

Urban Water Management Plan 2015 Update

Prepared for:



Montecito Water District

583 San Ysidro Road

Montecito, CA 93108

805.969.2271

Adopted by the Montecito Water District Board of Directors on May 16, 2017

Prepared by:

Michael Baker
INTERNATIONAL

Michael Baker International
9755 Clairemont Mesa Blvd | San Diego, CA 92124
Office: 858.614.5000 | Fax: 858.614.5001
Contact: Karl F. Meier, P.E.
JN: 152338

TABLE OF CONTENTS

CHAPTER 1	Introduction and Overview.....	1
Section 1.1	Background and Purpose	1
CHAPTER 2	Plan Preparation	2
Section 2.1	General.....	2
Section 2.2	Public Outreach.....	2
Section 2.3	Regional Coordination	2
2.3.1	<i>Coordination with Wholesaler.....</i>	<i>3</i>
Section 2.4	Reporting Basis.....	3
2.4.1	<i>Period of Reporting.....</i>	<i>3</i>
2.4.2	<i>Units of Measure</i>	<i>3</i>
Section 2.5	List of Abbreviations and Acronyms	4
CHAPTER 3	System Description.....	6
Section 3.1	General Description	6
Section 3.2	Service Area Boundary	8
Section 3.3	Climate	10
3.3.1	<i>Service Area Climate.....</i>	<i>10</i>
Section 3.4	Service Area Population and Demographics.....	10
3.4.1	<i>Other Demographic Factors</i>	<i>12</i>
CHAPTER 4	System Water Use	13
Section 4.1	Historical Water Use	13
4.1.1	<i>Current Water Use.....</i>	<i>15</i>
4.1.2	<i>Projected Water Demand.....</i>	<i>17</i>
Section 4.2	Distribution System Water Losses	19
Section 4.3	Water use reduction plan	21
Section 4.4	Estimating Future Water Savings	21
Section 4.5	Water Use for Lower Income Households	23
Section 4.6	Climate Change	23
Section 4.7	Recycled Versus Potable and Raw Water Demand.....	24
CHAPTER 5	SBX7 – 7 Baselines and Targets	26
Section 5.1	Baseline Periods	26

Section 5.2	Determination of 5-Year Baseline Period (Target Confirmation)	26
Section 5.3	Service Area Population	27
Section 5.4	Gross Water Use	27
Section 5.5	Baseline Daily per Capita Water Use	29
Section 5.6	2015 and 2020 Targets.....	29
Section 5.7	2015 Compliance Daily per Capita Water Use (GPCD).....	30
CHAPTER 6	System Supplies	31
Section 6.1	Purchased or Imported Water	31
6.1.1	State Water Project	31
6.1.2	Supplemental Water Purchases	34
6.1.3	Lake Cachuma / Cachuma Project.....	35
Section 6.2	Surface Water	36
6.2.1	Jameson Lake	36
6.2.2	Santa Ynez Tributary Diversions	37
Section 6.3	Groundwater	38
6.3.1	Basin Description	38
6.3.2	Groundwater Management	41
6.3.3	Groundwater Level and Water Quality Monitoring	42
6.3.4	Metering of Groundwater Pumping	42
6.3.5	Groundwater Well Permitting	42
6.3.6	Conjunctive Use Programs.....	42
6.3.7	Historical Groundwater Pumping.....	43
6.3.8	Overdraft Conditions	43
6.3.9	Doulton Tunnel	43
Section 6.4	Urban Stormwater and Graywater	44
6.4.1	Urban Stormwater.....	44
6.4.2	Graywater.....	44
Section 6.5	Wastewater and Recycled Water	45
6.5.1	Recycled Water Coordination.....	46
6.5.2	Wastewater Collection, Treatment, and Disposal.....	46
6.5.3	Recycled Water System	47
6.5.4	Actions to Encourage and Optimize Future Recycled Water Use.....	47
Section 6.6	Desalinated Water Opportunities.....	48
Section 6.7	Exchanges or Transfers	49
6.7.1	Exchanges.....	49
6.7.2	Transfers.....	49

Section 6.8	Future Water Projects	49
Section 6.9	Summary of Existing & Planned Sources of Water	50
Section 6.10	Climate Change Impacts to Supply	55
CHAPTER 7	Water Supply Reliability Assessment	56
Section 7.1	Constraints on Water Sources	56
Section 7.2	Reliability by Type of Year	56
Section 7.3	Supply and Demand Assessment	58
7.3.1	<i>Single Critical Dry Year</i>	59
7.3.2	<i>Multiple Dry Years</i>	63
Section 7.4	Regional Supply Reliability	67
CHAPTER 8	Water Shortage Contingency Planning	69
Section 8.1	Water Shortage Emergency Response – Past Experience	70
Section 8.2	Emergency Response Planning	72
Section 8.3	Stages of Action	73
8.3.1	<i>Rationing Stages and Reduction Goals</i>	73
Section 8.4	Prohibitions on End uses	74
Section 8.5	Penalties, Charges, Other Enforcement of Prohibitions	76
Section 8.6	Consumption Reduction Methods	76
Section 8.7	Determining Water Shortage Reductions	77
Section 8.8	Revenue and Expenditure Impacts	77
8.8.1	<i>Drought Rate Structures and Surcharges</i>	79
8.8.2	<i>Use of Financial Reserves</i>	80
8.8.3	<i>Other Measures</i>	80
Section 8.9	Resolution or Ordinance	81
Section 8.10	Catastrophic Supply Interruption	82
Section 8.11	Minimum Supply Next Three Years	86
CHAPTER 9	Demand Management Measures	87
Section 9.1	Water Waste Prevention Ordinances	87
Section 9.2	Metering	87
Section 9.3	Conservation Pricing	87
Section 9.4	Public Education and Outreach	88
9.4.1	<i>School Education Programs</i>	89

Section 9.5	Programs to Assess and Manage Distribution System Real Losses	90
Section 9.6	Water Conservation Program Coordination & Staffing	91
Section 9.7	Other Demand Management Measures	91
9.7.1	<i>Residential Surveys</i>	91
9.7.2	<i>Landscape Surveys and Budgets</i>	92
9.7.3	<i>Rebate Programs</i>	93
Section 9.8	Implementation Over Past 5 Years	93
Section 9.9	Planned Implementation to Achieve Water Use Targets	94
Section 9.10	CUWCC Compliance	94
CHAPTER 10	Plan Adoption, Submittal and Implementation	95
Section 10.1	Notice of Public Hearing	95
Section 10.2	Public Hearing and Adoption	95
Section 10.3	Submission of Plan	95
Section 10.4	Public Availability	95

LIST OF FIGURES

Figure F1: District Service Boundary and Major Facilities	9
Figure F2: Historical Water Production, 1985 - 2015	14
Figure F3: District Groundwater Basin	40
Figure F4: Future Water Supply Reliability Goal	70

LIST OF TABLES

Table T1: Private Water Companies	7
Table T2: Precipitation/ETo Data for District Service Area	10
Table T3: Minimum and Maximum Annual Rainfall Years	10
Table T4: Population Projection	11
Table T5: Historical Water Use by Customer Classifications, 2011-2015 (AFY)	15
Table T6: Water Use by Customer Classification for 2015	16
Table T7: District Projected Water Use Factor by Customer Classification	17
Table T8: Water Demands and Projected Total Water Use	19
Table T9: 2015 Monthly Non-Revenue Water	20
Table T10: Lower Income Household Water Demand	23
Table T11: Gross Water Use, AFY	28
Table T12: Baseline Daily Per Capita Water Use, GPCD	29

Table T13: Summary of SBX7-7 Baselines and Targets	30
Table T14: Maximum SWP Table A Available in Selected Drought Conditions	33
Table T15: 2014 and 2015 Supplemental Water Purchases	34
Table T16: Summary of Recent Groundwater Pumping, AFY	43
Table T17: Existing and Planned Water Sources and Volumes – Normal Conditions.....	51
Table T18: Single Critical Dry Year Supply and Demand	60
Table T19: Multiple Dry Year Supply and Demand	64
Table T20: Stages of Water Shortage Contingency Plan.....	74
Table T21: Restrictions and Prohibitions on End Uses.....	75
Table T22: Stages of Water Shortage Contingency Plan – Consumption Reduction.....	77
Table T23: Water Rate Structure by Customer Classification.....	79
Table T24: Water Shortage Emergency Surcharge	80
Table T25: District Ordinances and Resolutions	81
Table T26: Catastrophic Interruption in Supply Scenarios.....	83
Table T27: Minimum Supply Next Three Years.....	86
Table T28: Annual Water Audits Conducted by District	93

APPENDICES

Appendix A	UWMP Checklist
Appendix B	UWMP Standardized Tables
Appendix C	Documentation of Public Noticing and Board Action
Appendix D	Juncal Dam Agreement
Appendix E	AWWA Water Loss Accounting Spreadsheet
Appendix F	District Ordinances
Appendix G	SB X7-7 Verification Forms
Appendix H	DWR Population Tool Confirmation Reports
Appendix I	CUWCC BMP Report
Appendix J	Groundwater Basin Management Plan

CHAPTER 1 INTRODUCTION AND OVERVIEW

SECTION 1.1 BACKGROUND AND PURPOSE

An Urban Water Management Plan (UWMP) is a planning tool that generally summarizes the actions of water management agencies. It provides managers and the public with a broad perspective on water supply issues. The UWMP Act requires water agencies to develop an UWMP. The UWMPs provide a framework for long-term water planning and inform the public of a supplier's plans for long-term resource planning that ensures adequate water supplies for existing and future demands.

The California Urban Water Management Plan Act requires preparation of a plan that provides water supply planning over a 20-year period in five-year increments, identifies and quantifies current and potential future water supplies, including recycled water and desalination, for existing and future demands in normal, single-dry and multiple-dry years and describes conservation program implementation and efficient use of urban water supplies. The plan is to be updated at least once every five years on or before December 31, in years ending in five and zero or as allowed by subsequent legislation.

The Montecito Water District (District) was formed as a County Water District in November 1921, in accordance with the California Water Code, with the purpose of furnishing potable water within the District. The District executed the first contract with the United States Bureau of Reclamation (USBR) in 1949 to receive water from Lake Cachuma (Bradbury Dam). A merger in 1995 with the former Summerland County Water District increased the total acreage of the District's service area which currently covers 9,909 acres. The District's service area includes the unincorporated Montecito and Summerland communities, as well as Toro Canyon, and small portions of the western Carpinteria Valley and the eastern portion of the City of Santa Barbara. In the past, the District's primary water supply management tool was the Water Supply Optimization Plan (WSOP) prepared in 2005. The WSOP analyzed and prioritized the use of the District's various sources of supply, identified the optimal operation of Lake Cachuma and Jameson Lake reservoirs, addressed the need for storage and banking of water outside of the District's service area and evaluated the purchase and use of other alternative dry-year supplies during periods of drought.

The California State Department of Water Resources (DWR) publishes a guidebook and checklist to assist in the preparation of the UWMP. The checklist is provided to ensure compliance of the UWMP preparation and has been provided in Appendix A. In addition, as required by the California Water Code (CWC), standardized tables for the reporting and submittal of the UWMP data have been prepared and are included in Appendix B. A selection of data from these tables is also provided within the text of this UWMP report as needed to present supporting data.

This 2015 UWMP update will serve to meet the following purposes including:

- A long-range planning document for water supply quantification and reliability,
- Source documentation for Water Supply Assessments,
- A guidance document for water conservation,
- Documentation of policy decisions and selection of water use reduction methodologies,
- A reporting platform for documenting compliance with the SBX7-7 legislation,
- A database for development of regional water plans and General Plans.

CHAPTER 2 PLAN PREPARATION

SECTION 2.1 GENERAL

This UWMP has been prepared pursuant to the requirements of the CWC, Section 10631. The District, as an urban water supplier serving more than 3,000 service connections, is required to prepare an UWMP with updates prepared every five years. Each update contains revised information and replaces or supersedes the original UWMP and previous updates.

The draft 2015 UWMP was reviewed and discussed with the District's Board of Directors on April 18, 2017; at which time the Board of Directors supported staff's efforts to complete the plan in compliance with State UWMP requirements. A public hearing, with public notice pursuant to California Government Code Section 6066, was held before the Board of Directors on May 16, 2017; at which time, the Board voted unanimously in favor of approval as District Resolution No. 2147. Documentation of public noticing and Board action is included in Appendix C.

SECTION 2.2 PUBLIC OUTREACH

The District has encouraged community awareness of water issues and participation in water planning. Notices of public hearing were published in the local press and copies of the Draft Plan were made available at the District office. The City of Santa Barbara, County of Santa Barbara and the Carpinteria Valley Water District were notified of the UWMP update.

Customers within the District's service boundary were provided an opportunity to review the UWMP. A copy of the public outreach materials including such items as notices in the local press and invitation letters are attached in Appendix C.

Water supply management is a primary focus of the District and has been a key issue as the District has been responding to the statewide drought declared in January 2014. The District provides monthly updates to the Board of Directors and the public on its water supplies, and has also held special Board meetings to discuss water supplies during the drought. All District meetings are publicly noticed and agenda packets are made available for public review. The District also provides monthly reports of its water supply conditions to the California State Water Resources Control Board.

SECTION 2.3 REGIONAL COORDINATION

While there are many opportunities within the region to participate in regional planning goals, initiatives and plans, as indicated in Table 2-2 in Appendix B, this UWMP is being completed by the District as an individual planning agency, responsible for all of the District's planning, record-keeping, goal-setting and compliance requirements.

Lake Cachuma is a primary source of water supply for the District, along with the Goleta Water District, City of Santa Barbara and the Carpinteria Valley Water District who rely upon this supply. The District coordinates with these water agencies, collectively referred to as the Member Units (MU's) and the Cachuma Operation and Maintenance Board (COMB), a Joint Powers Agency (JPA) responsible for the operation and maintenance of the Cachuma Project. COMB coordinates with the USBR who constructed

the Cachuma Project and is directly responsible for all federal water right issues and the delivery of Cachuma Project water. COMB is governed by a Board of Directors comprised of one representative from each of the five Cachuma Project MU's. An Operating Committee consisting of MU managers and the COMB General Manager, as well as other committees focusing on a variety of topics including fisheries and public outreach, are scheduled on an as-needed basis.

The District has been an active participant in the development and adoption of the Santa Barbara County Integrated Regional Water Management Plan 2013 (IRWMP 2013). The District benefits from the integrated regional planning effort which looks at impacts to water supply in the regions covering and surrounding the District.

The District contacted other agencies to coordinate elements of this Urban Water Management Plan. These agencies include the Santa Barbara County Water Agency (SBCWA), the Central Coast Water Authority (CCWA) who is the local State Water Project wholesaler, the Montecito Sanitary District (MSD), the Summerland Sanitary District (SSD) the City of Santa Barbara and the Carpinteria Valley Water District.

2.3.1 Coordination with Wholesaler

The District is a participant and member of the Central Coast Water Authority (CCWA), a Joint Powers Agency, comprised of twelve water purveyors, responsible for the management and operation of the Coastal branch of the State Water Project (SWP) serving Santa Barbara County. CCWA is the SWP wholesaler within the District's service area.

The District is the only public water retailer within its service area that receives water from CCWA, as indicated on Table 2-4R in Appendix B. The District received an estimate of wholesale water available from CCWA for 20 years in 5-year increments which is summarized in Chapter 6 of this UWMP. The District incorporated this information regarding SWP water supply available to the District projected in increments of five years, from 2015 through 2035 and for average, single and multiple-dry years, to the extent practicable. The District also coordinates with the CCWA on a continual basis regarding supplemental water purchase opportunities and groundwater banking opportunities.

SECTION 2.4 REPORTING BASIS

2.4.1 Period of Reporting

The District is reporting as a water retailer and except where noted, data in this plan are based on calendar years (CY), running from January through December, as indicated on Table 2-3 in Appendix B. All calculations related to determination of baselines and urban water use targets pursuant to the Water Conservation Act of 2009 (SBX 7-7) are also based on calendar years.

2.4.2 Units of Measure

Except where noted, all volumes provided in this plan are shown in acre-feet (AF) or acre-feet per year (AFY) where the year is based on the calendar year and as indicated on Table 2-3 in Appendix B.

SECTION 2.5 LIST OF ABBREVIATIONS AND ACRONYMS

The following provides a list of abbreviations and acronyms used within this UWMP.

Accessory Dwelling Units	(ADUs)
Acre Feet	(AF)
Acre Feet per Year.....	(AFY)
Advanced Metering Infrastructure	(AMI)
American Water Works Association	(AWWA)
Best Management Practices	(BMPs)
Cachuma Conservation Release Board	(CCRB)
Cachuma Operation and Maintenance Board	(COMB)
Cachuma Resource Conservation District's	(CRCD)
Calendar Year	(CY)
California Department of Finance.....	(DOF)
California State Department of Water Resources	(DWR)
California State Department of Water Resources, Division of Safety of Dams	(DSOD)
California State Water Resources Control Board.....	(SWRCB)
California Urban Water Conservation Council.....	(CUWCC)
California Water Code.....	(CWC)
California Water-Wastewater Response Network	(CALWARN)
Cachuma Member Units	(MU's)
Carpinteria Valley Water District	(CVWD)
Central Coast Water Authority	(CCWA)
City of Santa Barbara	(City)
Community Development Plan	(CDP)
Comprehensive Housing Affordability Strategy.....	(CHAS)
Consumer Confidence Report.....	(CCR)
County of Santa Barbara	(County)
County of Santa Barbara Energy and Climate Action Plan.....	(ECAP)
Demand Management Measure	(DMM)
Department of Housing and Urban Development.....	(HUD)
El Estero Wastewater Treatment Plant	(EEWTP)
Emergency Response Plan	(ERP)
Gallons per Capita per Day	(GPCD)
Geographic Information System	(GIS)
Goleta Water District	(GWD)
Groundwater Sustainability Agencies.....	(GSAs)
Groundwater Sustainability Plans.....	(GSPs)
Hundred Cubic Feet	(HCF)
Joint Powers Agency	(JPA)
Memorandum of Understanding	(MOU)
Montecito Emergency Response and Recovery Action Group	(MERRAG)
Montecito Sanitary District.....	(MSD)
Montecito Water District	(District)
Multi-Family Residential	(MFR)
National Marine Fisheries Service	(NMFS)
National Pollutant Discharge Elimination System	(NPDES)

Regional Water Quality Control Board	(RWQCB)
Santa Barbara County Flood Control and Water Conservation District	(FCWCC)
Santa Barbara County Association of Governments.....	(SBCAG)
Santa Barbara County Integrated Regional Water Management Plan.....	(IRWMP)
Santa Barbara County Regional Water Efficiency Program	(RWEF)
Santa Barbara County Water Agency	(SBCWA)
Santa Ynez River Water Conservation District 1	(SYRWCD 1 or ID 1)
Single-Family Residential	(SFR)
South Coast Conduit	(SCC)
State Water Project.....	(SWP)
Storm Water Management Program	(SWMP)
Summerland Sanitary District	(SSD)
Supervisory Control and Data Acquisition	(SCADA)
Sustainable Groundwater Management Act	(SGMA)
Unaccounted Water.....	(UAW)
United States Bureau of Reclamation.....	(USBR)
United States Geological Survey	(USGS)
Urban Water Management Plan.....	(UWMP)
Waste Discharge Requirements.....	(WDR)
Water Recycling Funding Program.....	(WRFP)
Water Recycling Requirements.....	(WRR)
Water Supply Agreement.....	(WSA)
Water Supply Optimization Plan.....	(WSOP)

CHAPTER 3 SYSTEM DESCRIPTION

SECTION 3.1 GENERAL DESCRIPTION

By the early 1920s, Montecito had grown into an unincorporated community consisting of a number of large estates. Water was provided by numerous small private water companies that tapped into horizontal springs, creeks and water wells that were at times unreliable due to inadequate seasonal rainfall. To improve water supply reliability, the Montecito County Water District was formed in 1921 by a vote of the local citizens.

The Montecito Water District was formed as a County Water District in November 1921, in accordance with the California Water Code, with the purpose of furnishing potable water within the District. Following the formation of the District, management and its five member Board of Directors set out to build Juncal Dam, the 2-1/4 mile long Doulton tunnel through the Santa Ynez coastal range and 50 miles of distribution pipelines within its service boundary. By 1930, the District had a fully functional distribution and reservoir storage system along with reliable and adequate water supplies. In 1949, the District executed the first contract with the Santa Barbara County Water Agency who was the designated local governmental agency and signature to the Cachuma Project with the United States Bureau of Reclamation. The USBR held the federal Santa Ynez River water rights and owned, built and operated Bradbury Dam as a regional water supply, Lake Cachuma, serving the District and four other Santa Barbara County water agencies including the Santa Ynez River Water Conservation District 1, Goleta Water District, City of Santa Barbara and the Carpinteria Valley Water District. The District has 10.3% of the reservoir's current annual safe yield.

In 1995, the Summerland County Water District, contiguous with the Montecito Water District service boundary and a Cachuma and State Water Project participant, merged with the Montecito Water District.

As described in Section 3.4 below, the DWR population tool estimates the District's service area population at approximately 11,370. The District currently provides water through 4,598 service connections. The District assumes that the undeveloped land within its service area boundaries will continue to be developed and, per the Santa Barbara County Association of Governments (SBCAG) population growth projections, the estimated population at the end of the year 2035 will be approximately 11,638.

The District is a not for profit public water agency governed by a publicly elected five-member Board of Directors. The mission of the District is to provide an adequate and reliable supply of high quality water to the residents within the District's service boundary at the most reasonable cost. In carrying out this mission, the District places particular emphasis on providing outstanding customer service, conducting its operations in an environmentally sensitive manner and working cooperatively with other agencies. The District obtains its water supplies from multiple sources including Lake Cachuma, water imported through the State Water Project, supplemental purchases of water from around the State and the District's own Jameson Lake, Doulton Tunnel, and groundwater basin within its service boundary.

The majority of the District's potable water distribution system was designed and operated as gravity-fed system with a series of pressure regulating stations from the late 1920's to 1949. The primary source of water during this period was from Jameson Lake, located in the upper reaches of the Santa Ynez River and

the 2-1/4 mile long Doulton Tunnel through the Santa Ynez coastal range that connected the Jameson Lake supply to the District service boundary. In 1949, the District connected to the USBR Cachuma Project via the South Coast Conduit (SCC), a water transmission pipeline conveying Lake Cachuma water to the south coast. The hydraulic grade line of the SCC was below the operational grade line of District's storage reservoirs which required the construction of pump stations at the SCC turnouts to boost water into the District's distribution system.

Currently, the District's potable water treatment and distribution system is comprised of two surface water treatment plants, nine storage reservoirs, approximately 114 miles of pipeline, seven pumping stations, six potable water production wells and six non-potable production wells. All District potable water is treated to meet all federal and state drinking water standards. The Cachuma water supply and State Water Project water are treated by the City of Santa Barbara regional Cater Water Treatment Plant. This treated supply is then conveyed to the District via the USBR owned SCC transmission pipeline. The Jameson Lake water supply is treated at the District's Bella Vista and Doulton Water Treatment Plants. Groundwater for potable use is treated at each well site.

District Staff maintain a Geographic Information System (GIS) database containing the physical location and attribute data for District infrastructure. The District's GIS database is an interactive repository of detailed information such as age, material, and size for District pipes, reservoirs, treatment plants, valves, division gates, pressure regulators, wells, meters, pump stations, and pressure zones. Recently, District Staff completed an effort to scan over 1,300 hard copy record drawings and associate each drawing with the project location in GIS, allowing District Staff to click on the interactive map and pull up any associated record drawings. GIS allows field and office personnel to search for and review important data for District facilities, respond quicker to system emergencies, and proactively repair system deficiencies. Moving forward, the District will continue to use their GIS database to understand and optimize water system operations and improve water system reliability.

The District is one of many public water agencies in the County of Santa Barbara. Not all properties within the District's service area are served by the District. Those properties not served by the District are provided water by private groundwater wells operated individually or by private water companies. The use and treatment of water from groundwater wells for potable use by individual private water well operators is under the permit authority of Santa Barbara County. Table T1 below provides a list of private water companies within the District's service boundary.

TABLE T1: PRIVATE WATER COMPANIES

Cinquefoil Water Company	Riven Rock Mutual Water Company
Hot Springs / Montecito Creek Water Company	Toro Canyon Estates Mutual Water Company
Ivydene Water Company	San Ysidro Ranch
Lingate Lane Mutual Water Company	Coyote Springs Water Company
Miramar Addition & Improvement Company	Sea Meadows
Sunshine Water Company (East Montecito Mutual Water Company)	

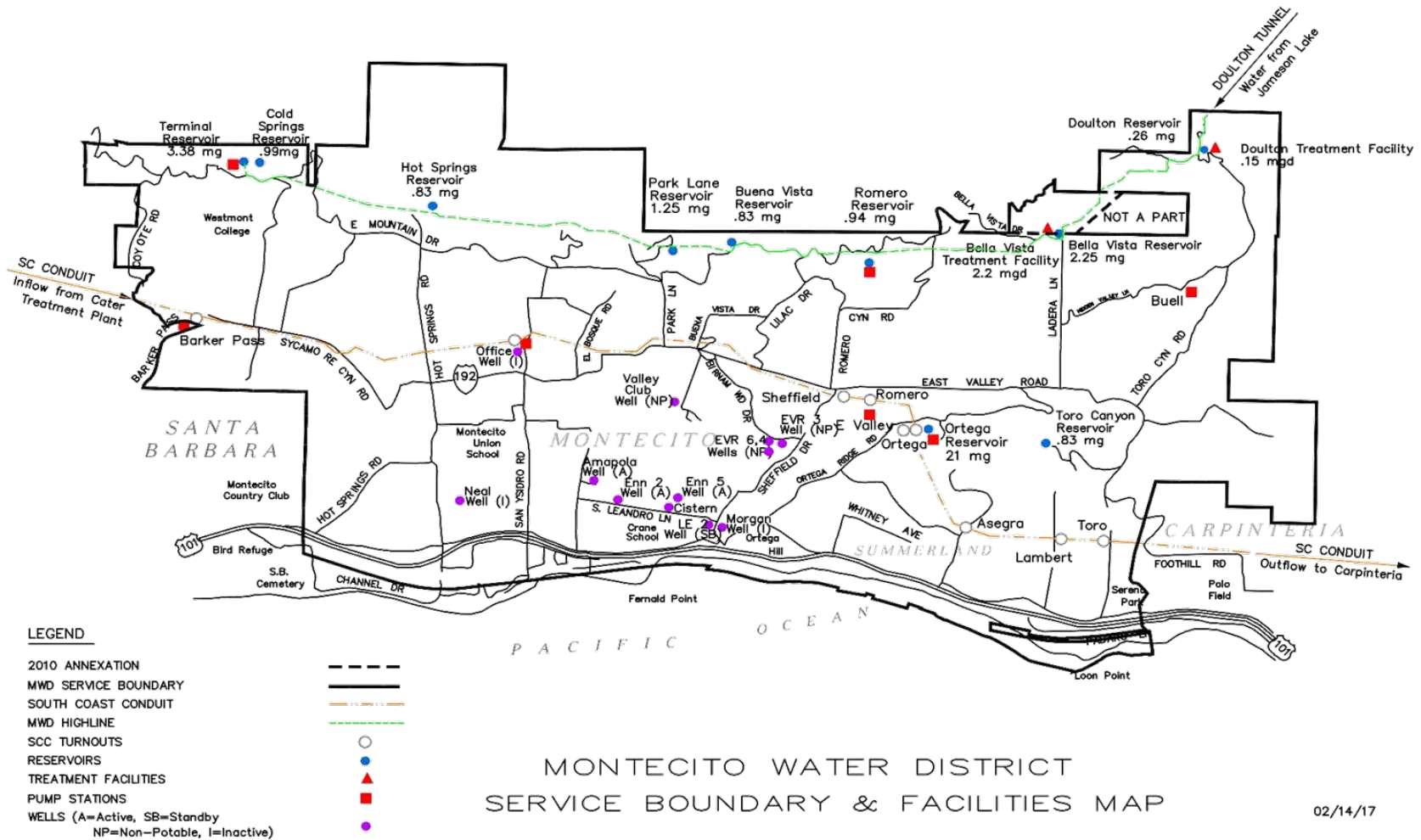
SECTION 3.2 SERVICE AREA BOUNDARY

The District's service area currently includes the unincorporated Montecito and Summerland communities, as well as Toro Canyon, and portions of the western Carpinteria Valley and an eastern portion of the City of Santa Barbara. The District is located in the southern coastal portion of Santa Barbara County adjacent to the City of Santa Barbara to its west and the Carpinteria Valley to its east. The District extends five miles east of the City of Santa Barbara and from the coast to the Santa Ynez coastal mountains at its northern boundary, as shown in Figure F1. The overall terrain of the District varies in elevation from sea level to its highest elevation of about 1,820 feet against the coastal foothills.

The District encompasses an area of 9,909 acres, based on the 2010 GIS boundary map, of unincorporated lands with the most recent annexation of approximately 7.48 acres in 2010. Due to water supply limitations, the current District policy is to not support the growth or annexations of properties outside of its current service boundary.

While the Montecito community remains unincorporated, the first zoning ordinance in California was adopted for the area in the early 1930's. Some of the growth can be attributed to expanding the service area boundary incorporating the Summerland community, while traditional growth through the development of new residences and the resulting population within the service area is controlled by a number of regional regulatory programs, including the land use designations and associated build-out levels identified in the County's adopted Comprehensive Plan, the Montecito and Summerland Community Plans, and the Local Coastal Plan.

FIGURE F1: DISTRICT SERVICE BOUNDARY AND MAJOR FACILITIES



02/14/17

SECTION 3.3 CLIMATE

3.3.1 Service Area Climate

Montecito, located on the central coast of California between the Santa Ynez Mountains and the Pacific Ocean, enjoys a temperate Mediterranean style climate that generally consists of cool wet winters and mild dry summers with coastal fog in some of the summer months. Temperatures in the winter rarely fall below freezing. Spring conditions remain mild with light amounts of rain and fog. During summer and fall, the climate is usually dry with warm, moderate conditions; however, the area often experiences the hot, dry Santa Ana winds during the late summer and early fall periods, which can create high water demand. Table T2 summarizes the average monthly precipitation and evapotranspiration for the last 10 years (2006 through 2015).

TABLE T2: PRECIPITATION/ET0 DATA FOR DISTRICT SERVICE AREA

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Precipitation (in.)	3.37	2.62	2.09	1.54	0.34	0.21	0.05	0.03	0.08	0.90	1.17	2.99	15.37
ET0 (in)	2.0	2.3	3.6	4.4	5.1	4.8	5.3	5.1	4.1	3.4	2.2	1.6	44.0

Source: Precipitation per District rain gauge located at 583 San Ysidro Road. ET0 per California Irrigation Management Information System (CIMIS) Station ID 107 for period 2006 – 2015.

Average precipitation can be misleading in this area, as this coastal, semi-arid area is subject to extreme annual variation. As an example, the minimum annual rainfall in the last 10 years was 5.03 inches in 2013 while the maximum annual rainfall was nearly 30 inches in 2010. Table T3 shows the monthly precipitation for these two years.

TABLE T3: MINIMUM AND MAXIMUM ANNUAL RAINFALL YEARS

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2010 Precipitation	7.55	4.80	0.90	2.61	0.23	0.00	0.00	0.00	0.00	2.67	1.84	9.29	29.89
2013 Precipitation	1.66	0.27	1.00	0.10	0.50	0.09	0.08	0.00	0.00	0.16	0.88	0.29	5.03

Source: District rain gauge located at 583 San Ysidro Road.

SECTION 3.4 SERVICE AREA POPULATION AND DEMOGRAPHICS

The community of Montecito is an unincorporated census designated place (CDP) in Santa Barbara County. As a CDP, the community of Montecito population is published within the census; however, the District boundaries do not align with the CDP. An evaluation of the District boundary indicates that it encompasses all of the Montecito CDP and Summerland CDP, a portion of the Toro Canyon CDP and small areas of the City of Santa Barbara. Since the District boundary does not align significantly with established governance boundaries, using the California Department of Finance (DOF) population projections is not appropriate.

The DWR population tool was used to determine census year population and estimated population through 2015 in order to show compliance with SBX7-7. The DWR tool was created specifically to follow Methodology 2 of the February 2016 Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use, and therefore the population for 2015 and the years preceding 2015 are in compliance with the SBX7-7 requirements.

The DWR population tool utilizes US Census data, the District's service boundary information in GIS format and the District's service connections to determine population estimates. The DWR Online Population Tool may underestimate population for the District service area due to several factors unique to the District customer base. The presence of institutional service connections such as Westmont College, which averages approximately 1,200 on-campus students each semester, may not be accounted for in the DWR Online Population Tool. Additionally, many Montecito residents may not be counted by census data since they are primary residents in another city or state and their Montecito residence is considered a secondary residence. In both cases, these customers still add demand to the potable water system but may not be accounted for by the DWR Population Tool. In order to comply with the guidelines of this UWMP, The District has elected to use the DWR Online Population Tool results for planning purposes but also realizes these numbers may underestimate actual population served.

It is important to note that the DWR population tool calculates the 2015 persons per connection by creating a trend line of the persons per connection from 2000 to 2010 and continues that trend to the year 2015. Based on the data input to the DWR population tool, the year 2015 projected population for the District's service area did not align with the population data from the Santa Barbara County Association of Governments (SBCAG) as adopted in the 2040 Regional Transportation Plan and Sustainable Communities Strategy. The SBCAG population data was used to confirm the estimated population from the DWR Online Population Tool for the years 2010 and 2015.

The UWMP allows for a modification to the results of the population tool if the projected results do not represent actual trends. This modification is accomplished by using the Persons per Connection calculated by the tool for 2010 single family and multifamily classifications, 2.20 and 32.52 respectively, and multiplying the number of service connections for Single Family and Multi-family Residential classes in 2015 for those classes (4,222 and 64) to arrive at the 2015 population. Using this allowed modification, the 2015 projected population using the DWR population tool is very closely aligned to that of the SBCAG population data for the year 2015 as shown in Table T4.

TABLE T4: POPULATION PROJECTION

	2010	2015	2020 ^[d]	2025 ^[d]	2030 ^[d]	2035 ^[c]
Population	11,292 ^[a] 11,309 ^[c]	10,461 ^[a] 11,370 ^[b] 11,375 ^[d]	11,441	11,506	11,572	11,638

[a] Source: DWR Population Tool.

[b] Source: DWR Population Tool allowed modification due to inconsistent drop in Persons per Connection. Based on 2010 persons per connection multiplied by 2015 service connections.

[c] Source: Population Projections by Santa Barbara County Association of Governments (SBCAG) as adopted in the 2040 Regional Transportation Plan and Sustainable Communities Strategy.

[d] Straight line interpolation from SBCAG data from 2010 to 2035.

Areas within the District's service boundary predominantly consist of single-family residences with only a small amount of multi-family residences. The areas within the District's service boundary are largely built-out, however it should be assumed that some infill and redevelopment will continue at the same rate as in the recent past resulting in a small increase in the overall population.

Future population estimates for the years 2020 through 2035 were developed based upon population projections from the Santa Barbara County Association of Governments (SBCAG) data as adopted in the 2040 Regional Transportation Plan and Sustainable Communities Strategy. Population estimates were based on a straight line interpolation from the SBCAG data from 2010 through 2035. If zoning changes occur to allow subdividing parcels or the addition of accessory dwelling units (ADUs), the population may increase.

Table T4 above and Table 3-1 in Appendix B contain the population projections for the District's service area over the 20 year planning period.

3.4.1 Other Demographic Factors

The District has a customer base that is approximately 92% single family residential which, during periods of normal water supplies and hydrologic conditions, accounts for approximately 71% of the water use in the District. Many of the residential properties within Montecito are large lots with estate style homes and extensive landscaping. Although indoor and outdoor residential customer usage is not metered separately, it is estimated that in Year 2015 approximately 56% of the summer single family residential metered usage was for outdoor irrigation. This estimate was determined by comparing single family residential usage for a month when there was no rainfall (July) to a month during the winter (January) that had measurable rainfall.

The development of new residences and the resulting population growth within the service area is controlled by regulatory programs including the land use designations and associated build-out levels identified in the County's adopted Comprehensive Plan, the Montecito and Summerland Community Plans, and the Local Coastal Development Plan. Additional population projections are based on these approved land use documents and their anticipated build-out levels. The County's Planning and Development Department has developed a long-range plan for the Toro Canyon area, which has resulted in a reduction in the build-out estimate for this portion of the District. Throughout the County's coastal zone, the major resource limitation is water. Water supply/demand treatment capacity facilities are near capacity levels in Summerland and Montecito, thereby constraining development in these areas. Policy 2-9 of the Coastal Land Use Plan provides priority to land uses in the coastal zones of Montecito and Summerland for the expansion of public recreational opportunities, the expansion of visitor-serving commercial uses including low and moderate income housing and agricultural expansion. Ordinance No. 4763, Montecito Growth Management Ordinance, adopted in October 2010 limits the residential growth of new dwelling units to 19 per year.

The Summerland Community Plan adopted in 1992 provided constraint on the ultimate scale of development allowed within the Summerland community, especially within commercial or industrial land use zones although development in residential zones was also constrained approximately 25 per year. Several elements of the Summerland Community Plan were updated in the summer of 2014, however these updates focused primarily on architectural and transportation elements. No additional growth constraints were incorporated in these community plan element updates.

CHAPTER 4 SYSTEM WATER USE

This section describes District historic, current and future water use and the methodology used to project future demands within the District's service boundary. Water usage is classified by the District's customer classifications which include Single-Family Residential (SFR), Multi-Family Residential (MFR), Commercial, Institutional, Agriculture and Non-Potable. Non-potable sources are limited to six groundwater production wells used for landscape irrigation.

SECTION 4.1 HISTORICAL WATER USE

Water use within the District's service area has shown varying trends dependent upon District imposed restrictions of the last three decades. Figure F2: below graphs the historical water production required to meet customer demands from 1985 through 2015. The figure below, along with the following conservation measures clearly illustrates that production/demand are dictated by year-to-year variations in weather, specifically rainfall.

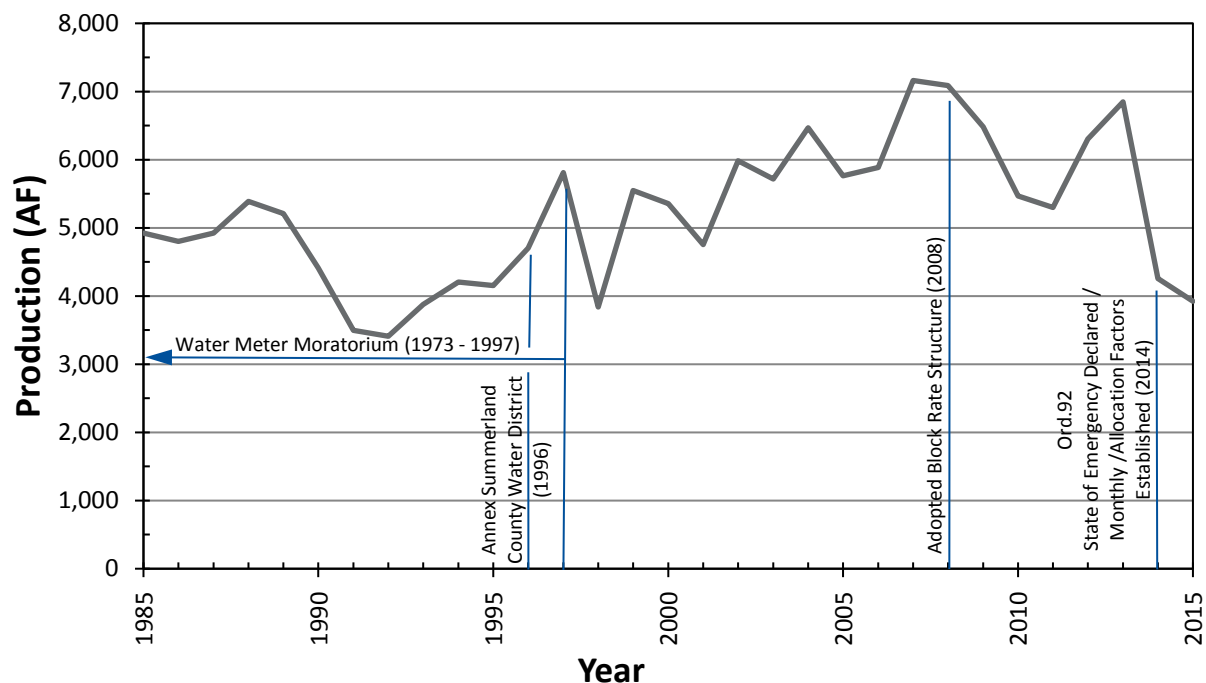
Below is a summary of significant milestones that have impacted historical water use.

- In 1973, due to water supply reliability issues, the District adopted Ordinance 47 establishing a water meter moratorium which effectively limited and controlled new water service connections. The moratorium was responsible for decreasing District customer water demand from pre-1973 level for the first 10 years with an increase in water use to the pre-1973 level by the mid-1980s.
- The 1987-91 drought galvanized the District and Santa Barbara County to support and ultimately develop the State Water Project (SWP) water conveyance and treatment facilities as a new source of water supply. With County-wide voter approval of the new imported water source, the District was able to terminate the emergency water shortage ordinance and end the water meter moratorium in 1997. State water deliveries to the District began in earnest in 1998.
- An increase in water production/sales can be seen in 1996 due to the annexation of the Summerland County Water District which resulted in the transfer of all Summerland water supply and customer base to the District. Officially occurring in November 1995, the dissolution of the Summerland County Water District brought approximately 540 new customers and access to approximately 244 AFY of the Cachuma Project entitlement and an additional 300 AFY of State Water project water.
- To curb increasing water demand and in response to the 2005 Water Supply Optimization Plan, the District changed its process/procedure for the review and approval of property development, both existing and new. The adoption of Ordinance 89 in March 2008 specifically provided a select annual quantity of water to all properties under development. For new residential development, regardless of the property size, the development of a 1 acre or larger lot is allocated a maximum quantity of 1 acre foot per year meaning that the property development must include irrigation plans and water use calculations to meet the annual water allocation. This step in property development occurs before the property is reviewed and approved by the Santa Barbara County

Planning and Development Department. All development conditions are made part of the property development permit to assure that water use complies with the annual allocation.

- To curb increasing water demand and in response to the 2005 Water Supply Optimization Plan, the District adopted a conservation tiered block rate structure in 2008 through the adoption of Ordinance 90 for all water use classifications. The previous rate structure did not provide any incentive for customer conservation as each customer paid the same flat rate for each unit of water use.
- The County of Santa Barbara, working with the District, implemented the Montecito Growth Management Ordinance in 2010.
- The recent multi-year ongoing drought beginning in 2011/2012 produced a significant increase in customer water use due to below average rainfall. Dwindling local and State-wide water supplies, affecting all south coast water agencies required the adoption of water shortage emergency ordinances needed to reduce customer water demand to meet the available water supply under a water shortage emergency condition. The District adopted its water shortage emergency Ordinances 92 and 93 in February 2014 with an effective date of March 2014. This action significantly curbed water use by providing monthly customer allocations and assessed penalties for all water used in excess of the monthly water allocations.

FIGURE F2: HISTORICAL WATER PRODUCTION, 1985 - 2015



As shown in Figure F2, customer water demand increased sharply beginning with the 2011/12 water year to levels exceeding 6,000 AFY, identified in the Water Supply Optimization Plan as a threshold annual quantity exceeding the normal available supply.

To understand recent trends within the various customer classifications adopted by the District, a detailed summary of each category and respective demand is developed each year. Table T5 summarizes customer water use for the past five years from 2011 to 2015. Table T5 does not include annual transfers or non-revenue water. Note the adoption of the Water Shortage Emergency and monthly customer allocations had an effective date of March 2014. The significant reduction in water use by customers began in 2014 and continues today.

TABLE T5: HISTORICAL WATER USE BY CUSTOMER CLASSIFICATIONS, 2011-2015 (AFY)

Customer Type	2011	2012	2013	2014	2015	Average	Percent of Total (Average)
Single-Family Residential	3,738	4,264	4,693	2,769	2,482	3,589	74%
Multi-Family Residential	117	133	149	97	66	112	2%
Commercial	235	259	285	251	241	254	5%
Institutional	320	383	481	327	310	364	7%
Agricultural	350	527	593	410	313	439	9%
Non-Potable	115	144	146	110	105	124	3%
Total	4,875	5,710	6,347	3,964	3,517	4,883	100%

Source: District Monthly Water Sales Data.

4.1.1 Current Water Use

Current water use for 2015 by customer classification is provided in Table T6 below and in Table 4-1 in Appendix B. Customer classifications other than those listed in the DWR standard tables have been included within the closest appropriate customer type. Wholesale water is provided by CCWA and the District does not provide “pass-through” wholesale water to any other retailers. Non-revenue water, distribution system loss and unaccounted for loss are all terms used to describe the volume of potable water that is produced and enters the distribution or storage system but is not ultimately included in volume of sales.

As shown in Table T6 below, single-family residential accounts comprise approximately 92% of the District’s customer connections and accounts for approximately 71% of the water use. It is estimated that in normal water years approximately 70% to 80% of the total single family residential water is used for landscape irrigation. In 2015, the fourth year of an exceptional multi-year drought, the outdoor use is estimated to be lower at approximately 56%.

Multi-family residential connections represent approximately 1.4% of all connection types and 1.9% of water use. Multi-Family customers typically consist of apartment buildings with multiple dwelling units served by a master meter. The estimated number of multi-family dwelling units served by the District is 573. This connection type and water use is expected to be primarily for indoor domestic purposes. The number of vacant properties zoned for multi-family housing units is extremely limited and with the existing nature of the community, it is unlikely that multi-family residential connections will be added to the District in the future. Water used in the multi-family residential sector is not anticipated to change significantly by buildout or year 2020.

