owners failed to present any evidence that they have any overlying, appropriative, or
8 other right to use these or any other water supplies in the Northern Cities Area.

9
10 **CONTRACT RIGHTS**

11 The Bureau of Reclamation entered into a contract with the Santa Barbara County
12 Water Agency which in turn entered into a contract with the District to manage and operate the
13 dam and the reservoir. The Land Owner parties have claimed a right as a third party
14 beneficiary to those contracts.

15 Neither the land owners nor the cities are intended beneficiaries of the contracts
16 between the Bureau of Reclamation and the water agency or the conversation district – they are
17 incidental beneficiaries. (*Orff et. al. v. United States* (2004) 358 F.3d 1137.) No city, land
18 owner, public water producer, or other party has a contractual right to any water produced by
19 Twitchell except as the District may be authorized to enter into such agreements for the future
20 operation of the project. The water introduced into the aquifer from Twitchell is certainly
21 intended to benefit all who are within the place of use granted under the state water right
22 License.

23
24
25
26 **DEVELOPED WATER**

27 The Public Water Producers contend that as to stored, appropriated water, downstream
28 users have no rights to the water when it is released from a dam, citing *Lindblom v. Round*

1 *Valley Water Co.* (1918) 178 Cal. 450, a California Supreme Court case. There are significant
2 and material factual differences between this case and the *Lindblom* case. *Lindblom* involved a
3 case where the upstream riparian owner created a dam that resulted in prescriptive rights to all
4 the water stored. When the downstream riparian owner was deprived of flow during the
5 summer months, he could not require the dam owner to release water that the upstream
6 appropriator had the exclusive right to use for beneficial purposes. To the contrary, in the
7 instant case the appropriation was authorized by the State of California so as to benefit
8 primarily an area larger than the District's political boundaries, but smaller than the entire
9 Santa Maria Valley.

10 In *Lindblom* the appropriator was entitled to make any beneficial use of the water it
11 chose to make of it. In this case, the Twitchell water must be used to benefit the Santa Maria
12 Valley below by the terms of the License and the contracts.

13 The water from Twitchell augments the water within the basin. But during years when
14 there is a surplus, all water users have the right to use the water as overlying owners or
15 appropriators. The water commingles with all the other water when released from the
16 reservoir. However, during future times of shortage, if there is no surplus, or if there is an
17 overdraft, so long as the District uses the water for the general purposes prescribed by its
18 contract with the Santa Barbara County Water Agency, and properly exercises its statutory
19 powers in that regard for the public good within the District, it may regulate and allocate the
20 appropriated water consistent with its contract and under the terms of the License.⁷

21 In fact, the District has entered into such a contract with certain of the parties (the
22 Stipulation) which allocates the Twitchell yield in times of shortage to those parties who have
23 agreed to pay the costs of remediating the siltation or sedimentation of the reservoir that has
24 resulted in a substantial loss of storage capacity necessary to maintain the project's long-term
25 average annual yield. The court has approved that Stipulation as to the parties who have
26 executed it. The question of the legal integrity of the District's allocation of the Twitchell yield
27 _____

28 ⁷ The statutory authority of the District to enter into contracts to allocate and manage the benefits of the Twitchell
project exist in its enabling legislation at Water Code sections 74501, 74526 and 74592. The District's contract with
the Santa Barbara County Water Agency is consistent with this authority.

1 by way of the Stipulation, preferring one basin user over another in times of shortage, is
2 reserved until the next phase of the trial. Additionally, in Phase V of these proceedings, the
3 court will consider proposals for a physical solution to address the wide fluctuations in yield
4 within the valley as well as its power to order a physical solution at the present time.

5
6 **RETURN FLOWS**

7 A party, who has a prior right to specific sources of underground water, retains that
8 right in times of overdraft, and in periods of shortage, that amount should not be spread
9 generally among all producers within a basin to determine whether or not prescriptive rights
10 have accrued. (*City of Los Angeles v. City of Glendale* (1943) 23 Cal.2d 68.) Return flows
11 from imported water fall into the category of water over which the importer has a prior right.
12 (*San Fernando, supra.*) It is undisputed that certain Public Water Producers paid for and
13 received water from the State Water Project, distributed it to their customers, recaptured it in
14 waste water systems after initial use, and placed it in the aquifer by way of percolation ponds,
15 or other comparable percolation methods. Those Public Water Producers, respectively, are
16 entitled to the exclusive use of the return flows they generate from their deliveries of State
17 Water Project water to the basin during periods of overdraft or in the absence of surplus
18 underground water. Each Public Water Producer's right in this regard is an undivided right to a
19 quantity of water in the commingled waters in the basin equal to the net amount by which the
20 basin is augmented by such deliveries. Return flows cannot be counted as part of the native
21 yield within the ground water basin when there is an overdraft or an absence of surplus, but
22 otherwise would be available for any user. Unrebutted Phase IV testimony by the City's Utility
23 Manager, Mr. Chisam, as well as undisputed expert testimony offered by Mr. Wagner establish
24 that the City's return flows net augment the basin in an amount equal to at least 65 percent of
25 the amount imported by the City on an annual basis. (RT 317, 324-25, 364-65.) Phase III and
26 IV testimony from Mr. Foreman establishes that Golden State's return flows net augment the
27 Basin on an annual basis. (RT 446-47.)

28 Land Owner parties argue that the State of California, not those Public Water Producers

1 who contract for the delivery of State Water Project water to the basin, is the importing entity
2 and therefore entitled to any rights that might be associated with that importation. Nothing in
3 the evidence presented (e.g., the State Water Project contracts themselves) nor the law (see *San*
4 *Fernando, supra*, at 261 [awarding Glendale and Burbank prior rights to return flows
5 attributable to their imported water deliveries, a portion of which included State Water Project
6 deliveries]) supports this claim.

7
8 **CONCLUSION**

9 The Land Owner parties' Motion to amend to conform to proof is granted.

10 The Twitchell yield is a part of the ground water yield for purposes of determining
11 whether the basin is in overdraft or whether there is or has been surplus water available for
12 appropriator's use, whether it is defined as "native yield," or salvaged or developed water. No
13 party has established any pre-Stipulation priority of rights to that current yield within the
14 aquifer.

15 The Santa Maria Valley Water Conservation District's enabling legislation authorizes it
16 to enter into contracts to manage and operate the dam for all the purposes set forth in that
17 legislation and the District's contract with the Santa Barbara County Water Agency (consistent
18 with the contract between the Bureau of Reclamation contract with the Santa Barbara County
19 Water Agency).

20 During times of surplus, the yield made available by the Twitchell project is available to
21 all basin users. During times of shortage, prior to the water being introduced into the aquifer,
22 rights to the supply may be limited in accordance with the statutory and contractual authority of
23 the District, and in accordance with equitable and common law water rights principles.]

24 It is undisputed that the Twitchell project is losing storage capacity due to the
25 progressive infiltration of sediment and silt and that the process of siltation and associated loss
26 of storage capacity could eventually negate the benefits of the project. The project provides, on
27 average, 32,000 acre feet per year of water to the basin that otherwise would waste to the
28 ocean. Unless the siltation process is reversed, the augmented supply made available to the

1 basin by Twitchell may be lost in whole or in part, thereby putting the basin at risk of
2 permanent overdraft. Maintenance of Twitchell and cessation and reversal of the siltation
3 build-up is crucial to the continued health of the ground water supply in the Santa Maria water
4 basin

5 Those Public Water Producers who import State Water Project water to the basin have
6 established a prior right to the return flows generated from the use of that supply, to the extent
7 that such imported water net augments the basin. If those return flows are surplus to the needs
8 of the Public Water Producers, they are available for all users.