TABLE T6: WATER USE BY CUSTOMER CLASSIFICATION FOR 2015

Customer Type	Number of Service Connections [a]	Percent of Total Service Connections	Water Use, AFY [b]	Percent of Total Water Use [c]	AF / Connection
Single-Family Residential	4,222	91.8%	2,482	70.6%	0.59
Multi-Family Residential	64	1.4%	66	1.9%	1.03
Commercial	137	3.0%	241	6.9%	1.76
Institutional	123	2.7%	310	8.8%	2.52
Agricultural	45	1.0%	313	8.9%	6.96
Non-Potable	7	0.2%	105	3.0%	15.00
Subtotal Water Use	-	-	3,517	-	-
Sales/Transfers/Exchanges	-	-	300	-	-
Non-Revenue Water	-	-	390	-	-
Total	4,598	-	4,207	-	-

[a] Source: Data per District meter connection reports.

[b] Source: Data per District Monthly Water Sales

[c] Percent of Customer Water Use, excludes Sales/Transfers/Exchanges and Non-Revenue Water

Commercial and Institutional connections represent approximately 5.7% of all connections, and represent approximately 16% of the total water demand within the District. Commercial customers include small retail stores, restaurants, hotels and office buildings. Due to a limitation of available buildable land and restrictions of zoning designations, commercial water use is not expected to change significantly by buildout or year 2020.

The District has a total of 45 agricultural service connections (36 accounts) representing 1.0% of all District connections and accounting for approximately 9% of the total water demand. Given the value of land in the area, and the increasing costs of water, agricultural water use under normal hydrologic conditions is not expected to significantly increase as some of the agricultural land may be converted to residential use in the future.

The category of Sales/Transfers/Exchanges refers specifically to agreements in place between the District and the City of Santa Barbara. In the 1920's the Juncal Dam site was transferred from the City of Santa Barbara to the District with the agreement that the District would transfer 300 AF of water annually to the City in perpetuity. Subsequent Service Area Agreements implemented between the District and the City allow for annual adjustments to the 300 AF. Customer use in the two service areas are tracked quarterly by both the District and the City. It is agreed that the difference between the two water usages is balanced through a COMB transfer. Additionally, the City's use of the District's Barker Pass Intertie is metered and tracked then reduced from the annual Juncal Dam transfer agreement. The Juncal Dam Water Exchange Agreement letter is provided in Appendix D. The annual adjustment is typically only approximately 10 to 20 AF of the overall 300 AF.

4.1.2 Projected Water Demand

The following sections describe the District's projected water demands from customer sales and other water uses, including non-revenue. A discussion of projected water demands from low-income households is also included.

Table T6 shows the AF per service connection for each customer classification for 2015, which was the fourth year in a multi-year drought, therefore the per connection use factor is lower than during normal hydrologic conditions due to additional mandatory conservation measures. To project the demand for normal years, the use factors for 2015 were increased to represent anticipated use factors during normal hydrologic conditions. These use factors are assumed to be constant over the 20-year forecast, assuming each year is a normal water year and is provided in Table T7 below.

TABLE T7: DISTRICT PROJECTED WATER USE FACTOR BY CUSTOMER CLASSIFICATION

Customer Classification	2015 Actual Use Factor (AF/Connection)	Projected Use Factor (AF/Connection)
Single Family Residential	0.59	0.72
Multi-Family Residential	1.03	1.26
Commercial	1.76	2.15
Institutional	2.52	3.07
Agricultural	6.96	9.50
Non-Potable	15.00	15.00

The projected water use per connection for each customer classification as shown in Table T7 assumes that select District conservation and demand management measures will remain in place to maintain projected use for the various classifications as shown above. The projected use per connection for the Single Family Residential, Multi-Family Residential and Commercial and Institutional classifications is estimated to increase approximately 22% from 2015 levels, which represents a uniform increase in each customer classification water use to account for a relaxation of drought penalties and expectation for normal hydrologic conditions in the future. For the Agricultural customer classification it is estimated that these customers, which employ efficient irrigation measures, will have use factors equivalent to the average use factors for the 2010 to 2015 time period. For the non-potable classification which consists of only a few District operated non-potable groundwater wells for irrigation, it is projected that future normal water use by this customer classification will remain at the 2015 levels.

As indicated in Section 3.4, growth within the District's service area is assumed to be primarily within the Single Family Residential classification and is expected to follow the population growth rate estimated by the SBCAG and shown in Table T4. Based on the population projections presented in Section 3.4, the incremental growth in years 2020 through 2035 is estimated to be approximately 0.6% every five years.

The methodology for projecting water use for the planning period from 2020 to 2035 as presented in Table T8 relies upon the projected water use factors as summarized in Table T7 above which are applied to the projected SBCAG population projections beginning in the Year 2020 as provided in Table T4. The water use projections assume the District is no longer operating under a water shortage emergency

condition with customer monthly allocations, but that select water conservation and demand management measures remain in place. As previously noted, the increase in projected water use is anticipated to be associated only with the Single Family Residential classification with other use classes remaining constant through the planning period.

Review of the number of District service connections for the recent period of 2010 to 2015 indicates that the actual increase in Single Family Residential service connections over this five year period of 27 is very similar to that of the projected increases of approximately 25 service connections every five years over the planning period.

Table T8 shows the actual and projected demands on the District's water system at five-year intervals. These include metered sales by customer class, net transfers, non-potable uses and non-revenue water. Note that the year 2015 is included for reference only.

Also included at the bottom of Table T8 is a tabulation of target and projected values for urban water use, consistent with methodologies for implementing SBX7-7 water use reduction requirements (as discussed in Section 5). Based on the current projections, which include water demand management strategies, the District will meet the 2020 Target Daily per Capita Water use.

TABLE T8: WATER DEMANDS AND PROJECTED TOTAL WATER USE

Water Use Classification	Actual		Projected							
	2015		2020		2025		2030		2035	
	# of Conn. ^[1]	Vol. (AF) ^[2]	# of Conn. ^[3]	Vol. (AF)	# of Conn. ^[3]	Vol. (AF)	# of Conn. ^[3]	Vol. (AF)	# of Conn. ^[3]	Vol. (AF)
Single-Family	4,222	2,482	4,246	3,046	4,271	3,063	4,295	3,081	4,320	3,098
Multi-Family	64	66	64	81	64	81	64	81	64	81
Commercial	137	241	137	294	137	294	137	294	137	294
Institutional	123	310	123	378	123	378	123	378	123	378
Agricultural	45	313	45	428	45	428	45	428	45	428
Non-Potable	7	105	7	105	7	105	7	105	7	105
Total Meter Water Use & Connections	4,598	3,517	4,622	4,331	4,647	4,348	4,671	4,366	4,696	4,383
Non-Revenue ^[4]	-	390	-	433	-	435	-	437	-	438
Net Sales, Transfers & Exchanges with Other Agencies	-	300	-	300	-	300	-	300	-	300
Total Water Use	-	4,207	-	5,064	-	5,083	-	5,102	-	5,122
Tabulation of Target & Projected Water Use:				2020		2025		2030		2035
Projected Total Metered Sales				4,331	-	4,348	-	4,366	-	4,383
Non-Revenue Water				433	-	435	-	437	-	438
Less Agricultural Deliveries				428	-	428	-	428	-	428
Projected Gross Water Use				4,336	-	4,356	-	4,375	-	4,394
Projected Service Area Population				11,441	-	11,506	-	11,572	-	11,638
Projected Daily Per Capita Water Use (GPCD)				338	-	338	-	338	-	337
2020 Target Daily Per Capita Water Use (GPCD)				338	-	338	-	338	-	338

[1] Source: District Meter Connection Reports.

[2] Source: District Monthly Water Sales.

[3] Service connections for SFR increase proportionally with population increase. All other connections remain constant.

[4] Non-Revenue is estimated to remain at 10% of Total Metered Sales.

SECTION 4.2 DISTRIBUTION SYSTEM WATER LOSSES

The District, like all agencies distributing water, has some water loss. Water loss, which is often referred to as non-revenue or un-accounted for water, is the difference between the amount of water produced and the amount of water billed to customers. Over the 2015 calendar year, the average water loss has been approximately 9.8%, calculated by the District using its standard methodology which has been used by the District and reported to its Board of Directors on a monthly basis and summarized in a year-end

report. Table T9 below provides the water loss calculated by the District on a monthly basis for calendar year 2015. The District has also calculated water loss using the American Water Works Association (AWWA) Water Loss Spreadsheet and has included this calculation in Appendix E. The AWWA spreadsheet estimates total water loss for 2015 at approximately 385 AF. AWWA does not have a set standard for system losses as a percentage, however industry averages are approximately ten percent.

TABLE T9: 2015 MONTHLY NON-REVENUE WATER

Month-Year	Production, AF	Sales ^[a] , AF	Non-Revenue Water, AF	Water Loss ^[b]
Jan-2015	191	157.90	33.35	12%
Feb-2015	192	187.74	4.10	12%
Mar-2015	289	227.04	61.59	10%
Apr-2015	324	308.91	14.84	11%
May-2015	362	300.13	61.88	9%
Jun-2015	323	312.43	10.44	9%
Jul-2015	407	370.50	36.78	11%
Aug-2015	432	371.15	60.78	11%
Sep-2015	405	373.62	30.89	8%
Oct-2015	393	342.39	50.42	13%
Nov-2015	323	293.64	29.17	3%
Dec-2015	285	289.01	-4.05	10%
TOTAL	3,925	3,534	390.19	9.8%

Source: Metered sales reports and production reports as compiled by the District.

[a] Adjusted with water used through Barker Pass Intertie and final meter reads.

[b] Adjusted for number of days in reading period, production meters vs. customer meters

Water loss can be attributed to several causes including:

- Customer and District production meter inaccuracies which generally under-account for the actual use in the water system as they age.
- Unauthorized or unmetered use of water from the distribution system.
- Flushing and cleaning of District water mains and storage reservoirs.
- District water main breaks.
- Leaking District water mains or service lines.
- Operation and use of fire hydrants by the Montecito and Summerland Fire Protection Districts.

The District conducts a detailed accounting of all water production and known water use on a monthly basis and calculates and reports these results along with the amount of unaccounted water to the Board of Directors.

District distribution system losses are somewhat stable and may be reduced through ongoing annual meter replacement programs, production meter testing and calibration and distribution system upgrade projects. Therefore, the District is using 10% water loss in its future demand projections.

SECTION 4.3 WATER USE REDUCTION PLAN

As noted in Section 4.1 “Historical Water Use,” the District began an aggressive program to reduce customer water demand beginning in 2008. The completion of the 2005 Water Supply Optimization Plan clearly analyzed the effects of customer water use on available supplies. The Water Supply Optimization Plan is a benchmark planning document that provides guidance on optimizing water supplies to meet demands. For planning purposes, this document aptly reviewed historical water supply conditions based on State and local water supply models. In the event water supply availability met the historical critical drought models, the District was assured a reliable water supply to meet varying customer water demand levels during most years. As previously discussed, ordinances adopted by the District between 2008 and 2014 successfully addressed and reduced customer water use to meet the available supply.

Unfortunately, no water supply planning document on the south coast envisioned the loss of the Cachuma water supply in 2014, caused by successive years of below average rainfall, nor sharp reductions in annual State Water project allocations. The series of successive dry year weather events including the exceptional drought began in 2011 and led to significant water management decisions to cut water use in order to meet the available limited supply while still maintaining downstream releases for fish and habitat.

The current exceptional drought paired with allocation ordinances and District public outreach has shown all customers the value of water which has been reduced on average by about 46% compared to pre-2014 customer water use. Customer outreach coupled with education and an emphasis on outdoor water use efficiency and drought resistant landscaping will continue to provide a successful program resulting in lower customer water use.

SECTION 4.4 ESTIMATING FUTURE WATER SAVINGS

The District’s demand projections include the projected water savings due to residential and commercial fixture use efficiency improvements mandated by plumbing code changes arising from the Federal Energy Policy Acts of 1992 and 2005, State legislation relating to plumbing fixtures (requirement for high efficiency toilets and urinals in 2014), building codes, such as the California Green Building Standards Code (CAL Green) which took effect in 2001 and existing and planned District ordinances that specifically address water use efficiency.

The District’s long-term commitment to water conservation is evident in water use reductions achieved through its public outreach programs aimed at curbing outdoor water use by use of more efficient irrigation systems, including installation of Smart irrigation controllers which now include auto shut-off features with moisture sensors. The District has a Conservation Specialist on staff with an extensive background in outdoor water use and performs water use audits at no additional charge to District customers.

With residential water use primarily tied to irrigation landscaping, continuing tiered water pricing along with public outreach and incentives for low water use landscaping will provide a highly efficient water use resulting in a lower application of water to residential properties. The District also has plans to implement Smart customer water meters in the next three to five years to assist customers in managing their water use effectively.

The current level of annual water demand under a water shortage emergency and customer monthly allocations has reduced customer demand levels by approximately 42% since the inception of monthly allocations in March 2014. This successful and dramatic drop in water consumption is a function of customer awareness during this exceptional, unprecedented drought and the assessment of high penalties for all water used in excess of the monthly customer allocation. The allocation program has made customers aware of how they use water and how to meet monthly allocation goals through individual property water supply management. Since allocations were implemented, over 95% of District customers are using water at or below the monthly allocation.

Consumer pricing of water is also expected to encourage customer conservation which will mostly affect non-essential water use (outdoor irrigation). Due to exceptionally dry conditions, current customer water demand levels (a function of monthly allocations) have significantly reduced water sales revenues which in the past accounted for about 73% of all income. Water sales in 2007 of nearly 6,500 AF has dropped to approximately 3,500 AF in 2015 due to District implemented aggressive customer water use reduction strategies to meet the significant loss of previous reliable local water supplies. The District's and the community's success in curbing water use has required the implementation of certain water sales revenue enhancements to meet District annual costs, of which nearly 60% are fixed, and maintain a required debt covenant coverage ratio. District actions have led to the adoption of a water shortage emergency surcharge which has stabilized revenue losses even with the significant reduction in customer water use.

The District is currently able to meet all operating costs and following the restoration of normal available water supplies, the lifting of customer monthly allocations and penalties is expected to result in higher customer water use. The District is projecting an increase in water use that will meet the State mandated requirements under SBX7-7. An aggressive public outreach program is being prepared to address future water demand that is driven not only by the available supply but to also meet the State senate bill mandated reductions.

The District has shown its commitment to water use reduction by implementing ordinances which govern the use of water. District conservation Ordinances are provided in Appendix F. Through Ordinance 47 from 1973 to 1997, the District enacted a new water meter moratorium until additional water sources could be developed. In 1999 and again in 2008, the District implemented new rate structures which encouraged water users to conserve water. An analysis of annual water production (not customer water sales and excluding exchanges) over the last decade has seen a marked change from the approximately 7,200 AFY in 2007 to 5,300 AF in 2011 and most recently to approximately 3,900 AF in 2015. The Ordinances adopted in 2014 and 2015, declaring a water shortage emergency and imposing restrictions on water use and penalties for non-compliance, are only the most recent examples of the District actively working to control demand during a drought in which the District has experienced severe supply restrictions.

While the most recent reduction in water use in 2015 is due to water supply shortage measures adopted by the District to reduce customer water demand, meeting future water demand targets mandated by the State will be achieved through incremental and controlled changes to the annual water supply available to customers. This methodology redefines customer water use in that previously unregulated water use by customers will be replaced with some form of an allocation structure applied to all customer classifications versus only new customers that have obtained District water service since 2008 (Ordinance 89). This new methodology will also utilize and evaluate the effects of updated plumbing codes and

appliance standards, ongoing implementation of the California Urban Water Conservation Council (CUWCC) Best Management Practices (BMPs), and other added measures that can be cost effectively implemented to further reduce customer water demand.

SECTION 4.5 WATER USE FOR LOWER INCOME HOUSEHOLDS

Table T10 below provides a projection of water demand to serve single family and multi-family residential housing for lower income households. A lower income household is defined as any household where the income is less than 80 percent of the median income. The information shown was developed from the Santa Barbara County General Plan and the use of the Comprehensive Housing Affordability Strategy (CHAS) Data Query Tool on the Department of Housing and Urban Development (HUD) website. It is assumed that the District's service area incorporates both the Montecito and Summerland CDP wholly, while negligible portions of the Toro Canyon CDP is included.

Per the CHAS Data Query Tool for the Montecito CDP, it was determined that of approximately 3,190 total within the CDP, approximately 20 percent, or 625 households, were estimated to earn less than 80 percent of the median household income for Santa Barbara County. For the Summerland CDP, it was determined that of approximately 635 households within the CDP, 11 percent, or 70 households, were estimated to earn less than 80 percent of the median household income for Santa Barbara County.

These estimates of lower income households were used in conjunction with the water use factors and projected growth as determined in Table T8 to quantify the volume of water for lower income households.

All water demand for low-income households was included in the overall water demand projections presented in Table T8.

TABLE T10: LOWER INCOME HOUSEHOLD WATER DEMAND

CDP	Actual		Projected							
	2015		2020		2025		2030		2035	
	# of Conn.	Vol. (AF)	# of Conn.	Vol. (AF)	# of Conn.	Vol. (AF)	# of Conn.	Vol. (AF)	# of Conn.	Vol. (AF)
Montecito	625	367	629	451	632	453	636	456	639	459
Summerland	70	41	70	50	71	51	71	51	72	51
Total	695	409	699	501	703	504	707	507	711	510

Source: Department of Housing and Urban Development CHAS Data Query Tool for period 2009-2013.

SECTION 4.6 CLIMATE CHANGE

Specific projections of changes in water supply due to climate change are not yet available, meaning the quantification of annual allocations by supply source (i.e. State Water and Cachuma) are now under consideration due to the current drought which has exceeded the previous critical drought planning period.

The District will consider climate change in its long-term water supply planning by changing the previous held assumptions on annual local and import water supply reliability. Specific measures that were not

previously considered include potential reductions in the annual Cachuma Project allocation, the addition of a regional or local imported or purchased supply, and planning for the development and delivery of recycled water supply to offset and reduce use of limited existing potable water supplies. The District has set a goal of increasing local, drought-proof water supplies to 85% of total supplies by the year 2025. These supplies will include rainfall independent sources such as desalinated water, groundwater banking and recycled water.

Import of more State Water Project water on an annual basis will be used to preserve existing local surface water supplies and groundwater that are expected to be affected by climate change. Climate change on the south coast has shown to have caused a reduction in the annual recharge of local surface water supplies and groundwater due to reduced levels of annual rainfall which have increased customer water demand for purposes other than potable use. District planning, in the shadow of climate change, will emphasize the efficient use of water by customers for all categories of water use.

SECTION 4.7 RECYCLED VERSUS POTABLE AND RAW WATER DEMAND

There have not been any recycled water deliveries within the District's service area to date. However, with recurring water shortage conditions affecting the entire south coast through the decades, identifying and quantifying alternate water resources has been a focus of all water agencies including the District.

The following list of reports addressed recycled water as an alternate water supply for the District:

- Wastewater Management Study, Montecito Sanitary District, Brown and Caldwell, July 1972
- Water System Improvement Plan (District), Brown and Caldwell, April 1974
- Water Resources Management Study (Regional), Toups Corporation, July 1974
- Water Supply Management (District), Brown and Caldwell, 1978
- Santa Barbara Regional Reclamation Study Regional), April 1980
- Water Reclamation Study (District and MSD), CH2MHill, January 1991
- Cost of Tertiary Wastewater Treatment Southern SB County (Regional), M&E, August 2001
- South Cost Recycled Water Development Plan (Regional), RMC, December 2013
- Water Supply Reliability, District Staff Report, July 15, 2014
- Diversified Portfolio of Water Supplies (District), PERC Water, August 2015
- Montecito Groundwater Basin Recharge Feasibility Study (District, MSD, Heal the Ocean), Dudek, September 2015

Several of the reports completed a comprehensive analysis of potential District recycled water demand by customer accounts including source water quality compatibility for its proposed use and application. These reports also discussed the infrastructure required to treat, distribute and store recycled water and

provided cost estimates for the development of this infrastructure. Due to high costs of development of this supply source at the time, the District elected not to move forward with a recycled water program.

The ongoing water shortage emergency condition affecting the entire south coast has provided additional opportunities with State support and funding for recycled water system development. Recent review and consideration of recycled water use and its beneficial use as a new part of the District's water supply portfolio have made this water supply development option more attractive. The District is currently pursuing Water Recycling Funding Program (WRFP) grant funding for the completion of a detailed recycled water alternatives analysis within the District service area.

CHAPTER 5 SBX7 – 7 BASELINES AND TARGETS

As described in SBX7-7, also known as the Water Conservation Act of 2009 (SBX7-7), it is the intent of the California legislature to increase water use efficiency and set a goal to achieve a 20 percent reduction in per capita water use statewide by the year 2020. SBX7-7 applies to all retail water suppliers and requires all water suppliers to increase water use efficiency. Consistent with SBX7-7, this 2015 UWMP must provide an estimate of the Base Daily Per Capita Water Use utilizing population information along with Base Gross Water Use. The SBX7-7 legislation also requires water agencies to reduce their water use by 10 percent by 2015 in order to show progress toward compliance with the 2020 mandate. The process for defining baseline water use and calculating target water use was defined by DWR and is presented below. The process includes the identification of a suitable baseline period, estimation of the population served for all years in the baseline period, compilation of gross water use for each year of the baseline period, estimation of daily per capita water use for each year in the baseline period, and determination of water use targets for 2015 and 2020. All SBX7-7 Verification Tables are provided in Appendix G.

SECTION 5.1 BASELINE PERIODS

Base Daily Per Capita Water Use is defined as average Gross Water Use, expressed in gallons per capita per day (GPCD), for a continuous, multiyear period. The multiyear periods are defined as the Baseline Periods. Two Baseline Periods are required by SBX7-7.

- The first baseline period is a 10 or 15-year continuous period and will be used to calculate the Base Per Capita Water Use.
- The second baseline period is a continuous five-year period used to determine whether the 2015 and 2020 Base Per Capita Water Use targets meet the legislation's minimum water use reduction requirement.

The District did not use recycled water to make up at least 10 percent of its 2008 retail water delivery, therefore the District does not qualify to use the 15-year baseline period and must, instead, use a 10-year baseline period ending no earlier than December 31, 2004, and no later than December 31, 2010.

The 10-year baseline period selected by the District is for the calendar years 2001 through 2010. This period was selected as it is the most advantageous for demonstrating compliance.

SBX7-7 requires water retailers to reduce Daily Per Capita Water Use, calculated on an annual basis, 10 percent by 2015 and 20 percent by 2020, when compared to the Base Daily Per Capita Water Use established using the 10-year baseline period. Base period information, including all allowable 10 year base periods, and the 5-year base period are provided as appropriate in the SBX7-7 Verification Tables in Appendix G.

SECTION 5.2 DETERMINATION OF 5-YEAR BASELINE PERIOD (TARGET CONFIRMATION)

As indicated above, the District must choose a 5-year baseline period, ending no earlier than December 31, 2007, and no later than December 31, 2010. Using the 5-year baseline period, the District must

calculate the 5-year Base Per Capita Water Use. If this 5-year Base Per Capita Water Use is greater than 100 gpcd, the District must use the 5-year baseline period to calculate the Minimum Water Use Reduction target in order to verify that the District's 2015 and 2020 Per Capita Water Use targets are compliant.

The District chose a 5-year period using calendar years starting in 2006 and ending in 2010 as this period was the most advantageous for demonstrating compliance.

SECTION 5.3 SERVICE AREA POPULATION

Calculation of Daily Per Capita Water Use requires annual estimates of population. DWR developed an online tool designed specifically for estimating annual population, relative to baseline and target years, within a water retailer's service area and for use in the UWMP for SBX7-7 compliance. The population estimates used in this Section of the UWMP were derived from DWR's population tool using the approved modification for the 2015 population due to a discrepancy between SBCAG population data and DWR projected population. The District is considered a Category 2 Water Supplier whose GIS map of actual water distribution service area was used with the DWR population tool to determine census year populations. Service area population, as calculated in the DWR population tool with modification, is provided in Table T4 above. The DWR Population Tool confirmation is provided in Appendix H.

SECTION 5.4 GROSS WATER USE

Gross Water Use was calculated as the total amount of water received, including local and regional surface water, groundwater, imported State Water and seepage into the Doulton Tunnel. Gross water use excludes recycled water, agricultural water deliveries and exchanges or transfers conveyed to other urban water suppliers.

Water delivered through the distribution system for agricultural use is deducted from the Gross Water Use, which is used to calculate the Daily Per Capita Water Use.

Historical Gross Water Use from 1995 to 2015, by source, is provided in Table T11 below.

TABLE T11: GROSS WATER USE, AFY

Year	Fox	Jameson Lake	Juncal Seepage	Doulton Tunnel	Alder Creek	Groundwater	Lake Cachuma	SWP	Total Water Produced	Agriculture Deliveries	Gross Water Use
1995	79	1198	145	847	8	105	1781	0	4,155	331	3,824
1996	60	2083	112	179	0	126	2144	0	4,704	455	4,249
1997	15	2279	103	251	0	160	3001	0	5,809	472	5,337
1998	0	1049	100	298	0	125	2258	9	3,839	472	3,367
1999	0	2024	83	211	0	53	2850	325	5,546	538	5,008
2000	0	1775	83	304	0	109	2431	655	5,357	450	4,907
2001	0	1534	43	402	0	69	2707	0	4,755	304	4,452
2002	5	1810	26	174	2	81	2784	1102	5,982	470	5,512
2003	0	1294	18	309	0	94	2998	1002	5,715	449	5,266
2004	0	1302	7	162	0	392	2712	1893	6,468	529	5,939
2005	0	1033	107	851	0	226	3533	12	5,762	381	5,381
2006	0	1371	84	558	0	294	3580	0	5,887	407	5,480
2007	0	1631	41	215	0	458	1802	3016	7,163	525	6,638
2008	0	1515	81	516	0	400	2428	2145	7,085	516	6,569
2009	0	1322	43	318	0	250	3784	763	6,480	439	6,041
2010	0	1404	82	453	0	213	2817	500	5,469	319	5,150
2011	0	1409	93	606	0	124	2847	218	5,297	349	4,948
2012	0	1876	48	226	0	279	3877	0	6,306	527	5,779
2013	0	1013	13	186	0	460	3913	1262	6,847	593	6,254
2014	0	556	0	176	0	604	467	2454	4,257	455	3,802
2015	0	351	0	161	0	637	1160	1616	3,925	313	3,612

Source: District Historical Water production data for all sources and District Monthly Sales data for Agricultural deliveries.

Note: Water from Alder Creek flows into Jameson Lake, therefore total Jameson supply includes Alder creek supply.

SECTION 5.5 BASELINE DAILY PER CAPITA WATER USE

Base Daily Per Capita Water Use is defined as average Gross Water Use, expressed in GPCD, for a continuous, multiyear period. As indicated above, the District has chosen a 10-year baseline period starting in calendar year 2001 and ending in 2010. Additionally, the District chose a 5-year baseline period starting in calendar year 2006 and ending in 2010. These years have been highlighted in Table T12 below.

The Base (or Baseline) Daily Per Capita Water Use is determined by first calculating the Daily Per Capita Water Use for each calendar year in the allowed bracket of years. The Daily Per Capita Water Use values are then averaged across the allowed 10-year and 5-year baseline periods. Table T12 below provides the data and calculations for the Baseline Daily Per Capita Water Use, in GPCD.

TABLE T12: BASELINE DAILY PER CAPITA WATER USE, GPCD

Base Period Years		Service Area Population ^[a]	Annual Gross Water Use		Daily Per Capita Water Use	10-year Average	5-Year Average
10-year (5-year)	Calendar		AFY	MGD			
-	1995	10,416	3,824	3.4	328	-	-
-	1996	13,003	4,249	3.8	292	-	-
-	1997	12,851	5,337	4.8	371	-	-
-	1998	12,691	3,367	3.0	237	-	-
-	1999	12,626	5,008	4.5	354	-	-
-	2000	12,486	4,907	4.4	351	-	-
1	2001	12,464	4,452	4.0	319	-	-
2	2002	12,372	5,512	4.9	398	-	-
3	2003	12,327	5,266	4.7	381	-	-
4	2004	12,250	5,939	5.3	433	346	-
5	2005	12,088	5,381	4.8	397	353	-
6 (1)	2006	11,930	5,480	4.9	410	365	-
7 (2)	2007	11,772	6,638	5.9	503	378	425
8 (3)	2008	11,619	6,569	5.9	505	405	450
9 (4)	2009	11,458	6,041	5.4	471	417	457
10 (5)	2010	11,292	5,150	4.6	407	422	459
-	2015	11,370	3,612	3.2	284	-	-

[a] Per DWR Population Tool.

SECTION 5.6 2015 AND 2020 TARGETS

In addition to calculating the baseline daily per capita water use, SBx7-7 requires that the District identify its demand reduction targets for 2015 and 2020. SBx7-7 requires a minimum water use reduction to

ensure that water retailers, regardless of the method used to generate target water values, is on track to meet the 2020 target. The following methods to determine the 2020 target value are available.

- **Methodology 1:** Ninety percent of Base Daily Water Use by 2015 and Eighty percent of baseline GPCD water use for 2020 (i.e. a 10 percent by 2015 and 20 percent by 2020 reductions)
- **Methodology 2:** Per capita daily water use estimated using the sum of performance standards applied to indoor residential use; landscaped area water use; and CII uses
- **Methodology 3:** Ninety-five percent of the applicable state hydrologic region target as stated in the State's 20x2020 Water Conservation Plan (California Department of Water Resources, February 2010)
- **Methodology 4:** Saving by Water Sector – This method, developed by DWR, identifies water savings obtained through identified practices and subtracts them from the base daily per capita water use value identified for the water supplier

The District has selected Methodology 1 as the most advantageous method for demonstrating compliance, therefore the 2020 target is calculated as a 20 percent reduction in the 10-year Base Daily Per Capita Water Use. As shown and highlighted in Table T12, the selected 10-year Base Daily Per Capita Water Use is 422 gpcd based on the 2001 through 2010 baseline period. In accordance with Methodology 1 above, the 2015 target is 90 percent of the 10-year Base Daily Per Capita Water Use, or 380 gpcd and the 2020 target is 80 percent of the same 10-year Base Daily Per Capita Water Use, or 338 gpcd.

To confirm the 2020 Target of 338 gpcd, SBX7-7 requires a calculation based on the 5-year base period of 2006 through 2010. Because the 5-year Base Daily Per Capita Water Use is greater than 100 gpcd, the minimum water use reduction requirement for 2020 is calculated as 95 percent of the 5-year Base Daily Per Capita Water Use. Based on this calculation, 95% of the 5-year Base Daily Water Use is equivalent to 436 gpcd which is greater than the calculated 2020 Target, confirming the 2020 Target of 338 gpcd. A summary of Daily Per Capital Water Use Targets for 2015 and 2020 is provided in Table T13 below and in the SBX7-7 Verification Tables in Appendix G.

TABLE T13: SUMMARY OF SBX7-7 BASELINES AND TARGETS

Baseline Period			Target Type	Target Reduction	Base Daily Per Capita Water Use, gpcd	Target Daily Per Capita Water Use, gpcd
Length	Start	End				
10-year	2001	2010	2015 Interim	10%	422	380
10-year	2001	2010	2020	20%	422	338

SECTION 5.7 2015 COMPLIANCE DAILY PER CAPITA WATER USE (GPCD)

Based on calculations presented in Table T12, the targets identified in Table T13, and the SBx7-7 Verification Tables in Appendix G, the actual 2015 Daily Per Capita Water Use of 284 gpcd is in compliance with both the 10-year base 2015 interim target of 380 gpcd and the 2020 water use target of 338 gpcd.

CHAPTER 6 SYSTEM SUPPLIES

The District has a diverse variety of local, regional and State water supply sources and continues to align with other water purveyors in the area to identify, investigate and implement new sources. Currently the District receives water from the following sources:

- State Water Project / CCWA – State Surface Water
- Supplemental Water Purchases
- Cachuma Lake / Cachuma Project – Regional Surface Water
- Jameson Lake – Surface Water from the Santa Ynez River
- Fox Creek Diversion – Surface Water from a Santa Ynez River Tributary
- Alder Creek Diversion – Surface Water from a Santa Ynez River Tributary
- Doulton Tunnel Infiltration – Local Groundwater
- Groundwater Wells – Local Groundwater

System Supply Reliability Goal

The District's water supply portfolio has evolved over the decades based on the needs of the District. The addition of the State Water Project (SWP) in the 1990s accommodated increasing water demands and population growth in the region. However, participation in the State Water Project comes with risks of low allocation years and loss of carryover water when reservoirs along the SWP spill. Historically, the SWP has supplied on average 60% of the full allocation of 3,300 AFY, with annual allocations ranging from 0% to 100%. In addition, allocations to the District from the Santa Ynez watershed supplying Lake Cachuma and Jameson Lake were reduced to zero during the 2015/16 Water Year. Future sustainable management of these reservoirs could reduce annual deliveries from these sources to extend their supply during drought periods.

Given the long term risks and low reliability associated with the SWP and local reservoir supplies, the District is committed to pursuing local, drought proof supplies. The District is committed to achieving 85% local, reliable drought proof supplies by 2025 to include District groundwater, Doulton tunnel infiltration, locally or regionally imported/purchased water, local or regional banked water, and recycled water. Projected quantities of these local, reliable supplies are outlined in Section 7.

SECTION 6.1 PURCHASED OR IMPORTED WATER

The District purchases surface water from multiple sources including the State Water Project and the Cachuma Project. State Water Project water, surface water imported from the Sacramento/San Joaquin Delta through the State Aqueduct, is purchased from the California Department of Water Resources (DWR). The District also purchases supplemental water from the SWP when needed. Lake Cachuma water, a nearby regional surface water supply, is purchased from the United States Bureau of Reclamation (USBR).

6.1.1 State Water Project

The District purchases State Water as a member of the Central Coast Water Authority (CCWA). The CCWA is the JPA administrator formed to construct, manage, operate and maintain the State Water coastal

aqueduct treatment and conveyance facilities serving Santa Barbara County. Purchased State Water is used to augment traditional water supplies available to the District, reduce the use of groundwater, and offset naturally occurring reservoir siltation at Cachuma and Jameson Lakes.

In 1963, the Santa Barbara County (County) Flood Control and Water Conservation District (FCWCC) contracted with the California Department of Water Resources for the delivery of up to 57,700 AFY of State Water. The contract did not include the cost of constructing the necessary delivery system to bring State Water into Santa Barbara County and, when a bond election failed in 1979, the County FCWCC sought financing through agreements with local water retailers to provide them entitlements for project funding. The contracts with the local water retailers provided the allotment of 45,486 AFY of State Water of which 3,300 AFY was allocated to the District.

The drought of 1987-91 illustrated the vulnerability of the County water agencies to multi-year below average rainfall years. The dwindling local surface water supplies caused mandatory cutbacks in customer water use and residents decided it was time to connect to the State Water Project. In 1991, voters in a number of County communities with retained allocations, including the District, voted to fund the formation of the Central Coast Water Authority to manage and construct facilities for the import of State Water. Through water user payments, the water users are reimbursing the CCWA and the State Water Project for all costs, including construction and operation.

Construction of State Water conveyance facilities on the south coast were completed in 1997, which included the 102 mile Coastal Branch of the State Aqueduct and the 42-mile Santa Ynez extension ending at Lake Cachuma where it comingles with other existing surface water. Once State Water reaches Lake Cachuma it is conveyed through the Tecolote Tunnel to the City of Santa Barbara's Cater Water Treatment Plant for treatment before being conveyed via the South Coast Conduit to the District.

The DWR defines the percentage of water available to each State Water contractor each year which is a function of available water supplies within the State Water Project. The percentage allocation of water by DWR determines the contractor's Table A amount available to an agency each year. The District's full annual State Water Table A water allocation is 3,300 AFY for a DWR annual water supply percentage of 100%. On average, the annual DWR Table A allocation has been approximately 60%.

The District participates with the CCWA by storing a portion of its annual 3,300 AF allocation in a "drought buffer" in the amount of 300 AF. The 300 AF drought buffer represents water for which there is no design capacity in the coastal branch facilities, but which is available for delivery in any year in which the DWR delivery allocation percentage is less than 100%.

The District stores the majority of its State water in San Luis Reservoir before it is conveyed to Lake Cachuma. If San Luis Reservoir is at full capacity and is spilling the District's carryover water, which is water from a previous year, is lost. To mitigate this potential loss, the District, along with the other Santa Barbara County water agencies, considers groundwater banking opportunities through CCWA to place water into various groundwater banking programs around the State. The water storage banking programs are typically operated as an unbalanced exchange, where more water is stored than can be delivered at a later date. At the end of 2015 the District had no water stored in groundwater banks. Since 2014, the District has recovered and delivered approximately 860 AF of banked water stored from water stored outside of Santa Barbara County from the Dudley Ridge Water District.

The current drought has lowered the previously published annual reliability of State Water project, with the 2015 State Water Project Delivery Capability Report providing the best estimate of anticipated deliveries over the planning period under various hydrologic conditions. The projections in the 2015 State Water Project Delivery Capability Report have been used by the CCWA to project future deliveries, and the District also relies upon these estimates for future water supply planning. Table T14 contains the amount of water projected to be available to the District based on its current allocation of 3,330 AFY under various hydrologic conditions.

TABLE T14: MAXIMUM SWP TABLE A AVAILABLE IN SELECTED DROUGHT CONDITIONS

Drought Condition	AFY				
	2015	2020	2025	2030	2035
Long Term Average	2,015	2,001	1,987	1,973	1,958
Single Dry Year 1977/Model	352	330	308	286	264
Single Dry Year 2014	165	165	165	165	165
2-year drought 1991-1992	644	648	652	656	660
2-year drought 1990-1991	644	600	555	511	466
4-year drought 1931-1934	958	990	1,023	1,055	1,087
4-year drought 1988-1991	1,023	973	923	873	823
6-year drought 1987-1992	932	899	866	833	800

Source: CCWA 2015 UWMP and CCWA Projection Tool.

The extremely dry sequence from the beginning of January 2013 through the end of 2014 was one of the driest two-year periods in the historical record. Water year 2013 was a year with two hydrologic extremes. October through December 2012 was one of the wettest fall periods on record, but was followed by the driest consecutive 12 months on record. Accordingly, the 2013 State Water Project (SWP) supply allocation was a low 35% of SWP Table A Amounts. The 2013 hydrology ended up being even drier than DWR's conservative hydrologic forecast, so the State Water Project began 2014 with reservoir storage lower than targeted levels and less stored water available for 2014 supplies. Compounding this low storage situation, 2014 also was an extremely dry year, with runoff for water year 2014 the fourth driest on record. Due to extraordinarily dry conditions in 2013 and 2014, DWR set the 2014 annual Table A percentage at a historical low 5%. The dry hydrologic conditions that led to the low 2014 SWP water supply allocation were extremely unusual, and to date have not been included in the SWP delivery estimates presented in DWR's 2015 Delivery Capability Report. It is anticipated that the hydrologic record used in the DWR model will be extended to include the period through 2014 during the next update of the model, which is expected to be completed prior to issuance of the next update to the biennial SWP Delivery Capability Report.

For the reasons stated above, CCWA has noted that a 5% allocation of SWP Table A amounts (165 AFY for the District) which represents the "worst case" scenario.¹

¹ Per CCWA 2015 UWMP.

6.1.2 Supplemental Water Purchases

Due to the variability in the amount of State Water available under various hydrologic conditions, the District relies upon the State Water Project infrastructure to provide the District with the ability to augment its supplies with supplemental water purchases during dry years. These relatively new water purchase opportunities permitted by the DWR between State Water contractors is a direct result of this unprecedented drought. However, supplemental water purchase agreements between contractors are “conditional”. The District has participated in supplemental water purchase programs negotiated between CCWA and other contractors to increase the available water supply when annual DWR allocations fall short. These recent supplemental water purchases are summarized in Table T15 below.

Supplemental water purchase agreements typically require an exchange component whereby the District is required to return an amount equal to or greater than the amount of water purchased, typically over a ten year period. This water return is often referred to as “water debt”. The supplemental water purchase agreements include the return conditions of this water debt which often dictate the return period and other conditions that must be met. As of the end of 2015, the District’s water debt was 2,721 AF.

The District continually evaluates return options based on current and projected water supplies. Various options for returning water include but are not limited to; delivering future Table A allocations when supplies exceed District needs, delivering water stored within groundwater banks and purchasing additional water on the open market when hydrologic conditions allow.

TABLE T15: 2014 AND 2015 SUPPLEMENTAL WATER PURCHASES

Source	Amount Purchased (AF)	Return Amount (AF)	Return Conditions
Santa Ynez ID 1	465	190	At Discretion of ID 1 (Lake Cachuma at 100,000 AF Minimum)
Biggs-West Gridley	488	-	-
Vandenberg Air Force Base	383	-	-
Dudley Ridge	860	-	-
Mojave Water Agency	416	-	Returned
2014 Subtotal	2,612	190	-
Antelope Valley East Kern	2,531	2,531	By 12/31/2025
Biggs-West Gridley	113	-	-
Santa Ynez ID 1	750	-	-
2015 Subtotal	3,394	2,531	-
Total	6,006	2,721	-

6.1.3 Lake Cachuma / Cachuma Project

Lake Cachuma is an open surface water reservoir owned and operated by the United States Bureau of Reclamation (USBR) receiving water from the Santa Ynez River watershed. The USBR, on behalf of the Cachuma Project Member Units, holds the Cachuma Project water right permits, and the Cachuma Conservation Release Board (CCRB) is the agency responsible for the actions and decisions relative to the terms and conditions of those permits for its Member Units. Water from Lake Cachuma is allocated in differing proportions to the participating water agencies, consisting of the Goleta Water District, the City of Santa Barbara, Santa Ynez River Water Conservation District - Improvement District No. 1, the Carpinteria Valley Water District and the Montecito Water District. Each of the water agencies are designated as a Member Unit (MU) who participates in the regional use of the Cachuma Project water supply. Water deliveries from Lake Cachuma (Cachuma Project) are made to MU's pursuant to a Master Contract between the USBR and the Santa Barbara County Water Agency (SBCWA). The five water agencies have individual contracts with the Santa Barbara County Agency that defines each water agency's proportionate share of the Lake Cachuma water supply. The District's proportionate share of the Cachuma water supply is 10.3%.

Water in Lake Cachuma is impounded by the federally owned Bradbury Dam, which receives water from the Santa Ynez River. Bradbury Dam was originally constructed in 1953. The dam is located on the Santa Ynez River approximately 30 miles northwest of Montecito. The dam is a zoned earth fill structure that is 279 feet high from the bottom of the cutoff trench to the top of the dam and 206 feet above the streambed. The dam was seismically retrofitted in 2001 and was fitted with flash board extensions to increase the capacity of the lake in 2004.

Lake Cachuma had an original capacity of 205,000 acre-feet at an elevation of 750 feet (NGVD 29 Datum). Per a bathymetric survey conducted in 2013, Lake Cachuma's capacity has been reduced approximately 21,000 acre-feet due to siltation, with a current capacity of 184,121 acre-feet. While the dam is equipped with flash boards that have raised the maximum elevation to 753 feet with a corresponding capacity of 193,305 acre-feet, this additional storage is dedicated to storing water for fish habitat and does not increase the available water storage for water supply purposes.

The Cachuma Project operates under a permit granted by the California State Water Resources Control Board (SWRCB). The current Water Right Order 94-5 continued earlier requirements for water releases to protect downstream interests of the City of Lompoc, Santa Ynez River Water Conservation District - Improvement District No. 1 and riparian groundwater pumpers located along the Santa Ynez River. This Order required hearings in 2002 and 2003 to address outstanding issues related to potential project impacts on vegetation, fish and downstream users. The hearings and Environmental Impact Report were completed in 2011, however the draft water rights order has not yet been released by the SWRCB.

The USBR and the Cachuma Project Member Units have developed revisions to the Project operations since 1993 to improve habitat conditions for steelhead trout while still maintaining water supplies. In 2000, the National Marine Fisheries Service (NMFS) issued a Biological Opinion for USBR's operation and maintenance of Bradbury Dam (the Cachuma Project). NMFS is the agency within the Department of Commerce that oversees protection of Southern California steelhead trout. The 2000 Biological Opinion addresses the effects of Cachuma Project operations on steelhead and its designated critical habitat in

accordance with Section 7 of the Endangered Species Act of 1973. In 2014, the NMFS and USBR formally initiated reconsultation of the Biological Opinion which may change the amount of future deliveries allowed from Lake Cachuma allocation to the District.

The District's available supply from Lake Cachuma during years of normal rainfall is 2,651 acre-feet per year. Lake Cachuma is operated based on an operational yield that was developed through experience during long-term droughts and acceptable delivery reductions during such drought periods.

Water is diverted from Lake Cachuma through the Tecolote Tunnel, which extends approximately 6.4 miles through the Santa Ynez Mountains to the head works of the South Coast Conduit. The South Coast Conduit is a steel pipeline which runs approximately 26.4 miles and includes four regulating reservoirs - Glen Annie Dam and Reservoir (currently not in service), Lauro Dam and Reservoir, Ortega Dam and Reservoir, and Carpinteria Reservoir. Lake Cachuma water supplies delivered to the South Coast are treated at the City of Santa Barbara Cater Water Treatment Plant.

For the District's Cachuma Project surface water supply (including State Water delivered to Lake Cachuma), the District entered a JPA with the City of Santa Barbara in 1978 for the construction, operation and maintenance of the Cater Water Treatment Plant, a regional water treatment facility serving the City of Santa Barbara, the Carpinteria Valley Water District and the Montecito Water District. The Cater Water Treatment Plant has a production capacity of 37 MGD and is owned and operated by the City of Santa Barbara. The District has a 20% interest in the Cater facility which provides water deliveries daily to meet customer usage at all demand levels. Treated water from the Cater facility is delivered to Montecito through the Cachuma Project South Coast Conduit operated by the Cachuma Operation and Maintenance Board (COMB).

The District has metered turnouts supplied by the South Coast Conduit. These metered turnouts include; Barker Pass, Office, East Valley, Lambert, Toro Canyon, Sheffield, Asegra Road, Ortega Pump Station Control and County Yard.

SECTION 6.2 SURFACE WATER

The District receives a large portion of its annual water supply from surface water sources, including the State Water Project, Cachuma Lake and Jameson Lake. While State Water and Cachuma Lake are surface water sources, the discussion regarding both of these sources, which are purchased, are provided in Section 6.1.