9 The Public Water Producers have established a continuous pumping history since
10 the early 1900s from ground water within the basin, as indicated: Santa Maria – 5100 acre
11 feet a year, Golden State – 1900 acre feet a year, and Northern Cities – 7300 acre-feet a
12 year.

13 Undisputed evidence of the Public Water Producers' pumping in the basin since the
14 early 1900s supports the finding that the Public Water Producers have established a prior
15 right to surplus water in the basin as against any subsequent appropriators.

16 The Land Owner Group parties have the right to present evidence in Phase V that
17 they have continuously pumped and fully exercised their usufructuary rights (or engaged in
18 "self help") during all periods where no surplus existed.

19 The next and final phase will consider the Land Owner Group parties' quiet title
20 cause of action, to the extent not fully and finally resolved by this decision, the self help
21 issues, and the Public Water Producers' declaratory relief and physical solution causes of
22 action. All remaining causes of action asserted by all parties to this action are dismissed.

23
24 Dated: JAN - 8 2007



Hon. Jack Komar
Judge of the Superior Court

FILED

JAN - 8 2007

KIRI TORRE
Chief Executive Officer/Clerk
Superior Court of Santa Clara
BY *[Signature]* DEPUTY
ROWENA WALKER

**SUPERIOR COURT OF CALIFORNIA
COUNTY OF SANTA CLARA**

SANTA MARIA VALLEY WATER
CONSERVATION DISTRICT,

Plaintiff,

vs.

CITY OF SANTA MARIA, ET AL.,

Defendants.

**SANTA MARIA GROUNDWATER
LITIGATION**
Lead Case No. 1-97-CV-770214

(CONSOLIDATED FOR ALL
PURPOSES)

[Consolidated With Case Numbers:
CV 784900; CV 785509; CV 785522;
CV 787150; CV 784921; CV 785511;
CV 785396; CV 787151; CV 784926;
CV 785515; CV 786791; CV 787152;
1-05-CV-036410]

San Luis Obispo County Superior
Court Case Nos. 990738 and 99073

**STATEMENT OF DECISION RE
TRIAL PHASE 5**

AND RELATED CROSS-ACTIONS AND
ACTIONS CONSOLIDATED FOR ALL
PURPOSES

Following the presentation of testimony from witnesses and the admission of exhibits in Phase V of this matter, the parties submitted written arguments. The matter having been submitted, the court now renders its statement of decision.¹

The issues for decision include whether the Land Owner Group ("LOG") parties and Wineman Group ("Wineman") parties are entitled to any relief on their Quiet Title actions,² what

¹ This statement is based on the evidence and arguments from all phases of the trial which were ruled to be admissible in subsequent phases.

1 rights the Public Water Producers³ may have as a result of the court's finding of prescription,
2 whether the rights of the LOG and Wineman parties are reduced as a result of any prescriptive
3 rights, whether any LOG and Wineman parties exercised "self-help," whether the court should
4 make orders in equity by way of a physical solution and declaratory relief as requested by the
5 Public Water Producers, and whether the court should enter a single judgment or a separate
6 judgment on the stipulation of the settling parties.

7 **QUIET TITLE**

8 The LOG and Wineman parties moved to dismiss all of their causes of action other than
9 their actions to Quiet Title to their water rights appurtenant to their various properties. The
10 evidence and stipulations of the parties on their quiet title claims established current legal title to
11 the real property. There was no evidence presented defining the reasonable and beneficial use of
12 the groundwater underlying their land or any evidence quantifying their water production,
13 historically or otherwise. Evidence was presented to establish that in the valley aquifer as a
14 whole there was no decline in the total quantity of pumping from the aquifer during the many
15 drought years in which pumping greatly exceeded recharge of the aquifer, during which there
16 was the court finds that there was no surplus of water.

17 In the Phase IV trial, the court concluded that the Public Water Producers had
18 appropriated water in specified annual amounts during periods of overdraft exceeding the period
19 of the statute of limitations and that such pumping was under claim of right and was open,
20 notorious and hostile to the rights of all water producers in the Santa Maria Valley, who were on
21 notice of the appropriation. The court quantified the combined water production so found as
22 7000 acre feet a year. The effect of that adverse appropriation on the LOG and Wineman
23 parties' rights cannot be determined without evidence of the extent of the LOG and Wineman
24 parties' (and all other water producers) water rights within this single basin aquifer. Thus, while
25

26 ² The LOG and Wineman parties do not include any of the parties who entered into a Stipulation
following the trial in Phase III and who did not participate in Trial Phases IV and V.

27 ³ The Public Water Producers are the City of Santa Maria, Golden State Water Company, Rural
28 Water Company, the "Northern Cities" (including the Cities of Arroyo Grande, Pismo Beach,
Grover Beach, and Oceano Community Services District), and the Nipomo Community Services
District.

1 the evidence presented is sufficient to establish legal title to the property, there was no evidence
2 that would permit the court to quiet title to, or quantify, the LOG parties' water rights in light of
3 the claim of prescription and the absence of evidence of the reasonable and beneficial water
4 rights of the LOG and Wineman parties and the relationship that their rights bear to all other
5 rights to pump water from this single basin aquifer (including application of the concept of self
6 help as discussed below).

7 In sum, the quiet title remedy is unavailable because the court cannot ascertain the extent
8 of the rights claimed by the LOG and Wineman parties without that evidence. The court will
9 address the basic issues, however, with regard to the declaratory relief actions brought by the
10 Public Water Producers.

11 **PRESCRIPTION**

12 The City of Santa Maria has established a prescriptive right to 5100 acre feet a year and
13 the Golden State Water Company has established a prescriptive right to 1900 acre feet a year
14 based upon continuous appropriation during times of overdraft exceeding the period of the
15 statute of limitations. Those rights are usufructuary and are correlative to the same extent that an
16 overlying owner's rights are correlative. The Public Water Producers who established
17 prescriptive rights are entitled to those specific quantities of water in the Basin, the same as any
18 overlying landowner, so long as there is sufficient water in the aquifer. They also have a priority
19 over other appropriators in those circumstances, just as an overlying owner has a priority over
20 appropriators when there is no surplus. In times of future shortages and overdraft, the rights of all
21 parties are subject to further adjudication to preserve the integrity of the aquifer and the rights of
22 the various parties at issue.

23 The Public Water Producers ask the court to allocate the prescriptive rights obtained by
24 the City of Santa Maria and the Golden State Water Company against only the LOG and
25 Wineman parties. The evidence establishes that the water appropriated by the Public Water
26 Producers was not water to which only the Land Owner and Wineman parties have rights.
27 Because all rights to water within a single basin aquifer are correlative, all rights within the
28 Basin may be affected by the acquisition of prescriptive rights by a party who appropriates. The

1 evidence establishes that overall pumping by all water producers (overlying owners as well as
2 appropriators) continued without reduction during the periods of severe drought, resulting in
3 serious depletion of water in the aquifer. Prescriptive rights acquired during those periods
4 therefore must be measured against the rights of all water producers pumping from the aquifer as
5 a whole and not just against the LOG and Wineman parties. While the Public Water Producers
6 and the other parties to the stipulation have agreed that the Public Water Producers will not assert
7 prescriptive rights against the stipulating land owners (who did not participate in Phases IV and
8 V of the trial), any claims against the LOG and Wineman parties must be based on the ratio that
9 their reasonable and beneficial use bears to the reasonable and beneficial use of all water
10 producers in the aquifer. While the water rights of the parties to the stipulation may not be
11 actually affected by the Public Water Producers' prescriptive rights because they did not
12 participate in Phases IV and V by stipulation, and further because of what is essentially a waiver
13 of those rights by the purveyors, those who were defaulted, or did not stipulate, or who appeared
14 in opposition (the LOG and Wineman parties) in Phases IV and V of the trial will only be
15 proportionately affected in proportion to the whole- an amount presumably almost small enough
16 to be de minimus given the size of the valley and annual pumping of water within the valley.

17 **SELF-HELP**

18 The LOG and Wineman parties ask the court to find that they exercised self-help during
19 the applicable prescriptive periods, and that the Public Water Producers have therefore not
20 acquired any prescriptive rights. The LOG and Wineman parties argue that the exercise of self-
21 help negates one or more of the elements of prescription and has the same effect as an injunction
22 that stops the running of the statute of limitations.

23 The doctrine of "self-help" is a concept that has been used to describe the actions of
24 overlying land owners in circumstances where an appropriator has claimed prescriptive rights at
25 the same time that an overlying owner has continued to pump but has not sought legal action to
26 enjoin the appropriator. Unquestionably, there is a legal consequence to the continuous pumping
27 from the aquifer by both the appropriator and the overlying land owner during times of overdraft.
28

1 (*See Hi-Desert Country Water Dist. v. Blue Skies Country Club, Inc.* (1994) 23 Cal.App.4th
2 1723, 1730-1732.)

3 The party asserting prescription must prove the elements of prescription. The land owner
4 mitigates the effect of prescription by evidence of so called "self-help." Perhaps traditional
5 common law principles best describe it. See analogously, *Smith v. New Hampshire* (1906) 4
6 Cal.App. 8, where a party obtained a prescriptive easement in a ditch to carry water across the
7 land of another but the fee owner also used the ditch during the period of prescription to
8 concurrently transport water. As a consequence, the court held that the prescriptive easement
9 was non-exclusive and the servient tenement retained the right to also use the easement. The
10 analogy is far from perfect but is somewhat useful as authority for the proposition that the
11 exercise of self-help mitigates but does not prevent the adverse party from obtaining prescriptive
12 rights.

13 With respect to the pumping of groundwater during periods of overdraft, an overlying
14 owner retains its original rights less any amount lost to prescription. (*See City of Los Angeles v.*
15 *City of San Fernando* (1975) 14 Cal.3d 199, 294 [overlying owners entitled to a priority as to
16 their reasonable and beneficial use, "less any amounts lost by prescription from the . . . native
17 ground water"].) During overdraft, if an overlying owner and an appropriator continuously and
18 concurrently pump water, the appropriator may obtain prescriptive rights while the overlying
19 owner may limit the effect of prescription by the overlying owner's "self help" pumping. (*See*
20 *City of Pasadena v. City of Alhambra* (1949) 33 Cal.2d 908, 930-932.) Specifically, if all parties
21 with a right to pump from the single basin aquifer continue to pump their full reasonable and
22 beneficial use during periods of overdraft, an appropriator who pumps during that period may
23 obtain prescriptive rights by analogy to the reasoning in *Smith v. New Hampshire, supra*. The
24 appropriator is pumping water to which all overlying owners would otherwise have a right, since
25 it is not out of surplus. By that reasoning, the land owner cannot prevent prescription but may
26 mitigate the loss of rights by continuing to pump, thereby retaining the right to continue to take
27 some water in the future, *i.e.*, that amount pumped concurrently with the appropriator.

1 It would be a simple matter to determine the extent of prescriptive rights acquired and
2 overlying rights retained if there were only a small number of water producers and overlying
3 owners in a basin aquifer. It becomes more complex when there are a multitude of overlying
4 land owners and water producers, as in the Santa Maria valley. Here, because the appropriators
5 are pumping water belonging to the overlying owners, including not just the LOG and Wineman
6 parties, but all other parties with a prior right to pump in the valley, prescriptive rights would be
7 acquired against all such others pro rata.

8 The only parties adverse to the Public Water Producers in the fourth and fifth phases of
9 the trial are the LOG and Wineman parties. The Public Water Producers expressly relinquished
10 by the terms of the stipulation any claim of prescription against the other parties to the
11 stipulation. Without a quantification of the pumping history of the LOG and Wineman parties,
12 as well as of any other water producers, the court at this time cannot determine the effect that
13 prescription has on any such other water producer or party. And not having jurisdiction over the
14 other stipulating parties, or evidence from them, none of the information necessary to decide the
15 issue is available to the court. To be absolutely clear, no findings of prescription are made
16 against the stipulating parties but the court must look at all water rights in the aquifer to
17 determine what prescriptive rights would obtain against the non-stipulating parties.

18 In the event of water shortages in the Basin, it would be necessary for the court to
19 quantify all usufructuary rights, *and* equitably allocate pumping rights of each right holder over
20 whom the court has jurisdiction. Under those circumstances the court would be required to
21 recognize and take into consideration stipulated agreements, land owners' rights, prescriptive
22 rights, imported water rights, rights to stored water, and the right to return flows, among others.

23 PHYSICAL SOLUTION

24 The stipulating parties have agreed and requested that the court retain equitable
25 jurisdiction over the parties in this matter. There is a reasonable certainty that the Basin will
26 suffer water shortages in the future and that the court will be required to act in the future to
27 preserve the rights of the various parties to this litigation in the event that Twitchell is not
28

1 renovated and restored. Even if Twitchell is restored, there is a possibility that such shortages
2 may occur.

3 Future water shortages may require the court to evaluate pumping rights and to quantify
4 the reasonable and beneficial uses of water which each party seeks to pump. The majority of the
5 property owners who produce water in the Basin have entered into a stipulation to settle their
6 interests in the case, and have stipulated with the Public Water Producers regarding both their
7 respective claimed rights and a purported physical solution to preserve the hydrologic health of
8 the aquifer. The stipulation, *inter alia*, provides for monitoring of water use. That data will be
9 available to the court in the event of a severe water shortage affecting the entire Basin if the court
10 is called upon to act. The LOG and Wineman parties are not parties to the stipulation and have
11 not agreed to participate in water monitoring. Nevertheless, these non-stipulating parties must
12 monitor their water production, maintain records thereof, and make the data available to the court
13 and its designee as required in view of the substantial likelihood of future water shortage, and so
14 that the court can ascertain the reasonable and beneficial use of water rights of all parties and the
15 effect of prescription on all overlying land owner water producers. Further, this information will
16 permit the parties to make optimal use of the Basin's water resources consistent with the dictates
17 of Article X, Section 2 of the California Constitution. All parties, including all non-stipulating
18 parties, must participate in the applicable Management Area Monitoring Program, described in
19 the settlement stipulation.