6.2.1 Jameson Lake

Jameson Lake is an open surface water reservoir owned and operated by the District. In the 1920's the Juncal Dam site was transferred from the City of Santa Barbara to the District with the agreement that the District would transfer 300 AF of water annually to the City in perpetuity. Subsequent Service Area Agreements implemented between the District and the City allow for annual adjustments to the 300 AF. Construction of the reservoir was completed in 1930 and served as the District's primary water supply until the Cachuma Project was completed in the early 1950's. At its construction completion in 1930, Jameson Lake held approximately 7,000 AF of water when full. The District receives water from the upper reaches of the Santa Ynez River, the North Fork stream and the seasonal diversion at Alder Creek with a

total watershed of about 19 square miles. The current capacity of the lake, based on a bathymetric survey completed in 2013 is approximately 5,144 acre-feet with a storage elevation of 2,224 feet. Recent bathymetric surveys have indicated that actual storage has been reduced due to siltation behind the dam. As a part of its long term water supply management and planning, the District continues to perform periodic silt surveys and other studies on the reservoir, and has developed a conjunctive use operational plan for all District supplies that includes an operational annual yield and rule curve based on Jameson Lake reservoir capacity.

The District's Treatment Plant Supervisor oversees reservoir operations and the on-site dam caretaker monitors daily operations and security. The District has also converted the diversion operation and monitoring to remote control with upgrades to its hard-wired Supervisory Control and Data Acquisition (SCADA) system serving Jameson Lake and all District major distribution system facilities. Juncal Dam is designated as a dam impoundment structure under State permit number 34-2. Juncal Dam is under the jurisdiction of the California State Department of Water Resources, Division of Safety of Dams (DSOD).

The actual annual diversion of water from this water supply is determined prior to the start of the water year which is dependent on lake water storage level and is based on the operation rule curve included in the 2005 Water Supply Optimization Plan. Water delivered from this source is monitored and controlled on a daily basis by the District's Water Treatment Department and used along with its other water supplies to maintain water storage levels in secondary water storage reservoirs located throughout the service area. Water from the lake flows by gravity through an 18" diameter pipeline and enters the District's service area at the end of the 2.2-mile long Doulton Tunnel. The Doulton Tunnel passes through the Santa Ynez Mountain range at an elevation of 1,921 feet mean sea level. The water then flows by gravity to the two surface water treatment plants, secondary storage and distribution to customers.

The Jameson Lake annual diversion maximum, along with all its Santa Ynez diversions is 2,000 acre-feet as defined by the 1933 California Supreme Court Gin Chow decision, and re-affirmed by the Court in the 1998 Jordan decision.

Water diverted from Jameson Lake over the last ten years has averaged approximately 10 to 30 percent of the District's yearly production total. The average yearly diversion over the past ten years ranged from approximately 1,900 AFY to a low of 350 AFY. Diversions over the past three years were greatly reduced due to a severe multi-year drought and no reservoir recharge.

6.2.2 Santa Ynez Tributary Diversions

Fox and Alder Creeks are tributaries of the Santa Ynez River located in the upper reaches of the Santa Ynez River between the Juncal campground and Jameson Lake. District diversion operations were revised in the late 1990's to address and mitigate potential impacts caused by its diversion activities to newly listed species under the Endangered Species Act. The District has subsequently modified the diversion collection systems to provide for continuous bypass flows downstream of the diversion dam. These changes have reduced the combined yield of these two sources to only divert excess flows during periods of significant rainfall. Actual operational yields of these seasonal diversion tributaries are estimated to have been zero during the last four years due to drought conditions. Flows from these tributaries are not currently measured using calibrated measuring equipment or considered significant water sources for the District.

SECTION 6.3 GROUNDWATER

Groundwater in the District's service area is obtained by pumping from the Montecito Groundwater Basin Units 1, 2 and 3 as well as the Toro Canyon Sub-basin which is located primarily within the Montecito Groundwater Basin and service area. This section provides an overview of the groundwater basins and the District's groundwater management strategies.

6.3.1 Basin Description

The Montecito Groundwater Basin (Groundwater Basin No 3-49) encompasses about 9.8 square miles² between the Santa Ynez Mountains and the Pacific Ocean. It is separated from the Carpinteria Groundwater Basin to the east by faults and bedrock and from the Santa Barbara Groundwater Basin to the west by a topographical divide and to the south by the Montecito Fault. The basin has been divided into three storage units based on east-west trending faults that act as barriers to groundwater movement. The northern unit (Storage Unit 1) is bounded on the south by the Arroyo Parida fault, the central unit (Storage Unit 2) by the Montecito Fault and the southern unit (Storage Unit 3) by the Rincon Creek Fault (COSB 2011, DWR 1999)³. An administrative boundary on the west separates the Montecito Groundwater Basin from the Santa Barbara Groundwater Basin. The area overlying the basin is drained by several small creeks that flow from the Santa Ynez Mountains south to the Pacific Ocean.

The primary water-bearing deposits in the Montecito Groundwater Basin are the unconsolidated alluvial deposits, and the Casitas and Santa Barbara Formations (Montecito Water 1998). The specific yield for unconfined materials in the basin is estimated at 11 percent (DWR 1999).

The alluvial deposits are Holocene age alluvium consisting of gravel, sand, silt, and clay lenses. These deposits occur along stream channels and range to 80 feet thick (DWR, 1999). Pleistocene age alluvium is composed of boulders and reddish clay, which, where saturated, yields only modest amounts of water to wells (DWR 1999). Groundwater is generally unconfined within alluvial deposits (DWR 2004).

The Pleistocene age Casitas Formation consists of clay, silt, sand, and gravel. Groundwater is extracted mainly from the upper Casitas Formation, as it is the chief water-bearing deposit; the lower Casitas Formation is very fine-grained and displays poor water transmitting characteristics (Montecito 1998). Groundwater in this formation is partially confined along the north side of the Arroyo Parida fault in the northern part of the basin and inland from the southern part of the basin (DWR 1999).

The Pliocene to Pleistocene age Santa Barbara Formation consists of marine sand, silt, and clay and has a maximum thickness of 1,200 feet in the southern part of the basin (Hoover 1980)⁴. Groundwater within

² Geotechnical/Hydrologic Evaluation of Three Proposed Groundwater Wells in the Coastal Sub-Basin (Storage Unit 3) of the Montecito Groundwater Basin By Hugo A. Loáiciga, Ph.D., P.E., Consulting Hydrologist

³ County of Santa Barbara (COSB), Public Works Department Water Resources Division. 2011. 2011 Groundwater Report. California Department of Water Resources (DWR), Southern District. 1999. Evaluation of Groundwater Overdraft in the Southern Central Coast Region.

⁴ Hoover, M.F. 1980. Safe Yield Evaluation of the Montecito Basin and Toro Canyon Area: prepared for the Montecito Water District, 40 p. Quoted in (DWR 1999). Evaluation of Groundwater Overdraft in the Southern Central Coast Region, Part 2. Technical Information Record SD-99-2, 116 p.

the Santa Barbara Formation is generally confined (Freckleton 1989)⁵. This formation occurs only in a restricted area in the southwest portion of the basin and, thus, is of negligible use as a groundwater source. (DWR 1999). The east trending arroyo Parida and Montecito faults are barriers to groundwater movement within the Montecito Groundwater Basin. (DWR 2004)

Figure F3 illustrates the regional vicinity of each of the District's groundwater basin storage units and water supply sources described above (Hoover 1980).

The maximum usable groundwater storage for the four storage units is estimated to be 16,110 AF, however the groundwater basin has a maximum safe yield of only 1,650 AFY. The storage per storage unit is provided as follows (Hoover 1980):

Storage Unit 1	550 AFY
Storage Unit 2	100 AFY
Storage Unit 3	700 AFY
Toro Canyon	<u>300 AFY</u>
Groundwater Basin Safe Yield	1,650 AFY

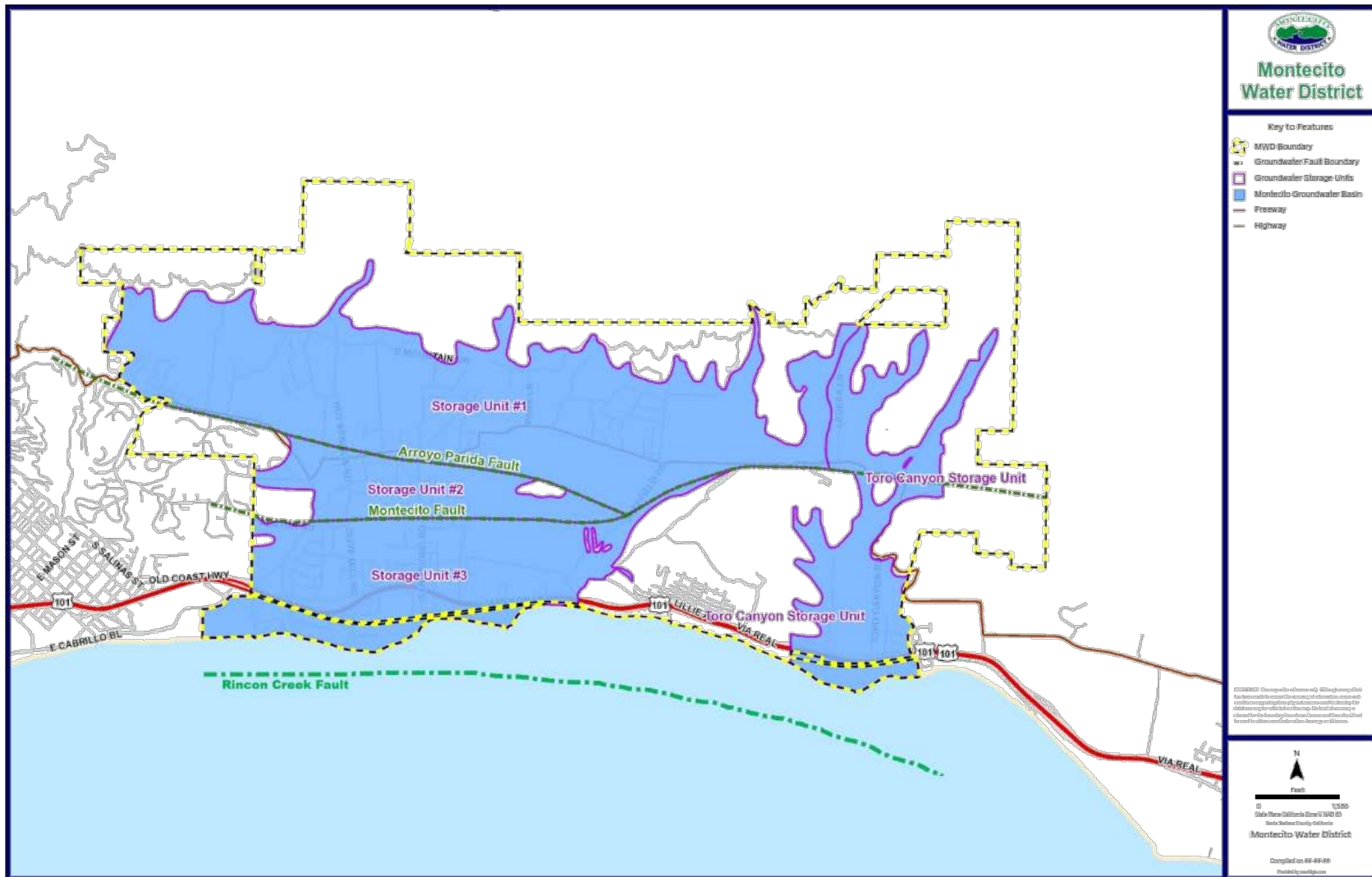
This annual yield was derived as an average amount of water than can be withdrawn from the Basin over a number of years through wet and dry cycles. As part of its overall operational plan, the District plans to pump 250 to 400 acre-feet on an annual basis, though up to 700 acre-feet per year may be pumped on a short-term basis, when surface or imported water supplies are limited.

According to a hydro geologic assessment prepared by Richard Slade and Associates in 1991, the usable capacity (not safe yield) of the combined basins is approximately 14,500 acre-feet. In severe drought conditions, the District can pump more than 700 acre-feet per year for a very limited time, as long as the Basin is allowed to recover, through reduced pumping, in wet years.

Entitlements to groundwater in the Montecito Basin have not been adjudicated and are subject to the rules of prior appropriation.

⁵ Freckleton, J.R. 1989. Geohydrology of the Foothill Ground-Water Basin near Santa Barbara, California. U.S. Geological Survey Water-Resources Investigations Report 89-4017.

FIGURE F3: DISTRICT GROUNDWATER BASIN



6.3.2 Groundwater Management

The Sustainable Groundwater Management Act (SGMA)

The Sustainable Groundwater Management Act (SGMA) took effect January 1, 2015. It requires all groundwater basins designated as medium or high priority by the Department of Water (DWR) Resources to be sustainably managed by the year 2042. The SGMA encourages the formation of local groundwater sustainability agencies for the purpose of implementing the SGMA requirements. Groundwater sustainability agencies can consist of a local agency or combination of agencies that have water supply, water management, or land use responsibilities in the basin. The SGMA empowers groundwater sustainability agencies (GSAs) with certain financial, regulatory, and enforcement abilities but does not allow them to determine water rights.

The SGMA requires the development of groundwater sustainability plans (GSPs). Groundwater sustainability plans must result in “sustainable conditions” in the basin, which are defined by the SGMA as the avoidance of significant negative impacts, such as chronic overdraft, worsening water quality, surface water depletions, sea water intrusion (in coastal basins), and land subsidence. Groundwater sustainability plans require detailed technical information to define the basin and aquifer conditions, including historic and current water supply and use, water quality conditions, and projected water demands.

Although the Montecito Groundwater Basin was not designated as medium or high priority at the time of DWR’s initial evaluation, the Board of Directors voted to voluntarily proceed with SGMA implementation in order to better define and protect what is a critical water supply for the basin. Through the process, water supply, water quality, and water use will be evaluated and, with stakeholder input, a plan to monitor, manage, and protect groundwater will be developed.

As the overlying water purveyor, the District, in accordance with Assembly Bill 3030, manages the groundwater basin within its service area. The District has an approved Groundwater Basin Management Plan (1998) which is included in Appendix J for reference. This plan serves several purposes including; preserving and promoting local control of groundwater, encouraging cooperation among all basin users, and developing information and tools for effective basin management. AB 3030 provisions are largely supplanted by those of SGMA, if conducted.

As mentioned, both private pumpers and the District obtain groundwater from the basin. The amount of groundwater pumped by each of these private well owners or private companies is not accurately known by the District; however, the District is the State appointed groundwater basin manager and has prepared a Groundwater Basin Management Plan which includes the bi-annual monitoring of groundwater elevations throughout the District’s service boundary. The management plan provides for a collaborative relationship between the District and a select number of private well operators that provides data for determining the groundwater supply condition compared to those conditions in times of drought. The implementation of SGMA will provide the District with the tools needed to closely monitor groundwater use and thereby more accurately determine basin balance and yield.

The Groundwater Budget has been identified as Type A by the DWR. The amount of water pumped annually by the District is known, however the amount pumped by private well owners is unknown. Annual natural recharge is approximately 1,614 AFY (Montecito Water 1998). The average annual stream seepage rate is estimated at 764 AFY and the average annual infiltration of rainfall is estimated at 500 AFY. The long-term average subsurface inflow is approximately 250 AFY. The long-term average deep percolation of irrigation water is estimated at 100 AFY (Montecito 1998). Studies and monitoring programs associated with SGMA implementation may provide the information necessary to update and refine basin balance calculations.

6.3.3 Groundwater Level and Water Quality Monitoring

The District conducts a survey of about 70 water wells (consisting of both District owned and private wells) within the District's service boundary twice a year. The survey consists of measuring the static water elevations in wells and converting this data to a water storage level with reference to mean sea level. This data has been collected by the District to continue its efforts in monitoring the groundwater basin and to ascertain groundwater storage conditions within the four defined groundwater storage units District-wide. The collection of data twice a year reflects groundwater conditions following the rainfall/groundwater recharge season (spring) and the groundwater extraction season (fall). The District also coordinates with the United States Geological Survey (USGS) who monitors one of the District's wells.

6.3.4 Metering of Groundwater Pumping

All of the District's production wells (both potable and non-potable) are equipped with meters to quantify the amount of water pumped from the groundwater basin each month. The District maintains production records to track the quantity of water pumped at each District well and uses that information to determine the performance of the groundwater basin.

6.3.5 Groundwater Well Permitting

The Santa Barbara County Environmental Health Services issues groundwater well permits in the District's service area as this area falls within the unincorporated portions of Santa Barbara County.

The District coordinates directly with the Santa Barbara County Environmental Health Services to track newly permitted wells. The District utilizes information obtained from the County to ascertain potential impacts to the groundwater basin and to coordinate with new private well owners to monitor the groundwater levels as a part of the District's groundwater monitoring program.

6.3.6 Conjunctive Use Programs

The District uses its groundwater basin conjunctively with its surface water supplies in accordance with its adopted Groundwater Management Plan. The District's conjunctive use program allows the groundwater basin to recharge in years of above-average precipitation so that groundwater can be extracted in years of below-average precipitation when surface water supplies are below normal.

The District does not currently have a groundwater banking plan within the Montecito groundwater basin due to limited local groundwater/aquifer production and storage capabilities.

6.3.7 Historical Groundwater Pumping

The District currently operates six potable and six non-potable wells in three of the four storage units underlying the District. The potable wells all withdraw groundwater from Storage Unit 3 of the Montecito Groundwater Basin while five of the six non-potable wells withdraw groundwater from Storage Unit 1. There is one non-potable well located in the Toro Canyon Storage Unit.

Historical groundwater production typically ranges between 100 to 450 AFY under normal hydrologic conditions with an increase in production during drought conditions in accordance with the District's conjunctive use programs. Recent groundwater production by District wells is summarized in Table T16 and presented in Table 6-1 in Appendix B.

TABLE T16: SUMMARY OF RECENT GROUNDWATER PUMPING, AFY

Basin Name	2011	2012	2013	2014	2015
Storage Unit 1	114	129	111	68	59
Storage Unit 3	10	135	314	497	528
Toro Canyon Storage Unit	0	15	35	42	50
Total	124	279	460	607	637

Source: District groundwater production records. See also UWMP Table 6-1.

6.3.8 Overdraft Conditions

DWR and the Sustainable Groundwater Management Act (SGMA) identifies groundwater basins and sub-basins in conditions of critical overdraft. Conditions of critical overdraft result from undesirable impacts which can include seawater intrusion, land subsidence, groundwater depletion, and/or chronic lowering of groundwater levels. As defined in the SGMA, "A basin is subject to critical overdraft when continuation of present water management practices would probably result in significant adverse overdraft-related environmental, social, or economic impacts." Basins believed to be critically over drafted were identified in Bulletin-118, 1980 and was updated in 2003 to include the same areas with the revised basin boundaries.

Based on the District's water level monitoring program and State Bulletin 118, the District's groundwater basins are not considered to be in an overdraft condition.

6.3.9 Doulton Tunnel

In addition to the groundwater supplied from the District's basin via wells, the District receives water provided by groundwater infiltration through the Doulton Tunnel.

The Doulton Tunnel is a 2.2-mile long tunnel that conveys surface water from Jameson Lake through the Santa Ynez Mountains to the District.

The Doulton Tunnel infiltration water supply provides approximately 300 to 350 AFY during consecutive years of normal rainfall. Water produced from the tunnel infiltration is commingled with water being conveyed from Jameson Lake. The Doulton Tunnel infiltration water is considered to be groundwater and not subject to the 2,000 AFY limitation on surface water.

SECTION 6.4 URBAN STORMWATER AND GRAYWATER

6.4.1 Urban Stormwater

The communities of Montecito and Summerland, as part of the unincorporated regions of the County of Santa Barbara (COSB), are subject to the COSB Storm Water Management Program (SWMP)⁶. The COSB SWMP has been prepared by COSB pursuant to the State Water Resources Control Board (SWRCB) Water Quality Order No. 2003-005-DWQ National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS0000004 Waste Discharge Requirements for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4). The County's MS4 General Permit covers the area coincident with the District's service area.

The goals of the SWMP are to (1) protect the health of the public and the environment, (2) meet Clean Water Act mandates through compliance with the General Permit requirements and applicable regulations, and (3) to increase public involvement and awareness. The SWMP identifies several water bodies identified as impaired within the South Coast (including Montecito) area. The SWMP describes those Best Management Practices (BMPs) that will reduce, control or eliminate identified pollutants of concern including those listed impaired waterbodies and those identified through local monitoring. (COSB 2012).

In the District's service area, the groundwater that is a part of the District's urban supply is produced from deeper water bearing zones. Due to the hydrogeology of the District's groundwater basins, there are only a few areas where stormwater augmentation may impact the recharge of very shallow low production non-potable wells.

The use of rain barrels and other on-site catchment devices on private property can offset the use of the District water supplies and help preserve potable resources. However, the amount of stormwater captured and used on private property cannot be quantified and is not a water supply managed by the District.

6.4.2 Graywater

Graywater is wastewater that originates from bathroom sinks, showers, tubs and washing machines and excludes wastewater from dishwashers, kitchen sinks and toilets. Graywater is captured at the source (private property) and is used primarily for on-site landscape irrigation.

The requirements for graywater systems fall under the California Plumbing Code, which are enforced by the County of Santa Barbara. The District does not oversee or issue permits for graywater systems. The County of Santa Barbara provides design, implementation, and maintenance guidance for graywater systems on their website. In general, graywater systems over 250 gallons per day or systems serving houses greater than 4 bedrooms must be permitted by the Santa Barbara County Building & Safety Department.

⁶ County of Santa Barbara. 2012. Storm Water Management Program 2009.

While graywater systems can offset the use of the District water supplies and help preserve potable resources, the amount of graywater use on private property is not measured at each household and is not a water supply managed by the District.

SECTION 6.5 WASTEWATER AND RECYCLED WATER

Recycled water supply has the ability to provide additional locally-available and locally controlled water resources. For UWMP purposes, recycled water is considered municipal recycled wastewater, defined as wastewater that has been treated to a specified quality to enable it to be used again. In order to be classified as recycled water, treated municipal wastewater must be beneficially reused in accordance with Title 22 requirements and reused in accordance with Regional Water Quality Control Board (RWQCB) permits such as National Pollutant Discharge Elimination System (NPDES), Waste Discharge Requirements (WDR) or Water Recycling Requirements (WRR).

Potential beneficial uses of recycled water within the District include irrigation of commercial and institutional landscaping, cemeteries, parks, or golf courses. Groundwater recharge and surface water augmentation with recycled water are two forms of indirect reuse that are frequently considered by the District. Increased use of recycled water for potable and non-potable uses would reduce the District's reliance on all sources including SWP, Lake Cachuma, and Jameson Lake supplies.

Common concerns associated with the use of recycled water include:

- Water quality as it relates to the end use; is recycled water suitable for irrigation of agricultural or public parks, groundwater recharge or other reuse;
- Regulatory requirements associated with the end use and potential human contact with the recycled water; and
- Cost of additional treatment beyond levels the treatment plant already must provide.

The District is currently pursuing grant funding for a recycled water feasibility study through the State Water Recycling Funding Program (WRFP). The mission of the Water Recycling Funding Program (WRFP) is to promote the beneficial use of treated municipal wastewater (water recycling) in order to augment fresh water supplies in California by providing technical and financial assistance to agencies and other stakeholders in support of water recycling projects and research. A recycled water feasibility study for Montecito would consider all viable sources and beneficial uses for recycled water within the District and provide an engineering and economic analysis of these alternatives. The goal of the feasibility study would be to identify the most cost effective recycled water project(s) for the District to offset potable water demands.

For long term planning, most recycled water uses within the District would require tertiary recycled water. Recycled water treated to this level can be used with the fewest restrictions and would allow for the greatest use of recycled water. The City of Santa Barbara currently owns and operates a tertiary treated effluent distribution system extending to the Andree Clark Bird Refuge within less than a half-mile from the District service boundary.

In 2015, Dudek completed a study on the feasibility of recharging the Montecito groundwater basin. Key findings of the study noted "there is a limited opportunity to implement a groundwater recharge program with advanced treatment recycled water in the Montecito Groundwater Basin. The historical data shows

that even after extended drought periods there is limited recharge potential in the basin. Furthermore, average or above average precipitation rapidly fills the basin, creating potential risks of liquefaction or increased surface flooding in the context of a recharge program with advanced treated wastewater. An additional obstacle to a recharge program with advanced treated wastewater is the fact that it will be difficult or impossible to achieve state mandated groundwater retention times in the basin. The hydrogeologic units in which the greatest amount of storage capacity is available (Units 1 and 3) contain a high density of water supply wells, such that it would be difficult to find a location for an artificial recharge infiltration basin(s) or injection well(s) that could comply with State mandated subsurface travel times of advanced treated recycled water.” Although indirect potable reuse (IPR) through groundwater recharge in Montecito is limited, the District will continue to consider opportunities for IPR with regional agencies when cost effective opportunities can be identified.

6.5.1 Recycled Water Coordination

The District continues to coordinate with the regional water and sanitation agencies to assess regional recycled water opportunities. As mentioned above, the District is pursuing grant funding for a recycled water feasibility study through the State Water Recycling Funding Program (WRFP) and will collaborate with interested regional sanitary and water districts to promote regional recycled water projects.

6.5.2 Wastewater Collection, Treatment, and Disposal

There are two independent special districts located within the District’s service boundary that provide wastewater collection, treatment and disposal. The Montecito Sanitary District (MSD) provides wastewater collection, treatment and disposal services within the areas of Montecito while the Summerland Sanitary District (SSD) serves the community of Summerland. In addition, a very small portion of wastewater generated inside the District’s service area along Coast Village Road is served by the City of Santa Barbara with that wastewater conveyed to the City’s El Estero Wastewater Treatment Plant.

Montecito Sanitary District

The Montecito Sanitary District (MSD) is an independent special district voted into existence in 1947, by the residents of Montecito to provide for the collection, treatment and disposal of wastewater. In 1961, the District constructed a secondary level wastewater treatment plant capable of processing 750,000 gallons per day, including ocean outfall (located 1,500 feet offshore) and trunk sewer system. Twenty years later, voters approved \$3.1 million in revenue bonds to incorporate new technology, double the plant’s capacity to 1.5 million gallons per day, implement more stringent testing procedures and provide emergency power. The Montecito Sanitary District’s mission has always been “to protect public health and safety and to preserve the natural environment through the collection, treatment and disposal of wastewater in the most cost-effective way possible.” The Montecito Sanitary District provides service to approximately 10,000 people through 3,100 service connections. It maintains approximately 78 miles of sewer pipelines and four pumping stations. The Montecito Sanitary District’s collection system is predominantly vitrified clay pipe with some areas of polyvinyl chloride pipe and asbestos cement pipe⁷.

⁷ Per MSD website <http://montsan.org/index.php/history>

Summerland Sanitary District

The Summerland Sanitary District (SSD) is an independent special district which was voted into existence by the citizens of Summerland in 1957. The SSD provides wastewater collection, treatment and disposal for approximately 10% of the District's service area. The Summerland Sanitary District operates and maintains more than eight miles of sewer pipelines and three pumping stations, a 0.3 million gallon per day tertiary treatment plant, a 12-inch diameter ocean outfall extending 740 feet into the Pacific Ocean. The treatment plant was originally designed and constructed as a conventional activated sludge treatment process, however in 1991 the Summerland Sanitary District upgraded to a tertiary treatment facility.

In 2015, the SSD treated approximately 88 AF of wastewater which was discharged through their ocean outfall.

City of Santa Barbara

The City of Santa Barbara operates a wastewater collection system consisting of 251 miles of sewer pipe and 7 lift stations. The City of Santa Barbara owns and operates the El Estero Wastewater Treatment Plant (EEWTP), which has a design capacity of 11 MGD. EEWTP is an 8 million gallons per day, secondary treatment facility, equipped with a 4.3 million gallons per day tertiary treatment facility for recycled water. EEWTP provides wastewater collection and treatment for approximately 3% of the District's service area along Coast Village Road.

Construction of El Estero was completed in 1979, providing secondary treated wastewater. Secondary treatment uses a biological process (activated sludge) to convert dissolved or suspended solid materials into a form more readily separated from the water being treated. In 1987, the City continued upgrading EEWTP with the construction of a tertiary treatment facility to provide recycled water for irrigation. The City's Recycled Water Project was developed in two phases. Phase I was completed in July 1989, and Phase II was completed in May 1991. In October 2015, the City began distributing recycled water from the newly constructed tertiary treatment facility. The tertiary treatment facility uses ultrafiltration technology to supply recycled water to parks, schools, commercial landscapes, golf courses, public restrooms, thereby freeing up potable water for other uses in the City.

Secondary effluent that does not go through the tertiary treatment process is discharged to the Pacific Ocean.

6.5.3 Recycled Water System

At this time, there are no District owned or operated recycled water projects within the District's service boundary. However, the District is in discussions with multiple regional agencies and pursuing State grant funding to explore the feasibility of using recycled water within the District to offset potable water demand.

6.5.4 Actions to Encourage and Optimize Future Recycled Water Use

As discussed in Section 4.7, the District is currently pursuing State grant funding opportunities to complete an updated recycled water feasibility study specifically for the District's service area. Previous recycled water studies are out of date and require updated economic analysis and engineering alternatives

analysis. The purpose of an updated Study will be to determine feasible alternatives and associated costs for implementing recycled water projects within the District's service boundary.

SECTION 6.6 DESALINATED WATER OPPORTUNITIES

Desalinated water opportunities on the south coast of Santa Barbara County began with the construction of the City of Santa Barbara Charles E. Meyer desalination facility built between 1990 and 1992 as an emergency drought water supply during the 1987-1992 drought. The City desalination facility was initially built as a regional water supply under an emergency State permit to provide an emergency water supply to the City, Montecito Water District and the Goleta Water District. The desalination facility was fully owned by the City with the participation of the two districts by water purchase agreements. Neither district had any controlling interest in the City's facility.

The 1987-1992 drought ended in 1992 with local surface water supplies restored and able to meet customer demands. The City, along with the Montecito and Goleta Water Districts, jointly decided to place the facility into long-term standby mode for the five year operational contract period ending in 1997. In 1996, the City approached each district with an invitation to remain a participant in its desalination facility, but due to the near completion of the State Water Project coastal aqueduct resulting in State water deliveries to Santa Barbara County, both districts declined.

In 1996, the City continued to incorporate the desalination facility as a part of its long term water supply and completed the necessary work for the issuance of long term permanent operating permits with the State. Though the facility was not being operated and by the year 1998 was removed from service, the City maintained the right for the use of the desalination facility up to an annual capacity of 10,000 AFY.

Due to the severity of the present drought, the District began a two-prong approach to re-establishing desalinated water as part of its emergency water supply efforts. Beginning in 2014, the District began discussing the use of the City's permitted desalination facility with the City and also embarked upon the feasibility of building of its own desalination facility. The District completed a feasibility analysis of developing its own desalinated water supply. A draft report titled, Conceptual Desalination Feasibility Study, was completed and submitted to the District Board of Directors at a public meeting in November 2014. The report showed that building a Montecito desalination facility was feasible and work was authorized by the Board to continue the development of a desalination facility for Montecito. Further discussions with the State regulatory agencies regarding permitting along with desalination ocean intake and discharge constraints, timelines, and other reasons showed that the possibility of constructing and funding a Montecito desalination facility within a reasonable timeframe to alleviate water supply shortages was not achievable.

The District, as part of its efforts to increase water supplies, continued its discussions with the City on participating in the scheduled reactivation of the City's desalination facility. The City, by the approval of its City Council, approved a contract to reactivate the Charles E. Meyer desalination facility in August 2014 as an emergency water supply utilizing the best available technology. The initial construction phase will provide up to 3,125 AFY of supply.

The District is actively pursuing negotiations on a new water supply agreement with the City.

SECTION 6.7 EXCHANGES OR TRANSFERS

6.7.1 Exchanges

Water stored in Lake Cachuma by the South Coast and Santa Ynez Water Districts provides a potential opportunity for water trades and exchanges. Lake Cachuma project exchanges were initiated during the construction of the SWP coastal aqueduct between 1991 and 1997. In order to reduce cost to the south coast agencies, an exchange agreement was executed between the four south coast agencies and SYWCD (ID1). The exchange agreement provided the four south coast member agencies with the ability to deliver State water through the ID1 pipeline that was previously used to deliver Lake Cachuma project water to ID1. In return, the south coast agencies provide ID1 with a portion of their annual SWP allocation by delivering State water to ID1 at the ID1 turnout. For the District, this translates to an annual Cachuma project added allocation of 616 AF.

A large component of the District's water supply is its State Water Project annual water allocation of 3,300 AFY, which includes a 300 AF drought buffer. As a State Water participant, the District, through the Central Coast Water Authority, is pursuing dry water year purchases and transfer programs that augments the DWR annual allocation percentage. During dry years, the District's supply of State Water can drop as low as five percent of its allocation, which occurred during the most recent multi-year drought. To offset this loss of supply and provide for water during dry years, the District is participating in water banking programs created by CCWA when State Water annual water allocations are in excess of the District's annual water supply needs. The banking programs however are built upon un-even exchanges where in some programs for every two acre-feet of water banked will result in one acre-feet of delivered water.

6.7.2 Transfers

The District is obligated to transfer 300 AF on an annual basis for the purchase of the Juncal Dam property in 1927. In the past, the District physically delivered water to the City but with the building of the Cachuma Project, the District now has the ability to execute this transfer as a credit.

SECTION 6.8 FUTURE WATER PROJECTS

The District is currently implementing or is in the process of developing long-term programs and/or projects to meet future water supply needs. These programs and projects are listed below.

- Demand Reduction/Conservation Program – the District will continue to implement a cost-effective water conservation program in accordance with the CUWCC BMPs.
- Groundwater Management – the District will develop a Groundwater Sustainability Plan in accordance with the 2014 Sustainable Groundwater Management Act.
- Groundwater Banking – the District will pursue local and State wide groundwater banking programs to bank water during wet years to meet dry year demands and increase water supply reliability.

- Recycled Water Use – the District will continue to study the feasibility of using recycled water from within the District and neighboring agencies to offset potable water demand within the District’s service area.
- Desalination Facility – desalinated water is a sustainable and local water supply capable of buffering drought and emergency periods. The District will continue to assess the feasibility of constructing a District owned desalination facility and continue discussions with the City of Santa Barbara to negotiate a long-term Water Supply Agreement for imported/purchased water from the City resulting from the Charles E. Meyer desalination facility.

SECTION 6.9 SUMMARY OF EXISTING & PLANNED SOURCES OF WATER

As noted in Table T17, the 2015 supply volume reflects the estimated supply available during normal/average water supply years without adverse water supply limitations caused by drought conditions. The actual available water supply in 2015 was substantially lower than the values shown due to the fifth year of exceptional drought conditions.

The following Table T17 (UWMP Table 6-9) provides a summary of existing and planned sources of water over the planning period assuming normal long-term average supply conditions.

The District is committed to achieving 85% local, reliable drought proof supplies by 2025 to include District groundwater, Doulton tunnel infiltration, locally or regionally imported/purchased water, local or regional banked water, and recycled water. The following provides a description of each water supply source (both existing and planned) under normal water/hydrologic conditions for the period of 2020 to 2035 as shown in Table T17.

TABLE T17: EXISTING AND PLANNED WATER SOURCES AND VOLUMES – NORMAL CONDITIONS

Source of Supply	Estimated Available Volume in Normal Water Years				
	2015 (Normal) ^[1]	2020	2025	2030	2035
State Water Project / CCWA	2,015	2,001	1,987	1,973	1,958
Lake Cachuma (Cachuma Project)	2,651	2,618	2,585	2,552	2,518
Jameson Lake	1,500	1,485	1,470	1,455	1,440
Fox Creek Diversion	0	0	0	0	0
Alder Creek Diversion	0	0	0	0	0
Doulton Tunnel Infiltration	320	320	320	320	320
Groundwater Wells	250	250	250	250	250
Stormwater	0	0	0	0	0
Recycled Water ^[2]	0	200	1,000	1,000	1,000
Desalination	0	0	0	0	0
Supply from Storage (Banked) ^[3]	0	500	1,000	1,000	1,000
Supplemental Water Purchase	0	0	0	0	0
Imported/Purchased Supply ^[4]	0	1,250	1,250	1,250	1,250
Total Potable Supplies	6,736	8,624	9,862	9,800	9,737
Santa Barbara Transfer per Juncal Agreement	-300	-300	-300	-300	-300
Potable Supplies Available for Demand	6,436	8,324	9,562	9,500	9,437
Projected Demand	-	-4,764	-4,783	-4,802	-4,822
Available Safety Margin	-	3,560	4,779	4,697	4,615

[1] Supplies shown in 2015 are not actual supplies available in 2015. Supplies shown for 2015 are for reference only to represent current available supplies (not including future/planned water supplies) under normal water supply conditions.

[2] Recycled water supply represents future projected supply.

[3] Supply from Storage (Banked) represents projected supply available from banked excess normal/wet year water supplies in local and/or regional groundwater banks. District policy is to reserve/bank excess water available during normal/average conditions for use in future years where the available supply is diminished by drought conditions.

[4] Supply from Imported/Purchased supply represents projected supply provided from new Water Supply Agreement with City. Additionally, supplies could also include local or regional groundwater or surface water purchased from regional agencies.

State Water Project / CCWA

Water supply projections for this source are based on the Central Coast Water Authority's (CCWA) determination of the long-term annual average delivery of the District's State Water Project Table A allocation. The District's full allocation to State Water is 3,300 AFY, which includes a 300 AFY share of the drought buffer maintained for contractors by CCWA to enhance the reliability of State Water during shortages. As reported by the CCWA in their 2015 UWMP, it is estimated that the District would receive allocations shown in Table T17 above, which range from approximately 59% to 61% of its full allocation under long term average conditions.

Lake Cachuma (Cachuma Project)

Lake Cachuma is an open surface water reservoir owned and operated by the United States Bureau of Reclamation (USBR) receiving water from the Santa Ynez River watershed. Water from Lake Cachuma is allocated in differing proportions to the five participating water agencies (Member Units) on the South Coast. The District's proportionate share of the Cachuma water supply is 10.3%.

The Cachuma Project operates under a permit granted by the California State Water Resources Control Board (SWRCB). The current Water Right Order 94-5 continued earlier requirements for water releases to protect downstream interests including the City of Lompoc, Santa Ynez River Water Conservation District - Improvement District No. 1 and riparian groundwater pumpers located along the Santa Ynez River. This Order required hearings in 2002 and 2003 to address outstanding issues related to potential project impacts on vegetation, fish and downstream users. The hearings and Environmental Impact Report were completed in 2011, however the draft water rights order has not yet been released by the SWRCB. This new order could have significant negative impacts on future allocations for the District and Cachuma Member Units.

The USBR and the Cachuma Project Member Units have developed revisions to the Project operations since 1993 to improve habitat conditions for steelhead trout while still maintaining water supplies. In 2000, the National Marine Fisheries Service (NMFS) issued a Biological Opinion for USBR's operation and maintenance of Bradbury Dam (the Cachuma Project). NMFS is the agency within the Department of Commerce that oversees protection of Southern California steelhead trout. The 2000 Biological Opinion addressed the effects of Cachuma Project operations on steelhead and its designated critical habitat in accordance with Section 7 of the Endangered Species Act of 1973. In 2014, the NMFS and USBR formally initiated reconsultation of the Biological Opinion. An updated Biological Opinion could also have negative impacts on future water supplies for the Member Units.

The District's available supply from Lake Cachuma during years of normal rainfall is 2,651 acre-feet per year. As shown in Table T17 above, it is estimated that this reservoir will continue to lose storage capacity due to sedimentation and therefore the District's full allocation of 2,651 AFY is estimated to decrease by approximately five percent over the twenty year planning period. As previously mentioned, an updated Biological Opinion could also impact the amount of water deliveries to the District from Lake Cachuma.

Jameson Lake

Jameson Lake is an open surface water reservoir owned and operated by the District. The current capacity of the lake, based on a bathymetric survey completed in 2013 is approximately 5,144 acre-feet.

The actual annual diversion of water from this water supply is determined prior to the start of the water year which is dependent on lake water storage level and is based on the operation rule curve included in the 2005 Water Supply Optimization Plan (WSOP).

The Jameson Lake annual diversion maximum, along with all its Santa Ynez diversions is 2,000 AFY as defined by the 1933 California Supreme Court Gin Chow decision, and re-affirmed by the Court in the 1998 Jordan decision.

Per the WSOP, the long-term average yield of Jameson Lake is approximately 1,500 AFY. Therefore, it is estimated that the current annual average supply from this source under normal hydrologic conditions is 1,500 AFY. As noted above, Jameson Lake storage is diminishing due to sedimentation. Therefore, the projected long term average yield of Jameson Lake has been reduced by four percent over the twenty year planning period, which was determined using actual bathymetric survey data from 1998 and 2013.

Fox Creek Diversion & Alder Creek Diversion

Fox and Alder Creeks are tributaries of the Santa Ynez River located in the upper reaches of the Santa Ynez River between the Juncal campground and Jameson Lake. District diversion operations were revised in the late 1990's to address and mitigate potential impacts caused by its diversion activities to newly listed species under the Endangered Species Act. The District has subsequently modified the diversion collection systems to provide for continuous bypass flows downstream of the diversion dam.

These changes have reduced the combined yield of these two sources to only divert excess flows during periods of significant rainfall.

These tributaries are not considered significant water sources for the District and therefore are not projected to provide a quantifiable supply to the District over the planning period.

Doulton Tunnel Infiltration

The Doulton Tunnel infiltration water supply is dependent on rainfall and provides approximately 300 to 350 AFY during consecutive years of normal rainfall. For these projections, it is estimated that this source will provide approximately 320 AFY under normal hydrologic conditions which is representative of the actual production from this source in the calendar year 2009 which had near average rainfall conditions.

Groundwater Wells

The District currently operates six potable and six non-potable wells in three of its four groundwater storage units underlying the District. As previously noted within this report, the District reduces production from the groundwater basin during normal hydrologic periods to allow the basin to recharge which then allows for increased production during times of drought when other District sources are diminished.

Therefore, the projected production from this source under normal hydrologic conditions is estimated to be approximately 250 AFY, which is representative of actual production from the groundwater basin in 2009 which had near average rainfall conditions.

Stormwater

Due to the hydrogeology of the District's groundwater basins, District historical observations indicate that there are only a few areas where stormwater augmentation may impact the recharge of very shallow low production non-potable wells.

The use of rain barrels and other on-site catchment devices on private property can offset the use of the District water supplies and help preserve potable resources. However, the amount of stormwater

captured and used on private property cannot be quantified and is not a water supply managed by the District.

Therefore, supply from this source is not projected to provide a quantifiable supply to the District over the planning period.

Recycled Water

There have not been any recycled water deliveries within the District's service area to date, therefore, the quantity of recycled water for 2015 is zero. However, the District is pursuing grant funding for a recycled water feasibility study through the State WRF to determine the feasibility of regional and local recycled water opportunities. The District estimates 200 AF of recycled water could be delivered to District customers by 2020 and a total of 1,000 AF in deliveries by 2025. This value assumes recycled water will become available from a local or regional water or sanitary district. Depending on the results of further study, these quantities may change.

Desalination

As previously noted, the District conducted a feasibility study in October 2014 related to incorporating desalinated water into its water supply. At the time, preliminary analyses indicated that a District owned desalinated water supply may not be economically feasible. However, depending on improved future economics of desalination facility construction and the result of current desalinated water negotiations with the City of Santa Barbara, the District may choose to pursue a District owned desalination facility in the future.

Supply from Storage (Banked)

Under normal hydrologic conditions with above average SWP allocations and Cachuma/Jameson deliveries, the District will have sufficient supply to meet annual demands. However, as previously stated, the District has set a goal of developing local and reliable supplies moving forward to decrease District dependence on rainfall dependent supplies such as the SWP and regional reservoirs. In order to achieve the goal of 85% local, reliable water supplies by 2025, the District plans to bank excess normal/wet year water supplies in local and/or regional groundwater banks for use during extended future dry periods.

The District plans to create locally and regionally banked storage supplies of 3,000 AF by 2020 and 7,000 AF by 2025. These quantities will help the District achieve the local, reliable supply goal of 85% by 2025. The District will investigate the possible use of available south coast groundwater aquifers for potential groundwater recharge/banking programs. Excess SWP water supplies, Lake Cachuma allocations, Jameson Lake water, or supplemental water in excess of demands would be stored in a local aquifer and extracted or exchanged when needed during dry periods.

Supplemental Water Purchase

Under normal hydrologic conditions, the District may choose to use supplemental water purchases to meet annual demands. Supplemental water purchases are limited by the delivery infrastructure of the SWP and potential losses/spills associated with San Luis Reservoir and Lake Cachuma. Additionally, supplemental water purchase agreements include the return conditions of this water debt which often

dictate the return period and other conditions that must be met. Supplemental supplies are not part of the District's plan to develop local, reliable supplies. However, supplemental water may be necessary to replenish banked supplies if above average rainfall does not occur for an extended period of time.

Imported/Purchased Supply

The District is actively pursuing negotiations on a new water supply agreement with the City. The WSA includes 1,250 AF per year of water to be delivered from the City of Santa Barbara to the District. The water source for this water is at the discretion of the City of Santa Barbara and therefore is labeled "imported/purchased supply" as opposed to water sourced directly from the reinstated Charles E. Meyer desalination facility owned and operated by the City. Current negotiations estimate this supply will come online in late 2018 or early 2019, therefore, the District has included 1,250 AF of water supplied from this source for 2020 and beyond. Additionally, imported/purchased supplies could also include local or regional groundwater or surface water purchased from regional agencies.