20 The court concludes a physical solution is necessary and appropriate to provide for future
21 exigencies and that the water management plan provided for in the stipulation is necessary and
22 appropriate and will provide an efficacious solution to the Basin's current and future problems.
23 Further, the water management plan contained in the stipulation, including the Management Area
24 Monitoring Program, does not impair or otherwise adversely affect the rights of the any parties
25 not signatory thereto. The court previously approved the water management plan and the
26 Settlement Stipulation by Order dated August 3, 2005. The court will incorporate the Stipulation
27 in its final judgment and require compliance by all settling parties with them.

1 **TWITCHELL ALLOCATION**

2 The stipulating parties have also agreed as *between themselves* to equitably divide the
3 water produced by Twitchell that results in recharge to the aquifer. The recharge to the Basin
4 from Twitchell to which the stipulating parties have agreed is 32,000 acre feet a year (hereafter,
5 “Twitchell Yield”). The stipulating parties have agreed to allocate 80 percent of that recharge to
6 the Public Water Producers who will pay for the ongoing maintenance and rehabilitation of the
7 Twitchell Project and 20 percent to other parties to the stipulation whose lands are located within
8 the boundaries of the Santa Maria Valley Water Conservation District (“District”). The parties
9 thereto have so agreed. Those who are not parties to the stipulation, specifically the LOG and
10 Wineman parties, as well as the defaulting parties, are not bound by the Stipulation, and are not
11 required to assume its burdens. In the event of a drought and consequent water shortages, the
12 stipulating parties will have a basis to ask the court to enforce the settlement among themselves
13 if need be and to allocate stored Twitchell water in accordance with the stipulation.

14 Neither the LOG and Wineman parties, nor any other parties have a contractual right to
15 any water produced by Twitchell except as the District may be authorized to enter into such
16 agreements for the future operation of the project. Thus, enforcement of the Twitchell allocation
17 prescribed by the stipulation does not affect any rights, contractual or otherwise, of the non-
18 stipulating parties. Further, enforcement of the stipulation’s Twitchell allocation, as between the
19 stipulating parties, does not adversely affect the rights to native ground water of any non-
20 stipulating parties. The correlative rights of non-stipulating parties to native ground water will
21 remain unaffected by the stipulation, subject only to the court’s findings of the legal consequence
22 of those prescriptive rights held by some Public Water Producers and the court’s equitable
23 jurisdiction. Twitchell water, once released for recharge, retains its character as native water.

24 In the final judgment, the court will exclude the non-stipulating parties from the
25 allocation of the Twitchell project as imposed in the stipulation. It would be premature for the
26 court to order an allocation of water produced by Twitchell as to parties who are not party to the
27 stipulated agreement and there is no basis for doing so.
28

1 The LOG and Wineman parties contend the court should not impose the management
2 plan on the parties in the exercise its equitable powers because the stipulation does not comply
3 with the California Environmental Quality Act, Cal. Pub. Resources Code § 21000 *et seq.*
4 (“CEQA”).

5 The court is not imposing the entirety of the stipulation on non-stipulating parties. The
6 only portion of the stipulation that will be applied to non-stipulating parties is the monitoring
7 program. There is no contention that this portion of the stipulation implicates CEQA.

8 As to the stipulating parties, the court intends to enter a judgment containing the terms of
9 stipulation, which may thereafter be enforced by the court as to the stipulating parties. No
10 evidence has been presented that any person, including the LOG and Wineman parties, have
11 brought a direct challenge to any public agency based on the failure to comply with CEQA with
12 regard to the agency decisions to approve the stipulation. Assuming without deciding that the
13 approval of the stipulation by a governmental agency is a “project” within the meaning of the
14 CEQA statute, a challenge to such a decision must be made by initiating an action or proceeding
15 within 180 days of the approval of the project. The issue is not properly before this court. In
16 effect, the objecting parties are making a collateral attack on the decisions by various entities to
17 enter into the stipulation and completely ignoring the statutory procedure for obtaining an
18 adjudication regarding compliance with the statute. The Santa Maria Valley Water Conservation
19 District, which is the principal agency with authority over the Twitchell Reservoir and the
20 release of water to recharge the aquifer, entered into the stipulation in July of 2005
21 (approximately 18 months ago) and has not participated in these proceedings since that time.
22 There was no objection based upon CEQA at the time the stipulation was presented to the court
23 for approval, although the parties were present and appeared at the time.

24 The court declines to make any findings regarding any party’s duties or obligations under
25 CEQA with respect to the stipulation, the issue not having been presented to the court at the time
26 the request for approval of the stipulation was made and it is not otherwise properly before this
27 court.

1 The Land Owners also contend the District cannot enter into such a contract (the
2 stipulation) because the District lacks authority to allocate Twitchell Water to the parties who
3 will pay for it in the future.

4 The stipulation allocates water rights only among those parties who are party to it. The
5 objecting, non-stipulating parties are not parties to the stipulation and are unaffected by it. The
6 stipulation does not deprive any non-stipulating party of water, does not modify the on-going
7 operation of the Twitchell reservoir and dam, and merely provides a funding mechanism for the
8 future operation and maintenance of the Twitchell project.

9 So long as the District uses the water for the general purposes prescribed by its contract
10 with the Santa Barbara County Water Agency, and properly exercises its statutory powers in that
11 regard for the public good within the District, it may regulate and allocate the Twitchell Water
12 consistent with its contract and under the terms of the License. Thus, the District does have the
13 right to provide by contract (the settlement stipulation) for the ongoing maintenance and
14 operation of the Twitchell project, and in doing so, to carry out its contractual duties arising out
15 of the contract between the U.S. Department of the Interior (Bureau of Reclamation) and the
16 Santa Barbara County Water Agency and, in turn, the contract between the Santa Barbara
17 County Water Agency and the District.

18 The District is a water conservation district organized under Water Code section 74000,
19 *et seq.* This enabling act authorizes the District to “make contracts and do all acts necessary for
20 the full exercise of its powers” (Cal. Wat. Code § 74501), including the maintenance, operation
21 and repair of the project (Cal. Wat. Code § 74523) and the acquisition or disposal of water
22 conserved by operation of the project (Cal. Wat. Code § 74592). It further provides that the
23 District “may sell, deliver, distribute, or otherwise dispose of any water that may be stored or
24 appropriated, owned, or controlled by the district.” (Cal. Wat. Code § 74526.)

25 The District’s contractual duties include the maintenance and operation of the dam and
26 reservoir for flood control purposes, and the enhancement of annual recharge of the aquifer, all
27 of which is for the benefit of all who are present within the District (and indirectly benefits
28 parties who are within the valley but outside the district boundaries, which are not coextensive

1 with the valley). The District has the power to enter into contracts to carry out those functions.
2 The stipulation is a contract that is designed to provide for restoration and maintenance of the
3 storage capacity of the reservoir and thereby ensure an adequate water supply for the entire
4 valley. That is a legitimate purpose and it benefits all parties here, including the Land Owner
5 parties. The District has assigned no operational authority for the project; the stipulation
6 expressly provides that the project “will continue to be governed by and subject to the terms and
7 conditions of the December 1955 agreement between the District and the Santa Barbara County
8 Water Agency and nothing in this Stipulation is intended to modify the rights or obligations
9 provided in that agreement.” (Settlement Stipulation, at V.D.6.) The overwhelming majority of
10 the Basin’s water producers have entered into the stipulation. The only parties who have not so
11 agreed and object are the LOG and Wineman parties and several defaulting parties.