SECTION 6.10 CLIMATE CHANGE IMPACTS TO SUPPLY

In accordance with the County of Santa Barbara 2015 Energy and Climate Action Plan (ECAP), the District will continue to comply with climate change policies aimed at long-term water supply sustainability. The State's water supply system already faces challenges to provide water for California's growing population. Climate change is expected to exacerbate these challenges through increased temperatures and possible changes in precipitation patterns. The trends of the last century, especially increases in hydrologic variability, will likely intensify in this century. The State can expect to experience more frequent and larger floods and deeper droughts. Rising sea level will threaten the Delta water conveyance system and increase salinity in near-coastal groundwater supplies. Planning for and adapting to these simultaneous changes, particularly their impacts on public safety and long-term water supply reliability, will be among the most significant challenges facing water and flood managers this century.

CHAPTER 7 WATER SUPPLY RELIABILITY ASSESSMENT

This section describes the reliability of the District's water supply and projects the reliability of the water supply over a 20-year planning period for normal, single dry years and multiple dry years.

SECTION 7.1 CONSTRAINTS ON WATER SOURCES

The reliability of any given water supply depends on many factors such as, among others, climatic conditions, a dependable water distribution system, and the ability to withstand earthquakes and other emergencies. Public agencies that secure a variety of water supplies and develop contingency measures for short and long-term supply shortages enhance the reliability of their water system by doing so. Reliability planning requires information about (1) the expected frequency and severity of shortages; (2) how additional conservation and water management measures are likely to affect the frequency and severity of shortages; and (3) how available contingency measures can reduce the impact of shortages when they occur.

The District's water sources and their individual constraints are described in detail in Section 6. The primary constraint on availability of water supplies has been exceptional drought conditions which primarily impact surface and groundwater supplies. In addition to an overall reduction in surface water supplies during multiple dry year conditions, the water quality of the region's open-air reservoirs can also be adversely affected during these extended periods of drought.

SECTION 7.2 RELIABILITY BY TYPE OF YEAR

The Water Conservation Act (the Act) requires that UWMPs include a description of the reliability and vulnerability to shortages of the water supply during:

- An average (or normal) water year
- A single critical dry water year
- Multiple dry water years

The diversity of the District's water supply is an important factor in evaluating the reliability of the water supply available to the District. The District primarily relies upon Lake Cachuma and Jameson Lake for supply during normal years, with supplemental water provided by the State Water Project during periods consisting of multiple dry years. The District also relies upon limited groundwater production to augment demands in both normal and dry years.

The District has long recognized the importance of assuring reliable service to its customers. Maintaining a diverse portfolio of water sources, each with unique and independent vulnerabilities to short-term water shortages is paramount to this reliability. It is also important to provide an ongoing water supply "buffer" or "bank" to account for the possibility of multiple dry years. Faced with the probability of future droughts or water shortages that could diminish its water supplies, the District has spent many years and made a substantial investment in acquiring different types of supplemental water sources when required to be used to augment its existing supplies. The District has set a goal of increasing local, drought-proof water supplies to include rainfall independent sources such as desalinated water, groundwater banking

and recycled water. The estimated quantities of these sources are included in this water reliability assessment.

The primary constraint on availability of water supplies has been exceptional drought, with which the District has a long history of experience. The degree of vulnerability to drought of each of the District's sources of water depends on the length and severity of a drought, and on whether water shortages are localized or Statewide. Local reservoirs are optimally managed in order to equalize years of surplus and years of shortage.

Lake Cachuma, for example, is a large surface water reservoir owned and operated by USBR that was designed to provide a reliable water supply for a seven year drought period. The seven year drought operating scenario was based on the critical drought period between 1947 and 1951. The current drought has shown that the Cachuma supply is not able to provide water for a seven year drought period, with this supply for the first time in its operating history providing no annual water allocation to any of the south coast water agencies beginning with the 2015/16 water year. The substantial increase in south coast water demand and severity of the drought with no reservoir recharge is expected to change the previous reliability assessment of this water supply.

Jameson Lake, owned and operated by the District, is much smaller than Lake Cachuma and is operated based on a rule curve created to maximize water supply deliveries during an extended drought. The rule curve and diversion was based on the Santa Ynez River model during the critical drought year period 1947-1951. Jameson Lake in this current drought has also undergone significant and adverse storage changes since it last spilled in the spring of 2011. Jameson Lake, with a 19 square mile watershed, recharges quickly with the onset of heavy rains, but the reliability and the current annual diversion rule curve is being re-examined in light of the current exceptional drought and its effect on the Santa Ynez River water supplies.

The State Water Project (SWP), as with most other sources of water, also cannot be expected to provide full contractual allocations in all years. This is particularly true during droughts or when operational problems occur with the SWP system. As with the District's local surface water supplies, the SWP water supply is dependent on the level of precipitation and the snowpack conditions in northern California, which since the inception of SWP deliveries can vary from a high of 100 percent to a low of 5 percent of the Table A volume in any single year.

The Sacramento-San Joaquin Delta is a significant part of the system that supplies water to SWP water contractors south of the Delta. A group of State and federal resource agencies known as CALFED developed a program to restore the Delta's ecosystem and reliability as a water source. The result of CALFED's multi-year planning process was a Programmatic Record of Decision that identified new conveyance facilities, water demand reduction programs and varying levels and locations of water storage to improve the reliability of the SWP, improve water quality and enhance the environment.

More recently, and as a result of on-going discussions within the Department of Water Resources (DWR) and the Bay Delta Planning Commission, SWP water supply reliability is established in regular updates. The most recent update, the *State Water Project Delivery Capability Report 2015 and Appendices* (DWR, 2015), is the most recent report establishing SWP planning and reliability conditions for all its contracting agencies. In addition to the reliability reports, DWR enacted the Water Conservation Act of 2009 (SBX7-7), which is a demand-side solution to water reliability. The DWR's SWP Delivery Capability Report,

produced biennially, and provides the maximum annual water delivery amounts that each SWP contractor under normal or drought scenarios can expect identified as “Table A” deliveries. Table A is the table of contract amounts allocated to each contractor. The Delivery Capability Report identifies the percentage of the Table A value that can be expected during the different scenarios.

The CCWA Operating Committee recognizes that each of the CCWA project participants, including the District, has multiple sources of supplies, and that the SWP is only one of those sources. It is the responsibility of the District to determine the best way to utilize each available source. CCWA relies on the effective management of each retailer for an accurate prediction of demands on its supplies and efficient use of its Table A allocations from year to year. The supply capacities presented in Table T14 represent various hydrologic conditions including worst-case scenarios, but do not consider a number of reliability measures that can be implemented by the District. These measures include the availability of surplus water (also known as “Article 21” water), water transfers, exchanges, non-project purchases, turn back pools and groundwater banking.

On behalf of its participating retail water agencies, including the District, CCWA reported the single- and multiple-dry year water availability of their SWP entitlements based on the DWR Capability Report and is as part of their 2015 UWMP. CCWA is required to provide an analysis of the reliability of SWP water expected to be available to each of its retailers and provide a report of this analysis to each retailer for inclusion in their respective UWMPs. The amount of SWP water estimated to be available to the District over the course of the 20-year planning period for the required drought conditions is summarized in Table T14.

As noted above, an extended multiple year drought period is the condition that provides the biggest challenge to reliability. This is discussed in detail in Section 7.3 Supply and Demand Assessment.

SECTION 7.3 SUPPLY AND DEMAND ASSESSMENT

The District has taken significant steps in recent years to assure a reliable supply of water for its customers. The District secured allocations to State Water Project supply, through the Central Coast Water Authority, and began receiving SWP imported water in 1998, which has boosted the District’s available supplies and enhanced its ability to meet current and future demands.

In addition to the delivery of State Water Project water, the District has analyzed water demand and supply, and established reasonable meter use factors to estimate water demands at future population projections. The factors are used to evaluate the demands throughout the 20-year planning period based on the SBCAG growth projections.

Drought can further impact the District’s ability to provide sufficient water to its customers. The District’s various planning tools include the 2005 Water Supply Optimization Plan (WSOP) in combination with this UWMP update which focuses on providing 85% of its supply from reliable local sources by 2025.

The WSOP recommendations, which have been implemented by the District, include:

- Modification of Jameson Lake operating procedures to maximize reservoir yield and preserve storage during droughts for higher-elevation customers that cannot be served by alternate District sources.

- Storing the unused portion of the District's imported surface water supplies during wet years for use during drought years.
- Reduce groundwater pumping during wet or normal rainfall periods for recharge of the groundwater basin.
- Establishing either local or remote groundwater storage banks that store unused District water for periods when supplemental water supplies are needed to meet dwindling local surface water conditions.
- Negotiating with the other South Coast water agencies on optimizing local groundwater and shared surface water supplies, implementation of temporary, emergency water supply alternatives such as desalination during extended drought periods.
- Participation in dry year water supply purchases and water transfer programs offered through State Water contractors.
- Developing a water conservation plan which includes several of the established Demand Management Measures of the UWMP Act, such as public education and awareness to encourage reduction of usage during drought periods, conservation pricing, establishing the position of conservation coordinator, and overall reduction in per-capita water use.

Using both the previously implemented recommendations from the WSOP in combination with District planned water supply projects, the following supply and demand assessments were completed to analyze the District's existing and planned water supplies over the twenty year planning period under various hydrologic conditions.

7.3.1 Single Critical Dry Year

The first hydrologic condition examined is a single critical dry year, being the single driest year potentially occurring during a multi-year drought, which represents a worst-case supply scenario. Table T18 below contains a summary of the District's existing and planned water sources under this single critical dry year scenario for the planning period. For more detailed information on each source, see Section 6.9. The following provides a brief discussion on the Single Critical Dry Year supply assumptions.

TABLE T18: SINGLE CRITICAL DRY YEAR SUPPLY AND DEMAND

Source of Supply	Single Critical Dry Year			
	2020	2025	2030	2035
State Water Project / CCWA	165	165	165	165
Lake Cachuma (Cachuma Project)	0	0	0	0
Jameson Lake	350	350	350	350
Fox Creek Diversion	0	0	0	0
Alder Creek Diversion	0	0	0	0
Doulton Tunnel Infiltration	160	160	160	160
Groundwater Wells	640	640	640	640
Stormwater	0	0	0	0
Recycled Water ^[1]	200	1,000	1,000	1,000
Desalination	0	0	0	0
Supply from Storage (Banked) ^[2]	2,299	1,518	1,537	1,557
Supplemental Water Purchase	0	0	0	0
Imported/Purchased Supply ^[3]	1,250	1,250	1,250	1,250
Total Potable Supplies	5,064	5,083	5,102	5,122
Santa Barbara Transfer per Juncal Agreement	-300	-300	-300	-300
Potable Supplies Available for Demand	4,764	4,783	4,802	4,822
Projected Demand	-4,764	-4,783	-4,802	-4,822
Supply Satisfies Demand (Yes / No)	Yes	Yes	Yes	Yes

[1] Recycled water supply represents future projected supply.

[2] Supply from Storage (Banked) represents projected supply available from banked excess normal/wet year water supplies in local and/or regional groundwater banks

[3] Supply from Imported/Purchased supply represents projected supply provided from new Water Supply Agreement with City. Additionally, supplies could also include local or regional groundwater or surface water purchased from regional agencies.

The following provides a description of each water supply source (both existing and planned) under a single critical dry year condition “worst case” for the period of 2020 to 2035 as shown in Table T18 above.

State Water Project / CCWA

Water supply projections for this source are based on the Central Coast Water Authority’s (CCWA) determination of the available delivery of the District’s State Water Project Table A allocation for the single driest year. The District’s full allocation to State Water is 3,300 AFY, which includes a 300 AFY share of the drought buffer maintained for contractors by CCWA to enhance the reliability of State Water during shortages. As reported by the CCWA in their 2015 UWMP, it is estimated that the District would receive a five percent allocation under a worst case delivery scenario as shown in Table T18 above. It should be noted that this low five percent allocation is what was actually allocated to the District in 2014.

Lake Cachuma (Cachuma Project)

The District's available supply from Lake Cachuma during years of normal rainfall is 2,651 acre-feet per year. Due to the regional dependence on this source, it is estimated that there will be no allocation water available during a single critical dry year. It should be noted that in the 2015/16 water year the District's actual allocation was 0 AFY.

Jameson Lake

As noted previously, the District relies upon the operational rule curve published in the WSOP to determine the annual diversion from Jameson Lake. During a single critical dry year, diversions are estimated to be at the minimal diversion amount as shown in Table T18 above. It should be noted that the amount of water estimated for the single critical dry year is representative of the actual amount diverted in 2015.

Fox Creek Diversion & Alder Creek Diversion

These tributaries are not considered significant water sources for the District and therefore are not projected to provide a quantifiable supply to the District over the planning period, especially during the single critical dry year.

Doulton Tunnel Infiltration

For these projections, it is estimated that this rainfall dependent source will see a reduction in supply and will provide an amount as shown in Table T18. It should be noted that the amount of water estimated for the single critical dry year is representative of the actual amount diverted in 2015.

Groundwater Wells

The projected production from this source under the single critical dry year condition is estimated to increase over that shown during a normal year as shown in Table T18 in accordance with the District's conjunctive use program. It should be noted that the amount of water estimated for the single critical dry year is representative of the actual amount of groundwater produced in 2015.

Stormwater

Supply from this source is not projected to provide a quantifiable supply to the District over the planning period, especially during the single critical dry year.

Recycled Water

As previously discussed, the District estimates 200 AF of recycled water could be delivered to District customers by 2020 and 1,000 AF by 2025. This will be achieved in collaboration with local and regional water and sanitary districts. Depending on the results of further study, these quantities may change.

Desalination

As previously discussed, the District conducted a feasibility study related to incorporating desalinated water into its water supply and it was not economically feasible at the time. However, depending on improved future economics of desalination facility construction and the result of current desalinated water negotiations with the City of Santa Barbara, the District may choose to pursue a District owned desalination facility in the future. Therefore, there is no supply anticipated to be provided from this supply during the single critical dry year.

Supply from Storage (Banked)

This source of local, reliable water will be a primary water supply for the District during the single critical dry year, making up approximately half of the 4,800 AF of projected future demand. Under these conditions, the District will use local, reliable, rain-independent supplies from wet/normal year banked storage to meet dry year demands. This approach will decrease District dependence on SWP allocations and regional reservoirs, which are very low during the single critical dry year. The District will draw on locally banked storage supplies to the extent required to meet annual demands during the single critical dry year. These quantities will help the District achieve the local, reliable supply goal of 85% by 2025. The District will investigate possible use of regional and local groundwater aquifers for potential groundwater recharge/banking programs. Excess District SWP water supplies, supplemental purchases, or other excess allocations would be stored in a local aquifer and extracted or exchanged when needed during the single critical dry year.

Supplemental Water Purchase

During the single critical dry year, the District does not plan to use supplemental water purchases to meet annual demands. Supplemental water purchases are limited by the delivery infrastructure of the SWP and potential losses/spills associated with San Luis and Lake Cachuma. Additionally, supplemental water purchase agreements include the return conditions of this water debt which often dictate the return period and other conditions that must be met. Supplemental supplies are not part of the District's plan to develop local, reliable supplies. However, supplemental water may be purchased during wet/normal years and banked in local groundwater, if this option is economically beneficial, and extracted or exchanged during dry periods.

Imported/Purchased Supply

The District will rely on 1,250 AF of imported/purchased supply during the single critical dry year. The water source for this imported water will include local or regional groundwater or surface water purchased from regional agencies or water supplied by the City of Santa Barbara through the WSA related to their desalination facility. If the water is from the City through the new desalination facility WSA, the water source is at the discretion of the City of Santa Barbara and therefore is labeled "imported/purchased supply" as opposed to water sourced directly from the reinstated Charles E. Meyer desalination facility owned and operated by the City.

Current negotiations estimate this supply will come online in late 2018 or early 2019, therefore, the District has included 1,250 AF of water supplied from this source for 2020 and beyond. Future supplies

from this source may increase depending on the future expansion of the City desalination facility and District's desire to acquire more of this supply. Any expansion of this supply source will increase the reliability of District supplies.

7.3.2 Multiple Dry Years

The second hydrologic condition examined is a multiple dry year condition which represents three consecutive dry years over the planning period. Table T19 below contains a summary of the District's existing and planned water sources under multiple dry year scenario for the planning period.

For this analysis, the years 2013 through 2015 were used as a base for determining available supplies. These years were selected because the years of 2013 through 2015 were the three driest consecutive years on record for Santa Barbara County dating back to 1900.

TABLE T19: MULTIPLE DRY YEAR SUPPLY AND DEMAND

Source of Supply	Dry Year 1				Dry Year 2				Dry Year 3			
	2020	2025	2030	2035	2020	2025	2030	2035	2020	2025	2030	2035
State Water Project / CCWA	648	652	656	660	648	652	656	660	648	652	656	660
Lake Cachuma (Cachuma Project)	2,618	2,585	2,552	2,518	1,178	1,163	1,148	1,133	0	0	0	0
Jameson Lake	1,010	1,010	1,010	1,010	560	560	560	560	350	350	350	350
Fox Creek Diversion	0	0	0	0	0	0	0	0	0	0	0	0
Alder Creek Diversion	0	0	0	0	0	0	0	0	0	0	0	0
Doulton Tunnel Infiltration	190	190	190	190	180	180	180	180	160	160	160	160
Groundwater Wells	460	460	460	460	600	600	600	600	640	640	640	640
Stormwater	0	0	0	0	0	0	0	0	0	0	0	0
Recycled Water ^[1]	200	1,000	1,000	1,000	200	1,000	1,000	1,000	200	1,000	1,000	1,000
Desalination	0	0	0	0	0	0	0	0	0	0	0	0
Supply from Storage (Banked) ^[2]	0	0	0	0	448	0	0	0	1,816	1,031	1,046	1,062
Supplemental Water Purchase	0	0	0	0	0	0	0	0	0	0	0	0
Imported/Purchased Supply ^[3]	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250
Total Potable Supplies	6,376	7,147	7,118	7,089	5,064	5,405	5,395	5,383	5,064	5,083	5,102	5,122
Santa Barbara Transfer per Juncal Agreement	-300	-300	-300	-300	-300	-300	-300	-300	-300	-300	-300	-300
Potable Supplies Available for Demand	6,076	6,847	6,818	6,789	4,764	5,105	5,095	5,083	4,764	4,783	4,802	4,822
Projected Demand	-4,764	-4,783	-4,802	-4,822	-4,764	-4,783	-4,802	-4,822	-4,764	-4,783	-4,802	-4,822
Supply Satisfies Demand (Yes / No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

[1] Recycled water supply represents future projected supply.

[2] Supply from Storage (Banked) represents projected supply available from banked excess normal/wet year water supplies in local and/or regional groundwater banks. District policy is to reserve/bank excess water available during normal/average conditions for use in future years where the available supply is diminished by drought conditions.

[3] Supply from Imported/Purchased supply represents projected supply provided from new Water Supply Agreement with City. Additionally, supplies could also include local or regional groundwater or surface water purchased from regional agencies.

The following provides a description of each water supply source (both existing and planned) under a multiple dry year condition for the period of 2020 to 2035 as shown in Table T19 above. For more detailed information on each source, see Section 6.9.

State Water Project / CCWA

Water supply projections for this source are based on the Central Coast Water Authority's (CCWA) determination of the available delivery of the District's State Water Project Table A allocation for multiple dry years. The District's full allocation to State Water is 3,300 AFY, which includes a 300 AFY share of the drought buffer maintained for contractors by CCWA to enhance the reliability of State Water during shortages. As reported by the CCWA in their 2015 UWMP, allocation projections for two, four and six year droughts were provided. The District has elected to use the CCWA two year drought period of 1991-92 in its projections as this period provides a lower percent allocation than the four and six year drought periods. Based on these projections, the District would receive approximately twenty percent of its allocation on average as shown in Table T19 above.

Lake Cachuma (Cachuma Project)

The District's available supply from Lake Cachuma during years of normal rainfall is 2,651 acre-feet per year. Due to the regional dependence on this source, it is estimated that allocations during a multiple dry year scenario would be reduced when recharge conditions of the lake are at a minimum.

These projections indicate that the allocations in Year 1 would be equivalent to the District's full allocation in the future, which also accounts for the loss of storage due to sedimentation over time. Year 2 projections indicate a reduction in allocations of 55% and Year 3 projections indicate no water allocated from this source. The projections for this multiple dry year condition are representative of the actual amount of water allocated from 2013 to 2015.

Jameson Lake

As noted previously, the District relies upon the operational rule curve published in the WSOP to determine the annual diversion from Jameson Lake. During a multiple dry year condition, diversions are projected to be reduced each year to reserve this water supply when recharge is at a minimum.

These projections indicate that the diversion in Year 1 would be less than the District's long term average yield with the amount diverted in Years 2 and 3 being further reduced to reflect the lack of recharge of this rainfall dependent source. The projections for this multiple dry year condition are representative of the actual amount of water diverted from 2013 to 2015.

Fox Creek Diversion & Alder Creek Diversion

These tributaries are not considered significant water sources for the District and therefore are not projected to provide a quantifiable supply to the District over the planning period, especially during a multiple dry year condition.

Doulton Tunnel Infiltration

For these projections, it is estimated that this rainfall dependent source will see a reduction in supply and will provide an amount as shown in Table T19. The projections for this multiple dry year condition are representative of the actual amount of water produced by this source from 2013 to 2015.

Groundwater Wells

As previously noted within this report, the District reduces production from the groundwater basin during normal hydrologic periods to allow the basin to recharge which then allows for increased production during times of drought when other District sources are diminished.

The projected production from this source under the multiple dry year condition is estimated to increase over that shown during a normal year as shown in Table T19. The projections for this multiple dry year condition are representative of the actual amount of water produced by from 2013 to 2015.

Stormwater

Supply from this source is not projected to provide a quantifiable supply to the District over the planning period, especially during the multiple dry year condition.

Recycled Water

As previously discussed, the District estimates 200 AF of recycled water could be delivered to District customers by 2020 and 1,000 AF by 2025. This will be achieved in collaboration with local and regional water and sanitary districts. Depending on the results of further study, these quantities may change.

Desalination

As previously noted, the District conducted a feasibility study in October 2014 related to incorporating desalinated water into its water supply. At the time, preliminary analyses indicated that a District owned desalinated water supply may not be economically feasible. However, depending on improved future economics of desalination facility construction and the result of current desalinated water negotiations with the City of Santa Barbara, the District may choose to pursue a District owned desalination facility in the future.

Supply from Storage (Banked)

This source of local, reliable water will be a primary water supply for the District as the multiple dry year period progresses. Under multiple dry year conditions, the District will rely on regional reservoirs and SWP water until those supplies are diminished and then, as needed, introduce local, reliable, rain-independent supplies from wet/normal year banked storage to meet demands.

This approach will decrease District dependence on SWP and regional reservoirs, which are reduced to negligible during Year 3 of the multiple dry year period. The District will draw on locally banked storage supplies to the extent required to meet annual demands during the multiple dry year planning period. The District will investigate possible use of available local and regional groundwater aquifers for potential groundwater recharge/banking programs. Excess District SWP water supplies, supplemental purchases,

Lake Cachuma water, Jameson Lake water, or other excess sources would be stored in a local aquifer and extracted or exchanged when needed during the multiple dry year period.

Supplemental Water Purchase

During the multiple dry year period, the District may use supplemental water purchases to meet annual demands in the event supplies from groundwater banks cannot meet demands. Supplemental water purchases are limited by the delivery infrastructure of the SWP and potential losses/spills associated with San Luis and Lake Cachuma. Additionally, supplemental water purchase agreements include the return conditions of this water debt which often dictate the return period and other conditions that must be met.

Supplemental supplies are not part of the District's plan to develop local, reliable supplies. However, supplemental water may be purchased during wet/normal years and banked in local groundwater aquifers, if this option is economically beneficial, and extracted or exchanged during extended dry periods.

Imported/Purchased Supply

The District will rely on 1,250 AF of imported/purchased supply during the multiple dry year period. The water source for this imported water will include local or regional groundwater or surface water purchased from regional agencies or water supplied by the City of Santa Barbara through the WSA related to their desalination facility. If the WSA with the City is agreed upon, the water source for this imported water is at the discretion of the City of Santa Barbara and therefore is labeled "imported/purchased supply" as opposed to water sourced directly from the reinstated Charles E. Meyer desalination facility owned and operated by the City. Current negotiations estimate this supply will come online in late 2018 or early 2019, therefore, the District has included 1,250 AF of water supplied from this source for 2020 and beyond. Any expansion of this supply source will increase the reliability of District supplies.

SECTION 7.4 REGIONAL SUPPLY RELIABILITY

The District recognizes that the primary regional supply, Lake Cachuma, is a critical source relied upon not only by the District but also by the other four Member Units. This urban water supply is managed by the USBR to not only serve the south coast water agencies but to also provide water for downstream environmental habitat conditions and groundwater recharge. This regional water supply is subject to review by State and Federal environmental agencies which can issue changes in how the reservoir is operated. Water rights orders issued by the State and federal agency oversight can adversely affect the urban water supply which during a prolonged drought term can reduce its reliability.

The Santa Barbara County Water Agency (SBCWA) takes an active role in coordinating with the Member Units and facilitates, evaluates and assists in determining how to operate Lake Cachuma with USBR to best meet the needs of the Member Units. However, with the Cachuma Project water rights being held by the Federal government, and subject to periodic Federal review, the District and other MUs along with the SBCWA are not "at the table" directly participating in negotiations between federal agencies. The MUs and SBCWA provide resources, consultants and studies for USBR which are used to further a position on protecting the urban water supply, however the final decision on the operation of Lake Cachuma rests with the USBR. Lake Cachuma has been through a federal process resulting in the issuance of a "Biological

Opinion” which not only considers the urban water supply but also downstream interests. As a regional urban water supply, Lake Cachuma, since its inception in the mid-1950s, has served Santa Barbara County without disruption until the 2014/15 water year and for the first time, this water supply in 2015/16 provided no urban water allocation to all five MUs, though downstream water interests continued to see water releases for fish habitat and groundwater recharge.

In the operation of this urban water supply, the SBCWA does not dictate how each MU shall utilize its annual allocation and/or water stored (carryover) within Lake Cachuma, as those operational decisions are left to each water agency for determining how best to manage this water supply in conjunction with their other water supplies. Recently the SBCWA completed the Long Term Supplemental Water Supply Alternatives Study (2015) which evaluated potential future water supply options for the region. Based on the current drought conditions and the need for continued regional coordination and long term water supply reliability, it is anticipated that many of the identified water supply alternative options may be further evaluated by the SBCWA and the MUs to enhance water supply reliability and security.

CHAPTER 8 WATER SHORTAGE CONTINGENCY PLANNING

All water supplies have vulnerabilities, and no supply can be assumed to be 100% reliable under all conditions, whether this be related to climactic, physical system, environmental, regulatory or institutional factors. These types of conditions may either significantly reduce the available supply or interrupt service to customers and can occur either over an extended duration, as with a drought, or rapidly, as with a seismic event damages the District's water storage and transmission infrastructure.

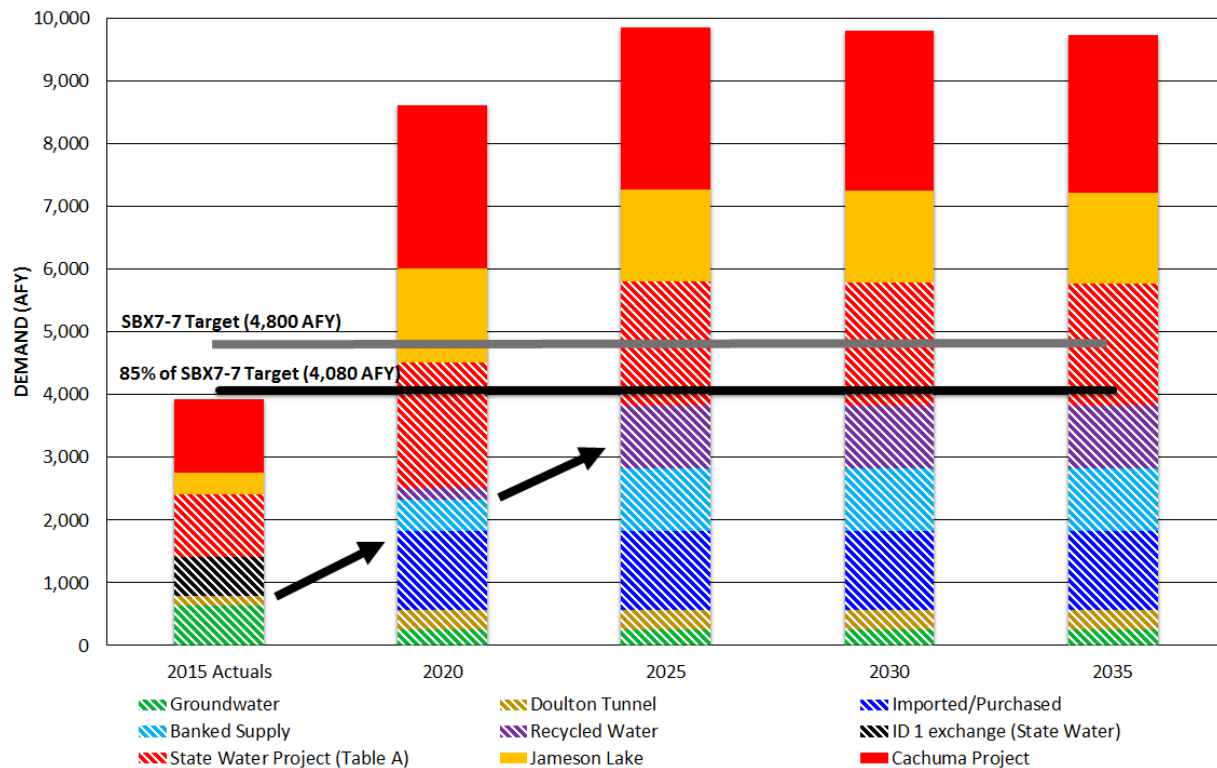
This section outlines the District's plans to respond to such water supply shortages and interruptions.

As discussed in Section 6, the District is committed to achieving 85% local, drought proof supplies by 2025. Figure F4 below shows the District's 2015 supplies and projected 2020 through 2035 supplies. Highly reliable supplies include local or regional groundwater, Doulton tunnel infiltration, imported/purchased water, banked/stored water, and recycled water. Reliable supplies are shown in green and less-reliable supplies in yellow, orange and red. The figure shows an increasing trend of local, reliable, rain independent supplies planned for the District, ultimately leading to the District goal of 85% of the SBX7-7 target demand met by local, reliable supplies by 2025 to reduce supply vulnerability during drought periods.

Although the SWP has historically not been 100% reliable, this supply has been ranked medium reliability because it utilizes reliable infrastructure to deliver water to the District, any shortfall in SWP supplies can be made reliable by supplementing this supply with banked groundwater or supplemental purchased supplies. The least reliable supplies shown in the figure are Jameson Lake and Lake Cachuma supplies, whom are completely rainfall dependent and whose deliveries dropped to zero during the recent drought.

The District's goal is to rely more heavily on reliable supply, making the District less prone to drought. Increasing supply from local, reliable sources will provide a buffer to meet demands during drought periods and other forms of service interruption from non-local sources.

FIGURE F4: FUTURE WATER SUPPLY RELIABILITY GOAL



SECTION 8.1 WATER SHORTAGE EMERGENCY RESPONSE – PAST EXPERIENCE

The District has had extensive experience in drought water supply management that began with its inception in 1921. As a community without reliable water supplies in the 1920s, the District embarked upon establishing a reliable water supply for its customers that resulted in the construction and operation of Jameson Lake, Juncal Dam, Doulton Tunnel, and a District-wide water transmission, distribution and storage system. This newly owned and operated surface water supply, recharged by annual rainfall served the District well until the late 1940s when Santa Barbara County experienced a “critical” drought resulting in the building of the Cachuma Project in the 1950s. Between 1947 and the beginning of 1951, the District adopted mandatory customer water use restrictions to preserve the dwindling Jameson Lake water supply. If not for the January 1952 storms, the District was on the verge of exhausting its available water supplies. Fortunately, in January 1952, significant rainfall filled and spilled Jameson Lake within a two week period.

The Cachuma Project was built in response to the critical drought of 1947-1951 to provide a reliable long term drought resistant water supply to serve the growing needs of Santa Barbara County. Lake Cachuma also relies on annual rainfall for recharge and due to the drought and continuing growth in Santa Barbara County, the District declared a water shortage emergency on January 18, 1973 and imposed restrictions on new water connections. At that time, the District’s Board of Directors determined that the safe yield of existing supplies would not satisfy normal customer water demand nor allow for development. In

addition to a building moratorium, a water allocation program was also established in 1973. The allocation program was based on customers' actual water usage during the years 1970 through 1972. The 1973 water shortage emergency was declared through the adoption of Resolution No. 1291-A. This water shortage emergency was terminated in 1997 with the completion of construction of the SWP coastal aqueduct facilities and the delivery of State Water to Santa Barbara County.

Even with the Cachuma Project, another severe and prolonged drought hit Santa Barbara County from 1987-1991, resulting in severe water shortages on the south coast of Santa Barbara County. At the time, the District was solely dependent on local groundwater (about 15% of supplies) and surface water supplies (85% of supplies).

In the 1987 – 1991 drought with the depleted regional and local surface water supplies of Lake Cachuma and Jameson Lake nearing historically low levels, the District declared a water shortage emergency and imposed water rationing through monthly customer water allocations with penalties for over use. The severity of the drought led to development of emergency water supplies, adoption of drought emergency measures, a new water allocation ordinance, water conservation services, penalty water rates and prohibition of certain water uses. The water allocation ordinance was revised several times during the drought. Allocations were based on past use, lot size and a percentage of the total available water supply.

District staff provided customers a variety of public information and drought related services including indoor and outdoor water conservation tips, conducting residential water audits and encouraging the installation of water efficient plumbing devices. A full-time water conservation coordinator, assistant and student interns implemented these programs during the drought. Water users responded to these measures, and to the widespread information campaigns requesting all local water users to save water, by reducing their demand by an average of 36% between 1989 and 1992.

As the drought continued, the District's water allocation system was reviewed and re-evaluated. In May 1990 and August 1991, the District's Board of Directors adopted Ordinance No. 72 and Ordinance No. 74, respectively, which revised the allocation system. The last revision adjusted the allocation system, which based the allocations upon available water supplies, acreage and historical use. Allocations were determined by two methods: one for residential accounts, comprised of a three-component system; and one for non-residential accounts (i.e., commercial, institutional, agricultural, multi-unit, and recreational), which included only a base allocation.

During the drought, the District obtained agreements for two emergency, supplemental sources of water for customers: (1) State Water "wheeled" from the Metropolitan Water District of Southern California through Ventura County and exchanged with water from Lake Casitas in Ojai; and (2) desalinated seawater from the City of Santa Barbara's temporary Desalination Plant. The District only received 40 acre-feet of water from the emergency water-wheeling project because soon after its construction heavy rains improved the water supplies of the South Coast region.

In 1992 under an emergency State permit, a temporary desalination plant was constructed by the City of Santa Barbara in collaboration with Goleta and Montecito Water Districts. The District subscribed for a share of the production of the temporary desalination plant for a five-year period ending April 1997. The plant was constructed as an emergency temporary water supply measure. The plant, located in Santa Barbara, would have delivered water to the District by exchanging Lake Cachuma water credits with the

City of Santa Barbara or the Goleta Water District. However, due to the onset of wet weather conditions beginning with the “March Miracle” rain in 1991, the drought abruptly ended in 1992 and the desalination facility was placed in a five year standby mode.

More recently, in response to the exceptional drought gripping Santa Barbara County, the District implemented ordinances to control customer water use and adopted a moratorium on all new water services and development within the District’s service area. In 2007, the total water demand for the District exceeded the District’s reliable supply and in 2008, the District adopted Ordinance 89, placing limitations on water distribution to land and requiring District review of all changes in land use within the District.

With less-than-average rain years in 2012 and 2013 and rising customer water demand, the District declared a water shortage emergency in February 2014 through Ordinance 92, providing restriction on water use and penalties for failure to comply with conservation measures. Ordinance 93 was adopted at the same time, establishing water allocations and providing penalty rates and restrictions for consumption in excess of the allocation. District customers responded to the ongoing drought conditions, drastically reducing consumption throughout the 2012 to present drought period.

SECTION 8.2 EMERGENCY RESPONSE PLANNING

The District, as with other south coast water agencies, has had extensive experience in water supply management during extended droughts with the common denominator being reliance on annual rain and recharge of its predominantly surface water supplies.

The District is a member of MERRAG (Montecito Emergency Response and Recovery Action Group). This group meets monthly and is an association of the water, fire and sanitary Districts, senior resident housing projects, neighborhood associations, schools and colleges. The purpose of this association is to coordinate emergency response planning and to share resources. Each representative has a portable radio and pagers in order to communicate and disseminate information in an emergency.

In addition to participating in MERRAG, the District is a member of the California Water-Wastewater Response Network (CALWARN) and is a participant in the Santa Barbara County Office of Emergency Services. The District also has a comprehensive Emergency Response Plan (ERP) which was updated in 2013.

The District has also invested in such items including emergency backup generators for emergency power at both its surface water treatment plants and its major pump stations. Recognizing the vulnerability/reliability on public telephone utility communications, the District converted its SCADA communication system from an above ground utility based system to a District installed and maintained radio system. The District has also acquired vehicle and portable radio systems for direct communication between other local agencies and employees recognizing that cellular phone communication may not be reliable or available during an emergency condition affecting the local area.

SECTION 8.3 STAGES OF ACTION

8.3.1 Rationing Stages and Reduction Goals

District response during droughts has changed due to lessons learned from previous droughts and the development of new water supplies which have provided a new approach to water supply management under drought conditions. The current response to the ongoing drought carefully examined customer water use characteristics and an allocation program was developed to target the small percentage of customers that used excessive amounts of water. The current monthly allocation ordinance (Ordinance 94) was developed in recognition that 5% of single family residential (SFR) customers used 25% of the SFR water supply on an annual basis. It was also designed to not affect the majority of customers and since its effective date, March 2014, the allocation plan has effectively caused a significant reduction in customer water use that meets the current available water supply. Conservation efforts achieved a nearly 45% reduction in water use from 2014 to present.

The District understands that each water shortage condition is unique and that flexibility is required to allow for proper response to various water shortage conditions, whether they develop rapidly or over time.

The following stages provide guidance to the District on recommended water reduction goals, however these goals may be modified as required to satisfy actual water supply conditions. The District monitors and evaluates its available water supply on a monthly basis and relies upon Jameson Lake and Cachuma Lake available supplies for taking action as it relates to water supply and demand management strategies.

With State Water deliveries beginning in earnest in 1998, the District has re-evaluated its water supply planning and management strategies that have included the adoption of water conservation rates and water limitation ordinances. These actions have allowed the District to use its portfolio of available water supplies to avoid emergency water shortage declarations until the most recent drought beginning with the 2011/12 water year.

The most recent drought and mandatory State actions implemented to curb customer water use statewide improved District water supply reliability due to the permanent reductions in customer water use. Table T20 is indicative of water shortage condition stages, but as shown does not consider the duration and the affected water supplies.

With the District's reliance on regional water supplies, actual water shortage conditions are a function of water supply conditions (i.e., annual State Water Project allocations) that are not controlled by the District. Actual implementation of water rationing programs and their water use reduction goals will mirror actual water supply conditions. The District's Board of Directors will make the final determination as required to move from one Stage of Water Shortage to another.

TABLE T20: STAGES OF WATER SHORTAGE CONTINGENCY PLAN

Stage	Percent Supply Reduction	Water Supply Condition
Stage 1	0-15%	Prolonged dry weather and up to a 15% reduction in District water supplies is projected for the coming water year.
Stage 2	15-25%	Continuing conditions of average or less than average rainfall and 15-25% reduction in District water supplies is projected for the coming water year.
Stage 3	25%-35%	25-35% reduction in District water supplies is projected for the coming water year or an extraordinary reduction in District supplies has been identified.
Stage 4	35% or More	35% or greater reduction in District water supplies is projected for the coming water year or a catastrophic interruption to District water supplies has occurred.

See also UWMP Table 8-1

SECTION 8.4 PROHIBITIONS ON END USES

As a result of the ongoing exceptional drought conditions, the District adopted Ordinance No. 92 in February 2014 declaring a water shortage emergency and providing for restrictions on use of water and penalties for failure to comply with conservation measures. This ordinance demonstrates the various prohibitions on end use the District may adopt and implement in the future depending on water supply conditions. Table T21 below contains a summary of the restrictions and prohibitions on end users the District could implement under various stages of drought.

TABLE T21: RESTRICTIONS AND PROHIBITIONS ON END USES

Stage	Restrictions and Prohibitions on End Users	Additional Explanation	Penalty, Charge or Other Enforcement
All	Other	General - Waste of Water	Yes
All	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner		Yes
All	Landscape - Restrict or prohibit runoff from landscape irrigation		Yes
All	Other - Require automatic shut off hoses	Hand operated shut off valve required	Yes
All	Other - Prohibit use of potable water for washing hard surfaces		Yes
2, 3 & 4	Landscape - Limit landscape irrigation to specific times		Yes
2, 3 & 4	Landscape - Prohibit certain types of landscape irrigation	Hours of allowable irrigation differentiated by automated vs. manual control	Yes
2, 3 & 4	CII - Lodging establishment must offer opt out of linen service		Yes
2, 3 & 4	CII - Restaurants may only serve water upon request		Yes
2, 3 & 4	Water Features - Restrict water use for decorative water features, such as fountains		Yes
2, 3 & 4	Pools and Spas - Require covers for pools and spas		Yes
2, 3 & 4	Pools - Allow filling of swimming pools only when an appropriate cover is in place.		Yes
2, 3 & 4	Other water feature or swimming pool restriction	Draining/Filling of pools restricted to repair only and must gain District approval.	Yes
2, 3 & 4	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water		Yes

See also UWMP Table 8-2

SECTION 8.5 PENALTIES, CHARGES, OTHER ENFORCEMENT OF PROHIBITIONS

During the 1987-91 drought, the District implemented a tiered rate structure with inclining blocks. These rates were adjusted in 2008 by way of Resolution No. 2047. This was necessary to encourage water conservation and generate the revenue needed to fund new capital improvements and supplemental water supplies.

Subsequently, Ordinances 92, 93 and 94 were implemented to establish water use restrictions, a system of allocations, essential uses and non-essential uses subject to a monthly allocation factor. The ordinances are provided in Appendix F.

Ordinance 92, a water use restriction ordinance, carries penalties and fines for violation of the ordinance. These penalties and fines are as follows.

- A written warning will be issued for a first violation.
- A District imposed fine of \$250 for a second violation, and any subsequent violation, and doubling with each subsequent violation up to a maximum of \$1,000 for any single violation.
- Upon a fourth violation, or upon an earlier violation the General Manager determines to create a significant threat to the goals of the ordinance, the General Manager may order the installation of a flow restrictor on service lines in question.

Similar penalties, fines and charges may be implemented by the District as needed in the future to enforce the prohibition of end users indicated in Table T21 above.

Ordinances 93 and 94 established customer water use allocations by customer classification along with penalty rates for water use in excess of the monthly allocation. Each customer was provided with a monthly water allocation. Water used in excess of the allocation resulted in a penalty charge for each unit of water used in excess of the stated allocation. District customers may appeal any decision made or fine imposed by filing a written appeal with the District.

SECTION 8.6 CONSUMPTION REDUCTION METHODS

The District has a water conservation program that is on-going, even during periods of normal water supply. This water conservation program includes measures such as a full time Water Conservation Specialist on staff who conducts free property water use audits, reduction of distribution system line flushing through close water quality monitoring, and the District's issuance of Certificates of Water Service Availability which condition new and proposed re-development to install state-of-the-art water saving technologies and to use no more water than is authorized under the Certificate.

The District has found these methods to be effective in reducing overall water consumption and managing demands during periods of normal water supply and water shortage conditions. Table T22 below contains a summary of the consumption reduction methods that are considered by the District during both normal and water shortage conditions.

TABLE T22: STAGES OF WATER SHORTAGE CONTINGENCY PLAN – CONSUMPTION REDUCTION

Stage	Consumption Reduction Methods by District
All	Expand Public Information Campaign
All	Offer Water Use Surveys
All	Reduce System Water Loss
2, 3 & 4	Decrease Line Flushing
2, 3 & 4	Moratorium or Net Zero Demand Increase on New Connections
2, 3 & 4	Implement or Modify Drought Rate Structure or Surcharge
2, 3 & 4	Increase Water Waste Patrols
2, 3 & 4	Establish Water Use Allocations and Penalties

See also UWMP Table 8-3

SECTION 8.7 DETERMINING WATER SHORTAGE REDUCTIONS

Total production and demand is measured on a monthly basis, and can be monitored by operations staff more frequently, if necessary. Under water shortage conditions, water production and demand are monitored closely in order to determine if supplies will be adequate to meet demand in the coming days, weeks, months and years.

The District compares the actual monthly customer water use to historical monthly use as well as water use projections which are established by the District at the onset of each Water Year. The District analyzes the water use by customer classifications and reviews local climactic conditions to determine if monthly water use is above or below normal conditions. The District continually tracks the available water supply and compares it to the projected demand to determine if existing supplies are adequate to meet projected demands, or if water use restrictions and prohibitions must be implemented/modified.

During periods of drought and under water shortage conditions, the District quantifies the amount of water use by customers and compares it to periods with average local rainfall conditions with the difference between these two conditions considered to be the amount of water to be conserved.

SECTION 8.8 REVENUE AND EXPENDITURE IMPACTS

The District has developed tiered rates in accordance with Proposition 218 to encourage water conservation by all customers. The District completed a five year financial plan and cost of service study in August 2013 and adopted a five year schedule of necessary rate increases. The rate study assumed normal (non-drought) conditions, did not include additional expenditures related to water shortage conditions, and targeted stable annual water sales of 5,200 AF. Water sales in typical years with normal water supplies accounts for about 73% of total revenues.

Current customer water demand levels under monthly allocations with penalties have significantly reduced water sales revenues from the baseline target of 5,200 AFY. Water sales in 2007 of nearly 6,500 AFY has dropped to approximately 3,500 AFY in 2015 due to District implemented aggressive customer water use reduction strategies to meet the limited supplies available during the drought. The District's

and the community's success in reducing water use has required the implementation of certain water sales revenue enhancements, i.e. surcharges, to meet District annual costs, which about 70% are fixed and maintain a required debt covenant coverage ratio. District actions have led to the adoption of a water shortage emergency surcharge which has stabilized revenue losses even with the nearly 50% reduction in customer water use.

The District is currently able to meet all operating costs and following the restoration of normal available water supplies, the lifting of customer monthly allocations is expected to result in higher customer water use. The District is projecting an increase in water sales with customer water use that will be in line with the State mandated requirements under SBX7-7. An aggressive public outreach program is being prepared to address future water demand that is driven not only by the available supply, but to also meet the State mandated reductions.

The District's tiered rate structure shown in

Table T23 has set quantities for each tier of usage for Single Family and Multi-Family Residential customers in accordance with Proposition 218, and relies upon a three-year average monthly base allotment for Commercial and Institutional customers. Agricultural customers are provided an annual allotment based on the number of cultivated acres. For the SFR customer classification, accounting for 92% of all customer accounts and 71% of all water use, the cost of water per hundred cubic feet (HCF) is based on the level of monthly consumption with the lowest cost tier set for a maximum of 25 HCF. The SFR classification has four tiers with the cost for each HCF of water used increasing in each tier.

TABLE T23: WATER RATE STRUCTURE BY CUSTOMER CLASSIFICATION

RATE CATEGORY & STRUCTURE	QUANTITY	RATE
Single Family Residential		
Block 1	0-25 HCF	\$5.03
Block 2	26-60 HCF	\$5.57
Block 3	61-120 HCF	\$6.57
Block 4	121 + HCF	\$7.91
Multi-Family Residential/Dwelling Unit		
(DU=Dwelling Unit)	0-9 HCF/DU	\$5.03
	10-30 HCF/DU	\$5.57
	31 + HCF/DU	\$6.57
Commercial		
3 YR AVG Month Base Allotment	each HCF	\$5.57
Over Base Allotment	each HCF	\$6.57
Institutional & Public Use		
3 YR AVG Month Base Allotment	each HCF	\$5.57
Over Base Allotment	each HCF	\$6.57
Agriculture		
Domestic/DU	20 HCF/DU	\$5.03
Ag 1	<870 HCF/Acre/Year	\$2.80
Ag 2	>870 HCF/Acre/Year	\$5.03

Per Resolution No. 2107, Effective July 2015 Billing Cycle.

During a water shortage condition, actions are taken by the District to reduce customer water demand to meet the available water supply which translates to lower water sales revenues. In addition to lower water sales revenues, joint power agency and District operating costs increase along with the need to purchase expensive supplemental water. For the District, the current drought has caused a drop in water sales, from 5,200 AFY planned in normal years to about 3,500 AFY. The reduction in annual water sales revenue alone at this reduced level of consumption is estimated at \$4.15 million.

8.8.1 Drought Rate Structures and Surcharges

Unless revenue enhancement steps are taken to offset revenue losses during drought conditions, the District would face a deficit. In the current drought, the District faced an estimated annual revenue deficit of about \$6.4 million when considering annual variable, fixed and drought costs. This significant reduction in annual revenues also affects the 1.25 debt covenant ratio which must be maintained by the District in accordance with bonding requirements and to uphold the District's Standard and Poor's credit rating. To correct the revenue/expense imbalance, District reserves could be used to restore the revenue/expense

imbalance, however the District's level of reserves is not sufficient to fund a multi-year drought of this magnitude. In order to meet all expenses, District rates and charges must be modified.

In accordance with a drought revenue and expense study completed by a financial firm in early 2015, the District modified its rate structure and added a temporary water shortage emergency surcharge to current rates. This surcharge includes a mechanism to adjust rates in accordance with the percentage change in water sales. The surcharge was effective beginning with the September 2015 billing cycle and is added to each HCF of water used for all tiered rates. The surcharge, as shown in Table T24, was based on annual penalty revenues of \$2 million.

TABLE T24: WATER SHORTAGE EMERGENCY SURCHARGE

Total Water Sales (AFY)	Percent Reduction	\$ Surcharge/HCF
4,940	5	0.79
4,680	10	1.11
4,420	15	1.47
4,160	20	1.87
3,900	25	2.33
3,640	20	2.85
3,380	35	3.45
3,120	40	4.16

[1] Based on percent reduction in water sales set at 5,200 AFY.

The District will regularly re-evaluate the factors used in setting the surcharge, and the surcharge will be adjusted to represent actual water reduction and financial conditions.

8.8.2 Use of Financial Reserves

The District has established financial reserves that provide funding for emergency situations, capital improvement programs and other purposes. In periods of drought or years with above average rainfall affecting water sales and revenues, the District has in place the Rate Stabilization reserve that will augment declining revenues in order to avoid unscheduled changes in rates and charges to customers. In accordance with the District's five year financial plan adopted in 2013, the Rate Stabilization reserve was set at \$1.8 million that could be used to maintain stable annual revenues to meet District expenditures. This current drought is an extreme water shortage event that has impacted revenues that cannot be corrected since the revenue shortfall is much greater than the designated reserve amount. In this case, a drought surcharge was used to maintain stable annual revenues in lieu of the rate stabilization fund.

8.8.3 Other Measures

During the current water shortage condition, the District has taken emergency measures to provide for public health and safety which includes the purchase and delivery of costly supplemental water supplies due to the loss of local water supplies. These supplemental water purchases have been funded from established reserves, penalty charges for customer water use in excess of the monthly allocation, and/or

utilizing funds from planned capital improvement projects. Penalty revenue has been utilized to fund the drought program and purchase supplemental water.

SECTION 8.9 RESOLUTION OR ORDINANCE

The District has the ability to adopt resolutions and ordinances related to water shortage conditions and can adopt restrictions and prohibitions on water use. The most recent water shortage related ordinance (Ordinance 94) is included in Appendix F. Table T25 below contains a summary of some of the more recently adopted District ordinances and resolutions pertaining to water use restrictions and droughts.

TABLE T25: DISTRICT ORDINANCES AND RESOLUTIONS

Resolution or Ordinance	Short Name	Purpose	Year Implemented	Status
Ordinance 82	Tiered Rate	- Establishes rules and regulations for the supply of water, the extension of water mains and the installation of fire hydrants and stub connections - Establishes the tiered rate system - Repeals Ordinances 66 and 80	July 1999	Current and Amended by 90
Ordinance 89	Block Rate	- Establishes allotment 1 AFY per acre - Establishes a base allotment based on historic usage 2003-2006 - Sets Water Availability as whichever is greater	April 2008	Current
Ordinance 90	Amendment to 82	- Provides new general definitions and use classifications - Amends Ordinance 82	August 2008	Current Subject to WSE Ordinance
Ordinance 92	Water Shortage Emergency	- Declares a water shortage emergency - Provides restrictions of use - Provides penalties for failure to comply - Establishes a new meter moratorium	February 2014	Current
Ordinance 93	Monthly Allocation Factor	- Declares waste of water illegal - Defines account classifications - Establishes a Monthly Essential Use Allocation and an Annual Nonessential Use Allocation subject to the Monthly Allocation Factor - Establishes penalties for use in excess of allocations	February 2014	Repealed by 94
Ordinance 94	Adjustment to MAF	Redefines account classifications, monthly allocations and penalties	March 2015	Current

SECTION 8.10 CATASTROPHIC SUPPLY INTERRUPTION

Catastrophic supply interruptions differ from the staged drought responses addressed earlier in this Plan. Catastrophic interruptions are considered to be sudden interruptions in supply which can immediately reduce the District's available water supply. Such examples of a catastrophic water supply interruption include but are not limited to; damage to District storage reservoirs, dam facilities, tunnels and conveyance facilities due to a significant seismic event, wildfire that significantly impairs water quality beyond the ability to provide sufficient treatment, or a regional power failure that disables treatment facilities and pumping stations.

The District performed a comprehensive review and update to its emergency response procedures in 2010. The District hired a consultant to prepare the Emergency Response Plan (ERP) to identify response and recovery procedures to minimize impacts to public health and safety under emergency and disaster conditions.

In addition to the District's Emergency Response Plan and other documented emergency planning and response measures indicated above, the District has the following procedures in place to contend with a catastrophic water supply interruption.

- Available water supply is diverse consisting of major supply provided by a local and regional surface water reservoir that have separate and independent storage and conveyance facilities.
- Emergency back-up generators have been installed at both District water treatment facilities as well as at critical District pump stations.
- District's office is supplied by emergency back-up generator to ensure operations can continue during power outage or other emergency.
- District has a Supervisory Control and Data Acquisition (SCADA) system that allows for remote monitoring and control of the District's water facilities, which have battery back-up provisions and radio telemetry not dependent on public utilities.
- District maintains an up-to-date Atlas Map and Valve tie book which clearly illustrates all District water facilities to allow for proper isolation of pipes, reservoirs, etc. in the event of an emergency.
- District has staff members from two separate departments (Treatment and Distribution) "on-call" 24-7 to monitor and control District water facility operations at all times.
- District has a full time dam caretaker that resides at the Juncal Dam/Jameson Lake facility to monitor dam performance.
- District's staff is cross-trained and have the ability to perform emergency repairs to the water system including immediate response and repair to water main breaks.
- District maintains heavy equipment including back-hoes and dump trucks which trained staff utilize to make emergency repairs to the water system. The District also maintains additional equipment needed to make water system repairs including but not limited to; sump pumps, jackhammers, compaction equipment, trench shoring and saws.

- District maintains an inventory of materials at its District Yard including pipe, valves, fittings, repair couplings, etc. to ensure repairs can be made at all hours.
- District coordinates with local contractors as needed to ensure they are familiar with District standards in the event outside contracting assistance is required to make emergency repairs.
- District maintains an FCC licensed radio system with vehicle mounted radio communication equipment as well as radio equipment stationed at the District office and Bella Vista Treatment Plant to allow for communication in the event cellular communication is unavailable.
- District participates in MERRAG, a local County agency to allow for direct communication with the community and other special districts and to quickly relay information about the District's water supply and conveyance systems.
- District participates in CALWARN, a statewide agency that makes equipment, supplies and staffing available from outside participating agencies available when called upon during an emergency.

The District's staff conducts both table top exercises and mock field emergency exercises to ensure familiarity with the District's Emergency Response Plan and practice emergency response procedures.

While it is not possible to identify each potential catastrophic water supply interruption scenario, the District has compiled a range of plausible scenarios that could impact the availability of its existing water supply sources under normal hydrologic conditions. Table T26 below provides an overview of some scenarios with possible District actions.

TABLE T26: CATASTROPHIC INTERRUPTION IN SUPPLY SCENARIOS

Interruption Scenario	Anticipated Supply Reduction	Duration of Interruption	District Actions
Damage to Distribution System Pipelines (Main Breaks)	<i>No reduction in supply</i> Delivery interruptions limited to damaged sections of system	Hours to Weeks Depending on Severity	▪ Close valves to damaged sections ▪ Identify area of service outage and identify duration of outage – notify customers and provide potable water if needed over extended duration ▪ Develop work plan to prioritize repairs and determine if outside contracting assistance required to expedite repairs

TABLE T26, CONTINUED

Interruption Scenario	Anticipated Supply Reduction	Duration of Interruption	District Actions
Collapse of Doulton Tunnel and/or Damage to Juncal Dam	<i>Jameson Lake deliveries interrupted and Doulton Tunnel infiltration impacted</i> Initial loss of approximately 27% of normal supply which could be reduced to approximately 2% by increasing State Water/Cachuma and Groundwater production	Months to a Year or More Depending on Severity	- Inspect tunnel and/or dam and determine extent of damage - Immediately notify DSOD and CalOSHA DIR - Coordinate with MERRAG to notify public of supply interruption - Provide immediate access to potable water to Upper Toro Canyon customers - Mobilize temporary pump units to convey water from lower pressure zones to Upper Toro Canyon distribution system - Inform community of status and restrict outdoor irrigation and non-essential water use to ensure demand does not exceed actual available supply - Determine if interconnection with CVWD and City of Santa Barbara can provide additional supply - Initiate emergency design and construction process for tunnel and/or dam repairs - Activate all groundwater production wells to maximum production levels - Increase State Water/Cachuma deliveries - Increase deliveries from local groundwater bank supply
Collapse of Tecolote Tunnel	<i>Lake Cachuma and State Water Project deliveries interrupted</i> Initial loss of approximately 69% of normal supply which could be reduced to approximately 56% by increasing Jameson Lake and Groundwater production	Months to a Year or More Depending on Severity	- COMB and USBR to inspect tunnel and determine extent of damage - Coordinate with MERRAG to notify public of supply interruption - Inform community of status and restrict outdoor irrigation and non-essential water use and initiate other demand management strategies to ensure demand does not exceed actual available supply - Determine if interconnection with CVWD and City of Santa Barbara can provide additional supply - Coordinate with COMB and USBR as required to initiate emergency tunnel repairs - Consider temporarily shutting off customer services where needed to conserve water if not compliant with request to curtail non-essential water use - Activate all groundwater production wells to maximum production levels - Increase deliveries from Jameson Lake to maximum production levels - Increase deliveries from local groundwater bank supply

TABLE T26, CONTINUED

Interruption Scenario	Anticipated Supply Reduction	Duration of Interruption	District Actions
Collapse of Doulton and Tecolote Tunnel	<i>Jameson Lake, Doulton Tunnel, Lake Cachuma and State Water Project deliveries interrupted</i> Initial loss of approximately 96% of normal supply which could be reduced to approximately 90% by increasing Groundwater production	Months to a Year or More Depending on Severity	- COMB and USBR to inspect Tecolote tunnel with District inspecting Doulton Tunnel to determine extent of damage - Work with County of Santa Barbara Office of Emergency Services to initiate regional notification of impact to water supply - Coordinate with MERRAG to notify public of supply interruption - Activate all groundwater production wells to maximum production levels - Notify public of impact to potable water supply and require immediate curtailment of all non-essential water use with priority use for health and safety only - Analyze distribution system and facilities to determine if District facility operations require modification to ensure continued delivery of limited water supply stored within District reservoirs - Consider temporarily shutting off customer services where needed to conserve water if not compliant with request to curtail non-essential water use - Provide access to potable drinking water - Coordinate with COMB and USBR as required to initiate emergency tunnel repairs for Tecolote Tunnel and initiate similar process for Doulton Tunnel - Increase deliveries from local groundwater bank supply
Power Outage	<i>No reduction in supply</i> Delivery interruptions limited to sections of system without power	Hours to Weeks	- Activate back-up emergency generators at locations without power - Monitor performance of back-up generators to ensure un-interrupted performance - Coordinate with MERRAG regarding power outage and notify public of possible impacts to distribution system pressures - Maintain sufficient supply of fuel to maintain operation of emergency generators during outage

SECTION 8.11 MINIMUM SUPPLY NEXT THREE YEARS

The District's water supply for the next three years (2016 through 2018) has been estimated for this Plan using current projections under the current exceptional drought conditions that could continue if significant precipitation does not occur. These current drought conditions are more severe than the historical drought conditions on record. The projections assume that these drought conditions continue through the planning period with limited to no recharge of local surface water supplies.

The District has developed the following projections in accordance with the DWR "Stress Test" which includes the following assumptions;

- 20% Table A State Water Allocation
- Supplemental Water Purchases,
- Jameson Lake Available Supply Estimates
- Cachuma Project Available Supply Estimates
- District Potable Well Production Estimates
- Annual 300 AFY Juncal Transfer to the City of Santa Barbara

The projected water supply total for the three year planning period is shown in Table T27.

TABLE T27: MINIMUM SUPPLY NEXT THREE YEARS

Available Water Supply (AF)	2016	2017	2018
	9,657	5,821	3,460

See also UWMP Table 8-4

CHAPTER 9 DEMAND MANAGEMENT MEASURES

The District maintains a comprehensive and successful water conservation program. The District is a member of the California Urban Water Conservation Council (CUWCC) and annually reports best management practice (BMP) results. Annual monitoring and reporting for both the CUWCC and USBR requirements are accomplished through the CUWCC annual reporting website. This section describes the District's conservation program.

The District is also a member of the Santa Barbara County Regional Water Efficiency Program (RWEF). RWEF was established in 1990 by the Santa Barbara County Water Agency (SBCWA). The program is a partnership of 18 local water purveyors and promotes the efficient use of urban and agricultural water supplies throughout the County. Through the RWEF, the SBCWA coordinates cooperative water conservation efforts among purveyors, co-funds projects and programs, acts as a clearinghouse for information on water efficiency, manages specific projects and programs, and monitors legislation related to efficient water use.

District customers have been successfully educated and conditioned over the past twenty-five years due to recurring droughts, public awareness campaigns and the previous service area-wide allocation ordinance. Customers typically notify staff when they see wasteful water use in their neighborhood. District employees also report any observed water waste when they are in the field. The District responds to and documents each report of waste by making a site visit, determining the water source and taking or recommending necessary actions to correct the problem, including notifying the customer of a service line break.

SECTION 9.1 WATER WASTE PREVENTION ORDINANCES

The District implements this Demand Management Measure (DMM) through the CUWCC MOU BMP 1.1. Wasteful water use has been prohibited in the District's service area for many decades. The District has always included water waste prohibitions in all of its resolutions and ordinances concerning use of water since 1973. In February 2014, Ordinance No. 92 was adopted as a prohibition against waste of water. As stated in this ordinance, it is unlawful for water users to waste water.

SECTION 9.2 METERING

The District implements this DMM through the CUWCC MOU BMP 1.3. The District meters all water sources and all water delivered to customers.

SECTION 9.3 CONSERVATION PRICING

The District implements this DMM through the CUWCC MOU BMP 1.4. All District customers are billed on a tiered rate except for fire line connections that are only used for fire protection purposes. Customers are billed monthly based on commodity rates, including a tiered price structure for all residential, irrigation and combination meters. The District does not evaluate this DMM for water savings as it provides an indirect benefit to the District's other quantifiable DMMs. The District utilizes meters and tiered pricing to develop a value of water for its customers who then can utilize the other District programs

to increase their water efficiency. Beginning on October 1, 2008, and revised in 2013, the District instituted a conservation rate structure to encourage customers to effectively and efficiently use potable water, to provide for balance in projected supply and demand deficits, and to augment revenues in continuing a capital improvement and replacement program. Under normal water supply conditions, the conservation rate structure has effectively reduced customer water use.

SECTION 9.4 PUBLIC EDUCATION AND OUTREACH

The District implements this DMM through the CUWCC MOU BMP 2.1. The District delivers a multi-faceted public information program that leverages District efforts with participation in the robust Santa Barbara County Regional Water Efficiency Program (RWEF).

The District informs its customers about water use efficiency in a variety of ways. District staff maintains a website that contains relevant information including about the District's water sources, facilities, capital improvement projects, latest news, and tips to use water efficiently. In addition to conventional mailings and bill inserts, the District communicates with customers through electronic newsletters and makes use of social media outlets such as Facebook and Twitter.

Annually, the District produces the Consumer Confidence Report (CCR) which is made available to all District customers. The CCR offers the results of the District's extensive water quality testing conducted during the year. In addition, the report provides a description of where customer water comes from, answers common questions about water quality and offers other useful information such as drought updates, health considerations, and District staff contact information.

The District's community outreach includes participation in several annual events, including Santa Barbara's Earth Day Festival and Montecito Beautification Day. These events and exhibits provide the opportunity for the District to engage the public on water supply, water quality, and water conservation concepts and issues.

The District created and filled a part-time position of Public Information Coordinator to improve and coordinate all District communications, both internal and external. The District recognizes that a staff member dedicated to developing community relationships is a critical, cost-effective investment. Customers, media and other stakeholders must be continuously informed of the variety of projects and activities necessary for effective operations. An ongoing commitment to increasing the effectiveness of public outreach and communication is intended to ensure consistent community and media engagement, tell the District's story, enhance credibility, garner support and demonstrate openness and transparency.

An important asset is District membership in the County RWEF, which provides public information program support for its participating agencies. The RWEF develops and implements a varied outreach campaign that includes radio, TV, and print ads. All outreach campaigns are developed to provide messages related to water use awareness, available water efficiency programs, and additional water information that are applicable to a wide range of audiences and customers, and many can be branded for District specific use if desired. The RWEF website supports outreach programs year-around by providing additional information on numerous topics including rebate programs, other State and Federal programs, and special water conservation programs such as Water Awareness Month and Smart Irrigation Month. The website also lists the weekly water index for customers to use in setting and programming

irrigation controllers. RWEF participates in public events by providing staffing and outreach materials at information booths and displays depending on event type.

RWEF provides other public outreach efforts outside of traditional advertising campaigns and website content. RWEF produced three new episodes of *Garden Wise Guys* TV shows that were aired on local TV and available on the show website. Two rain barrel sale programs were advertised and implemented that resulted in over 1,000 barrels being sold. The RWEF helped trained Green Gardeners in a 15-week course available at the local junior college. And the RWEF helped distribute the Laundry to Landscape CD that provides information to customers interested in gray water applications.

RWEF prepares an annual budget and strategic implementation plan to continually improve and update its programs. RWEF's plans include the following programs and updates:

- Update and improve website content and management to streamline revisions
- Develop message and roll out next year's summer media campaign.
- Prepare display and participate in Landscaper Expo.
- Promote EPA Fix a Leak Week program.
- Promote Water Awareness Month.
- Update and maintain supply of outreach materials.

Both the District and RWEF public information programs will be continued and modified as needed to provide the most complete and accurate information to District customers.

9.4.1 School Education Programs

The District implements this DMM through the CUWCC MOU BMP 2.2. The District's school education program is implemented in conjunction with the Santa Barbara County RWEF. The program produces and distributes curriculum material about water resources and conservation to teachers, conducts training workshops for teachers, provides assembly presentations, and maintains a water education website containing educational materials, links and other resources for teachers. The District recognizes the importance of water education opportunities for the teachers, staff, and students at the numerous local private and public elementary and middle schools, and the two local higher education institutions.

Additional educational opportunities have been realized through the implementation of conservation landscaping at school sites and in other public locations, with the assistance of District staff. In addition to saving significant volumes of water, these landscaping changes provide an ongoing, visible demonstration to the community of successful and attractive alternatives to grass and other high water consumption treatments. The District's own conservation garden is also designed to serve this purpose.

SECTION 9.5 PROGRAMS TO ASSESS AND MANAGE DISTRIBUTION SYSTEM REAL LOSSES

The District also implements this DMM through the CUWCC MOU BMP 1.2. The District is taking an aggressive, pro-active approach to reduce unaccounted water (UAW). UAW is tracked using monthly internal reports to assess the effectiveness of District actions in reducing UAW. As part of the monthly internal water loss evaluation, the District performs ongoing adjustments to more accurately predict system losses. These ongoing adjustments include subtracting the following non-revenue sources of water from the total production values:

- Gain and/or loss in reservoir;
- Well backwashing;
- Automated flushing;
- Water main breaks;
- Fire protection and training; and
- District property water use.

Billed water usage is also analyzed monthly for accuracy. The District uses the customer meter billing software to provide more detailed water usage reports on individual comparative monthly customer meter usage accounting for seasonal variations. High and low individual customer meter usage as indicated in the billing software reports are followed up by field checks for verification of proper and accurate meter operation.

The District also monitors UAW through the AWWA System Water Audit model per the CUWCC MOU requirements. The current program is focused on production meters, real losses due to leaks, and apparent losses such as theft, data handling errors, and customer meter inaccuracies to identify causes of UAW and to implement corrective measures.

Roughly ten percent of District water is lost due to leaks and meter inaccuracies. For this reason, the District will soon be assessing the feasibility of Advanced Metering Infrastructure (AMI). The AMI program would use digital meter registers with cellular connectivity to send hourly customer water use information to a central location. This information will be made available to the customer and District via smart phones or web access. District Staff can use this hourly usage data to identify system leaks much sooner than under current operations. District customers will also be able to receive alerts and monitor usage to identify leaks on their private pipes and avoid high water bills. The District also has an ongoing customer meter exchange/replacement program where customer meters are replaced on a 17-year cycle or as requested by the customer.

Distribution system loss and leakage are evaluated frequently by District personnel. All pressure regulating stations are visited weekly, groundwater wells are visited daily, and reservoirs and pump stations are visited weekly. Any leaks identified during system operational visits are immediately repaired.

An ultra-sonic flow test meter was purchased in 2010 to determine accuracy or error percentages of all water production meters. Testing resulted in both meter re-calibrations and the replacement of three major water production turnout meters due to both over and under-registration. These turnout meters produce about 60 % of District water supply and thereby have substantial impact on results of water loss accounting. The District is in the process of developing a long-term production meter testing and calibration program to ensure quantities of produced water deliveries are as accurate as economically feasible.

District personnel are on call 24 hours per day, 7 days per week to respond to water main breaks or leaks, whether private or public, identified by customers and District personnel. Water main breaks and system leaks are repaired immediately upon discovery, minimizing potential water loss. Additionally, the District is implementing a 5 year capital improvement program to replace over 23 miles of 1920 era cast iron water mains which are most susceptible to leaks and breaks across the District.

SECTION 9.6 WATER CONSERVATION PROGRAM COORDINATION & STAFFING

The District implements this DMM through the CUWCC MOU BMP 1.1 and 1.2. The District's Water Conservation Coordinator position was established in 1973, and is responsible for public education, water audits, landscape studies to affect water conservation, and monitoring conservation efforts. The current coordinator officially assumed this position in February 2005, and has thus far been tasked with training for audits, BMP updating, and water conservation education. Current efforts include reducing the water use of the District's 200 highest volume accounts, implementing the evapotranspiration landscape controller programs for large landscape accounts, and increasing the number of residential, landscape, and commercial water audits.

The RWEPC also provides programmatic support to all the member agency conservation coordinators. RWEPC produces a monthly e-newsletter Water Efficiency in Santa Barbara County. RWEPC compiles regional information on water rates, agency conservation programs and results, and water usage data. Member agency conservation coordinators meet monthly through the RWEPC to coordinate programs, identify and develop new initiatives, and share information. RWEPC also organizes conservation coordinator meetings with neighboring counties to share information, identify issues, and create opportunities for collaboration.

SECTION 9.7 OTHER DEMAND MANAGEMENT MEASURES

This District also implements other programs that are not part of the CUWCC MOU annual report and compliance requirements which are outlined below.

9.7.1 Residential Surveys

The District offers water survey audits to all customers. Due to a high percentage of single family residential customers with large landscape demands, the program places an emphasis on the landscape audits. All aspects of irrigation efficiency and plant types and zones are evaluated. Interior use is also addressed at each audit by reviewing interior fixtures, and noting the use patterns in December, January

and February, when landscape watering tends to be at its lowest. Results indicate that most of the customers audited have ultra-low flow toilets and water efficient plumbing devices.

The District has data on the audits conducted since 2005 through 2015, and since 2008 the conservation coordinator has tracked the landscape savings realized by his efforts and actions taken on accounts showing good potential for savings. This effort, together with the new tiered rate structure, has resulted in significant water demand reduction for most all the accounts audited. Since 2008 to current a total of 1,412 single family residential audits have been completed representing approximately 33% of the total residential account base.

This program includes the following:

- All residential customers are notified of availability of survey on the District's website and in bill stuffers.
- Instruct customers of meter reading program and applicable tiered rates.
- Detection of outside leaks and instruct residents on interior leak detection.
- Interior inspection of water appliances and plumbing fixtures.
- Check irrigation system for leaks/overlap and determine timer functioning and seasonal scheduling.
- Instruct customers on the irrigation controller functions and basic programming.
- Measure landscape area and develop irrigation schedule.
- Provide customer with evaluation results, water saving recommendations and other information.

The District markets the program through its public outreach program and is an active participant in the Regional Water Authority (RWA) public outreach program. All residential customers are offered the survey. A database is kept of each customer receiving the audit along with other customer-specific information and notes. The District has a program of contacting new residential customers and offering a survey. High consumption reports are generated after the meters are read on a particular cycle and District personnel contact customers. Consumption history is analyzed and suggestions are made on ways to reduce indoor and outdoor water use. The District plans to conduct 120 surveys per year for the next five years.

Customer data is kept in the billing database and is used to evaluate impacts of DMM on demands over time. The District actively updates its demand analysis and DMM water savings estimates to evaluate overall program effectiveness. The District also monitors requests for surveys over the year and from year to year to identify customer trends and needs to improve the program.

9.7.2 Landscape Surveys and Budgets

The District partners with the Santa Barbara County Water Agency to offer these audits through the Cachuma Resource Conservation District's (CRCD) Mobile Lab program, which does irrigation efficiency studies on large public fields and makes recommendations to improve efficiency and reduce waste. To

date, four large public landscapes have taken advantage of the audits. However, often no funds are available to purchase all of the recommended irrigation hardware upgrades.

9.7.3 Rebate Programs

The District does not currently offer any rebate programs but is actively considering future rebate programs for District customers.

The DWR has a rebate program for removing turf and replacing it with landscapes that require little water at California single-family residences to support the State's drought response. For more information on the program's history, go to the DWR turf site at www.water.ca.gov/turf/.

SECTION 9.8 IMPLEMENTATION OVER PAST 5 YEARS

The District's long-term commitment to water conservation is evident in water use reductions achieved through its public outreach programs aimed at curbing outdoor water consumption through the use of more efficient irrigation systems, including installation of Smart irrigation controllers which now include auto shut-off features with moisture sensors. The District has a Conservation Specialist on staff with an extensive background in outdoor water use and water audits.

The number of residential water audits conducted by the District from the adoption of the conservation rate structure in 2008 through 2015 are shown by year in Table T28 below.

TABLE T28: ANNUAL WATER AUDITS CONDUCTED BY DISTRICT

Year	Audits Conducted
2008	226
2009	168
2010	114
2011	110
2012	75
2013	132
2014	482
2015	105
TOTAL	1,412

All audited customers are educated on how to read their meter, track meter usage, the programming and use of irrigation controllers, and leak detection. Water audits through 2015 have accounted for over 34% of the single family residential class. Individual customer audits continue to be tracked and analyzed by District staff monthly and have shown a consistent 30% to 40% reduction in water use compared to water usage prior to the audit.

With residential water use primarily tied to irrigation and landscaping, continuing tiered water pricing along with public outreach and incentives for low water use landscaping including a movement by the District towards Smart residential customer meters will provide a highly efficient and lower application of non-essential water to residential properties.

The current level of annual water demand under a water shortage emergency and customer monthly allocations has reduced customer demand levels over 40% since the inception of monthly allocations in March 2014. This successful reduction in water consumption is a function of customer awareness during this exceptional, unprecedented drought and the assessment of penalties for all water used in excess of the monthly customer allocation. The allocation program has made customers aware of how they use water and how to meet monthly allocation goals through individual property water supply management. Since allocations were implemented, over 95% of District customers are using water at or below the monthly allocation.

SECTION 9.9 PLANNED IMPLEMENTATION TO ACHIEVE WATER USE TARGETS

The District will continue to implement the BMPs outlined in the CUWCC Annual Reports and continue collaboration with the Santa Barbara County RWEPP to achieve water use targets outlined in previous sections.

SECTION 9.10 CUWCC COMPLIANCE

The District has included as Appendix I to this document the 2013 CUWCC report to support the information presented in this section.

CHAPTER 10 PLAN ADOPTION, SUBMITTAL AND IMPLEMENTATION

This section outlines the steps taken by the District to adopt and submit this Urban Water Management Plan and make it publicly available.

SECTION 10.1 NOTICE OF PUBLIC HEARING

The District notified the public within its service area of the opportunity to provide input regarding this UWMP. A copy of the public outreach materials including newspaper notices and letters are included in Appendix C. Notices of public hearing were published in the local press and copies of the Draft Plan were made available at the District office. The City of Santa Barbara and County of Santa Barbara were notified of the UWMP update.

SECTION 10.2 PUBLIC HEARING AND ADOPTION

A public hearing, with public notice pursuant to CWC 10642, was held before the Montecito Water District Board of Directors as Agenda Item No. 4-A on May 16, 2017 at which time the Board voted to adopt Resolution 2147 adopting the UWMP. Documentation of public noticing and Board action is included in Appendix C.

SECTION 10.3 SUBMISSION OF PLAN

Copies of this Plan were sent to the office of the Clerk of the Board for Santa Barbara County and the California State Library at the time of submittal to the DWR.

SECTION 10.4 PUBLIC AVAILABILITY

A copy of this Plan will be posted on the District's website within 30 calendar days of the filing date with a hard copy available for review at the District's office at 583 San Ysidro Road during normal business hours.

Appendix A

UWMP Checklist

Checklist Arranged by Subject

CWC Section	UWMP Requirement	Subject	Guidebook Location	UWMP Location (Optional Column for Agency Use)
10620(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.	Plan Preparation	Section 2.1	Section 2.1
10620(d)(2)	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.	Plan Preparation	Section 2.5.2	Section 2.3
10642	Provide supporting documentation that the water supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan.	Plan Preparation	Section 2.5.2	Section 2.2 Section 2.3
10631(a)	Describe the water supplier service area.	System Description	Section 3.1	Chapter 3
10631(a)	Describe the climate of the service area of the supplier.	System Description	Section 3.3	Section 3.3
10631(a)	Provide population projections for 2020, 2025, 2030, and 2035.	System Description	Section 3.4	Section 3.4
10631(a)	Describe other demographic factors affecting the supplier's water management planning.	System Description	Section 3.4	Section 3.4
10631(a)	Indicate the current population of the service area.	System Description and Baselines and Targets	Sections 3.4 and 5.4	Section 3.4 Section 5.3
10631(e)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	Section 4.2	Chapter 4
10631(e)(3)(A)	Report the distribution system water loss for the most recent 12-month period available.	System Water Use	Section 4.3	Section 4.2
10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the supplier.	System Water Use	Section 4.5	Section 4.5
10608.20(b)	Retail suppliers shall adopt a 2020 water use target using one of four methods.	Baselines and Targets	Section 5.7 and App E	Section 5.6
10608.20(e)	Retail suppliers shall provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along	Baselines and Targets	Chapter 5 and App E	Chapter 5

	with the bases for determining those estimates, including references to supporting data.			
10608.22	Retail suppliers' per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use of the 5 year baseline. This does not apply if the suppliers base GPCD is at or below 100.	Baselines and Targets	Section 5.7.2	Section 5.6 Section 5.7
10608.24(a)	Retail suppliers shall meet their interim target by December 31, 2015.	Baselines and Targets	Section 5.8 and App E	Section 5.7
10608.24(d)(2)	If the retail supplier adjusts its compliance GPCD using weather normalization, economic adjustment, or extraordinary events, it shall provide the basis for, and data supporting the adjustment.	Baselines and Targets	Section 5.8.2	Chapter 5
10608.36	Wholesale suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their retail water suppliers achieve targeted water use reductions.	Baselines and Targets	Section 5.1	N/A - Retail
10608.40	Retail suppliers shall report on their progress in meeting their water use targets. The data shall be reported using a standardized form.	Baselines and Targets	Section 5.8 and App E	Section 5.7
10631(b)	Identify and quantify the existing and planned sources of water available for 2015, 2020, 2025, 2030, and 2035.	System Supplies	Chapter 6	Chapter 6
10631(b)	Indicate whether groundwater is an existing or planned source of water available to the supplier.	System Supplies	Section 6.2	Section 6.3
10631(b)(1)	Indicate whether a groundwater management plan has been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System Supplies	Section 6.2.2	Section 6.3.2
10631(b)(2)	Describe the groundwater basin.	System Supplies	Section 6.2.1	Section 6.3.1
10631(b)(2)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the supplier has the legal right to pump.	System Supplies	Section 6.2.2	Section 6.3.1
10631(b)(2)	For unadjudicated basins, indicate whether or not the department has identified the basin as overdrafted, or projected to become overdrafted. Describe efforts by the supplier to eliminate the long-term overdraft condition.	System Supplies	Section 6.2.3	Section 6.3
10631(b)(3)	Provide a detailed description and analysis of the location, amount, and sufficiency of	System Supplies	Section 6.2.4	Section 6.3.7

	groundwater pumped by the urban water supplier for the past five years			
10631(b)(4)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System Supplies	Sections 6.2 and 6.9	Chapter 6
10631(d)	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	System Supplies	Section 6.7	Section 6.7
10631(g)	Describe the expected future water supply projects and programs that may be undertaken by the water supplier to address water supply reliability in average, single-dry, and multiple-dry years.	System Supplies	Section 6.8	Section 6.8
10631(h)	Describe desalinated water project opportunities for long-term supply.	System Supplies	Section 6.6	Section 6.6
10631(j)	Retail suppliers will include documentation that they have provided their wholesale supplier(s) – if any - with water use projections from that source.	System Supplies	Section 2.5.1	Section 2.3.1
10631(j)	Wholesale suppliers will include documentation that they have provided their urban water suppliers with identification and quantification of the existing and planned sources of water available from the wholesale to the urban supplier during various water year types.	System Supplies	Section 2.5.1	N/A - Retail
10633	For wastewater and recycled water, coordinate with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.1	Section 6.5
10633(a)	Describe the wastewater collection and treatment systems in the supplier's service area. Include quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.	System Supplies (Recycled Water)	Section 6.5.2	Section 6.5.2
10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	System Supplies (Recycled Water)	Section 6.5.2.2	Section 6.5
10633(c)	Describe the recycled water currently being used in the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.3 and 6.5.4	Section 6.5.3
10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System Supplies (Recycled Water)	Section 6.5.4	Section 6.5.4
10633(e)	Describe 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	System Supplies (Recycled Water)	Section 6.5.4	Section 6.8 Section 6.9

	of the actual use of recycled water in comparison to uses previously projected.			
10633(f)	Describe the actions 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.	System Supplies (Recycled Water)	Section 6.5.5	Section 6.5.4 Section 6.8 Section 6.9
10633(g)	Provide a plan for optimizing the use of recycled water in the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.5	Section 6.5 Section 6.9
10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water Supply Reliability Assessment	Section 7.4	Chapter 7
10631(c)(1)	Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage.	Water Supply Reliability Assessment	Section 7.1	Chapter 7
10631(c)(1)	Provide data for an average water year, a single dry water year, and multiple dry water years	Water Supply Reliability Assessment	Section 7.2	Section 6.9 Section 7.3.1 Section 7.3.2
10631(c)(2)	For any water source that may not be available at a consistent level of use, describe plans to supplement or replace that source.	Water Supply Reliability Assessment	Section 7.1	Chapter 7
10634	Provide information on the quality of existing sources of water available to the supplier and the manner in which water quality affects water management strategies and supply reliability	Water Supply Reliability Assessment	Section 7.1	Chapter 7
10635(a)	Assess the water supply reliability during normal, dry, and multiple dry water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years.	Water Supply Reliability Assessment	Section 7.3	Section 6.9 Section 7.3.1 Section 7.3.2
10632(a) and 10632(a)(1)	Provide an urban water shortage contingency analysis that specifies stages of action and an outline of specific water supply conditions at each stage.	Water Shortage Contingency Planning	Section 8.1	Chapter 8
10632(a)(2)	Provide an estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency.	Water Shortage Contingency Planning	Section 8.9	Section 8.11
10632(a)(3)	Identify actions to be undertaken by the urban water supplier in case of a catastrophic interruption of water supplies.	Water Shortage Contingency Planning	Section 8.8	Section 8.10
10632(a)(4)	Identify mandatory prohibitions against specific water use practices during water shortages.	Water Shortage Contingency Planning	Section 8.2	Section 8.4

10632(a)(5)	Specify consumption reduction methods in the most restrictive stages.	Water Shortage Contingency Planning	Section 8.4	Section 8.6
10632(a)(6)	Indicated penalties or charges for excessive use, where applicable.	Water Shortage Contingency Planning	Section 8.3	Section 8.5
10632(a)(7)	Provide an analysis of the impacts of each of the actions and conditions in the water shortage contingency analysis on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts.	Water Shortage Contingency Planning	Section 8.6	Section 8.8
10632(a)(8)	Provide a draft water shortage contingency resolution or ordinance.	Water Shortage Contingency Planning	Section 8.7	Section 8.9
10632(a)(9)	Indicate a mechanism for determining actual reductions in water use pursuant to the water shortage contingency analysis.	Water Shortage Contingency Planning	Section 8.5	Chapter 8
10631(f)(1)	Retail suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand Management Measures	Sections 9.2 and 9.3	Chapter 9
10631(f)(2)	Wholesale suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and supplier assistance program.	Demand Management Measures	Sections 9.1 and 9.3	N/A - Retail
10631(i)	CUWCC members may submit their 2013-2014 CUWCC BMP annual reports in lieu of, or in addition to, describing the DMM implementation in their UWMPs. This option is only allowable if the supplier has been found to be in full compliance with the CUWCC MOU.	Demand Management Measures	Section 9.5	Chapter 9
10608.26(a)	Retail suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets.	Plan Adoption, Submittal, and Implementation	Section 10.3	Chapter 10
10621(b)	Notify, at least 60 days prior to the public hearing, any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan.	Plan Adoption, Submittal, and Implementation	Section 10.2.1	Chapter 10
10621(d)	Each urban water supplier shall update and submit its 2015 plan to the department by July 1, 2016.	Plan Adoption, Submittal, and Implementation	Sections 10.3.1 and 10.4	-
10635(b)	Provide supporting documentation that Water Shortage Contingency Plan has been, or will be, provided to any city or county	Plan Adoption, Submittal, and Implementation	Section 10.4.4	Section 10.3

	within which it provides water, no later than 60 days after the submission of the plan to DWR.			
10642	Provide supporting documentation that the urban water supplier made the plan available for public inspection, published notice of the public hearing, and held a public hearing about the plan.	Plan Adoption, Submittal, and Implementation	Sections 10.2.2, 10.3, and 10.5	Section 2.2
10642	The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water.	Plan Adoption, Submittal, and Implementation	Sections 10.2.1	Section 2.2
10642	Provide supporting documentation that the plan has been adopted as prepared or modified.	Plan Adoption, Submittal, and Implementation	Section 10.3.1	Section 10.2
10644(a)	Provide supporting documentation that the urban water supplier has submitted this UWMP to the California State Library.	Plan Adoption, Submittal, and Implementation	Section 10.4.3	Section 10.3
10644(a)(1)	Provide supporting documentation that the urban water supplier has submitted this UWMP to any city or county within which the supplier provides water no later than 30 days after adoption.	Plan Adoption, Submittal, and Implementation	Section 10.4.4	Section 10.3
10644(a)(2)	The plan, or amendments to the plan, submitted to the department shall be submitted electronically.	Plan Adoption, Submittal, and Implementation	Sections 10.4.1 and 10.4.2	Section 10.3
10645	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Section 10.5	Section 10.4

Appendix B

UWMP Standardized Tables

Table 2-1 Retail Only: Public Water Systems

Public Water System Number	Public Water System Name	Number of Municipal Connections 2015	Volume of Water Supplied 2015
CA4210007	Montecito Water District	4,598	3,517
TOTAL		4,598	3,517

NOTES: Includes potable and non-potable water connections. Includes 7 non-potable water customers, which were served 105 AF of water in Calendar Year 2015. Data source: District metered sales report for Calendar Year period 2015.

Table 2-2: Plan Identification			
Select Only One	Type of Plan		Name of RUWMP or Regional Alliance <i>if applicable</i> <i>drop down list</i>
☒	Individual UWMP		
	☐	Water Supplier is also a member of a RUWMP	
	☐	Water Supplier is also a member of a Regional Alliance	
☐	Regional Urban Water Management Plan (RUWMP)		
NOTES:			

Table 2-3: Agency Identification	
Type of Agency (select one or both)	
☐	Agency is a wholesaler
☒	Agency is a retailer
Fiscal or Calendar Year (select one)	
☒	UWMP Tables Are in Calendar Years
☐	UWMP Tables Are in Fiscal Years
If Using Fiscal Years Provide Month and Date that the Fiscal Year Begins (mm/dd)	
Units of Measure Used in UWMP (select from Drop down)	
Unit	AF
NOTES:	

Table 2-4 Retail: Water Supplier Information Exchange
The retail supplier has informed the following wholesale supplier(s) of projected water use in accordance with CWC 10631.
Wholesale Water Supplier Name <i>(Add additional rows as needed)</i>
Central Coast Water Authority (CCWA)
NOTES:

Table 3-1 Retail: Population - Current and Projected

Population Served	2015	2020	2025	2030	2035	2040(opt)
	11,370	11,441	11,506	11,572	11,638	N/A

NOTES: 2015 data per DWR Population Tool with Allowed Modification. 2020 through 2035 data from straightline interpolation of SBCAG data.

Table 4-1 Retail: Demands for Potable and Raw Water - Actual

Use Type (Add additional rows as needed)	2015 Actual		
Drop down list <i>May select each use multiple times</i> <i>These are the only Use Types that will be recognized by the WUEdata online submittal tool</i>	Additional Description (as needed)	Level of Treatment When Delivered <i>Drop down list</i>	Volume
Single Family	-	Drinking Water	2,482
Multi-Family	-	Drinking Water	66
Commercial	-	Drinking Water	241
Institutional/Governmental	-	Drinking Water	310
Agricultural irrigation	-	Drinking Water	313
Landscape	Non-Potable (Groundwater)	Raw Water	105
Sales/Transfers/Exchanges to other agencies	Includes Juncal Exchange of 300 AF less the net overlap of deliveries to City and use of Barker Pass Intertie.	Drinking Water	300
Losses	-	Drinking Water	390
TOTAL			4,207
NOTES: Data source: District Metered sales report, except for sales/transfers/exchanges and losses which were derived from District monthly production data.			