12 The District has, consistent with its authorizing authority, committed to allocating the
13 Twitchell Yield to those who will fund the improvements and remediation of the project
14 necessary to maintain the project’s yield. The District’s contractual agreement to permit certain
15 parties to pay for the on-going operation and management of the project, including any necessary
16 improvements to the project — a project that will continue to benefit the entire valley and all
17 valley parties — and to compensate those parties for their financial commitments, is entirely
18 consistent with the District’s statutory authorities.

19 The stipulation’s allocation of Twitchell Yield is also consistent with the water rights
20 license for the project. State Water Resources Control Board License No. 10416 authorizes the
21 Bureau of Reclamation to appropriate water flowing in the Cuyama River for irrigation,
22 domestic, salinity control, municipal, industrial and recreational uses. The stipulation allocates
23 the project water for municipal, domestic, and irrigation uses, consistent with the license. The
24 stipulation provides for necessary improvements to the project to permit the continuation of the
25 benefits of the project for all District lands and equitably allocates the Twitchell Yield in times of
26 shortage based on the parties’ respective contributions to the continuing operation and
27 maintenance of the project. (Settlement Stipulation, V.A.3.b.ii., V.D.3.c.)
28

1 The Basin continues to be in jeopardy of overdraft in times of drought. Pumping has
2 increased with increases in population and irrigation. The Twitchell dam has ongoing and
3 increasingly serious accumulation of silt in the reservoir. The build up of silt in the reservoir
4 reduces the capacity of the reservoir to store water necessary to recharge the aquifer. To date,
5 the dam has lost substantial capacity to store water as a consequence of silt accumulation.
6 Increasing the capacity of the dam is a long range endeavor. If a lengthy period of drought
7 occurs before the dam capacity has been restored, pumping at current levels from the aquifer will
8 be reasonably certain to result in an overdraft.⁴ The agreement between the stipulating parties
9 offers some hope for the future of the Basin but it is not a guaranty even under the best of
10 circumstances. Even after the dam was completed, there was an overdraft in the Basin for the
11 years 1959 to 1967 before sufficient precipitation permitted the district to have full advantage of
12 the recharge capacity of the reservoir, in addition to extensive pre-Twitchell periods of overdraft
13 in the historic past. The area has experienced extreme variations in precipitation and run off
14 from the surrounding watershed, and drought years have historically been lengthy and severe.
15 The evidence before the court is that similar patterns may be expected to recur in the future.

16 CONCLUSION

17 Thus, this is a matter in equity and the court will therefore retain jurisdiction to carry out
18 and enforce its judgment as necessary, to implement the stipulation and physical solution, and to
19 protect the interests of all parties, the stipulating parties, the Land Owner parties, the Public
20 Water Producers, and the public generally.

21 The court intends to enter a single judgment consistent with this Statement of Decision,
22 incorporating the settlement stipulation as to the stipulating parties. All parties (stipulating and
23 non-stipulating) shall participate in, and be bound by, the Management Area Monitoring
24 Program described in the settlement stipulation to ensure the integrity of the aquifer. The
25 allocation of Twitchell water and certain costs and duties shall be only as to those stipulating
26 parties.

27
28 ⁴ But for the construction of the Twitchell Reservoir, during historic periods of severe overdraft,
the aquifer was in serious jeopardy of loss of water storage capacity, sea water intrusion, and
water quality degradation.

1 The prescriptive rights of the Public Water Producers shall be part of the judgment.

2 The Court will enter judgment for the cross-defendant Public Water Producers on the
3 cross-complaints by LOG and Wineman parties for quiet title.


4 The court will find title to parcels of real property in the LOG and Wineman parties as
5 part of the declaratory relief requested by the Public Water Producers but will deny quiet title to
6 water rights for the reasons discussed above.

7 In the Northern Cities Area, the rights of the Northern Cities vis-à-vis the other settling
8 parties are governed by the Settlement Stipulations, which the Court adopts as the physical
9 solution among the settling parties. With respect to the non-settling Land Owners, a declaratory
10 judgment will be entered in favor of the Northern Cities stating that: (a) the Northern Cities have
11 a prior right to 7,300 acre feet of water per year in the Northern Cities Area; and (b) the non-
12 settling parties have no overlying, appropriative, or other right to use any water supplies in the
13 Northern Cities Area.

14 Judgments may also be entered against all defaulting parties.

15 The Purveyor parties are ordered to prepare a form of judgment consistent with the
16 Statements of Decision for all phases of the trial and to submit the same to opposing counsel. A
17 status conference is scheduled for February 13, 2007 at 10:00 a.m. Further hearings will be set to
18 consider the form of judgment.

19
20
21
22 Dated: JAN - 8 2007



Judge of the Superior Court
JACK KOMAR

Appendix G
City of Santa Maria 2004 Water Quality Report

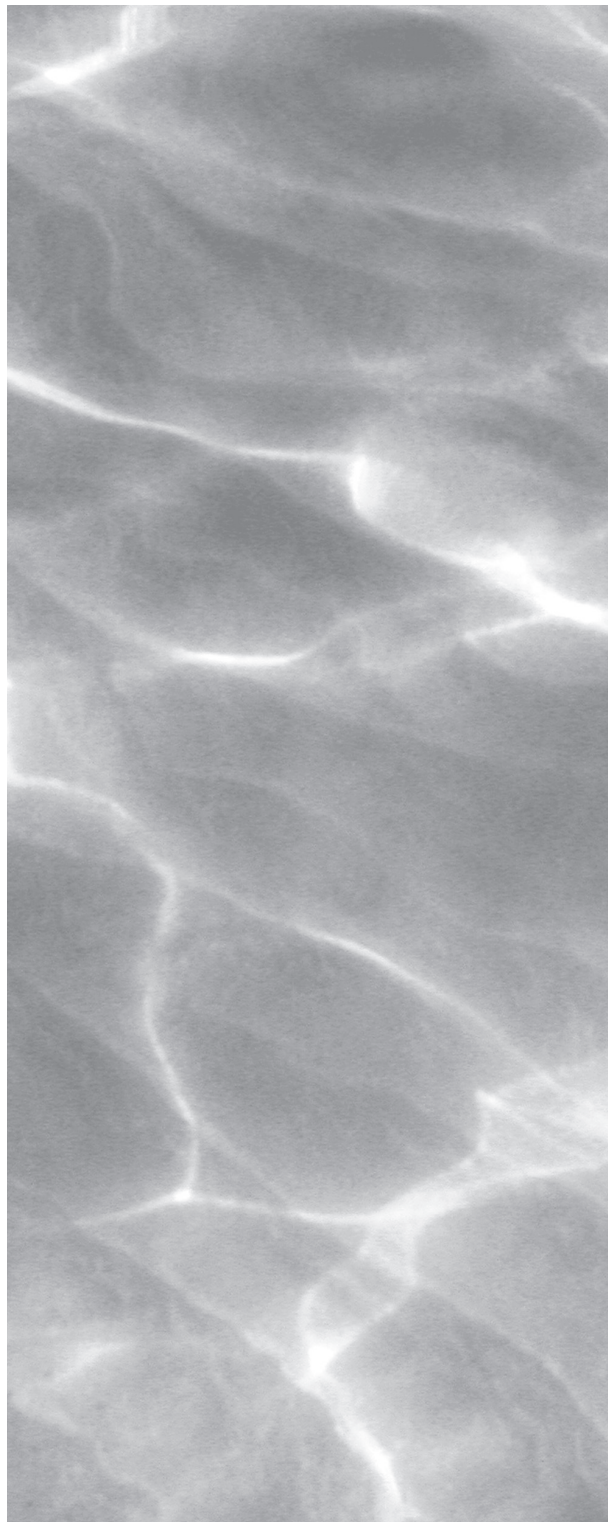
WATER QUALITY REPORT

Santa Maria receives water from two sources: City Water Wells located in the Santa Maria Airport area, and State Water from Northern California. The City is committed to producing the highest quality drinking water for our customers. To maintain our commitment to you, we routinely collect and test water samples—from the source right to your home—checking purity and identifying potential problems. We are pleased to report that during the past year, the water delivered to your home complied with all State and Federal drinking water requirements.

Water utility services prepare water quality reports required by the State of California Department of Health Services to inform customers about the quality of the water being delivered to them. For your information, we have compiled this summary of test results dating from 1995 to 2005. Not all substances require annual testing. Data reported in the tables are from samples taken at multiple sites and multiple dates. These sites are not on the same sampling schedule; therefore, under Sample Date, we have specified the range of years that these samples were taken. These tables show Primary and Secondary Standards, which the City's drinking water must meet.

Your thoughts are important to us and may be heard at any regular meeting of the Santa Maria City Council, which meets the first and third Tuesday of each month at 6:30 p.m. in the City Hall Council Chambers, 110 E. Cook Street, Santa Maria. For more information about this report, or for any questions relating to your drinking water or this report, please call our Regulatory Compliance Coordinator at (805) 925-0951, ext. 7270.

■ Este informe contiene información muy importante sobre su agua para beber. Tradúzcalo ó hable con alguien que lo entienda bien.



City of Santa Maria 2005 WATER QUALITY REPORT



This report provides information regarding the quality of water for the City of Santa Maria for the past year, 2005. Included are details about where your water comes from, what it contains, and how it compares to State Standards. Your health, safety, and environment are our number one priority.



**CITY OF SANTA MARIA
UTILITIES DEPT**



Questions? Call 925-0951 ext. 7270

2065 E. Main Street • Santa Maria, CA 93454
TDD 800-735-2929 (English) • 800-855-3000 (Spanish)
www.ci.santa-maria.ca.us

WATER QUALITY

IN SANTA MARIA

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, hazardous materials. It can also pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- **Microbial contaminants**, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic contaminants**, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

In order to ensure that tap water is safe to drink, the United States Environmental Protection Agency (USEPA) and the State Department of Health Services (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

Surface water from the State Water Project is treated at the 43 MGD Conventional Full Treatment Plant at Polonio Pass. The treatment sequence is as follows:

- Flash-mix coagulation with addition to Alum and Cat-ionic Polymer.
- Flocculation through five chambers with tapered hydraulic mixing.
- Sedimentation in two 26-foot long basins.
- Filtration through a granular activated carbon and sand filter media.
- Disinfection with free chlorination in a contact basin to meet State mandated contact time.
- Addition of Ammonia to convert residual Chlorine to Chloramine.
- Addition of Sodium Hydroxide to stabilize the water so it is not corrosive.

Definitions

- **Public Health Goal (PHG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.
- **Maximum Residual Disinfectant Level (MRDL):** The level of

disinfectant added for water treatment that may not be exceeded at the consumer's tap.

- **Maximum Residual Disinfectant Level Goal (MRDLG):** The level of disinfectant added for treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. Environmental Protection Agency.
- **Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.
- **Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. The U.S. Environmental Protection Agency (USEPA) sets MCLGs.
- **Primary Drinking Water Standards (PDWS):** MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
- **Secondary Drinking Water Standards (SDWS):** MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL level.
- **Umho/cm:** micromhos/centimeter (microsiemens/centimeter).
- **Regulatory Action Level (AL):** The concentration of a contaminant, which, if exceeded, triggers treatment, or other requirements, which a water system must follow. (As of 2005, this category is known as a Notification Level.)
- **ppm:** parts per million or milligrams per liter (mg/L)
- **ppb:** parts per billion or micrograms per liter (ug/L)
- **ppt:** parts per trillion or nanograms per liter (ng/L)
- **pCi/L:** picocuries per liter (a measure of radiation)
- **NTU:** Nephelometric Turbidity Unit (value measuring the degree of cloudiness due to suspended particles)
- **ND:** not detectable at testing limit
- **NC:** non-corrosive
- **NS:** no standard

Additional Information on Drinking Water

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the number below

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline, 1 800-426-4791.

City of Santa Maria Water Assessment

An assessment of the drinking water source(s) for the City of Santa Maria water system was completed in January 2003. The sources are considered most vulnerable to the following activities associated with contaminants detected in the water supply: runoff and leaching from fertilizer use; leaching from septic tanks; sewage; and erosion of natural deposits.

A copy of the complete assessment is available at the DHS District Office, 1180 Eugenia Place, Suite 200, Carpinteria, CA 93013 or the City of Santa Maria, Utilities Department at 2065 E. Main Street, Santa Maria, CA 93454. You may request a summary of the assessment by contacting either Kurt Souza, District Engineer with the DHS at 805/566-1326 or Alan Walker, Regulatory Compliance Coordinator with the City of Santa Maria at 805/925-0951 ext. 7270.

Maximum Contaminant Levels Summary

About Nitrate: During 2005, there was a surge in Nitrate levels at City well 7, well 8 and well 9. Nitrate levels may rise quickly for short periods of time due to rainfall or agricultural activity. Wells 7 and 8 have returned to acceptable nitrate levels. WELLS 7,8 AND 9 WERE NOT TURNED INTO THE SYSTEM IN 2005.

Nitrates in drinking water at levels above 45 ppm are a health risk for infants of less than six months of age. Nitrate levels in drinking water can interfere with the capacity of the infants' blood to carry oxygen, resulting in serious illness. Symptoms include shortness of breath and blueness of the skin. High Nitrate levels may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with specific enzyme deficiencies.

About Lead: During 2004, one sample was above the AL for lead, at one individual residence, but the overall results for the sampling program did not indicate treatment required.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to two minutes before using tap water. Additional information is available by calling the number below.

About Radon: Radon is a naturally occurring radioactive gas formed when uranium degrades. Radon can be found in soil regularly because most rocks contain at least trace amounts of uranium. As that uranium degrades naturally, radon is added to the composition of the soil. Radon in the soil transfers easily to air and water supplies with which it comes into contact. In January 2000, the City of Santa Maria well water had an average radon level of 707.8 pCi/l. For information on radon in drinking water, contact the Safe Drinking Water Hotline. For information on radon in indoor air, contact the National Safe Council's Environmental Health Center's Hotline at 1-800-SOS-RADON, or visit the EPA's web site at www.epa.gov/safewater/radon.