Table 4-2 Retail: Demands for Potable and Raw Water - Projected

Use Type <i>(Add additional rows as needed)</i>	Additional Description <i>(as needed)</i>	Projected Water Use <i>Report To the Extent that Records are Available</i>				
<u><i>Drop down list</i></u> <i>May select each use multiple times</i> <i>These are the only Use Types that will be recognized by the WUEdata online submittal tool</i>		2020	2025	2030	2035	2040-opt
Single Family	-	3,046	3,063	3,081	3,098	
Multi-Family	-	81	81	81	81	
Commercial	-	294	294	294	294	
Institutional/Governmental		378	378	378	378	
Agricultural irrigation	Agricultural Accounts	428	428	428	428	
Landscape	Non-Potable (Groundwater)	105	105	105	105	
Sales/Transfers/Exchanges to other agencies	Overlap Deliveries to City	300	300	300	300	
Losses	Estimated at 10%	433	435	437	438	
TOTAL		5,065	5,084	5,104	5,122	0
NOTES:						

Table 4-3 Retail: Total Water Demands

	2015	2020	2025	2030	2035	2040 (opt)
Potable and Raw Water <i>From</i> <i>Tables 4-1 and 4-2</i>	4,207	5,065	5,084	5,104	5,122	0
Recycled Water Demand* <i>From</i> <i>Table 6-4</i>	0	200	1,000	1,000	1,000	0
TOTAL WATER DEMAND	4,207	5,265	6,084	6,104	6,122	0

**Recycled water demand fields will be blank until Table 6-4 is complete.*

NOTES:

Table 4-4 Retail: 12 Month Water Loss Audit Reporting	
Reporting Period Start Date (mm/yyyy)	Volume of Water Loss*
01/2015	385
<i>* Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet.</i>	
NOTES: Per MWD Metered Sales reports and Production reports as compiled by MWD the volume of water loss for 2015 was 390 AF.	

Table 4-5 Retail Only: Inclusion in Water Use Projections

Are Future Water Savings Included in Projections? (Refer to Appendix K of UWMP Guidebook) <i>Drop down list (y/n)</i>	Yes
If "Yes" to above, state the section or page number, in the cell to the right, where citations of the codes, ordinances, etc... utilized in demand projections are found.	Sections 4.4, 8.5, 8.6, 8.9
Are Lower Income Residential Demands Included In Projections? <i>Drop down list (y/n)</i>	Yes
NOTES:	

Table 5-1 Baselines and Targets Summary*Retail Agency or Regional Alliance Only*

Baseline Period	Start Year	End Year	Average Baseline GPCD*	2015 Interim Target *	Confirmed 2020 Target*
10-15 year	2001	2010	422	380	338
5 Year	2006	2010	459		

*All values are in Gallons per Capita per Day (GPCD)

NOTES:

Table 5-2: 2015 Compliance*Retail Agency or Regional Alliance Only*

Actual 2015 GPCD*	2015 Interim Target GPCD*	Optional Adjustments to 2015 GPCD					2015 GPCD* (Adjusted if applicable)	Did Supplier Achieve Targeted Reduction for 2015? Y/N
		Enter "0" if no adjustment is made						
		Methodology 8						
		Extraordinary Events*	Economic Adjustment*	Weather Normalization*	TOTAL Adjustments*	Adjusted 2015 GPCD*		
284	380	0	0	0	0	284	284	Yes

**All values are in Gallons per Capita per Day (GPCD)*

**All values are in Gallons per Capita per Day (GPCD)*

NOTES: Based on gross water use (i.e. total volume of water entering the District's system) excluding agricultural use.

Table 6-1 Retail: Groundwater Volume Pumped

☐	Supplier does not pump groundwater. The supplier will not complete the table below.					
Groundwater Type <i>Drop Down List</i> <i>May use each category multiple times</i>	Location or Basin Name	2011	2012	2013	2014	2015
Add additional rows as needed						
Alluvial Basin	Storage Unit 1	114	129	111	68	59
Alluvial Basin	Storage Unit 3	10	135	314	497	528
Alluvial Basin	Toro Canyon Storage Unit	0	15	35	42	50
TOTAL		124	279	460	607	637
NOTES: Source is District Groundwater Production Records.						

Table 6-2 Retail: Wastewater Collected Within Service Area in 2015						
☐	There is no wastewater collection system. The supplier will not complete the table below.					
	Percentage of 2015 service area covered by wastewater collection system(<i>optional</i>)					
	Percentage of 2015 service area population covered by wastewater collection system(<i>optional</i>)					
Wastewater Collection			Recipient of Collected Wastewater			
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? <i>Drop Down List</i>	Volume of Wastewater Collected from UWMP Service Area 2015	Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTP Located Within UWMP Area? <i>Drop Down List</i>	Is WWTP Operation Contracted to a Third Party? (<i>optional</i>) <i>Drop Down List</i>
<i>Add additional rows as needed</i>						
Montecito Sanitary District	Metered	664	Montecito Sanitary District	Montecito Sanitary District Wastewater Treatment Facility	Yes	No
Summerland Sanitary District	Metered	88	Summerland Sanitary District	Summerland San	Yes	No
City of Santa Barbara	Metered	Unmetered	City of Santa Barbara	El Estero Wastewater Treatment Plant	No	No
Total Wastewater Collected from Service Area in 2015:		752				
NOTES:						

Table 6-3 Retail: Wastewater Treatment and Discharge Within Service Area in 2015

☐		No wastewater is treated or disposed of within the UWMP service area. The supplier will not complete the table below.								
Wastewater Treatment Plant Name	Discharge Location Name or Identifier	Discharge Location Description	Wastewater Discharge ID Number <i>(optional)</i>	Method of Disposal <i>Drop down list</i>	Does This Plant Treat Wastewater Generated Outside the Service Area?	Treatment Level <i>Drop down list</i>	2015 volumes			
							Wastewater Treated	Discharged Treated Wastewater	Recycled Within Service Area	Recycled Outside of Service Area
Add additional rows as needed										
Montecito Sanitary District Wastewater Treatment Facility	Pacific Ocean Discharge Point 001	Lat 34D 24' 48" N, Long 119D 38' 52" W; approx. 1500' off Butterfly Beach		Ocean outfall	No	Secondary, Disinfected - 2.2	760	664	0	0
Summerland Sanitary Wastewater Treatment Plant	Latitude 34°25'00"N Longitude 119°35'48"W	Pacific Ocean/Santa Barbara Channel		Ocean outfall	No	Tertiary	88	88	0	0
City of Santa Barbara El Estero Wastewater Treatment Plant	Pacific Ocean Outfall	Pacific Ocean/Santa Barbara Channel		Ocean outfall	Yes	Tertiary	7,089	6,948	141	0
Total							7,937	7,700	141	0
NOTES: Data provided by Montecito Sanitary District and Summerland Sanitary Wastewater Treatment Plant personnel. MSD recycles 144,000 gallons within their service area and 146,000 outside their service area but these values are below 0.5 AF and therefore appear as "0" in this table.										

Table 6-4 Retail: Current and Projected Recycled Water Direct Beneficial Uses Within Service Area

☐	Recycled water is not used and is not planned for use within the service area of the supplier. The supplier will not complete the table below.							
Name of Agency Producing (Treating) the Recycled Water:		To Be Determined						
Name of Agency Operating the Recycled Water Distribution System:		Montecito Water District						
Supplemental Water Added in 2015		0						
Source of 2015 Supplemental Water		None						
Beneficial Use Type	General Description of 2015 Uses	Level of Treatment <i>Drop down list</i>	2015	2020	2025	2030	2035	2040 (opt)
Agricultural irrigation								
Landscape irrigation (excludes golf courses)								
Golf course irrigation								
Commercial use								
Industrial use								
Geothermal and other energy production								
Seawater intrusion barrier								
Recreational impoundment								
Wetlands or wildlife habitat								
Groundwater recharge (IPR)*								
Surface water augmentation (IPR)*								
Direct potable reuse								
Other (Provide General Description)	None	Tertiary	0	200	1,000	1,000	1,000	
Total:			0	200	1,000	1,000	1,000	0
<i>*IPR - Indirect Potable Reuse</i>								
NOTES: Recycled water uses as described within UWMP report.								

Table 6-5 Retail: 2010 UWMP Recycled Water Use Projection Compared to 2015 Actual

☒		Recycled water was not used in 2010 nor projected for use in 2015. The supplier will not complete the table below.	
Use Type		2010 Projection for 2015	2015 Actual Use
Agricultural irrigation			
Landscape irrigation (excludes golf courses)			
Golf course irrigation			
Commercial use			
Industrial use			
Geothermal and other energy production			
Seawater intrusion barrier			
Recreational impoundment			
Wetlands or wildlife habitat			
Groundwater recharge (IPR)			
Surface water augmentation (IPR)			
Direct potable reuse			
Other	<i>Type of Use</i>		
Total		0	0
NOTES:			

Table 6-6 Retail: Methods to Expand Future Recycled Water Use			
☐	Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.		
	Provide page location of narrative in UWMP		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use
Add additional rows as needed			
Implement Recycled Water Supply	Recycled water supply provided by local or regional sanitation or water district.	2020	200
Total			200
NOTES:			

Table 6-7 Retail: Expected Future Water Supply Projects or Programs

☐	No expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Supplier will not complete the table below.					
☒	Some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format.					
	Provide page location of narrative in the UWMP					
Name of Future Projects or Programs	Joint Project with other agencies?		Description (if needed)	Planned Implementation Year	Planned for Use in Year Type <i>Drop Down List</i>	Expected Increase in Water Supply to Agency <i>This may be a range</i>
	<i>Drop Down List (y/n)</i>	<i>If Yes, Agency Name</i>				
<i>Add additional rows as needed</i>						
Water Conservation Program	No			Ongoing	All Year Types	N/A
Recycled Water	Yes	Local or Regional Water or Sanitation District		2025	All Year Types	200 - 1,000
Banked Water (Groundwater, SWP Water, or Other Source)	Yes	TBD		2025	All Year Types	500 - 1,000
Purchased - Imported Water	Yes	City of Santa Barbara		2018	All Year Types	1,250
NOTES:						

Table 6-8 Retail: Water Supplies — Actual

Water Supply	Additional Detail on Water Supply	2015		
Drop down list May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool		Actual Volume	Water Quality Drop Down List	Total Right or Safe Yield (optional)
Add additional rows as needed				
Supply from Storage	Carryover at San Luis	2,028	Drinking Water	
Supply from Storage	Carryover at Cachuma	2,799	Drinking Water	
Purchased or Imported Water	Supplemental Water Purchases	1,616	Drinking Water	
Surface water	Cachuma Allocation	1,160	Drinking Water	
Surface water	Jameson Lake	351	Drinking Water	
Groundwater	Doulton Tunnel (Infiltration)	161	Drinking Water	
Groundwater	Potable Wells	528	Drinking Water	
Groundwater	Non-Potable Wells	109	Raw Water	
Transfers	Juncal Exchange with City	300	Drinking Water	
Total		9,052		0

NOTES: Due to several dry years, a Statewide Drought Condition was declared during FY 2015. Values in "Actual Volume" column represent amount of supply actually used. Additional water was available and carried over for use in later years of drought as noted.

Table 6-9 Retail: Water Supplies — Projected

Water Supply	Additional Detail on Water Supply	Projected Water Supply Report To the Extent Practicable									
Drop down list <i>May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool</i>		2020		2025		2030		2035		2040 (opt)	
		Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)
Add additional rows as needed											
Purchased or Imported Water	SWP / CCWA Table A Allocation	2,001		1,987		1,973		1,958			
Surface water	Lake Cachuma (Cacuma Project)	2,618		2,585		2,552		2,518			
Surface water	Jameson Lake	1,485		1,470		1,455		1,440			
Surface water	Fox Creek Diversion	0		0		0		0			
Surface water	Alder Creek Diversion	0		0		0		0			
Groundwater	Doulton Tunnel Infiltration	320		320		320		320			
Groundwater	Groundwater Wells	250		250		250		250			
Stormwater Use		0		0		0		0			
Recycled Water		200		1,000		1,000		1,000			
Desalinated Water		0		0		0		0			
Supply from Storage	Banked Water	500		1,000		1,000		1,000			
Purchased or Imported Water	Supplemental Water Purchase	0		0		0		0			
Purchased or Imported Water	Supply from City of Santa Barbara	1,250		1,250		1,250		1,250			
Total		8,624	0	9,862	0	9,800	0	9,736	0	0	0

Table 7-1 Retail: Basis of Water Year Data

Year Type	Base Year <i>If not using a calendar year, type in the last year of the fiscal, water year, or range of years, for example, water year 1999-2000, use 2000</i>	Available Supplies if Year Type Repeats	
		☐	Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location _____
		☒	Quantification of available supplies is provided in this table as either volume only, percent only, or both.
		Volume Available	% of Average Supply
Average Year	2009	9737	100%
Single-Dry Year	2015	5122	53%
Multiple-Dry Years 1st Year	2013	7089	73%
Multiple-Dry Years 2nd Year	2014	5383	55%
Multiple-Dry Years 3rd Year	2015	5122	53%
Multiple-Dry Years 4th Year <i>Optional</i>			
Multiple-Dry Years 5th Year <i>Optional</i>			
Multiple-Dry Years 6th Year <i>Optional</i>			
Agency may use multiple versions of Table 7-1 if different water sources have different base years and the supplier chooses to report the base years for each water source separately. If an agency uses multiple versions of Table 7-1, in the "Note" section of each table, state that multiple versions of Table 7-1 are being used and identify the particular water source that is being reported in each table.			
NOTES: Volumes identified represent the projected volume available at planning year of 2035.			

Table 7-2 Retail: Normal Year Supply and Demand Comparison					
	2020	2025	2030	2035	2040 (Opt)
Supply totals (autofill from Table 6-9)	8,624	9,862	9,800	9,736	0
Demand totals (autofill from Table 4-3)	5,265	6,084	6,104	6,122	0
Difference	3,359	3,778	3,696	3,614	0
NOTES: Difference represents water that could be banked/stored for future use during periods of drought.					

Table 7-3 Retail: Single Dry Year Supply and Demand Comparison

	2020	2025	2030	2035	2040 (Opt)
Supply totals	5,064	5,083	5,102	5,122	
Demand totals	5,064	5083	5,102	5,122	
Difference	0	0	0	0	0

NOTES: Supply includes water that was projected to be previously banked/stored during normal years for use during drought conditions. Demand includes Juncal Transfer and Non-Revenue Water.

Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison

		2020	2025	2030	2035	2040 (Opt)
First year	Supply totals	6,376	7,147	7,118	7,089	
	Demand totals	5,064	5,083	5,102	5,122	
	Difference	1,312	2,064	2,016	1,967	0
Second year	Supply totals	5,064	5,405	5,395	5,383	
	Demand totals	5,064	5,083	5,102	5,122	
	Difference	0	322	293	261	0
Third year	Supply totals	5,064	5,083	5,102	5,122	
	Demand totals	5,064	5,083	5,102	5,122	
	Difference	0	0	0	0	0
Fourth year <i>(optional)</i>	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Fifth year <i>(optional)</i>	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Sixth year <i>(optional)</i>	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0

NOTES: Demand includes Juncal Transfer and Non-Revenue Water.

**Table 8-1 Retail
Stages of Water Shortage Contingency Plan**

Stage	Complete Both	
	Percent Supply Reduction ¹ <i>Numerical value as a percent</i>	Water Supply Condition <i>(Narrative description)</i>
<i>Add additional rows as needed</i>		
Stage 1	0-15%	Prolonged dry weather and up to a 15% reduction in District water supplies is projected for the coming water year.
Stage 2	15-25%	Continuing conditions of average or less than average rainfall and 15-25% reduction in District water supplies is projected for the coming water year.
Stage 3	25%-35%	25-35% reduction in District water supplies is projected for the coming water year or an extraordinary reduction in District supplies has been identified.
Stage 4	35% or More	35% or greater reduction in District water supplies is projected for the coming water year or a catastrophic interruption to District water supplies has occurred.
¹ One stage in the Water Shortage Contingency Plan must address a water shortage of 50%.		
NOTES:		

Table 8-2 Retail Only: Restrictions and Prohibitions on End Uses

Stage	Restrictions and Prohibitions on End Users <i>Drop down list</i> <i>These are the only categories that will be accepted by the WUEdata online submittal tool</i>	Additional Explanation or Reference (optional)	Penalty, Charge, or Other Enforcement? <i>Drop Down List</i>
<i>Add additional rows as needed</i>			
All	Other	General - Waste of Water	Yes
All	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner		Yes
All	Landscape - Restrict or prohibit runoff from landscape irrigation		Yes
All	Other - Require automatic shut of hoses	Hand operated shut off valve required.	Yes
All	Other - Prohibit use of potable water for washing hard surfaces		Yes
2, 3 & 4	Landscape - Limit landscape irrigation to specific times		Yes
2, 3 & 4	Landscape - Prohibit certain types of landscape irrigation	Hours of allowable irrigation differentiated by automated vs. manual control	Yes
2, 3 & 4	CII - Lodging establishment must offer opt out of linen service		Yes
2, 3 & 4	CII - Restaurants may only serve water upon request		Yes
2, 3 & 4	Water Features - Restrict water use for decorative water features, such as fountains		Yes
2, 3 & 4	Pools and Spas - Require covers for pools and spas		Yes
2, 3 & 4	Pools - Allow filling of swimming pools only when an appropriate cover is in place.		Yes
2, 3 & 4	Other water feature or swimming pool restriction	Draining/Filling of pools restricted to repair only and must gain District approval.	Yes
2, 3 & 4	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water		Yes
NOTES:			

Table 8-3 Retail Only:

Stages of Water Shortage Contingency Plan - Consumption Reduction Methods

Stage	Consumption Reduction Methods by Water Supplier <i>Drop down list</i> <i>These are the only categories that will be accepted by the WUEdata online submittal tool</i>	Additional Explanation or Reference <i>(optional)</i>
<i>Add additional rows as needed</i>		
All	Expand Public Information Campaign	
All	Offer Water Use Surveys	
All	Reduce System Water Loss	
2, 3 & 4	Decrease Line Flushing	
2, 3 & 4	Moratorium or Net Zero Demand Increase on New Connections	
2, 3 & 4	Implement or Modify Drought Rate Structure or Surcharge	
2, 3 & 4	Increase Water Waste Patrols	
2, 3 & 4	Other	Establish Water Use Allocations & Penalties
NOTES:		

Table 8-4 Retail: Minimum Supply Next Three Years			
	2016	2017	2018
Available Water Supply	9,657	5,821	3,460
NOTES: Per 2016 SWRCB online "Stress Test". Numbers are for Water Years 2016-2017, 2017-2018, and 2018-2019.			

Table 10-1 Retail: Notification to Cities and Counties

City Name	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
City of Santa Barbara	☒	☐
	☐	☐
	☐	☐
County Name <i>Drop Down List</i>	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
Santa Barbara County	☒	☐
	☐	☐

Appendix C

Documentation of Public Noticing and Board Action

Notice of Public Hearing

2015 Urban Water Management Plan Update and Water Use Targets (SBX7-7)

Montecito Water District is currently preparing an update to its Urban Water Management Plan (UWMP) in compliance with the California Urban Water Management Planning Act.

The District will hold a Public Hearing before the Board of Directors to receive and consider input regarding the proposed revisions and updates to the UWMP.

The Public Hearing will be held:

On Tuesday, May 16 at 2pm

At Montecito Fire Protection District, 595 San Ysidro Road, Santa Barbara, CA 93108

The proposed updates to the UWMP are available for public review prior to the Public Hearing at the District Office, 583 San Ysidro Road, Santa Barbara, CA 93108, and on the District's web site, www.montecitowater.com, as of April 20, 2017.

Comments can be provided up until the date of the Public Hearing to:

Adam Kanold, Engineering Manager, akanold@montecitowater.com

Montecito Water District

583 San Ysidro Road

Santa Barbara, CA 93108

Phone: 805.969.2271 Fax: 805. 805.969.7261

Notice of Public Hearing

2015 Urban Water Management Plan Update and Water Use Targets (SBX7-7)

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Comments can be provided up until the date of the Public Hearing to:

Adam Kanold, Engineering Manager,

akanold@montecitowater.com

Montecito Water District

583 San Ysidro Road

Santa Barbara, CA 93108

Phone: 805.969.2271 Fax: 805.969.7261

Published:

April 26 and May 3, 2017

Montecito Journal



February 3, 2017

Fray A. Crease
Santa Barbara County Water Agency Manager
130 E. Victoria St., Suite 200
Santa Barbara, CA 93101

Re: Notification of Urban Water Management Plan Review and Amendment Period for
the Montecito Water District

Dear Ms. Crease,

Board of Directors

President
Richard Shaikewitz

Vice President
W. Douglas Morgan

Director
Samuel Frye

Director
Tobe Plough

Director
Floyd Wicks

**General Manager
and Board Secretary**
Nick Turner

Montecito Water District (MWD) hereby provides notice pursuant to Water Code §10621 that MWD is reviewing its Urban Water Management Plan (UWMP) and considering amendments or changes to the UWMP.

MWD will have a Draft UWMP available in early March and will conduct a public hearing pursuant to Water Code §10642 in April 2017. The specific date, time and location of the public hearing will be published in the Montecito Journal, and provided to you through a further notice, once they are determined.

If you have any questions regarding the above, please contact me at (805) 969-2271.

Sincerely,

Nick Turner
General Manager

cc: Walt Wendelstein, Cohen & Burge, LLP

583 San Ysidro Road
Santa Barbara, CA
93108-2124

Ph 805.969.2271
Fax 805.969.7261

This is recycled paper.
Each ton of recycled paper
saves 7,000 gallons of water.

info@montecitowater.com
www.montecitowater.com

May is Water Awareness Month!



You're Invited! PUBLIC HEARING
for the District's 2015 Urban Water
Management Plan Update and
Water Use Targets (SBX7-7)
TUESDAY, MAY 16, 2PM
Montecito Fire Protection District
595 San Ysidro Road, Santa Barbara, CA 93108
For a copy of the plan or more info visit our web site.

805-969-2271

montecitowater.com

Meter Reading Dates: May 25, 26 & 27

The District Office is Closed May 29 for Memorial Day.



Version #2 MWD May Journal Ad

Montecito Water District 1/4 page advertisement runs May 10, 2017.

RESOLUTION NO. 2147

A Resolution of the Board of Directors of the
MONTECITO WATER DISTRICT
Adopting the Montecito Water District
2015 URBAN WATER MANAGEMENT PLAN UPDATE

WHEREAS, the Urban Water Management Planning Act (California Water Code § 10610 et seq.) requires urban water suppliers to prepare and adopt an urban water management plan to, among other things, report, describe, and evaluate water deliveries, water supply sources, supply reliability, efficient water use, demand management measures, etc.; and;

WHEREAS, the Urban Water Management Planning Act requires that urban water management plans are updated every five years by urban water suppliers with 3,000 or more service connections or supplying 3,000 or more acre-feet of water annually; and

WHEREAS, Montecito Water District is an urban water supplies providing water to over 4,600 connections and has prepared its 2015 urban water management plan update (UWMP) as required by the Urban Water Management Planning Act; and

WHEREAS, the District coordinated the preparation of the UWMP with other appropriate agencies in the area; notified the County of Santa Barbara, the City of Santa Barbara and the Carpinteria Valley Water District on February 3, 2017 of the District's intent to review its UWMP and consider its adoption; distributed the draft UWMP to local and regional agencies and other parties who requested a copy of the UWMP; made the draft UWMP available for public inspection at the District office; posted the draft UWMP on the District's website; published notices of the May 16, 2017 public hearing in the local newspaper once a week for three successive weeks beginning on April 26, 2017 and posted that notice on the District's website; held a public hearing inviting public input regarding the draft UWMP; and considered all comments received during the public hearing.;

THEREFORE BE IT RESOLVED that the Montecito Water District hereby approves and adopts the 2015 Urban Water Management Plan Update, as presented to the Board and attached to this Resolution.

BE IT FURTHER RESOLVED that the Board authorizes the General Manager to incorporate comments from the public hearing as approved by the Board after the close of the public hearing.

BE IT FURTHER RESOLVED that the General Manager is authorized and directed to submit a copy of the adopted UWMP to the Department of Water Resources, the California State Library, the County of Santa Barbara, and the City of Santa Barbara within 30 days of its adoption, as required by California Water Code § 10644.

Vote on the resolution by roll call vote resulted as follows:

AYES:	Directors Frye, Morgan, Plough, Shaikewitz, and Wicks
NOES:	None
ABSENT:	None
ABSTAIN:	None

PASSED AND ADOPTED this 16th day of May, 2017

APPROVED:

ATTEST:


Richard Shaikewitz, President


Nick Turner, Secretary

Appendix D

Juncal Dam Agreement

City of Santa Barbara
to
Montecito County Water District

WHEREAS, under and pursuant to the provisions of Ordinance No. 1373 of the Council of the City of Santa Barbara, and of the statute in such cases made and provided, there was duly and conducted in the City of Santa Barbara, on the 20th day of March, 1928, a special municipal election, at which election there was submitted to the qualified electors of said City, to be voted upon by them, the following proposition:

Shall the City of Santa Barbara convey to the Montecito County Water District in fee the real property situate, lying and being in the County of Santa Barbara, State of California, commonly known as Juncal Dam and Reservoir site, and more particularly described as follows, to wit:

The southeast quarter (SE 1/4) of the northwest quarter (NW 1/4) of Section 21; the southwest quarter (SW 1/4) of the northwest (NW 1/4) of Section 27; the northwest quarter (NW 1/4) of the west half of the northeast quarter (NE 1/4) and the southeast quarter (SE 1/4) of the northeast quarter (NE 1/4) of Section 28 in township 5 north, Range 25 west, San Bernardino Base and Meridian in the County of Santa Barbara, State of California.

Together with the tenements hereditaments and appurtenances thereunto belonging or appertaining in any way, subject to each of the following restrictions and conditions imposed upon all property hereinbefore described:

(1) That said property shall be used exclusively for the construction of a dam and reservoir for the impounding of the water of the Santa Ynez River for the purpose of supplying water to the inhabitants of the Montecito County Water District.

(2) That said Montecito County Water District shall, within ten years from and after date of the conveyance of said real property, construct and complete upon the said premises a dam and reservoir for the purpose of storing and impounding the water of the Santa Ynez River and the work incidental thereto.

(3) That from and after the completion of the construction of the said dam and reservoir, or the diversion of any water from the Santa Ynez River above Gibraltar Dam, said Montecito County Water District, shall give and deliver into the distributing system of the City of Santa Barbara, with out cost to said City, 16.56 miner's inches of the equivalent of 300 acre feet of water annually.

(4) That from and after the completion of Toro Tunnel by the said Montecito County Water District, said City of Santa Barbara shall have the right and privilege of using said tunnel and the railway tracks and equipment therein for the transportation of materials and supplies in connection with the construction and maintenance of said City of its water developement works in Santa Ynez Valley, provided said use shall not impair or conflict with reasonable use of said tunnel by said Montecito County Water District.

The foregoing conditions shall be deemed covenants running with the land and upon breach of any of said conditions the title hereby conveyed shall revert to and be vested in the City of Santa Barbara, absolutely, and

WHEREAS, on Monday, the 26th of March, 1928, at a meeting of the Council of said City, duly held, said Council of the City of Santa Barbara regularly canvassed the returns of said special municipal election and declared the result thereof in accordance with law; and

WHEREAS, as a result of said canvas it was duly found and declared that said proposition submitted to the qualified electors of said City at said special municipal election, was duly approved and adopted by the vote of the qualified electors of said City at said special municipal election; and

WHEREAS, said Council of the City of Santa Barbara has ordered a deed to be executed on behalf and in the name of said City of Santa Barbara conveying to Montecito County Water District the real

property hereinafter and in said proposition submitted to the qualified electors of said City, described, subject to the restrictions and conditions hereinafter and in said proposition mentioned.

NOW, THEREFORE, THIS INDENTURE, made and entered into by and between the City of Santa Barbara, ~~and~~ a municipal corporation, the party of the first part, and Montecito County Water District, a municipal corporation, the party of the second part, witnesseth:

That the party of the first part, for and in consideration of the due performance by the party of the second part of the conditions and restriction hereinafter specified, and the advantages to be derived by said party of the first part therefrom, does by these presents grant, bargain, sell, convey and confirm unto said party of the second part, and to its successors and assigns all that certain real property situate, lying and being in the County of Santa Barbara, State of California commonly known as the Juncal Dam and Reservoir site, and particularly described as follows, to-wit:

The southeast quarter (SE 1/4) of the northwest quarter (NW 1/4) of Section 21; the southwest quarter (SW 1/4) of the northwest quarter (NW 1/4) of Section 27; the northwest quarter (NW 1/4) the west half of the northeast (NE 1/4) and the southeast quarter (SE 1/4) of the northeast quarter (NE 1/4) of Section 28 in township 5 north, Range 25 west, SBB&M in the County of Santa Barbara, State of California.

TOGETHER with the tenements, hereditaments and appurtenances thereunto belonging or appertaining in any way.

SUBJECT, to each of the following restrictions and conditions imposed upon all the property hereinbefore described:

(1) That said property shall be used exclusively for the construction of a dam and reservoir for the impounding of the water of the Santa Ynez River for the purpose of supplying water to the inhabitants of the Montecito County Water District.

(2) That said Montecito County Water District shall, within ten years from and after date of the conveyance of said real property, construct

and complete upon the said premises a dam and reservoir for the purpose of storing and impounding the water of the Santa Ynez River and the work incidental thereto;

(3) That from and after the completion of the construction of the said dam and reservoir, or the diversion of any water from the Santa Ynez River above Gibraltar Dam, said Montecito County Water District, shall give and deliver into the distributing system of the City of Santa Barbara, with out cost to said City, 16.56 miner's inches or the equivalent of 300 acre feet of water annually.

(4) That from and after the completion of Toro Tunnel by the said Montecito County Water District, the said City of Santa Barbara shall have the right and privilege of using said tunnel and the railway tracks and equipment therein for the transportation of materials and supplies in connection with the construction and maintenance of said City of its water developement works in the Santa Ynez Valley, provided said use shall not impair or conflict with reasonable use of said tunnel by said Montecito County Water District.

The foregoing conditions shall be deemed covenants running with the land and upon breach of any of said conditions the title hereby conveyed shall revert to and be vested in the City of Santa Barbara, absolutely, and

TO HAVE AND TO HOLD, all and singular the said premises, together with the appurtenances, subject to each of the restrictions and conditions above set forth, unto said party of the second part, and to its successors and assigns forever.

IN WITNESS WHEREOF; the party of the first part has hereunto set its name and affixed its corporate seal by its mayor and clerk, thereunto duly authorized, this 26th day of March 1928.

CITY OF SANTA BARBARA
A Municipal Corporation

Seal of the City of
Santa Barbara.

By T. R. Finlay, Mayor

Attest: S. B. Taggart, City Clerk

Countersigned:

Starr W. Gruner) Finance Committee of the City of
) Santa Barbara.
J. A. Parma)

City of Santa Barbara)
County of Santa Barbara) SS
State of California)

I Samuel J. Bingham, do hereby certify:

That I am the duly elected, qualified and acting
City attorney of the City of Santa Barbara.

That the within and the foregoing contract was duly
submitted to me; that I have passed upon and approved the form
and legality thereof, as required by Section 37 of the Charter
of the City of Santa Barbara.

(signed) Samuel J. Bingham
City Attorney

Appendix E

AWWA Water Loss

Accounting Spreadsheet



AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0
American Water Works Association.
Copyright © 2014, All Rights Reserved.

?

Click to access definition

+

Click to add a comment

Water Audit Report for:

Montecito Water District (Montecito Water District)

Reporting Year:

2015

1/2015 - 12/2015

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: ACRE-FEET PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

WATER SUPPLIED

<----- Enter grading in column 'E' and 'J' ----->

Volume from own sources:

+ ? 5

1,030.320

 acre-ft/yr

Water imported:

+ ? 3

2,776.000

 acre-ft/yr

Water exported:

+ ? 5

8.300

 acre-ft/yr

Master Meter and Supply Error Adjustments

Pcnt:

+ ? 1

 Value: acre-ft/yr

Pcnt:

+ ? 1

 Value: acre-ft/yr

Pcnt:

+ ? 1

 Value: acre-ft/yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED:

3,798.020

 acre-ft/yr

AUTHORIZED CONSUMPTION

Billed metered:

+ ? 5

3,413.035

 acre-ft/yr

Billed unmetered:

+ ? n/a

0.000

 acre-ft/yr

Unbilled metered:

+ ? 9

5.731

 acre-ft/yr

Unbilled unmetered:

+ ? 8

33.258

 acre-ft/yr

Click here:

?

for help using option
buttons below

Pcnt: Value: acre-ft/yr

33.258

 acre-ft/yr

Use buttons to select
percentage of water
supplied
OR
value

AUTHORIZED CONSUMPTION:

?

3,452.024

 acre-ft/yr

WATER LOSSES (Water Supplied - Authorized Consumption)

Apparent Losses

Unauthorized consumption:

+ ?

9.495

 acre-ft/yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:

+ ? 3

34.533

 acre-ft/yr

Systematic data handling errors:

+ ?

8.533

 acre-ft/yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses:

?

52.561

 acre-ft/yr

Pcnt:

0.25%

 Value: acre-ft/yr

1.00% Value: acre-ft/yr

0.25% Value: acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses:

?

293.435

 acre-ft/yr

WATER LOSSES:

345.996

 acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER:

?

384.985

 acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:

+ ? 10

114.4

 miles

Number of active AND inactive service connections:

+ ? 9

4,594

Service connection density:

?

40

 conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line:

+ ?

 (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure:

+ ? 5

111.2

 psi

COST DATA

Total annual cost of operating water system:

+ ? 10

\$15,055,165

 \$/Year

Customer retail unit cost (applied to Apparent Losses):

+ ? 4

\$5.03

 \$/100 cubic feet (ccf)

Variable production cost (applied to Real Losses):

+ ? 5

\$391.18

 \$/acre-ft

☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 52 out of 100 ***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Water imported

2: Customer metering inaccuracies

3: Billed metered

Appendix F

District Ordinances

ORDINANCE NO. 82

AN ORDINANCE ESTABLISHING RULES AND REGULATIONS FOR THE SUPPLY OF WATER AND FOR THE EXTENSION OF WATER MAINS, INSTALLATION OF FIRE HYDRANTS AND STUB CONNECTIONS BY MONTECITO WATER DISTRICT AND REPEALING ORDINANCE NO. 66 AND ORDINANCE NO. 80 AS AMENDED AND ALL OTHER ORDINANCES OR PARTS OF ORDINANCES AND RESOLUTIONS INCONSISTENT HERewith.

BE IT ORDAINED by the Board of Directors of the MONTECITO WATER DISTRICT as follows:

SECTION 1: GENERAL

1.1 Purpose

It is the purpose of this Ordinance to:

- a. provide conditions for furnishing water;
- b. establish rules for service;
- c. establish procedures for water main extensions;
- d. provide methods for enforcing this Ordinance and impose penalties for violation thereof;
- e. provide a procedure for establishing and fixing water rates and fees.

1.2 Definitions

Unless the context shall require otherwise, as used in this ordinance the words defined in this subsection shall have the following meanings:

1.2.1 Agricultural Use

“Agricultural Use” means any application of water for the production of crops or stock for commercial or profit purposes.

1.2.2 Board

“Board” means the Board of Directors of the Montecito Water District.

1.2.3 Commercial Use

“Commercial Use” means the use of water to serve the purposes of business, commerce, trade and recreation or industry other than agriculture and recreation.

1.2.4 Connection

“Connection” means a connection of premises with the District water system.

1.2.5 Customer

“Customer” means a person purchasing or receiving water from the District water supply system.

1.2.6 District

“District” means the Montecito Water District or any authorized officer, agent, employee or volunteer acting on its behalf.

1.2.7 Domestic Use

“Domestic Use” means all uses except “Agricultural, Recreational, Commercial and School” uses as those terms are defined and used herein.

1.2.8 General Manager

“General Manager” means the General Manager of the Montecito Water District.

1.2.9 Meter

“Meter” means a water service meter furnished by the District and approved for use to measure the amount of District water delivered to a customer.

1.2.10 Recreational Use

“Recreational Use” means the use of water for public camp or picnic grounds, including public parks and public or private golf courses and the surrounding grounds and structures used in connection therewith or incidental thereto, excluding, however, tennis facilities unless said tennis facilities are operated as a part of one or more of the foregoing recreational uses.

1.2.11 School Use

“School Use” means the use of water by any public or non-profit private school with ancillary recreational areas.

1.2.12 Service, Water Service

“Service” and “Water Service” mean the service and materials furnished by the District in supplying water to a customer including meter, lateral, connectors and labor. It shall also refer to the diameter of a connection.

1.3 Class of Water Use

1.3.1 Domestic Use All uses, other than the uses set forth in subsections 1.3.2, 1.3.3, 1.3.4 and 1.3.5 of this section shall, for the purpose of this Ordinance, be classed as domestic use, and all accounts on the effective date of this Ordinance shall conclusively be deemed to be for domestic use unless and until compliance is had with subsections 1.3.2, 1.3.3, 1.3.4 and 1.3.5 hereof, or has previously been classified as an agricultural, commercial, or recreational use under Ordinance No. 66, as amended. District may from time to time define additional domestic use subcategories.

1.3.2 Commercial

“Commercial use” means the use of water for the purposes of business, commerce, trade and recreation or industry other than agricultural and recreation. In the case of mixed use where part of the premises is used for and is intended for residential dwelling purposes and part for commercial use, and only one water service meter is installed, the water will be charged at the commercial rate.

1.3.3 Agricultural Use

(1) An agricultural use is one for which an application has been made to the District, in writing on a form supplied by District, for classification as an agricultural user, and for which District has granted an agricultural use classification permit.

(2) In order to qualify for an agricultural use classification, the premises to be served must be under one ownership and must contain at least two contiguous acres in agricultural use and the water must be delivered through at least one meter which is one inch (1") in size or larger. The water served through said meter, or meters, must be used principally and predominantly for agricultural use as that term is defined in this Ordinance and as determined by District.

(3) If there are residential structures located on lands classified as agricultural lands and which lands are receiving agricultural water from the District, a portion of the water being served will be charged to the meter account at the domestic water use rate as set forth herein.

The portion which will be charged at the domestic rate will be determined by District for each structure as measured by the District meter for each billing period. This portion, for each structure, is commonly known and referred to as the "First Tier." The charge for the First Tier will be at the District's current domestic use rate during each billing period. All other water use after the first tier is classified as agricultural use.

Said First Tier rates shall be charged for each residential structure as determined by District regardless of whether or not the structure is actually being used for residential dwelling purposes and regardless of whether or not said structure is actually receiving or using any District water for domestic purposes.

1.3.4 Recreational Use

(1) A recreational use is one for which an application has been made to District, in writing, on a form supplied by District, for classification as a recreational user and for which District, in its sole discretion, has granted a recreational use classification permit.

(2) In order to qualify for a recreational use classification, the premises to be served must be under one ownership and used primarily and

predominantly for recreational use as that term is defined in this Ordinance and as determined by District.

(3) If there are residential structures located on lands classified as recreational lands and which lands are receiving recreational water from District, a portion of the water being served will be charged to the meter account at the domestic water use rate as set forth herein.

The portion which will be charged at the domestic rate will be determined by District for each structure as measured by the District meter for each billing period. This portion for each structure is commonly known and referred to as the "First Tier." The charge for the First Tier will be at the District's current domestic use rate during each billing period. All other water use after the First Tier is classified as recreational use.

Said First Tier rates shall be charged for each residential structure as determined by District regardless of whether or not the structure is actually being used for residential dwelling purposes and regardless of whether or not said structure is actually receiving or using any District water for domestic purposes.

1.3.5 School Use

(1) A school use is one for which an application has been made to District, in writing on a form supplied by District and including proof of the school's non-profit status, for classification as a school user, and for which District, in its sole discretion, has granted a school use classification permit.

(2) In order to qualify for a school use classification, the premises to be served must be primarily and predominantly for school and ancillary recreational area use as determined by District.

1.3.6 Review of Status of Non-Domestic Accounts District will make periodic inspections of all lands being served by agricultural, recreational or school use accounts and, if upon inspection it is found that said land is not actually being used primarily and predominantly for said purposes, or if the acreage is

found not to equal at least 95% of the acreage specified in the application, District may reclassify said account as a domestic or commercial account, and in such event said account may not be again reclassified for any other use (for the purposes of this Ordinance), for a one year period and shall remain as classified by the District following said one year period until a new application is filed and a permit is granted following the procedures set forth in either 1.3.2, 1.3.3, 1.3.4 or 1.3.5 above.

1.3.7 Addition to Agricultural, Recreational or School Land

Land receiving water through other than an agricultural, recreational or school account shall not, by the act of being added to lands having an existing agricultural, recreational or school use account, automatically be classified as an agricultural, recreational or school use classification. Said added land in order to receive a new use classification must follow the procedures set forth in Section 1.3.2, 1.3.3, 1.3.4 or 1.3.5, respectively.

1.4 Amendments

This Ordinance may be amended, added to, or revoked, in whole or in part, at any meeting, general or special, of the Board, a quorum being present, by a majority vote of the Board, provided that a written notice of any proposed amendment, addition or revocation, shall first have been presented in writing to each Director at least (30) days prior to said meeting.

No officer, agent or employee of District shall have any authority to waive, alter or amend, in part or in whole, the rules and regulations contained in the Ordinance.

1.5 Service Subject to Water Agency Contract

Water service shall be subject to the terms and conditions of this Ordinance and to conditions of that certain contract dated March 12, 1996, by and between Santa Barbara County Water Agency and Montecito Water District, entitled "Cachuma Project Member Unit Contract - Montecito Water District".

SECTION 2: WATER REGULATIONS

2.1 Violation of Regulations

District may discontinue service to any customer for violation of the rules and regulations in this Ordinance, including the causing of an encroachment as defined in Section 8.1, after giving said customer written notice of said violation and a reasonable time within which to remedy or cure said violation; provided, however, that District may, without notice, discontinue the service of water to any customer in any case where the continuance of service would result in waste of water or would constitute or create a nuisance or hazard to either the customer or District or both.

For the violation of any of the aforesaid rules, District reserves the right to collect a fee from the violator to cover the cost of turning off the water and turning on the water after the matter has been properly resolved, and to take other actions as referenced in Section 8.2 and 8.3. When the water has been turned off, the Santa Barbara County Environmental Health Services will be so notified.

2.2 Wasting Water

Each customer shall maintain in good order all his/her water pipes, faucets, valves, plumbing fixtures or any other appliances, at all times, to prevent waste of water.

Where any customer willfully neglects to make repairs, the water service shall be shut off and sealed by District and shall not be turned on again until such repairs have been made to the satisfaction of District, in accordance with Section 2.7.

Where any customer willfully or negligently wastes water through the misuse of sprinklers or any other facilities, the water may be shut off and sealed by District in accordance with Section 2.1.

2.3 Who May Turn On Water

No person other than an official employee of District or District authorized designee shall turn on water from District mains without a written permit from District.

2.4 Access to Water System Outlets

No person shall place upon or about a fire hydrant, curbcock, water meter or water gate connected with the water system of District any object, material, debris or structure of any kind that shall prevent free access to the same at all times.

2.5 Reduction of Use during Fire or Other Emergencies

In case of fire, or other disaster threatening the safety of the water supply in a limited area or for the whole District, the customer may be required to shut off all irrigation or any steady flow of water, and such use shall not be resumed until notification has been received from District that the emergency no longer exists.

2.6 Right to Access

Any duly authorized representative of District shall at all times have the right of ingress and egress to any customer's premises at all reasonable hours for any purpose reasonably connected with the furnishing and conservation of water and for the inspection of the entire system upon such premises.

Where a water meter is placed inside the premises of a customer, provision shall be made for convenient meter reading and repairing by representatives of District. Failure to make such provisions by customer shall be sufficient cause for removal of such meter, at the option of District and the withholding of service until the connection is made accessible.

2.7 Shutting Off Water for Repairs

The District reserves the right to interrupt the water service to any premises, from any part of the District system, as long as necessary, without notice to the customer, at any time when the exigencies of the occasion may require it.

2.8 Abandonment of Premises

Whenever a person responsible for payment of rates or fees to District abandons or permanently leaves a premise which is receiving water service, said person shall immediately cause District to be notified in writing. District will attempt to terminate the service as quickly as possible under the circumstances; however, said customer shall be responsible for payment for all water used through the connection until the date of actual termination. Any such person who fails to comply with this subsection shall remain liable to District for all water shown as being used through the connection to the premises.

2.9 Continuation of Monthly Service Charge

Customers and/or property owners with an installed meter service, whether the meter is on or off, are required to pay a monthly service charge. If the monthly service charge is not paid, the record customer will be notified by mail, with a copy to the address shown on the Santa Barbara County tax roles if the record customer is different from the record owner. Failure to pay the monthly service charge within 30 days of the date of such notice may result in the removal of the meter. If the meter is removed for nonpayment, or at the request of the customer or property owner, payment of a fee for the reinstallation of the meter as well as the applicable Capital Cost Recovery Fee for a new meter shall be required prior to any such reinstallation.

2.10 Reconnection

If water service has been terminated under the provisions of this Ordinance, water service shall only be resumed after application has been made therefor to the District. District may from time to time prescribe the procedures, and the cost therefor, for resuming service.

2.11 Backflow Protection Devices

Whenever District shall consider it necessary for the safety of the water system to have an approved backflow device placed on the property side of any

customer's service, such device shall thereupon be immediately installed at the expense of such customer. The device shall be tested periodically as determined by District at the expense of the customer.

2.12 Provisions for the Protection of District's Water Supplies

District, acting by and through its General Manager, shall from time to time consult with the Director of Health Care Services of the County of Santa Barbara concerning measures for the continuing protection of District's water supplies. Following such consultation, the General Manager shall recommend to the Board any action which the General Manager believes is necessary to be taken, and the Board may implement said recommendations by appropriate Board action.

2.13 Termination of Service for Health Care and Safety Reasons

District may discontinue or terminate any existing service if the subject premises being served by District are also served by a non-district supply, or if the service is not properly protected as required by the laws of the State of California and the rules and regulations of the Department of Health Care Services of the County of Santa Barbara.

SECTION 3: CONNECTION RATES AND CHARGES

3.1 New Connections

No new connection shall be made to District's water system or facilities unless a written application has been filed with District upon a form furnished by District and signed by the owner or the owner's agent, and unless and until said application has been acted upon and granted by District.

The information required from the applicant is set forth on forms furnished by District and available at District's office during business hours.

The application for service shall be accompanied by all of the fees, costs and deposits as may be established by resolution of the Board from time to time, which resolution shall be available for inspection at the District office. Copies of

said resolution shall be furnished upon request therefor at the then current District fee schedule for copying.