Water Source: City of Santa Maria Water Wells

TABLE 1 - SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants	Highest No. of Detections	No. of Months in Violation	MCL	PHG (MCLG)	Typical Source of Bacteria
Total Coliform Bacteria	(In a mo.) 2	NONE	A number greater than 5% of total monthly samples.	0	Naturally present in the environment
Fecal Coliform or E. coli	(In a year) 0	NONE	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or E. coli	0	Human and animal fecal waste

TABLE 2 - SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER

Lead and Copper	Date	No. of Samples Collected	90th Percentile Level Detected	No. Sites Exceeding AL	AL	PHG (MCLG)	Typical Source of Contaminant
Lead (ppb)	7/04	30	<5	NONE	15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.
Copper (ppb)	7/04	30	<50	NONE	1300	170	Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives.

TABLE 3 - SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent (and reporting units)	Sample Date	Average Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	5/04, 9/04, 1/05, 3/05, 5/05	59.8	44 - 96	NS	NS	Generally found in ground and surface water
Hardness (ppm)	5/04, 9/04, 1/05, 3/05, 5/05	558.9	410 - 790	NS	NS	Generally found in ground and surface water

TABLE 4 - DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Average Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Arsenic (ppb)	5/04, 9/04, 3/05, 5/05	2.2	<2.0 - 2.6	50	0.004	Erosion of natural deposits; glass & electronics production wastes
Fluoride (ppm)	5/04, 9/04, 1/05, 3/05, 5/05	0.22	0.18 - 0.25	2.0	1	Erosion of natural deposits; discharge from fertilizer and aluminum factories
Nitrate (ppm)	1/05, 3/05, 4/05, 5/05, 7/05, 10/05	29.3	<2 - 100*	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Trichloroethylene (TCE) (ppb)	1/05, 4/05, 7/05, 10/05	1.8	0.82 - 2.3	5	0.8	Discharge from metal degreasing sites and other factories
Total Trihalomethanes (ppb)	7/04, 10/04, 1/05, 4/05	54.2	36.7 - 65.4	80	NS	By-product of drinking water chlorination
Total Haloacetic Acids (ppb)	1/05, 4/05, 7/05, 10/05	15.2	7.5 - 24.1	60	NS	By-product of drinking water chlorination
Gross Alpha Activity (pCi/L)	4/01, 11/02, 12/02, 2/03, 12/03, 7/04, 1/05	4.1	<1 - 5.4	15	(0)	Erosion of natural deposits
Uranium (pCi/L)	3/95, 4/97, 4/98, 5/98, 7/04	4.0	3.3 - 4.3	20	0.43	Erosion of natural deposits

TABLE 5 - DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Average Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Color	3/05	5	5 - 5	15	NS	Naturally occurring organic materials
Chloride (ppm)	5/04, 9/04, 1/05, 3/05, 5/05	48.7	23 - 89	500	NS	Runoff/leaching from natural deposits; seawater influence
Corrosivity	4/04, 5/04, 3/05	NC	NC	NC	NS	Natural or industrially-influenced balance of hydrogen, carbon, and oxygen in the water; affected by temperature and other factors
Sulfate (ppm)	5/04, 9/04, 1/05, 3/05, 5/05	364	240 - 560	500	NS	Runoff/leaching from natural deposits; industrial wastes
Turbidity (NTU)	5/04, 9/04, 1/05, 3/05, 5/05	0.2	0.1 - 0.5	5	NS	Soil runoff
Odor Threshold (units)	5/04, 9/04, 1/05, 3/05, 5/05	1	1 - 1	3	NS	Naturally-occurring organic materials
PH (pH units)	5/04, 9/04, 1/05, 3/05, 5/05	7.5	7.3 - 7.8	6.5 - 8.5	NS	Natural or industrially-influenced balance of hydrogen, carbon, and oxygen in the water; affected by temperature and other factors
Specific Conductance (umho/cm)	5/04, 9/04, 1/05, 3/05, 5/05	1124	890 - 1600	1600	NS	Substances that form ions when in water; seawater influence
Total Dissolved Solids (ppm)	5/04, 9/04, 1/05, 3/05, 5/05	874	650 - 1300	1000	NS	Runoff/leaching from natural deposits

TABLE 6 - DETECTION OF UNREGULATED CONTAMINANTS WITH ACTION LIMITS

Chemical or Constituent (and reporting units)	Sample Date	Average Level Detected	Range of Detections	MCL	PHG (MCLG)	Possible Health Effects
Boron (ppb)	5/04, 9/04, 3/05, 5/05	118	<100 - 150	1000	NS	Some men who drink water containing boron in excess of the action level over many years may experience negative reproductive effects, based on studies in dogs.
Vanadium (ppb)	5/04, 9/04, 3/05, 5/05	3.3	<3.0 - 3.5	50	NS	The babies of some pregnant women who drink water containing vanadium in excess of the action level may have an increased risk of developmental effects, based on studies in laboratory animals.

TABLE 7 - CONSTITUENTS OF CONCERN

Chemical or Constituent (and reporting units)	Sample Date	Average Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Chromium VI	2/02	1.2	1.2	NS	NS	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Radon (pCi/L)	1/00	707.8	615 - 770	NS	NS	Naturally occurring radioactive gas formed when uranium degrades.
DCPA Di+Mono Acid (ppb)	2/03, 7/03	7.8	2.6-13	NS	NS	Pre-emergence herbicide.

*Any violation of an MCL or AL is asterisked.

Water Source: Central Coast Water Authority

POLONIO PASS WATER TREATMENT PLANT

TABLE 8 - PRIMARY STANDARDS - MANDATORY HEALTH-RELATED STANDARDS

Parameter	Units	State MCL	PHG (MCLG)	State DLR	Range Average	TREATED CCWA PPWTP	SOURCE STATE WATER	Major Sources in Drinking Water
Combined Filter Effluent Turbidity	NTU		TT=1NTU every 4 hours TT=95% of samples <0.3NTU		Range	0.03 - 0.12 100%	NA NA	Soil runoff

CLARITY (A)

Parameter	Units	State MCL	PHG (MCLG)	State DLR	Range Average	TREATED CCWA PPWTP	SOURCE STATE WATER	Major Sources in Drinking Water
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MICROBIOLOGICAL (B)

Total Coliform Bacteria (Distribution System)	--	5.0% of monthly samples	(0)	--	Range Average Highest	0.0% <1 <1	NA NA NA	Naturally present in the environment
Fecal Coliform and E. coli (Distribution System)	--	--	(0)	--	Range Average Highest	0 Positives 0 Positives 0 Positives	NA NA NA	Human and animal fecal waste

ORGANIC CHEMICALS

Total Trihalomethanes (Distribution System) (c)	ppb	80	NA	0.5	Range Average	37 - 72 53	NA NA	By-product of drinking water chlorination
Haloacetic acids (c) (Distribution System)	ppb	60	NA	1.0	Range Average	8.5 - 24 15	NA NA	By-product of drinking water chlorination
Methyl-tert-butyl-ether (MTBE) (d)	ppb	13	13	3	Range Average	ND ND	ND ND	Leaking underground gasoline storage tanks and pipelines