Upon proper completion of the application and the payment of all fees, costs and deposits, the application will be granted subject to such other applicable District ordinances, rules, regulations and resolutions then in effect. Complete information concerning all such matters shall be made available at the District office.

3.2 Determination of Meter and Service Size

The size of any new meter and service and/or reduction in meter size shall be subject to the final determination and approval by District.

Uniform Plumbing Code requirements will be used as a guide for determining the size.

(1) Existing services and meters: In cases where the consumption history of a customer's meter is greater than the average consumption of the next larger size meter, the General Manager may require the customer to have installed at his expense the next larger size meter and service.

(2) Requests by customers for a change in meter size for any property will not be approved without the written consent of the property owner.

3.3 Capital Cost Recovery Fee

The District's existing water distribution system and facilities have been designed with a capacity to allow a limited number of new water service connections. The cost of this extra capacity is a capital cost incurred by District to be recovered from those who later connect to the District system and who will enjoy the benefit of said capacity. Capital cost recovery fees will be charged for each new connection. The amount of said fee shall be determined from time to time by resolution of the Board. In addition, as determined by resolution of the Board, District charges a fee to connect the new meter to the District system to reimburse District for labor and materials costs of the new connection.

A new connection means a new service to a parcel of land, whether existing as of the date of this Ordinance or created after the date of this Ordinance, that does not have permanent water service from District.

Existing services which are enlarged shall be considered a new service to the extent of the amount of the enlargement and the capital cost recovery fee for said enlargement shall be the difference between the fee that would have been charged herein for a meter the size of the present meter and the fee for the new enlarged meter.

3.4 Water Availability Charge

District has established an annual water availability charge for implementation of a water distribution system upgrade program. Section 32032.1 of the California Water Code provides that District may annually establish and collect a water availability assessment of not to exceed thirty dollars (\$30) per acre per year for each acre of land, or thirty dollars (\$30) per year for each parcel of land less than an acre within District to which water is made available for any purpose by District, whether the water is actually used or not.

3.5 Fee Schedule

In addition to the capital recovery fee required to be paid as provided in Section 3.3, fees and charges shall also be required to be paid for the following services:

- (a) Connection Fees
- (b) Service relocations made at the request of the owner
- (c) Meter turn-on and turn-off
- (d) Emergency work done on the customer's premises to the customer's facilities behind the meter
- (e) Water usage fees
- (f) Monthly Service charge without regard to water use
- (g) Any other fee that the Board establishes by resolution

All of the foregoing fees and charges shall be established from time to time by resolution of the Board.

3.6 Estimating Consumption Upon Failure or Avoidance of Meter

If any meter should fail to register due to any cause during the consumption of water upon the premises served by such meter, District shall cause consumption through such meter for the period of its inoperation to be estimated by applying the consumption through such meter for a like period during the preceding twelve (12) months. In the event water has not been furnished and/or accurately metered during the preceding twelve (12) months, including water obtained other than through a District meter, then charges for a similar use in the immediate vicinity shall be used in estimating such consumption. The decision of District based on the foregoing considerations shall be final in determining the amount to be charged for consumption during any period in which a meter has so failed to accurately register.

3.7 Meter Test

Any customer may have the accuracy of the meter through which water is being furnished to his premises examined and tested by the District by making a written application therefor to District upon a form provided by District and submitting a fee determined by resolution of the Board. Upon receipt of such application and fee, District shall examine and test the meter and if the meter is found to register more than two percent (2%) greater than or less than two percent (2%) lower than the actual quantity of water passing through it, such meter shall be removed and another meter installed in lieu thereof, and such fee shall be returned to the customer by District.

3.8 Adjustment of Bills for Meter Error

If, as a result of the test, whether initiated by District or requested by a customer, as provided in 3.7, a meter is found to be more than two percent (2%) greater in registration, District shall refund to the customer the overcharge based

on a corrected meter reading for the period in which it can be shown the meter was in error. If the period during which the meter was in error cannot be established to the satisfaction of District, the period for which the refund shall be made shall be the period during which the meter was in use or the period of six months immediately preceding the test, whichever is the shorter period.

If, as a result of the meter test, a meter used for residential or domestic service is found to register less than seventy-five percent (75%) of the amount of water actually passing through said meter, District shall present the consumer with a bill for the amount of water calculated by District to have actually passed through the meter, but not included in any bills previously presented to the consumer, for a period not to exceed two monthly billing periods immediately preceding said test.

3.9 Meter Placement Generally and General Treatment of Meters

All meters of District shall be placed within the road right of way, whenever and wherever practicable, and shall be protected and maintained as a part of the operation of District. If District property fails to be protected, District may require the customer to make such improvement to properly secure District property.

3.10 Deposits

If any applicant for water service is not the owner of the premises for which service is sought and if the owner fails or refuses to join in the application in order to accept joint and severable liability for the rates, charges and other obligations imposed by this Ordinance for water service, the applicant may be required to make a cash deposit with the District as determined by resolution of the Board.

Said Tenant Deposit will be held by the District until the applicant vacates said property. The deposit will then first be applied to meet any amounts due District by the applicant. The balance, if any, will then be refunded to the applicant.

SECTION 4: PUBLIC FIRE HYDRANTS

4.1 General

Fire hydrants connected to the District water system shall be placed, maintained and repaired by District. Any damage thereto by persons or agencies, other than representatives of the Montecito or Capinteria-Summerland Fire Protection District or this District, shall be a claim against the person or agency causing such damage, and this District shall take such action as may be necessary to collect the same.

Fire hydrants shall be provided for the sole purpose of extinguishing fires, and shall be used otherwise only as provided for in this section, and shall be opened and used only by the District and the Fire Districts, or such persons as may be authorized to do so by the General Manager as provided in this section.

4.2 Use Permit

No person shall take water other than for the purpose of extinguishing fires from a fire hydrant or other water source owned or controlled by District without first obtaining a permit from District. No such permit holder shall take or use water contrary to this section or the terms of a permit issued under the section. No permit shall be issued to a person who has violated any of the provisions of this section or whose indebtedness to District for water used, service charges, or damage to hydrants or equipment, is delinquent.

The General Manager may issue permits authorizing use through fire or other hydrants. Each permit:

- (a) shall be valid for a period of time as set by the General Manager;
- (b) shall set forth the hydrant(s) within the District's water service area which may be used pursuant to said permit;

(c) shall designate the location for which the water shall be used.

Locations outside the District's water service area shall not be designated except in emergencies approved by the General Manager;

(d) shall be revoked by the General Manager when used in violation of this section.

4.3 Meters, Hydrant Wrenches and Valves

All water except for fire purposes taken from a hydrant shall be metered using a meter provided, attached, secured and removed, by District. A valve connection device and a hydrant wrench provided by District shall be used in taking water from the hydrant. Permittee shall be responsible for loss or damage of the meter or other device and shall pay District for any charges necessary to repair and/or replace the meter and attachments if damaged or lost. If District has concern about the safety of the water supply, a backflow device may also be required.

4.4 Fees and Deposits

Permittee shall pay to District permit fees, rental fees, water use fees and deposits established by resolution of the District. Deposits required for meters and/or other equipment provided to permittee shall be refunded in the event the equipment is returned in good order and condition, and District will provide a final settlement of the account.

SECTION 5: PRIVATE FIRE SERVICE

5.1 Non-Meter Rates

The rates for use of water through a private fire line service which is not metered shall be fixed by resolution of the Board and, at the discretion of the Board, said rate may be in the nature of a monthly or an annual standby charge without regard to whether or not any water is actually used. This rate shall be known as the "fire service rate".

5.2 Mandatory Metering

Any existing fire line service which is also used for domestic purposes, or which has a connection therefrom which is capable of being used for domestic purposes, shall be required to have a meter or double detector-check device and meter, installed at the expense of the customer. The regular meter rate shall be charged in addition to the fire service rate.

District will determine whether or not fire line services installed after the effective date of this Ordinance shall be required to have a double detector-check device and/or meter installed. The cost of any such required installation shall be paid by the customer.

5.3 Removal of Private Fire Line

Any private fire lines installed after the effective date of this Ordinance shall be removed upon written notice by District when and if District determines that public fire hydrants are available for use.

SECTION 6: BILLING AND PAYMENT FOR WATER

6.1 Presentation and Payment of Bills

Bills for services by District will be presented by District for payment at regular intervals and all of said bills will be due and payable upon presentation of said bill to the customer.

Bills should be considered presented when either delivered personally to the customer or when deposited in the United States mails, postage prepaid, and addressed to the customer at the address shown in the customer's application for water service. Failure to receive a bill does not relieve a customer of liability for payment.

6.2 Responsibility for Recorded Water

The customer is responsible for payment for any water that is recorded through the meter. This includes but is not limited to water charges for any water that is lost due to a plumbing leak, a service line break, theft or unaccounted for water use.

6.3 Due Dates - Shut-off for Delinquency

All water bills issued by District shall be due and payable on the mailing date, which date shall be plainly stamped upon each bill. If any such bill shall not be paid within thirty (30) days after the mailing date, the water may be shut off from premises of the delinquent customer in accordance with Section 2.1.

Application for water service will not be granted until the applicant pays District any fees which may be due and owing for previous service under this or any other preceding Ordinance. If an application for water service is granted and District later discovers that the applicant owes District for any previous service under this or any preceding Ordinance, District will add to the current open account the closed account amount due, give the applicant written notice of the amount due and, if said amount is not paid within 30 days of the date of the notice, said amount shall be treated in the same manner as any other delinquent bill. Past Due notices will be sent to account holders with amounts past due. If payment is not received, final notices of nonpayment will report the total amount due on the account, and provide warning that service discontinuance is imminent. If a final notice is issued, the customer will be required to pay the account in full and any other fees the District imposes for such nonpayment.

6.4 Delinquent Closed Accounts.

In the case of any delinquent closed water service accounts, District will send delinquent notices and attempt to contact the customer. If water service is stopped for nonpayment, District may require additional payment and may impose additional fees to resume water service.

If a bill remains unpaid District may in the case of a closed account, if a particular customer transfers to another location in District, the amount may be added to the customer's open account, or the General Manager may ask the Board of Directors at a regularly scheduled meeting to write off the account as uncollectable and forward any amount over \$1.00 to a collection agency.

SECTION 7: WATER MAIN EXTENSIONS

7.1 Location

District will allow the extension of its water distribution system inside the boundaries of District to serve water to those making written application.

7.2 Service Rate

The applicant or applicants for such an extension must agree to pay the service charges and regular rates, and to be bound and to abide by the rules and regulations of District as they may now or hereafter exist.

7.3 Application

District may, at its discretion, require an applicant for service to install and pay for a main extension under such terms and provisions as District may from time to time provide. The applicant shall enter into an agreement with District and setting forth the terms and provisions as required by District. The current sample form "Application and Agreement for Main Extension" is on file at the District office.

SECTION 8: EASEMENT ENCROACHMENT AND WATER MAIN RELOCATION

8.1 Prohibition of Encroachment

Unless District's written permission has first been obtained, encroachments are prohibited on the existing District water distribution system and facilities which are owned by District or for which the District has recorded or prescriptive

easements on any parcel of real property. An encroachment shall include any physical interference with, modification of, or damage to any existing District water distribution system or facility, or construction of any building or structure within the confines of any of District's property rights. In addition, no person shall place upon or about a fire hydrant, curbcock, water meter or water valve of the water system of District any object, material, debris or structure of any kind that shall prevent free access to the same at all times.

8.2 District's Rights in Event of an Encroachment

Any encroachment as defined in Section 8.1, and any physical damage caused to any of District's facilities as a result of such encroachment, shall be removed or repaired immediately by the person causing such encroachment or damage at no expense to District. In the event such person refuses to take such action after written notice from District, or in the event District must act immediately to repair any actual or threatened damage to its facilities as a result of such encroachment, all of District's consequential expenses and costs shall be paid by the person causing such encroachment or damage. When the responsible party is an existing or prospective customer, and the encroachment is located on or adjacent to such customer's property which is served by, or proposed to be served by District, District may cause the amount of such cost or expense to be included in the customer's fees and charges as described in Section 3.5, may shut off or seal the customer's water service in accordance with Section 2.1, or may refuse to serve the customer's property in the future until such expenses or costs are paid and such encroachment and/or damage is removed and/or repaired.

8.3 Water Main Relocation

In order to avoid any actual or proposed encroachment on a District facility or property as defined in Section 8.1, District may require in writing that such facilities, including but not limited to District pipelines, be relocated to a new location. The person responsible for such encroachment shall pay for such

relocation in advance and shall enter into an agreement with District setting any other terms and provisions required by District. Any such relocation will also be conditioned upon District receiving, free of charge, an easement or other appropriate property right to allow for such relocation. The form of such easement or other property right shall be as approved by District.

Any person may apply in writing to District for relocation of its water mains, if such relocation does not adversely affect District's operations and services. The applicant for relocation of water mains shall pay for any such relocation in advance and shall enter into an agreement with District setting any other terms and provisions required by District.

In the case of relocations of the original District Highline, and in light of the original date of construction of the Highline being 1928-30, the District shall pay for the costs of the pipeline materials for such relocation, and the property owner requesting the relocation shall be responsible for the remainder of the relocation costs. All costs paid by the District for the project are subject to District review and approval.

8.4 Information About District Property and Easements

District staff will make every effort to provide information to those who inquire about the locations of District facilities, property and easements.

SECTION 9: APPEALS AND EXCEPTIONS

9.1 Appeals

Any person may appeal any decision or application of the provisions of this Ordinance by the General Manager to the Board of Directors by filing a written appeal with District. If a customer is appealing any rates and charges under this Ordinance to the District Board, the total amount due to District must be paid prior to the written request being heard by the Appeals Committee. The Appeals Committee will meet with the customer and make a recommendation following

this meeting to the Board of Directors. The Board of Directors shall consider the recommendation of the Appeals Committee at a scheduled regular or special Board meeting. District shall give the appellant written notice of the meeting at which the appeal will be considered. District may fix fees for filing appeals in an amount deemed from time to time sufficient to cover District's costs for appeals.

9.2 Action by Board

At said meeting, the Board of Directors may, in its discretion, affirm, reverse or modify the Appeals Committee's recommendation and make any adjustments and impose any conditions it deems just and proper, if it finds and determines that (1) the restrictions of this Ordinance would cause an undue hardship or emergency condition, or (2) that the granting of the appeal will not significantly adversely affect the water supply or service to existing water customers, or (3) that due to peculiar facts and circumstances, none of the provisions of this Ordinance are applicable to the situation under consideration, or (4) if the Board of Directors, in its discretion, finds that the applicant is entitled to substantially similar treatment as set forth in some provision of this Ordinance authorizing water service facilities.

SECTION 10: PENALTIES

10.1 Misdemeanors

It shall be a misdemeanor for any person, firm, association, partnership, corporation or any water user to use or apply water received from District contrary to or in violation of any restriction or prohibition contained in this Ordinance and upon conviction thereof such person, firm, association, partnership or corporation shall be punished by being imprisoned in the County Jail for not more than thirty (30) days or by a fine of not more than six hundred dollars (\$600), or by both such fine and imprisonment for each violation and for each day of a continuing violation.

SECTION 11: SUSPENSION OF CONFLICTING ORDINANCES AND RULES AND REGULATIONS

To the extent that the terms and provisions of this Ordinance are inconsistent, or in conflict with the terms and provisions of any prior District ordinance, resolution or rules and regulations, the terms of this Ordinance shall prevail, and inconsistent and conflicting provisions of prior ordinances, resolutions and rules and regulations shall be suspended during the effective period of this Ordinance.

SECTION 12: SUSPENSION AND REPEAL OF CONFLICTING ORDINANCES AND RULES AND REGULATIONS

Ordinance No. 66 and 80 and all ordinances and resolutions, or parts of ordinances or resolutions of the District inconsistent herewith, to the extent of such inconsistency and no further, are hereby repealed as of the effective date provided hereinabove.

SECTION 13: SEVERABILITY

If any section, subsection, sentence, clause or phrase of this Ordinance is for any reason held to be unconstitutional, or invalid, such decision shall not affect the validity of the remaining portions of the Ordinance. The Board of Directors hereby declare that it would have passed this Ordinance and each section, subsection, sentence, clause or phrase hereof, irrespective of the fact that any one or more section, subsection, sentence or clause or phrase may be declared unconstitutional or invalid.

SECTION 14: EXEMPTION FROM CEQA

Section 21080 (b) of the Public Resources Code is contained in and is a part of the California Environmental Quality Act (CEQA), which act is in Division 13 of the Public Resources Code, commencing at Section 21000.

Section 21080 (b) (8) of said Act provides that CEQA does not apply to “(8) The establishment, modification, structuring, restructuring or approval of rates, tolls, fees, fares or other charges by a public agency, which the public agency finds are for the purpose of (1) meeting operating expenses, including employee wage rates and fringe benefits, (2) purchasing or leasing supplies, equipment or materials, (3) meeting financial reserve needs or requirements, or (4) obtaining funds for capital projects necessary to maintain service within existing service areas.”

It is hereby found and determined that none of the charges fixed and established by Ordinance 82 are for any purpose other than the purpose set forth in Section 21080 (b) (8) and are therefore, pursuant to said Section, exempt from the requirements of CEQA. This Ordinance constitutes the written findings of the record of the proceedings claiming the aforesaid exemption.

SECTION 15: EFFECTIVE DATE AND PUBLICATION

This Ordinance shall be in full force and effect thirty days after adoption, which effective date is declared to be August 19, 1999.

This Ordinance shall be published in full in a newspaper of general circulation, printed, published and circulated in District within ten days after adoption.

This Ordinance may be recorded in the Official Records of the County of Santa Barbara and if the Ordinance is so recorded, any change amendment, modification or repeal shall be recorded in said Official Records.

PASSED AND ADOPTED by the Governing Board of the Montecito
Water District on the 20th day of July, 1999 by the following vote, to wit:

AYES: Directors Abel, Campbell, Jones, Puddicombe, Wilson

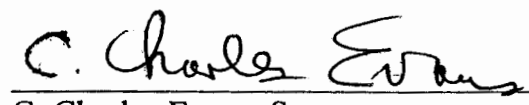
NAYS: None

ABSENT: None

APPROVED:


Robert Puddicombe, President

ATTEST:


C. Charles Evans, Secretary

Ordinance No. 89

AN ORDINANCE OF THE GOVERNING BOARD
OF MONTECITO WATER DISTRICT
PLACING LIMITATIONS ON WATER DISTRIBUTION
TO LAND WITHIN THE DISTRICT

WHEREAS the Montecito Water District is a County Water District organized and existing under the laws of the State of California, situated and serving an area entirely within the County of Santa Barbara, State of California; and

WHEREAS the District, pursuant to Section 31020 of the California Water Code, may do any act necessary to furnish sufficient water in the District for any present or future beneficial use; and

WHEREAS the District, pursuant to Section 31025 of the California Water Code, may establish rules and regulations for the sale, distribution and use of water; and

WHEREAS the District, pursuant to Sections 31026 of the California Water Code, may restrict the use of district water during any emergency caused by drought, or other threatened or existing water shortage, and prohibit the wastage of water during such periods; and

WHEREAS the District, pursuant to Section 31026 of the California Water Code, may prohibit the use of district water for any purpose other than household uses or uses determined necessary by the District and also may prohibit use for other non-essential uses identified by the District;

THEREFORE, the Board of Directors of the District now FINDS AND DECLARES the following:

- A. In 2007, the total demand for water exceeded the District's reliable supply of 5700 acre feet by approximately 600 acre feet.
- B. In addition to serving its existing customers, the District responds to each application for a Certificate of Water Availability from owners of land within the District who are seeking permits from the County of Santa Barbara or the City of Santa Barbara for new or expanded development.
- C. The subdivision of land into multiple developable parcels; the development of previously unimproved land, and redevelopment of improved land, with large residences and extensive landscaping; and the redevelopment of commercial and institutional uses into larger units are resulting in an increased demand on the District's limited water supply.

D. A water shortage condition currently exists because the reliable supply of water will not meet the projected demand of District consumers in the current year and in years following.

E. The District has sought additional sources of water to be drawn upon to overcome anticipated shortages but has not located sufficient additional sources to resolve this concern.

F. Because the District expects the water shortage condition to continue, the District will not be able to provide Certificates of Water Availability to all those who seek them unless it establishes an equitable methodology for restricting the availability of water for new service connections and expanded service to existing connections.

NOW, THEREFORE, BE IT ORDAINED by the Board of Directors of the Montecito Water District as follows:

1. As of the Effective Date of this Ordinance, every subdivision of land within the District, and every change in the use of land within the District that requires a permit or approval of any kind from the County of Santa Barbara or the City of Santa Barbara, shall require a Certificate of Water Availability issued by the District. Property owners shall be responsible for applying for a Certificate of Water Availability before commencing construction on a project, regardless of whether the City or County requires presentation of a Certificate before issuing required permits. The District General Manager will issue a Certificate of Water Availability if he finds that service can be made available to the property, that the project requiring the Certificate will include the installation of state-of-the-art water-saving technologies, and that estimated water usage for the project is within a reasonable range of the Maximum Available Quantity as determined under this Ordinance. The District General Manager may require a property owner to provide, at owner's expense, a qualified expert's analysis of estimated water usage or other water-related aspects of the project before making his determination and may require, at owner's expense, a peer review of owner's expert's data by a qualified expert selected by the District.

a.. For purposes of this Ordinance, a change in the use of land may include, but is not limited to, addition of new habitable structures or replacement of existing ones; expansion of square footage of existing structures; construction of amenities or accessory structures such as swimming pools, tennis courts or cabanas; and/or extensive grading for new agricultural crops or landscaping material.

b. For purposes of this Ordinance, subdivision of land includes any division or redivision of a legal parcel or parcels into smaller legal parcels, whether through subdivision under the California Subdivision Map Act or by approval of certificates of compliance with that Act for previously-identified parcels, but does not include a lot line adjustment that does not result in an increase in the number of legal parcels.

2. Every property subject to this Ordinance measuring one acre or more shall receive a maximum of one acre-foot of water per year, subject to exceptions provided herein. If a property measures less than one acre, the District will make available a pro rata portion of one acre foot of water, based on the portion of one acre included in the property. For purposes of this computation, a property includes one or more legal parcels served or proposed to be served by a single service connection.

3. Notwithstanding the limitations of Paragraph 2, the District shall respond to each request for a Certificate of Water Availability by determining a "Base Allotment," calculated as the average amount of water actually delivered to the property per year and per month during the three-year fiscal period 2003/04 – 2005/06 (the "Base Allotment Period"). The Certificate of Water Availability will be issued for either the Base Allotment or one acre-foot of water or portion thereof as applicable under Paragraph 1, whichever is greater (the "Maximum Available Quantity").

4. In the event that a property owner believes the Base Allotment does not reflect accurately the historical water usage associated with a property, for example because the property has been unoccupied for some or all of the Base Allotment Period or because the property has been in transition from a prior use to a proposed new use, the property owner may request in writing that the District General Manager establish a proxy Base Allotment for the property. The General Manager shall consider written evidence provided by the property owner and such relevant factors as the established historical use of the property prior to the Base Allotment Period, or the water usage of properties of comparable sizes or with comparable uses during the Base Allotment Period. If the General Manager determines that a proxy Base Allotment greater than the calculated Base Allotment is warranted, and if the proxy Base Allotment exceeds the Maximum Available Quantity as determined under Paragraph 3, the General Manager shall notify the property owner in writing of his determination and issue an amended Certificate of Water Availability for the amount of the proxy Base Allotment. If the proxy Base Allotment is less than the Maximum Available Quantity stated on the Certificate, the General Manager shall notify the property owner in writing of his determination and no amended Certificate will be issued.

5. When a Certificate of Water Availability is required because land is proposed for subdivision as defined in Paragraph 1(b), the Maximum Available Quantity shall be either the Base Allotment for the entire property divided proportionally among the new parcels or, for each new parcel, one acre foot per year or pro rata portion thereof as applicable under Paragraph 2, whichever is greater in total.

6. The District General Manager is authorized to include in any Certificate of Water Availability such terms and conditions as the General Manager determines are necessary to ensure that water use is limited in accordance with the provisions of this Ordinance.

7. Any Certificate of Water Availability issued prior to the Effective Date of this Ordinance shall be valid as issued, provided that the property owner complies in a timely manner with all District requirements associated with the issuance of the Certificate,

including but not limited to the payment of required fees, and provided that the property owner agrees to include the installation of state-of-the-art water-saving technologies in the project for which the Certificate was issued. In the event of a property owner's non-compliance, the General Manager may issue an amended Certificate under the provisions of this Ordinance.

8. A property owner's acceptance of a Certificate of Water Availability pursuant to this Ordinance shall constitute a binding commitment to use no more water than is made available under the Certificate. In the event that a property in any month uses water in excess of the Maximum Available Quantity available under a Certificate of Water Availability issued pursuant to this Ordinance, the District, without further notice, may increase the rate for all water delivered in excess of the property's Maximum Available Quantity and/or limit service to the property to no more than the Maximum Available Quantity, but the District shall provide at all times a supply of water sufficient to meet the health and safety needs of the property's occupants.

9. Any property owner wishing to contest the application of this Ordinance to any land within the District, including without limitation a challenge to the General Manager's computation of a proxy Base Allotment, a determination of Maximum Available Quantity, or a decision concerning issuance of a Certificate of Water Availability, may appeal by written request to the District Board of Directors following the District's appellate procedure stated in District Ordinance No. 82, section 9.

10. In the event of a conflict or inconsistency between any provision of this Ordinance and any other Ordinance, Resolution, policy, regulation or procedural requirement of the District, this Ordinance shall be controlling.

11. Nothing in this Ordinance shall prevent the District from exercising any of its powers under the California Water Code, nor shall it be construed as constraining any of the District's powers under the California Water Code, including but not limited to its power to declare a water shortage emergency or a threat of water shortage and to adopt additional ordinances in response thereto.

12. This Ordinance is adopted pursuant to California Water Code section 31026 to address an existing water shortage condition. The District has considered the potential environmental impacts of this Ordinance and has determined that the adoption of this Ordinance is an emergency action necessary to prevent or mitigate an emergency, and therefore is an exempt action under the California Environmental Quality Act ("CEQA"), California Public Resources Code section 21080(b)(4), and 14 CCR § 15269(c). Following adoption of this Ordinance by the District Board of Directors, the General Manager is authorized to prepare and file a Notice of Exemption in compliance with CEQA.

13. Pursuant to California Water Code section 31027, this Ordinance shall be in full force and effect immediately upon adoption by the Board of Directors (the "Effective Date"), and shall be published once in full in a newspaper of general circulation, printed,

published and circulated in the District within 10 days after adoption in the manner therein described.

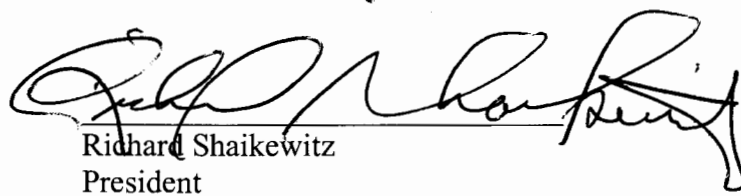
PASSED AND ADOPTED by the Board of Directors of the Montecito Water District on this 15th day of April, 2008 by the following vote, to wit:

Ayes: Directors Abel, Frye, Morgan, and Shaikewitz

Nays: None

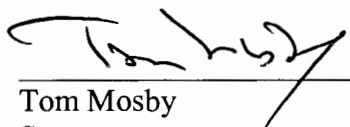
Abstain: Director Wilson

Absent: None



Richard Shaikewitz
President

ATTEST:



Tom Mosby
Secretary

Ordinance No. 90

AN ORDINANCE OF THE GOVERNING BOARD
OF MONTECITO WATER DISTRICT
ESTABLISHING DEFINITIONS AND CLASSIFICATIONS
AND AMENDING DISTRICT ORDINANCE 82

WHEREAS the Montecito Water District is a County Water District organized and existing under the laws of the State of California, situated and serving an area entirely within the County of Santa Barbara, State of California; and

WHEREAS the District provides water service for domestic, agricultural, commercial, institutional, and public uses within the District; and

WHEREAS the District, pursuant to Section 31020 of the California Water Code, may do any act necessary to furnish sufficient water in the District for any present or future beneficial use; and

WHEREAS the District, pursuant to Section 31025 of the California Water Code, may establish rules and regulations for the sale, distribution and use of water; and

WHEREAS, beginning in water year 2006-2007, because of unusual climate conditions in the preceding two years, the District began to experience a substantial increase in water usage that resulted in an imbalance between customer demand and the supply available from District's historically utilized sources of water, causing an increasing dependence on supplemental sources of supply; and

WHEREAS the District responded to the growing supply/demand imbalance by encouraging its customers, through a public outreach program, to voluntarily reduce water consumption and by adopting Ordinance 89 on April 15, 2008, which limits water distribution in the event of land division or changes of land use requiring county permits; and

WHEREAS the District's connection through the Central Coast Water Authority to the State Water Project system provides access to 3,300 acre feet of State Water entitlement and the ability to purchase other supplemental State Water supplies as needed, but at a higher cost than the District's other sources of supply; and

WHEREAS the District has determined that a tiered rate structure is needed to promote the conservation of resources and, at the same time, to generate funds sufficient to support the expense of supplemental sources of supply as may be needed to meet demand; and

WHEREAS the District has determined that it needs to make adjustments in classifications so that it can continue to maintain an equitable distribution of the water supply while meeting the health and safety needs of the District;

NOW, THEREFORE, BE IT ORDAINED by the Board of Directors of the Montecito Water District as follows:

Section 1: Amendment to District Ordinance 82

1.1. Sections 1.2.1, 1.2.3, 1.2.7, 1.2.10, 1.2.11, and Section 1.3 in its entirety, are hereby repealed and replaced by the applicable provisions of this Ordinance.

1.2. As of the effective date of this Ordinance, the use classifications defined and described in this Ordinance shall have the meanings stated in this Ordinance wherever they may appear in the District's ordinances, including Ordinance 82, unless the context requires otherwise.

Section 2: General Definitions

For purposes of the use classifications established in this Ordinance, as well as any rates that may be approved for such classifications, the following definitions shall apply:

2.1. “**Mixed Use**” means a property with both domestic and non-domestic uses.

2.2. “**Base Allotment**” means the calculated average amount of water actually delivered to the property per month during the three-year fiscal period 2003/04 – 2005/06. A Base Allotment will be calculated for properties classified as Commercial or Institutional and Public Uses. If the property does not have three years of use history, or if the use changes materially, the District will determine the Base Allotment by taking into account other relevant factors such as the established historical use of the property, or the water usage of properties of comparable sizes or with comparable uses during the Base Allotment period.

Section 3: Use Classifications

3.1. Domestic Uses

3.1.1. Single Family Residential (SFR) Use

Single Family Residential Use includes all properties with a primary single family residential unit. The classification also applies to properties with uses and structures customarily incidental and accessory to single family residential use, such as a guesthouse, cabana, private recreational facilities, livestock grazing, polo fields, and the breeding, raising, training or stabling of horses. Single Family Residential Use also includes all properties with any number of residential condominium units, each of which is served by a separate meter. Home occupations within a residence that are permitted by the County of Santa Barbara, or that are exempt from such permit requirements, are included in this definition. Single Family Residential Use excludes those units defined as Multi-family Residential, and also excludes all Non-domestic Uses. A mixed use property that has both Single Family Residential and Commercial Uses will be billed at the rate applicable to Commercial Uses unless a separate meter is installed to serve each residential unit.

3.1.2. Multi-family Residential (MFR) Use

Multi-family Residential (MFR) Use includes all properties with two or more residential units where at least two units are served by a single “master” meter. The multiple units may be constructed in any combination and configuration, including but not limited to apartment buildings, trailer parks and residential condominiums existing as of the effective date of this Ordinance and served by a single “master” meter. A mixed use property that has both Multi-family Residential and Commercial Uses will be billed at the rate applicable to Commercial Uses unless a separate meter is installed to serve the residential units.

3.2. Non-domestic Uses

3.2.1. Commercial Use

Commercial Use includes all properties where water is used for purposes of business, industry, trade or commerce. It includes businesses and industries that produce or sell goods or services, whether such sales are wholesale or retail. Commercial Uses shall include, but are not limited to, offices, retail stores and complexes, banks, restaurants, hotels, grocery stores, specialty markets, and manufacturing and processing facilities. A mixed use Commercial property with Domestic Uses shall be classified as Commercial and billed at Commercial rates unless one or more separate meters is installed to serve the Domestic Uses of the property.

3.2.2. Agricultural Use

Agricultural Use is the exclusive use of at least two contiguous acres of land, under one ownership, to grow crops for human consumption or as floriculture. This classification applies only to properties for which the District has granted an agricultural use classification permit as of the effective date of this Ordinance, and for which the customer provides satisfactory evidence as may be required by the District from time to time to confirm that the property is used principally and predominantly for the cultivation and harvest of crops suitable for human consumption or for use as floriculture. Specifically excluded from this classification are the cultivation of any other crops, ornamental plants grown in containers for onsite retail sale, livestock grazing, polo fields, and the breeding, raising, training or stabling of horses. Any properties that do not meet all requirements of this section at any time following adoption of this Ordinance will be classified or reclassified based on their primary non-agricultural use.

3.2.3. Institutional and Public Use

Institutional and Public Use includes properties, owned privately or publicly, that are used primarily as public offices, schools, churches, cemeteries, philanthropic organizations, membership associations, country clubs, sports clubs, recreational facilities, golf courses and tennis clubs. This classification also includes historic sites that are not in residential use and that are open to the public on a regular schedule. It also includes public entities providing essential services to the community such as Montecito Fire Protection District, Summerland-Carpinteria

Fire Protection District, Montecito Sanitary District, Summerland Sanitary District, and the Montecito Community Hall and Library.

Section 4: Appeal Procedures

Appeal procedures under District Ordinance 82, Section 9 shall apply to the provisions of this Ordinance.

Section 5: Suspension of Conflicting Ordinances, Rules and Regulations

To the extent that the terms and provisions of this Ordinance may be inconsistent or in conflict with the terms and provisions of any prior District ordinance, resolution, rule or regulation, the terms and provisions of this Ordinance shall be controlling, and inconsistent or conflicting provisions of prior ordinances, resolutions, rules or regulations shall be suspended for as long as this Ordinance remains in effect.

Section 6: Amendment

This Ordinance may be amended or repealed, in whole or in part, at any meeting, general or special, of the Board, a quorum being present, by a majority vote of the Board, provided that a written notice of any proposed action shall first have been presented in writing to each Director at least thirty (30) days prior to such meeting. No officer, agent or employee of the District may waive, alter or amend any provision of this Ordinance.

Section 7: Reservation of Powers

Nothing in this Ordinance shall prevent the District from exercising any of its powers under the California Water Code, nor shall it be construed as constraining any of the District's powers under the California Water Code, including but not limited to its power to declare a water shortage emergency or a threat of water shortage and to adopt ordinances, resolutions, rules or regulations in response thereto.

Section 8: Adoption of Findings

All of the recitals hereinabove set forth are hereby adopted as findings of the Board of Directors of this District.

Section 9: CEQA Exemption

The District has considered the potential environmental impacts of this Ordinance and has determined that the adoption of this Ordinance is an exempt action under the California Environmental Quality Act ("CEQA"), California Public Resources Code section 21080(b)(8), and 14 CCR § 15273, which provide that an action is exempt if it is for the purpose of the establishment, modification, structuring, restructuring, or approval of rates, tolls, fares or other charges by public agencies which the agency finds are for the purpose of meeting operating expenses, purchasing or leasing supplies, equipment, or materials, meeting financial reserve

needs and requirements, or obtaining funds for capital projects necessary to maintain service within existing service areas. The Board has determined and hereby finds that the adoption of new or amended classifications is for the express purpose of restructuring the District's rates and charges in order to accomplish other purposes enumerated in Section 21080(b)(8) and 14 CCR § 15273. Therefore the adoption of this Ordinance is exempt from the requirements of CEQA. This Ordinance constitutes the written findings of the record of the proceedings claiming this exemption. Following adoption of this Ordinance by the District Board of Directors, the General Manager is authorized to prepare and file a Notice of Exemption in compliance with CEQA.

Section 10: Effective Date and Publication

This Ordinance shall be in full force and effect thirty days after the date of its adoption (the "Effective Date"), which effective date is declared to be October 1, 2008. This Ordinance shall be published once in full in a newspaper of general circulation, printed, published and circulated in the District within 10 days after adoption.

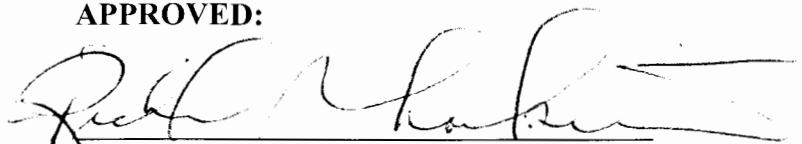
PASSED AND ADOPTED by the Board of Directors of Montecito Water District on the 20th day of August 2008 by the following vote, to wit:

AYES: Directors Abel, Frye, Morgan, Shaikewitz, and Wilson

NAYS: None

ABSENT: None

APPROVED:


Richard Shaikewitz, President

ATTEST:



Tom Mosby, Secretary

ORDINANCE NO. 92

AN ORDINANCE OF THE BOARD OF DIRECTORS OF THE MONTECITO WATER DISTRICT DECLARING A WATER SHORTAGE EMERGENCY AND PROVIDING FOR RESTRICTIONS ON USE OF WATER AND PENALTIES FOR FAILURE TO COMPLY WITH CONSERVATION MEASURES

WHEREAS, the Montecito Water District ("District") is a County Water District organized and existing under the laws of the State of California, situated and serving an area entirely within the County of Santa Barbara;

WHEREAS, The District's dependence on surface water supplies and the adverse effects of unpredictable and unreliable rain have been the primary reasons for historical water shortages. Rainfall for the last three consecutive years has been well below the historical average at 53% in 2011, 31% in 2012 and 7% to date for 2014. The below average rainfall has resulted in no recharge to the District's local water supplies including Jameson Lake, Lake Cachuma and the groundwater basin resulting in a significant reduction of the normal available water supply;

WHEREAS, Local water supplies continue to decline with Jameson Lake and Doulton Tunnel water supplies severely restricted providing an estimated 810 acre feet ("AF") during the current water year which began October 1, 2013. During normal years these two sources provide approximately 2100 AF of water;

WHEREAS, Due to the dry weather conditions affecting the entire State of California, the District's imported State Water Project supply has been set by the Department of Water Resources at a historically low allocation of 0% of the District's total annual allocation of 3,300 AF;

WHEREAS, The loss of private wells due to decreased groundwater levels through the lack of groundwater recharge and continuing dry weather conditions has led to an alarming increase in customer demand. For the 2012-13 water year, water sales through December 2012 were 1,217 AF. In contrast, water sales for the current 2013-2014 water year through December 2013 increased by approximately 320 AF. Given current trends, projected water sales through the end of the 2013-14 water year are estimated to be 6,638 AF;

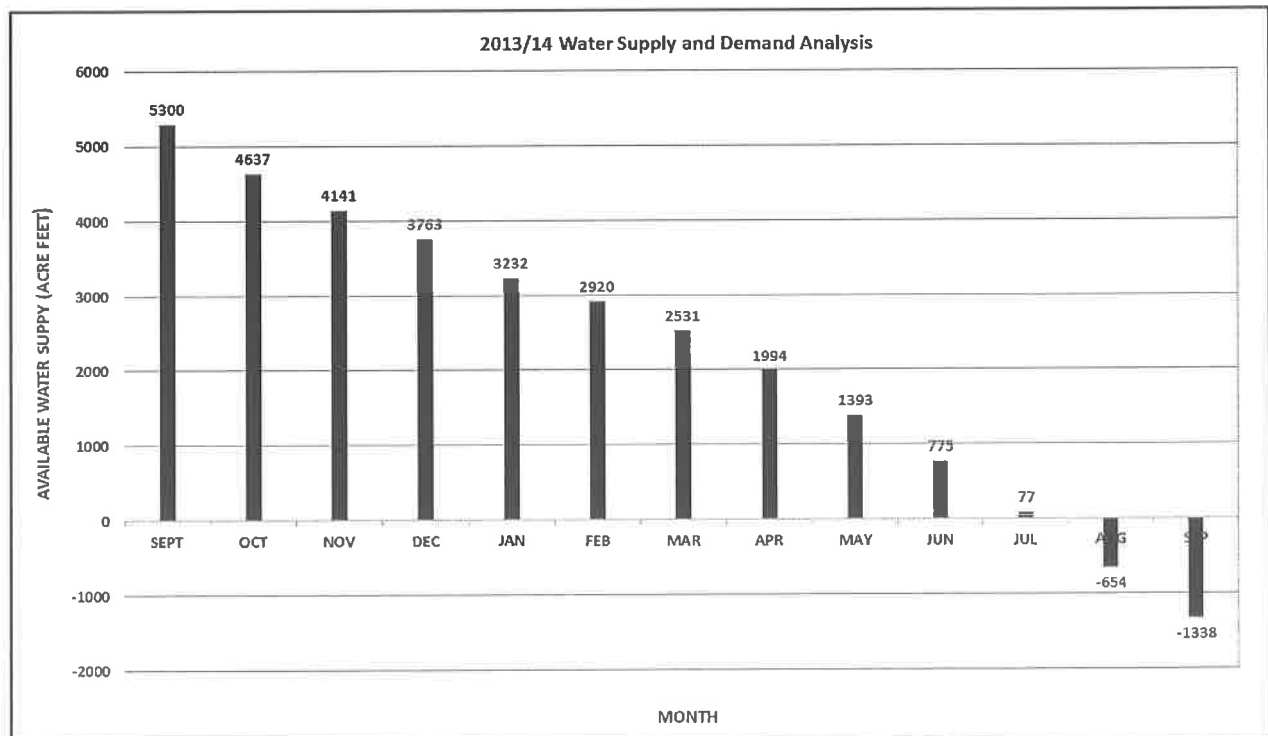
WHEREAS, For the 2013-14 water year, assuming no mandatory cutbacks in the Cachuma Project water deliveries, the District will have a total estimated water supply of 5,300 AF, including losses and excluding sources with unknown delivery amounts;

WHEREAS, The following table and graph show the 2013-14 water year with the available water supply of 5,300 AF. This table and graph illustrate the monthly change to the available water supply without conservation or water use restrictions applied. The water demand values include actual demand for the period October 2013 through January 2014. Demand values from

February 2014 through September 30, 2014 are the recorded customer water demand for the period February 2013 through September 30, 2013 even though demand has continued to increase. This estimate assumes continuing dry weather conditions.

20013 -14 WATER SUPPLY AND DEMAND ANALYSIS

MONTH	DEMAND	REMAINING SUPPLY
OCT	663	4,637
NOV	496	4,141
DEC	379	3,763
JAN	531	3,232
FEB	312	2,920
MAR	389	2,531
APR	537	1,994
MAY	601	1,393
JUN	618	775
JUL	698	77
AUG	731	-654
SEP	684	-1,338



WHEREAS, If dry weather conditions continue and water consumption levels remain similar to those in the 2012-13 water year, the District will exhaust its available 2013-14 water supply in July unless there is an immediate 30% reduction in water use or the District is able to find supplemental water. The use of the water supply for fire protection purposes will only exacerbate this situation.

WHEREAS, Pursuant to its authority under section 350 of the Water Code, the District may declare a water shortage emergency condition when it finds and determines that the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply to the extent that there would be insufficient water for human consumption, sanitation, and fire protection; and

WHEREAS, Pursuant to section 353 of the Water Code, after declaring a water shortage emergency, the District may adopt restrictions on the consumption of water in order to conserve the water supply for the greatest public benefit with particular regard to domestic use, sanitation, and fire protection; and

WHEREAS, Section 31026 of the Water Code similarly permits the District to restrict use of water during any emergency caused by drought, and to prohibit the wastage of water during such periods;

WHEREAS, Notice of a time and place of a public hearing held on February 11, 2014 was duly given and published, and customers were given an opportunity to be heard and protest against a declaration that a water shortage emergency condition prevails within the District, and protests and testimony have been duly received and considered by the District's Board of Directors ("Board" or "Board of Directors").

NOW, THEREFORE, IT IS HEREBY ORDAINED BY THE BOARD OF DIRECTORS OF THE MONTECITO WATER DISTRICT AS FOLLOWS:

On the basis of prevailing dry weather conditions, water supply shortages, a 0% State Water Project allocation for 2014, and increased customer demand that cannot be met by available sources without depleting the District's water supply to the extent that there would be insufficient water for human consumption, sanitation, and fire protection, the Board hereby declares a water shortage emergency condition pursuant to Water Code section 350. Under this water shortage emergency, restrictions on water use are hereby adopted and include the following;

1. The District will immediately cease processing all applications for new water service and the increase in the size of an existing water meter(s) serving properties within its service boundary. This suspension will not affect those new water meter services that have been permitted by the District through its ongoing Certificate of Water Service Availability process.

2. Exterior irrigation, including but not limited to irrigation of turf, plants, lawns, shrubbery and ground cover, shall be permitted according to the following schedule: if automated, irrigation shall be allowed only between the hours of 7 p.m. and 7 a.m. If manually operated, irrigation shall be allowed only between the hours of 4 p.m. and 10:30 a.m. Written requests for relief from these irrigation restrictions shall be directed to the District's General Manager ("General Manager") and will be subject to the appeal process in Section 14 of this ordinance.
3. Water for private swimming pools is considered a non-essential use. Homeowners of private swimming pools are permitted to maintain water levels for existing pools but shall not drain and refill an existing pool. All swimming pool owners with pool covers shall cover pools when not in use. On written application to the General Manager for an exception, a property owner may be authorized to drain a pool for repair and to refill it, provided that:
 - a. The General Manager finds a net benefit to the water conservation goal of this ordinance;
 - b. The pool can be refilled within the property's water allocation; and
 - c. The pool shall be fitted with a pool cover and the property owner shall use that cover consistently to limit evaporation.

A property owner granted an exception under this paragraph shall comply with reasonable written conditions imposed by the General Manager and failure to do so shall constitute a violation of this ordinance.