INORGANIC CHEMICALS

Aluminum	ppm	1	0.6	0.05	Range Average	0.05 - 0.26 .11	0.17 0.17	Residue from water treatment process; Erosion of natural deposits
Asbestos 4/1/98 (e)	MFL	7	(7)	0.2	Range Average	ND ND	ND ND	Internal corrosion of asbestos cement pipe erosion of natural deposits
Fluoride	ppm	2	1	0.1	Range Average	0.10 0.10	0.08 0.08	Erosion of natural deposits; water additive for tooth health
Nitrate (as NO ₃)	ppm	45	45	2	Range Average	1.8 - 7.6 4.44	2.30 2.30	Runoff & leaching from fertilizer use; sewage; natural erosion
Nitrate and Nitrite (as N)	ppm	10	10	0.4	Range Average	0.51 0.51	0.53 0.53	Runoff & leaching from fertilizer use; sewage; natural erosion
Total chlorine residual (Distribution System)	ppm	MRDL = 4.0	MRDLG = 4.0	--	Range Average	2.0 - 3.1 2.5	NA NA	Measurement of the disinfectant used in the production of drinking water

RADIONUCLIDES

Gross Alpha Particle Activity 2003-2004 (f)	pCi/L	15	N/A	1	Range Average	NC NC	NC NC	Erosion of natural deposits
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TABLE 9 - SECONDARY STANDARDS - AESTHETIC STANDARDS

Chloride	ppm	500	NA	--	Range/Average	21 - 125 / 65	26 - 127 / 68	Runoff/leaching from natural deposits; seawater influence
Color (ACU)	Units	15	NA	--	Range/Average	ND / ND	25 / 25	Naturally occurring organic materials
Corrosivity	SI	non-corrosive	NA	--	Range/Average	non-corrosive	NA / NA	Balance of hydrogen, carbon, oxygen in water, affected by temperature, other factors
Iron	ppb	300	NA	100	Range/Average	ND / ND	230 / 230	Leaching from natural deposits; industrial wastes
Manganese	ppb	50	NA	20	Range/Average	ND / ND	20 / 20	Leaching from natural deposits
Odor Threshold (h)	Units	3	NA	--	Range/Average	1 - 3 / 1	2 - 8 / 5	Naturally occurring organic materials
Specific Conductance	umho/cm	1600	NA	--	Range/Average	268 - 730 / 467	230 - 646 / 382	Substances that form ions when in water; seawater influence
Sulfate	ppm	500	NA	0.5	Range/Average	58 / 58	44 / 44	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids	ppm	1000	NA	--	Range/Average	131 - 358 / 239	113 - 348 / 218	Runoff/leaching from natural deposits; seawater influence
Turbidity (Monthly)	NTU	5	NA	0.05	Range/Average	0.03 - 0.12 / 0.06	0.82 - 22.6 / 5.0	Soil runoff

TABLE 10 - ADDITIONAL PARAMETERS (UNREGULATED)

Alkalinity (Total) as CaCO ₃ equivalents	ppm	NA	NA	--	Range/Average	42 - 76 / 63	40 - 94 / 72	Runoff/leaching from natural deposits; seawater influence
Calcium	ppm	NA	NA	--	Range/Average	28 - 74 / 50	26 - 76 / 51	Runoff/leaching from natural deposits; seawater influence
Hardness (Total) as CaCO ₃	ppm	NA	NA	--	Range/Average	50 - 140 / 98	52 - 142 / 98	Leaching from natural deposits
Heterotrophic Plate Count (g)	CFU/mL	TT	NA	--	Range/Average	<1 - 2 / 1	NA / NA	Naturally present in the environment
Magnesium	ppm	NA	NA	--	Range/Average	12 / 12	12 / 12	Runoff/leaching from natural deposits; seawater influence
pH	pH Units	NA	NA	--	Range/Average	6.7 - 9.0 / 8.1	7.2 - 9.2 / 8.2	Runoff/leaching from natural deposits; seawater influence
Potassium	ppm	NA	NA	--	Range/Average	2.9 / 2.9	3.0 / 3.0	Runoff/leaching from natural deposits; seawater influence
Sodium	ppm	NA	NA	--	Range/Average	53 / 53	50 / 50	Runoff/leaching from natural deposits; seawater influence
Total Organic Carbon (i) (TOC)	ppm	TT	NA	--	Range/Average	1.4 - 4.5 / 2.4	2.4 - 7.5 / 4.0	Various natural and manmade sources

TABLE 11 - CONSTITUENTS OF CONCERN

Boron 8/15/02 (j)	ppb	NA	AL=1,000	100	Range/Average	0.098 / 0.098	ND - 210 / 142	
Chromium VI	ppb	NA	NA	1	Range/Average	ND / ND	1.80 / 1.80	
Perchlorate	ppb	NA	AL=4	4	Range/Average	NA / NA	ND / ND	
Vanadium 8/15/02 (j)	PPB	NA	AL=50	3	Range/Average	3.7 / 3.7	ND - 4.8 / 1.70	

FOOTNOTES:

- Turbidity (NTU) is a measure of the cloudiness of the water and it is a good indicator of the effectiveness of our filtration system. Monthly turbidity values are listed in the Secondary Standards section.
- Total coliform MCLs: No more than 5.0% of the monthly samples may be total coliform positive. Fecal coliform/E. coli MCLs: The occurrence of 2 consecutive total coliform positive samples, one of which contains fecal coliform/E. coli, constitutes an acute MCL violation. These MCLs were not violated in 2005. Results are based on the distribution system's highest percent positives. Compliance is based on the combined samples from the distribution system and from the filtration plant.
- Compliance based on the running quarterly annual average of distribution system samples.
- Aluminum & MTBE have Secondary MCL's of 200 ppb & 5 ppb respectively.
- Asbestos sampling required every nine years for vulnerable systems.
- Gross alpha particle activity monitoring required every nine years. Next sample due 2013.
- Pour plate technique—monthly averages.
- CCWA has developed a flavor-profile analysis method that can more accurately detect odor occurrences. For more information, contact CCWA at (805) 688-2292.
- TOCs are taken at the treatment plant's combined filter effluent.
- CCWA has completed the UCMR requirements. No further sampling is required until notified by DHS.

ABBREVIATIONS

AL = Regulatory Action Level (as of 2005, known as Notification Level)
 ACU = Apparent Color Units
 CCWA = Central Coast Water Authority
 CFU/ml = Colony Forming Units per milliliter
 DHS = Department of Health Services
 DLR = Detection Level for purposes of Reporting
 MCL = Maximum Contaminant Level
 MCLG = Maximum Contaminant Level Goal
 MFL = Million Fibers Per Liter
 MRDL = Maximum Residual Disinfectant Level
 MRDLG = Maximum Residual Disinfectant Goal
 NA = Not Applicable
 NC = Not Collected
 ND = None Detected
 NTU = Nephelometric Turbidity Units
 pCi/L = PicoCuries per liter
 PHG = Public Health Goal
 ppb = parts per billion, or micrograms per liter (µg/L)
 ppm = parts per million, or milligrams per liter (mg/L)
 PPWTP = Polonio Pass Water Treatment Plant
 SI = Saturation Index
 TOC = Total Organic Carbon
 TT = Treatment Technique
 UCMR = Unregulated Contaminant Monitoring Regulation
 umho/cm = micromhos per centimeter (unit of specific conductance of water)

WATER SYSTEM SECURITY:

Multiple levels of safety measures are outlined and implemented to protect the City of Santa Maria's public drinking water system. These protections are part of our ongoing water service and ensure the safe transport, delivery, and treatment of water. While it is inadvisable to make known these precautionary efforts, it is our desire to assure our residents that a system-wide plan and approach is in place to protect your water resources.