4. District water is not available for new private or public swimming pools, ponds, or major water features during the water shortage emergency, therefore, the District will immediately cease processing all applications for these items. If a new swimming pool, pond, or water feature has been previously reviewed and approved by the District prior to the date of this Ordinance and the property owner elects to continue with its installation, it must be filled within the property's water allocation. The District will not permit or provide approval for the construction of new private and public swimming pools, ponds, or major water features within its water service boundary while this Ordinance is in effect.
5. All restaurants and other eating establishments that provide table service shall post, in a conspicuous place, a notice of drought condition and shall refrain from serving water except upon specific request by a customer.
6. Operators of hotel-resorts, motels and other commercial establishments offering lodging shall post in each room a notice of drought condition containing water conservation information and a separate notice with language similar to the following:

This region is suffering a serious water shortage. Sheets and towels are customarily changed between guests. If you would like your sheets to be changed, please leave this card on your pillow. If you would like your towels to be changed, please leave them on the floor of the bathroom. Housekeeping

will be pleased to accommodate you.

7. Vehicles shall be washed only at commercial car washing facilities or by the use of a bucket or hose equipped with a hand-operated shut off valve.
8. The washing of hard surfaces such as driveways, sidewalks, patios and parking lots is prohibited except where necessary to protect health and safety.
9. Breaks or leaks in any customer's plumbing must be immediately repaired upon discovery. If repairs cannot be immediately completed, water service to the property shall be turned off by the customer or customer's agent to prevent water loss until such time as the repair has been completed.
10. All customers are encouraged to practice water conservation with a goal of a minimum thirty percent reduction in district-wide water use.
12. The penalties for violation of this Ordinance will fund both conservation outreach toward those who fail to conserve water and the purchase, if available, of additional, very costly, water supplies to offset wasteful consumption and protect the health and safety of all customers. Because these costs are necessary to provide water service under current drought conditions, the Board finds that the rates for water service, including penalties established under this Ordinance:
 - a. Are not expected to exceed the funds required to provide water service.
 - b. Will not be used for any purpose other than to provide water service and conservation outreach.
 - c. Will not exceed the proportional cost of water service attributable to any parcel.
 - d. Are imposed only where water service is actually used by, or immediately available to, a parcel.
13. A written warning will be issued for a first violation. As a penalty for the second violation, and any subsequent violation, of restrictions set forth herein, the District will impose a fine in the amount of \$250 and doubling with each subsequent violation, up to a maximum of \$1,000 for any single violation. Upon a fourth violation, or upon an earlier violation the General Manager determines to create a significant threat to the goals of this Ordinance, the General Manager may order installation of a flow restrictor on the service line or lines in question. Such an order shall be written and subject to appeal pursuant to paragraph 14 of this Ordinance. Orders shall be provided to the Board when issued and any appeal shall be heard as quickly as possible to allow a flow restrictor to be removed promptly should the Board grant the appeal.
14. Appeals and Exceptions.
 - A. Any customer may appeal any decision made or fine imposed under this Ordinance to the Board of Directors by filing a written appeal with the District within 30 days of written

notice of the decision or fine. Such an appeal shall be accompanied by an appeal fee in an amount established from time to time by resolution of the Board of Directors. If a person appeals any fine under this Ordinance, all amounts due to District must be paid before the Appeals Committee will hear the appeal and the Appeals Committee may dismiss an appeal for nonpayment, making the action appealed final as to the District and not subject to further appeal. The Appeals Committee will hear the appellant and make a recommendation to the Board of Directors. The Board of Directors shall consider the recommendations of the Appeals Committee. The District shall give the appellant written notice of the meetings at which the appeal will be considered by the Appeals Committee and the Board.

- B. The Board of Directors may, in its discretion, continue a hearing, affirm, reverse, or modify the Appeals Committee's recommendation and make any adjustments and impose any conditions it deems just and proper, if it finds two or more of the following: (1) the restrictions of this Ordinance would cause an undue hardship, (2) the granting of the appeal will not significantly adversely affect the goals of this Ordinance, (3) due to peculiar facts and circumstances, none of the provisions of this Ordinance are applicable to the situation under consideration; or (4) error in the application of this Ordinance or other applicable rules or law.
- C. The Board's decision shall be written and provided to the appellant and any other person who requests notice of the decision in writing. Such decisions are final as to the District and not subject to further appeal unless the Board's decision expressly provides otherwise. Judicial review of final decisions shall be available pursuant to California Code of Civil Procedure section 1094.5.

15. If any subdivision, paragraph, sentence, clause, or phrase of this Ordinance is, for any reason, held to be invalid or unenforceable by a court of competent jurisdiction, such invalidity or unenforceability shall not affect the validity or enforcement of the remaining portions of this Ordinance. It is the District's express intent that each remaining portion would have been adopted irrespective of the fact that one or more subdivisions, paragraphs, sentences, clauses, or phrases be declared invalid or unenforceable.

16. This Ordinance shall become effective upon adoption and shall remain in effect until the Board declares that a water shortage emergency no longer exists.

PASSED, APPROVED AND ADOPTED by the Board of Directors of the Montecito Water District this 11th day of February 2014.

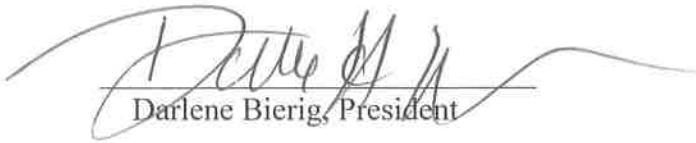
AYES: Directors Abel, Bierig, Frye, Morgan, and Shaikewitz

NAYS: None

ABSENT: None

APPROVED:

ATTEST:

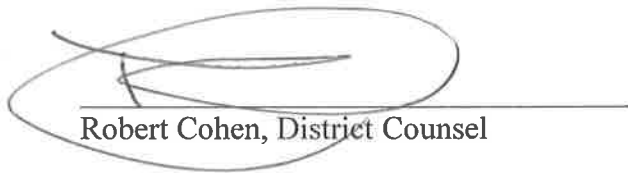


Darlene Bierig, President



Tom Mosby, Secretary

APPROVED AS TO FORM AND CONTENT



Robert Cohen, District Counsel

Michael Colantuono, Special Counsel

ORDINANCE NO. 93

AN ORDINANCE OF THE BOARD OF DIRECTORS OF THE MONTECITO WATER DISTRICT ALLOCATING WATER DURING WATER SHORTAGE EMERGENCY AND PROVIDING PENALTY RATES AND RESTRICTIONS FOR CONSUMPTION IN EXCESS OF ALLOCATION

WHEREAS, the Montecito Water District ("District") is a County Water District organized and existing under the laws of the State of California, situated and serving an area entirely within the County of Santa Barbara; and

WHEREAS, The District's dependence on surface water supplies and the adverse effects of unpredictable and unreliable rain have been the primary reasons for historical water shortages. Rainfall at the Jameson Lake station for the last three consecutive years has been well below the historical average at 53% in 2011, 31% in 2012 and 7% to date for 2014. The below average rainfall has resulted in no recharge to the District's local water supplies including Jameson Lake, Lake Cachuma and the groundwater basin resulting in a significant reduction of the normal available water supply; and

WHEREAS, Local water supplies continue to decline with Jameson Lake and Doulton Tunnel water supplies severely restricted providing an estimated 810 acre feet ("AF") during the current water year which began October 1, 2013. During normal years these two sources provide approximately 2100 AF of water; and

WHEREAS, Due to the dry weather conditions affecting the entire State of California, the District's imported State Water Project supply has been set by the Department of Water Resources at a historically low allocation of 0% of the District's total annual allocation of 3,300 AF; and

WHEREAS, The loss of private wells due to decreased groundwater levels through the lack of groundwater recharge and continuing dry weather conditions has led to an alarming increase in customer demand. For the 2012-13 water year, water sales through December 2012 were 1,217 AF. In contrast, water sales for the current 2013-2014 water year through December 2013 increased by approximately 320 AF. Given current trends, projected water sales through the end of the 2013-14 water year are estimated to be 6,638 AF; and

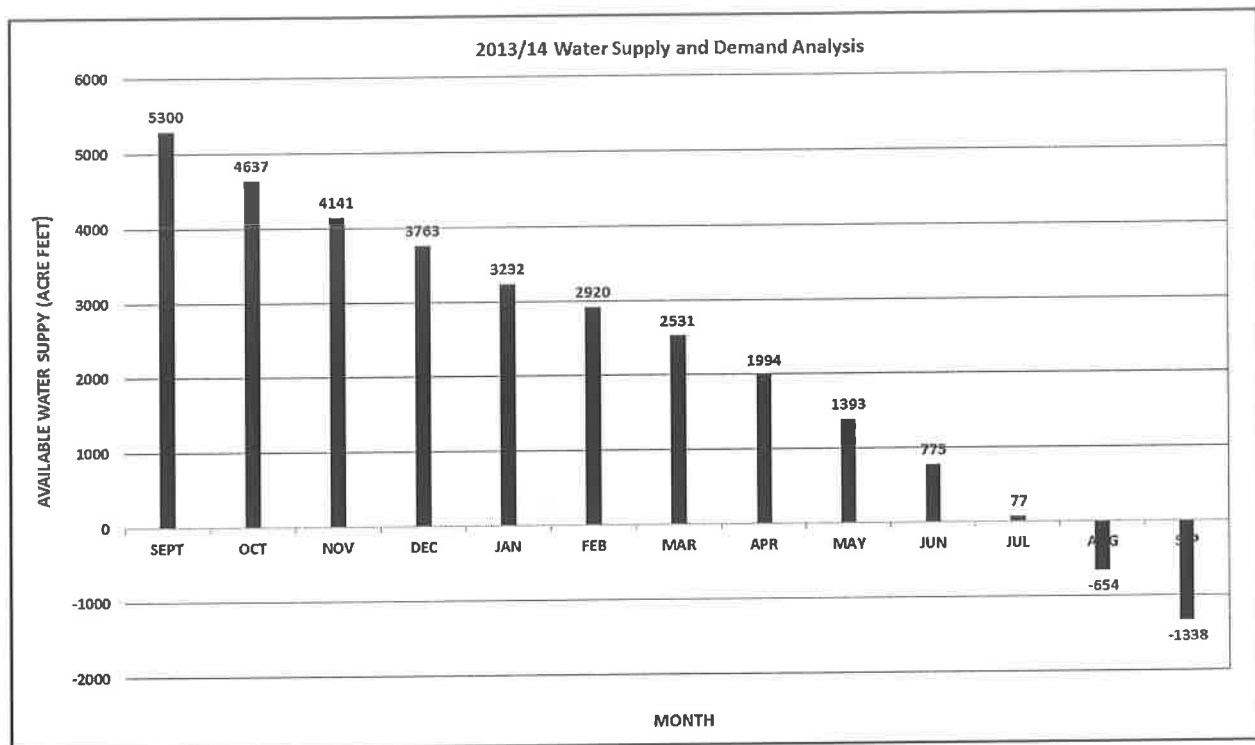
WHEREAS, For the 2013-14 water year, assuming no mandatory cutbacks in the Cachuma Project water deliveries, the District will have a total estimated water supply of 5,300 AF, including losses and excluding sources with unknown delivery amounts; and

WHEREAS, The following table and graph show the 2013-14 water year with the available water supply of 5,300 AF. This table and graph illustrate the monthly change to

the available water supply without conservation or water use restrictions applied. The water demand values include actual demand for the period October 2013 through January 2014. Demand values from February 2014 through September 30, 2014 are the recorded customer water demand for the period February 2013 through September 30, 2013 even though demand has continued to increase. This estimate assumes continuing dry weather conditions; and

20013 -14 WATER SUPPLY AND DEMAND ANALYSIS

MONTH	DEMAND	REMAINING SUPPLY
OCT	663	4,637
NOV	496	4,141
DEC	379	3,763
JAN	531	3,232
FEB	312	2,920
MAR	389	2,531
APR	537	1,994
MAY	601	1,393
JUN	618	775
JUL	698	77
AUG	731	-654
SEP	684	-1,338



WHEREAS, If dry weather conditions continue and water consumption levels remain similar to those in the 2012-13 water year, the District will exhaust its available 2013-14 water supply in July unless there is an immediate 30% reduction in water use or the District is able to find supplemental water. The use of the water supply for fire protection purposes will only exacerbate this situation; and

WHEREAS, Section 31026 of the Water Code similarly permits the District to restrict use of water during any emergency caused by drought, and to prohibit the wastage of water during such periods; and

WHEREAS, Pursuant to its authority under section 350 of the Water Code, the District may declare a water shortage emergency condition when it finds and determines that the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply to the extent that there would be insufficient water for human consumption, sanitation, and fire protection; and

WHEREAS, Pursuant to section 353 of the Water Code, after declaring a water shortage emergency, the District may adopt restrictions on the consumption of water in order to conserve the water supply for the greatest public benefit with particular regard to domestic use, sanitation, and fire protection; and

WHEREAS, Notice of a time and place of a public hearing held on February 11, 2014 was duly given and published, and customers were given an opportunity to be heard and protest against a declaration that a water shortage emergency condition prevails within

the District, and protests and testimony were duly received and considered by the District's Board of Directors ("Board" or "Board of Directors"); and

WHEREAS, On February 11, 2014, the Board adopted Ordinance No. 92, under which it declared a water shortage emergency, adopted restrictions on the use of water, and imposed penalties for the violation of use restrictions; and

WHEREAS, a water shortage emergency now exists throughout the State of California, and the District has been unable to identify material sources of supplemental water. Excessive consumption therefore cannot be offset by supplemental purchases, and it is critical that customers reduce consumption immediately, in order to conserve this vital resource; and

WHEREAS, The Board has determined that the use restrictions adopted under Ordinance 92 will not adequately protect the water supply, and allocation limits must be established in order to ensure the availability of water to meet health, safety and sanitation needs; and

WHEREAS, Pursuant to Resolution No. 2107, adopted by the Board on August 29, 2013, current rates are based upon a policy of allocating a 13% share of State Water Project costs to Agricultural customers for non-domestic uses, who in turn are limited to 13% of the State Water Project supply that they would otherwise be entitled to for those uses during drought conditions, if they had contributed at the 100% level. The allocation limits established under this Ordinance, and the availability of carryover from the previous State Water Project supply, must therefore reflect that policy.

NOW, THEREFORE, IT IS HEREBY ORDAINED BY THE BOARD OF DIRECTORS OF THE MONTECITO WATER DISTRICT AS FOLLOWS:

Section 1. Prohibition Against Waste of Water. It shall be unlawful for any water user obtaining any water from and through the distribution facilities of the District to waste any of that water.

Section 2. Definitions. As used in this Ordinance, the following words or terms shall have the meanings set forth in this section.

2.1. An Account is a District record that identifies the meters through which water is served to a particular property, the name of the person requesting the service, the location of the property and the person responsible for payment. Each such Account is identified by an account number.

2.2. Account Classifications.

2.2.1. The Agricultural classification applies to the exclusive use of at least two contiguous acres of land, under one ownership, to grow crops for human consumption or as floriculture. This classification applies only to properties for which the District has granted an agricultural use classification permit as of the effective date of Ordinance No. 90, and for which the customer provides satisfactory evidence as may be required by the District from time to time to confirm that the property is used principally and predominantly for the cultivation and harvest of crops suitable for human consumption or for use as floriculture. Specifically excluded from this classification are the cultivation of any other crops, ornamental plants grown in containers for onsite retail sale, livestock grazing, polo fields, and the breeding, raising, training or stabling of horses.

2.2.2. The Commercial classification applies to all properties where water is used for purposes of business, industry, trade or commerce. It includes businesses and industries that produce or sell goods or services, whether such sales are wholesale or retail. Commercial uses shall include, but are not limited to, offices, retail stores and complexes, banks, restaurants, hotels, grocery stores, specialty markets, and manufacturing and processing facilities. A mixed use Commercial property with Single Family Residential or Multi Family Residential use shall be classified as Commercial and billed at Commercial rates unless one or more separate meters is installed to serve the residential use of the property.

2.2.3. The Institutional classification includes properties, owned privately or publicly, that are used primarily as public offices, schools, churches, cemeteries, philanthropic organizations, membership associations, country clubs, sports clubs, recreational facilities, golf courses and tennis clubs. This classification also includes historic sites that are not in residential use and that are open to the public on a regular schedule. It also includes public entities providing essential services to the community such as Montecito Fire Protection District, Summerland-Carpinteria Fire Protection District, Montecito Sanitary District, Summerland Sanitary District, and the Montecito Community Hall and Library.

2.2.4. The Multi-family Residential classification includes all properties with two or more residential units where at least two units are served by a single “master” meter. The multiple units may be constructed in any combination and configuration, including but not limited to apartment buildings, trailer parks and residential condominiums existing as of the effective date of this Ordinance and served by a single “master” meter. A

mixed use property that has both Multi-family Residential and Commercial uses will be billed at the rate applicable to Commercial uses unless a separate meter is installed to serve residential use.

2.2.5. The Single Family Residential classification includes all properties with a primary single family residential unit. The classification also applies to properties with uses and structures customarily incidental and accessory to single family residential use, such as a guesthouse, cabana, private recreational facilities, livestock grazing, polo fields, and the breeding, raising, training or stabling of horses. The Single Family Residential classification also includes all properties with any number of residential condominium units, each of which is served by a separate meter. Home occupations within a residence that are permitted by the County of Santa Barbara, or that are exempt from such permit requirements, are included in this definition. A mixed use property that has both Single Family Residential and Commercial uses will be billed at the rate applicable to Commercial uses unless a separate meter is installed to serve residential use.

2.3. Base Allotment means the calculated average amount of water actually delivered to the property per month during the three-year fiscal period 2003/04 – 2005/06. A Base Allotment will be calculated for properties classified as Commercial or Institutional. If the property does not have three years of use history, or if the use changes materially, the District will determine the Base Allotment by taking into account other relevant factors such as the established historical use of the property, or the water usage of properties of comparable sizes or with comparable uses during the Base Allotment period.

2.4. The Monthly Allocation Factor (MAF) is a Monthly Billing Cycle allocation adjustment that will be applied to the Single Family Residential, Commercial, Institutional and Agricultural classifications that distributes the annual allocation of water to an account over a twelve month period. The calculated MAF reflects the distinct way water is used by each classification over a five dry year monthly averaging period.

2.4.1 The Single Family Residential MAF is defined as follows:

Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
.115	.113	.107	.095	.067	.048	.055	.046	.068	.081	.102	.103

2.4.2 The Commercial MAF is defined as follows:

Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
.1	.103	.092	.090	.072	.067	.068	.067	.075	.085	.092	.092

2.4.3 The Institutional MAF is defined as follows:

Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
.13	.126	.114	.092	.059	.034	.039	.038	.061	.089	.107	.11

2.4.4 The Agricultural MAF is defined as follows:

Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
.117	.114	.121	.112	.063	.035	.051	.034	.06	.074	.104	.114

2.5. A Monthly Billing Cycle is a period of approximately 30 consecutive days between meter readings by the District. There are 12 billing cycles in each Water Year. Meter reading is for the purpose of ascertaining actual flow through the meter for the period since the last meter reading for that Account.

2.6 A Revised Allocation Period is the period of time during which revised allocations pursuant to any amendment of this Ordinance are effective.

2.7. A Water Year begins on October 1 each year and ends on September 30 of the following year.

Section 3. Allocation by Customer Class.

3.1. Agricultural Accounts shall receive an annual allocation of 0.8 AF per cultivated acre of land, with monthly allocation determined by the Agricultural MAF, as defined in Section 2.4.4 of this Ordinance. For example, the Agricultural MAF for January is 0.051, which means that the January allocation for two cultivated acres of Agricultural land is .0816 AF, determined as follows: $2 \times 0.8 \times 0.051 = .0816$. Included in the monthly water allocation is the domestic component of 20 HCF per dwelling unit.

3.2 Commercial Accounts shall be allocated the Base Allotment, with monthly allocation determined by the Commercial MAF, as defined in Section 2.4.2 of this Ordinance.

3.3 Institutional Accounts shall be allocated 70% of the Base Allotment, with monthly allocation determined by the Institutional MAF, as defined in Section 2.4.3 of this Ordinance.

3.4 Multi-Family Residential Accounts shall be allocated 6 HCF per dwelling unit per month. This allocation is not subject to adjustment by a Monthly Allocation Factor.

3.5 Single Family Residential Accounts shall be allocated 25 HCF per month for essential health and sanitation uses, including a landscape buffer ("Essential Use Allocation"). The Essential Use Allocation is not subject to adjustment by the Monthly Allocation Factor. In addition to the Essential Use Allocation, Single Family Residential Accounts shall be allocated 111 HCF per acre per year for other uses ("Nonessential Use Allocation"), with monthly allocation determined by the Single Family Residential MAF, as defined in section 2.4.1 of this Ordinance. For example, a 1.3 acre Single Family Residential Account shall receive a total allocation, including both the Essential Use and Nonessential Use Allocations, of 33 HCF for the month of January, determined as follows: $25 \text{ HCF} + (111 \text{ HCF})(0.055)(1.3) = 33 \text{ HCF}$.

Section 4. Use of Allocated Water. Subject to the prohibition against the waste of water and to the penalties provided under Section 7 for the violation of this Ordinance, it shall be the sole responsibility of each water user to manage his or her water needs in such a manner as not to exceed the amount of water allocated to that Account.

Section 5. Place of and Class of Use of Rationed Water. Water allocated to an Account may be used only on and for the property served by that Account and on no other property, and only for that class of use or uses served by that Account and for no other use.

Section 6. Billing Cycles, Notice of Amount Allocated and Carry-Forward.

6.1. Notice of Amount of Allocation. Thirty days before the first day of each Water Year, the District shall notify each Account in writing of the date of the commencement of the Water Year. The notice shall set forth the amount of water allocated to the Account for each Monthly Billing Cycle during the Water Year.

6.2 Notice for Revised Allocation Period. Thirty days before the first day of each Revised Allocation Period, the District shall notify each Account in writing of the date of the commencement of the Revised Monthly Allocation Period, and the applicable Monthly Billing Cycles for that Account remaining in the Water Year ("Remaining Monthly Billing Cycles"). The notice shall set forth the amount of water allocated to the Account for each Remaining Monthly Billing Cycle.

6.3 Billing Statement. Each Monthly Billing Cycle statement shall set forth the allocation for that Monthly Billing Cycle, the amount of water consumed during that Monthly Billing Cycle, the amount consumed in excess of the Account's allocation for that Monthly Billing Cycle, if any, and the applicable penalty rates and total amount billed under those penalty rates.

6.4. Water Year Carry-Forward Adjustment. The allocation for each Account represents the maximum amount available for consumption on a monthly basis, and any unused allocation during a Monthly Billing Cycle shall not carry forward for use during subsequent Monthly Billing Cycles. However, any consumption in excess of the amount allocated during any Monthly Billing Cycle in any Water Year shall reduce the annual allocation for the subsequent Water Year. This reduction shall not be offset by unused allocation during any Monthly Billing Cycle. For example, if an Account exceeds its allocation by 5 HCF during one Monthly Billing Cycle of a Water Year, but consumes less than its monthly allocation during each of the other Monthly Billing Cycles of that Water Year, its annual allocation for the subsequent Water Year will be reduced by 5 HCF.

Section 7. Excessive Consumption. If an Account uses more water during any Monthly Billing Cycle than has been allocated to that Account, such excess use shall constitute a violation of this Ordinance, and the penalty rates for excessive consumption and restrictions set forth in this section shall apply.

7.1. March 2014 Grace Period. No penalties or restrictions shall apply for consumption in excess of allocation for any Monthly Billing Cycle that ends prior to April 1, 2014. In order to inform customers of the penalties that will be imposed during subsequent Monthly Billing Cycles, the District shall include information in the billing statement for the Monthly Billing Cycle that includes the March 2014 meter reading ("March Billing Cycle") about penalties that would apply if usage during the March Billing Cycle were to occur during subsequent Monthly Billing Cycles.

7.2 Beginning with the Monthly Billing Cycle that includes the April 2014 meter reading, consumption will be subject to the tiered rates established under Resolution No. 2107; in addition consumption in excess of the monthly allocation will be subject to a penalty premium of \$30 per HCF.

7.3. In addition to Section 7.2, beginning with the Monthly Billing Cycle that includes the April 2014 meter reading, consumption that is 25% in excess of allocation shall result in the installation of a flow restriction device on the service lines for the Account, subject to the discretion of the General Manager, which shall be exercised on the basis of the criteria set forth in Section 9.3 of this

Ordinance. Once installed, a flow restriction device will be removed only after the person responsible for the Account demonstrates to the satisfaction of the General Manager that a water management plan is in place to ensure that future consumption will not exceed monthly allocation.

7.4. In addition to Sections 7.2 and 7.3, beginning with the Monthly Billing Cycle that includes the May 2014 meter reading, if a violation of this Ordinance occurs during at least two Monthly Billing Cycles subsequent to the March Billing Cycle of the current Water Year, or in any two Monthly Billing Cycles of subsequent Water Years, the rate premium set forth in Section 7.2 shall be increased to \$45 per HCF for both the second and any subsequent violation of this Ordinance during that Water Year. The repeat violation shall result in the installation of a flow restriction device on the service lines for the Account, subject to the discretion of the General Manager, which shall be exercised on the basis of the criteria set forth in Section 9.3 of this Ordinance.

7.5. In addition to Sections 7.2, 7.3 and 7.4, beginning with the Monthly Billing Cycle that includes the May 2014 meter reading, any Account that currently has a flow restriction device installed on a service line pursuant to Sections 7.3 or 7.4 that subsequently exceeds allocated consumption during any Monthly Billing Cycle in which the flow restriction device is installed shall be subject to discontinuation of water service, subject to the discretion of the General Manager, which shall be exercised on the basis of the criteria set forth in Section 9.3 of this Ordinance. Once discontinued, water service will not be restored until the person responsible for the Account demonstrates to the satisfaction of the General Manager that a water management plan is in place to ensure that future consumption will not exceed the Account's monthly allocation.

7.6 Tampering with Flow Restriction Device. Any person who tampers with a flow restriction device that is installed on an Account line pursuant to this Ordinance shall be guilty of a misdemeanor and subject to prosecution under section 377 of the Water Code. In the event of such tampering, the Account will also be subject to discontinuation of water service.

Section 8. Changes In Acreage of Land Used for Agricultural Account. An Agricultural Account holder shall not be allowed to add additional land to be served by the Agricultural Account.

Section 9. Appeals and Exceptions.

9.1. Appeals. Any water user may appeal penalty rates and restrictions applicable to excessive consumption under Section 7 of this Ordinance to the Board of Directors, by filing a written appeal with District within 30 days of written notice of

the penalty rates or restrictions appealed from. Such an appeal shall be accompanied by an appeal fee in an amount established from time to time by resolution of the Board of Directors. If a person appeals any penalty rate under this Ordinance, all amounts due must be paid before the Appeals Committee will hear the appeal, subject to the discretion of the General Manager to allow an appeal to proceed prior to payment of the disputed penalty rate. If the General Manager determines that payment is a prerequisite to appeal, the Appeals Committee may dismiss an appeal for nonpayment, making the action appealed from final as to the District.

9.2. Appeals Committee Recommendation. The Appeals Committee will hear the appellant and make a recommendation to the Board of Directors within 30 days of the filing of the appeal based on the criteria stated in Section 9.3. The Board of Directors shall consider the recommendations of the Appeals Committee. The District shall give the appellant written notice of the meetings at which the appeal will be considered by the Appeals Committee and the Board.

9.3. Board Action. Subject to the meeting schedule of the Board, an appeal shall be heard by the Board within 30 days of the date upon which the Appeals Committee makes its recommendation. The Board may, in its discretion, affirm, reverse, or modify the Appeals Committee's recommendation and make any adjustments and impose any conditions it deems just and proper, if it finds two or more of the following: (1) the penalties or restrictions imposed under this Ordinance would cause an undue hardship, (2) the granting of the appeal will not significantly adversely affect the goals of this Ordinance, (3) due to peculiar facts and circumstances, none of the provisions of this Ordinance are applicable to the situation under consideration; or (4) error in the application of this Ordinance or other applicable rules or law.

9.4. Notice of Decision. The Board's decision shall be written and provided to the appellant. Such decisions are final as to the District and not subject to further appeal unless the Board's decision expressly provides otherwise. Judicial review of final decisions shall be available pursuant to California Code of Civil Procedure section 1094.5.

Section 10. Suspension of Conflicting Ordinances and Rules and Regulations. To the extent that the terms and provisions of this Ordinance are inconsistent, or in conflict with the terms and provisions of any prior District Ordinances, Resolutions and Rules and Regulations, the terms of this Ordinance shall prevail and inconsistent and conflicting provisions of prior Ordinances, Resolutions and Rules and Regulations shall be suspended during the effective period of this Ordinance.

Section 11. Allocation Adjustment. From time to time, the District may be able to obtain temporary supplies of supplemental water in excess of the amounts currently

available, or the District's water supply may increase due to a change in weather conditions. In such event, the District may allocate additional water for use in the best interest of the District, and such an additional allocation shall require an amendment to this Ordinance. Conversely, from time to time the District may determine that allocations and associated demands cannot be satisfied without depleting the water supply and jeopardizing public health and safety. In that event, the District may reduce allocations in order to reduce water demand. Such a reduction in allocation shall also require an amendment of this Ordinance.

Section 12. Severability. If any section, subsection, sentence, clause or phrase of this Ordinance is for any reason held to be invalid, that invalidity shall not affect the validity of the remaining portions of this Ordinance. The Board of Directors hereby declares that it would have passed this Ordinance and each section, subsection, sentence, clause or phrase thereof irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases may be invalid.

Section 13. Effective Date. This Ordinance shall become effective upon adoption and shall remain in effect until the Board declares that a water shortage emergency no longer exists.

PASSED AND ADOPTED by the Governing Board of the Montecito Water District this 21th day of February, 2014.

AYES: Directors Abel, Bierig, Frye, Morgan, and Shaikewitz

NAYES: None

ABSENT: None

ABSTAIN: None

APPROVED:

ATTEST:


Darlene Bierig, President


Tom Mosby, Secretary

APPROVED AS TO FORM AND CONTENT


Robert Cohen, District Counsel

Michael Colantuono, Special Counsel

ORDINANCE NO. 94

AN ORDINANCE OF THE BOARD OF DIRECTORS OF THE MONTECITO WATER DISTRICT REVISING ALLOCATION OF WATER DURING WATER SHORTAGE EMERGENCY AND PROVIDING PENALTY RATES AND RESTRICTIONS FOR CONSUMPTION IN EXCESS OF ALLOCATION

WHEREAS, the Montecito Water District (“District”) is a County Water District organized and existing under the laws of the State of California, situated and serving an area entirely within the County of Santa Barbara; and

WHEREAS, the District’s dependence on surface water supplies and the adverse effects of unpredictable and unreliable rain have been the primary reasons for historical water shortages. Santa Barbara County is currently designated in an exceptional, D4, drought condition by the United State Department of Agriculture for a second year in a row. The exceptional drought has registered rainfall at the District’s Jameson Lake station for the last four consecutive years at 53% in 2011/12, 36% in 2012/13, 43% in 2013/14 and 37% to date for 2014/15. These four consecutive years of below average rainfall exceed the previous Santa Ynez River critical drought period of 1947-1951 resulting in no recharge to the District’s local Jameson Lake, Lake Cachuma and the groundwater basin and a significant reduction of the normal available local water supply; and

WHEREAS, local water supplies continue to decline with Jameson Lake currently at 21% of capacity and Lake Cachuma at 28% of capacity. Lake Cachuma water deliveries for the 2014/15 water year are restricted to 45% of normal with a projected 0% allocation in 2015/16 water year for the first time in the Cachuma Project history. MWD’s owned and operated Jameson Lake will provide less than 20% of its normal water supplies for this and the following water year; and

WHEREAS, with drought conditions affecting the entire State of California and the second year of a declared water shortage emergency statewide, the Department of Water Resources has provided a State Water Project supply allocation of 20% for 2015; and

WHEREAS, due to the severity of the drought and water supply reductions, the District declared an emergency water shortage and adopted Ordinance 92 on February 11, 2014, restricting the use of water and suspending the issuance of new water service connections within the District’s service boundaries; and

WHEREAS, to manage remaining water supplies and reduce customer water usage due to below average rainfall and documented water well failures, the District adopted Ordinance 93 on February 21, 2014, providing monthly water allocations to all customer classifications and monetary penalties for excessive water use; and

WHEREAS, the District and other local water agencies are participating in an aggressive program to locate and purchase supplemental water supplies throughout the State as a short term measure to improve immediately available water supplies while work continues on the long term objective of creating new, locally managed and reliable water supplies; and

WHEREAS, the District has located and purchased significant supplemental water supplies that will temporarily and partially offset the loss of local and State Water Project supplies and provide the District with greater flexibility in allocating water to its customers, resulting in an ability to increase customer monthly water allocations. Adjustments to the customer monthly water allocations are a direct result of the available water supply, and until normalization of water supplies occurs either through recharge of State and local surface water reservoirs or the providing and delivering new locally controlled and reliable water supplies, such adjustments to customer monthly allocations will be reviewed on a periodic basis; and

WHEREAS, pursuant to Resolution No. 2107, adopted by the Board on August 29, 2013, current rates are based upon a policy of allocating a 13% share of State Water Project costs to Agricultural customers for non-domestic uses, who in turn are limited to 13% of the State Water Project supply that they would otherwise be entitled to for those uses during drought conditions, if they had contributed at the 100% level. The allocation limits established under Ordinance 93, and the availability of carryover from the previous State Water Project supply therefore reflect that policy; and

WHEREAS, the District Board of Directors has the discretionary authority to allocate supplemental water supplies to its customers that are not subject to the percentage allocations as defined under Resolution 2107. The allocation of supplemental water supplies will be in accordance with the available water supply and will apply to all customer water use classifications and increase or decrease depending on available and projected water supplies and in accordance with this Ordinance.

NOW, THEREFORE, IT IS HEREBY ORDAINED BY THE BOARD OF DIRECTORS OF THE MONTECITO WATER DISTRICT AS FOLLOWS:

Section 1. Repeal of Ordinance 93. Ordinance 93 is hereby repealed in its entirety and replaced with this Ordinance 94.

Section 2. Prohibition Against Waste of Water. It shall be unlawful for any water user obtaining any water from and through the distribution facilities of the District to waste any of that water.

Section 3. Definitions. As used in this Ordinance, the following words or terms shall have the meanings set forth in this section.

3.1. An Account is a District record that identifies the meters through which water is served to a particular property, the name of the person requesting the service, the location of the property and the person responsible for payment. Each such Account is identified by an account number.

3.2. Account Classifications.

3.2.1. The Agricultural classification applies to the exclusive use of at least two contiguous acres of land, under one ownership, to grow crops for human consumption or as floriculture. This classification applies only to properties for which the District has granted an agricultural use classification permit as of the effective date of Ordinance No. 90, and for which the customer provides satisfactory evidence as may be required by the District from time to time to confirm that the property is used principally and predominantly for the cultivation and harvest of crops suitable for human consumption or for use as floriculture. Specifically excluded from this classification are the cultivation of any other crops, ornamental plants grown in containers for onsite retail sale, livestock grazing, polo fields, and the breeding, raising, training or stabling of horses.

3.2.2. The Commercial classification applies to all properties where water is used for purposes of business, industry, trade or commerce. It includes businesses and industries that produce or sell goods or services, whether such sales are wholesale or retail. Commercial uses shall include, but are not limited to, offices, retail stores and complexes, banks, restaurants, hotels, grocery stores, specialty markets, and manufacturing and processing facilities. A mixed use Commercial property with Single Family Residential or Multi Family Residential use shall be classified as Commercial and billed at Commercial rates unless one or more separate meters is installed to serve the residential use of the property.

3.2.3. The Institutional classification includes properties, owned privately or publicly, that are used primarily as public offices, schools, churches, cemeteries, philanthropic organizations, membership associations, country clubs, sports clubs, recreational facilities, golf courses and tennis clubs. This classification also includes historic sites that are not in residential use and that are open to the public on a regular schedule. It also includes public entities providing essential services to the community such as Montecito Fire Protection District, Summerland-Carpinteria Fire Protection District,

Montecito Sanitary District, Summerland Sanitary District, and the Montecito Community Hall and Library.

3.2.4. The Multi-family Residential classification includes all properties with two or more residential units where at least two units are served by a single “master” meter. The multiple units may be constructed in any combination and configuration, including but not limited to apartment buildings, trailer parks and residential condominiums existing as of the effective date of this Ordinance and served by a single “master” meter. A mixed use property that has both Multi-family Residential and Commercial uses will be billed at the rate applicable to Commercial uses unless a separate meter is installed to serve residential use.

3.2.5. The Single Family Residential classification includes all properties with a primary single family residential unit. The classification also applies to properties with uses and structures customarily incidental and accessory to single family residential use, such as a guesthouse, cabana, private recreational facilities, livestock grazing, polo fields, and the breeding, raising, training or stabling of horses. The Single Family Residential classification also includes all properties with any number of residential condominium units, each of which is served by a separate meter. Home occupations within a residence that are permitted by the County of Santa Barbara, or that are exempt from such permit requirements, are included in this definition. A mixed use property that has both Single Family Residential and Commercial uses will be billed at the rate applicable to Commercial uses unless a separate meter is installed to serve residential use.

3.3. Base Allotment means the calculated average amount of water actually delivered to the property per month during the three-year fiscal period 2003/04 – 2005/06. A Base Allotment will be calculated for properties classified as Commercial or Institutional. If the property does not have three years of use history, or if the use changes materially, the District will determine the Base Allotment by taking into account other relevant factors such as the established historical use of the property, or the water usage of properties of comparable sizes or with comparable uses during the Base Allotment period.

3.4. The Monthly Allocation Factor (MAF) is a Monthly Billing Cycle allocation adjustment that will be applied to the Single Family Residential, Commercial, Institutional and Agricultural classifications that distributes the annual allocation of water to an account over a twelve month period. The calculated MAF reflects the distinct way water is used by each classification over a five dry year monthly averaging period.

3.4.1 The Single Family Residential MAF is defined as follows:

Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
.115	.113	.107	.095	.067	.048	.055	.046	.068	.081	.102	.103

3.4.2 The Commercial MAF is defined as follows:

Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
.1	.103	.092	.090	.072	.067	.068	.067	.075	.085	.092	.092

3.4.3 The Institutional MAF is defined as follows:

Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
.13	.126	.114	.092	.059	.034	.039	.038	.061	.089	.107	.11

3.4.4 The Agricultural MAF is defined as follows:

Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
.117	.114	.121	.112	.063	.035	.051	.034	.06	.074	.104	.114

3.5. A Monthly Billing Cycle is a period of approximately 30 consecutive days between meter readings by the District. There are 12 billing cycles in each Water Year. Meter reading is for the purpose of ascertaining actual flow through the meter for the period since the last meter reading for that Account.

3.6 A Revised Allocation Period is the period of time during which revised allocations pursuant to any amendment of this Ordinance are effective.

3.7. A Water Year begins on October 1 each year and ends on September 30 of the following year.

Section 4. Allocation by Customer Class.

4.1. Agricultural Accounts shall receive an annual allocation of 1.0 AF per cultivated acre of land, with monthly allocation determined by the Agricultural MAF, as defined in Section 3.4.4 of this Ordinance. For example, the Agricultural MAF for January is 0.051, which means that the January allocation for two cultivated acres of Agricultural land is 0.102 AF, determined as follows: $2 \times 1.0 \times 0.051 = 0.102$. Included in the monthly water allocation is the domestic component of 20 HCF per dwelling unit.

4.2 Commercial Accounts shall receive an annual allocation that is 26% higher than the Ordinance 93 Base Allotment allocation (or the adjusted Base Allotment allocation for properties that do not have use history during the three-year fiscal period 2003/04 – 2005/06, or if use has changed materially) as identified under Section 3.3 with the monthly allocation determined by the Commercial MAF, as defined in Section 3.4.2 of this Ordinance.

4.3 Institutional Accounts shall receive an annual allocation that is 26% higher than the Ordinance 93 allocation of 70% of Base Allotment (or the adjusted Base Allotment allocation for properties that do not have use history during the three-year fiscal period 2003/04 – 2005/06, or if use has changed materially) as identified under Section 3.3 with the monthly allocation determined by the Institutional MAF, as defined in Section 3.4.3 of this Ordinance.

4.4 Multi-Family Residential Accounts shall be allocated 7 HCF per dwelling unit per month. This allocation is not subject to adjustment by a Monthly Allocation Factor.

4.5 Single Family Residential Accounts shall be allocated 25 HCF per month for essential health and sanitation uses, including a landscape buffer (“Essential Use Allocation”). The Essential Use Allocation is not subject to adjustment by the Monthly Allocation Factor. In addition to the Essential Use Allocation, Single Family Residential Accounts shall receive a 26% increase to the annual acreage-based allocation for non-essential use provided under Ordinance 93, with an adjusted annual total of 140 HCF per acre per year for other uses (“Non-essential Use Allocation”), with monthly allocation determined by the Single Family Residential MAF, as defined in section 3.4.1 of this Ordinance. For example, a 1.3 acre Single Family Residential Account shall receive a total allocation, including both the Essential Use and Non-essential Use Allocations, of 33 HCF for the month of January, determined as follows: $25 \text{ HCF} + (140 \text{ HCF})(0.055)(1.3) = 35 \text{ HCF}$.

Section 5. Use of Allocated Water. Subject to the prohibition against the waste of water and to the penalties provided under Section 7 for the violation of this Ordinance, it shall be the sole responsibility of each water user to manage his or her water needs in such a manner as not to exceed the amount of water allocated to that Account.

Section 6. Place of and Class of Use of Rationed Water. Water allocated to an Account may be used only on and for the property served by that Account and on no other property, and only for that class of use or uses served by that Account and for no other use.

Section 7. Billing Cycles, Notice of Amount Allocated and Carry-Forward.

7.1. Notice of Amount of Allocation. Thirty days before the first day of each Water Year, the District shall notify each Account in writing of the date of the commencement of the Water Year. The notice shall set forth the amount of water allocated to the Account for each Monthly Billing Cycle during the Water Year.

7.2. Notice for Allocation Decrease. Thirty days before the first day of each Revised Allocation Period for which allocations will be decreased for any customer class, the District shall notify each Account in writing of the date of the commencement of the Revised Allocation Period, and the applicable Monthly Billing Cycles for that Account remaining in the Water Year (“Remaining Monthly Billing Cycles”). The notice shall set forth the amount of water allocated to the Account for each Remaining Monthly Billing Cycle.

7.3. Notice for Allocation Increase. Prior to the first day of each Revised Allocation Period for which allocations will not be decreased for any customer class, the District shall notify each Account in writing of the date of commencement of the Revised Allocation Period, and the applicable Monthly Billing Cycles for that Account remaining in the Water Year (“Remaining Monthly Billing Cycles”). The notice shall set forth the amount of water allocated to the Account for each Remaining Monthly Billing Cycle.

7.4. Billing Statement. Each Monthly Billing Cycle statement shall set forth the allocation for that Monthly Billing Cycle, the amount of water consumed during that Monthly Billing Cycle, the amount consumed in excess of the Account’s allocation for that Monthly Billing Cycle, if any, and the applicable penalty rates and total amount billed under those penalty rates.

7.5. Water Year Carry-Forward Adjustment. The allocation for each Account represents the maximum amount available for consumption on a monthly basis, and any unused allocation during a Monthly Billing Cycle shall not carry forward for use during subsequent Monthly Billing Cycles. However, any consumption in excess of the amount allocated during any Monthly Billing Cycle in any Water Year shall reduce the annual allocation for the subsequent Water Year. This reduction shall not be offset by unused allocation during any Monthly Billing Cycle. For example, if an Account exceeds its allocation by 5 HCF during one Monthly Billing Cycle of a Water Year, but consumes less than its monthly allocation during each of the other Monthly Billing Cycles of that Water Year, its annual allocation for the subsequent Water Year will be reduced by 5 HCF.

Section 8. Excessive Consumption. If an Account uses more water during any Monthly Billing Cycle than has been allocated to that Account, such excess use shall

constitute a violation of this Ordinance, and the penalty rates for excessive consumption and restrictions set forth in this section shall apply.

8.1 Consumption will be subject to all currently applicable rates and surcharges; in addition consumption in excess of the monthly allocation will be subject to a penalty premium of \$30 per HCF.

8.2. In addition to Section 8.1, consumption that is 25% in excess of allocation shall result in the installation of a flow restriction device on the service lines for the Account, subject to the discretion of the General Manager, which shall be exercised on the basis of the criteria set forth in Section 10.3 of this Ordinance. Once installed, a flow restriction device will be removed only after the person responsible for the Account demonstrates to the satisfaction of the General Manager that a water management plan is in place to ensure that future consumption will not exceed monthly allocation.

8.3. In addition to Sections 8.1 and 8.2, if a violation of this Ordinance occurs during at least two Monthly Billing Cycles of any Water Year, the rate premium set forth in Section 8.1 shall be increased to \$45 per HCF for both the second and any subsequent violation of this Ordinance during that Water Year. The repeat violation shall result in the installation of a flow restriction device on the service lines for the Account, subject to the discretion of the General Manager, which shall be exercised on the basis of the criteria set forth in Section 10.3 of this Ordinance.

8.4. In addition to Sections 8.1, 8.2 and 8.3, any Account that currently has a flow restriction device installed on a service line pursuant to Sections 8.2 or 8.3 that subsequently exceeds allocated consumption during any Monthly Billing Cycle in which the flow restriction device is installed shall be subject to discontinuation of water service, subject to the discretion of the General Manager, which shall be exercised on the basis of the criteria set forth in Section 10.3 of this Ordinance. Once discontinued, water service will not be restored until the person responsible for the Account demonstrates to the satisfaction of the General Manager that a water management plan is in place to ensure that future consumption will not exceed the Account's monthly allocation.

8.5 Tampering with Flow Restriction Device. Any person who tampers with a flow restriction device that is installed on an Account line pursuant to this Ordinance shall be guilty of a misdemeanor and subject to prosecution under section 377 of the Water Code. In the event of such tampering, the Account will also be subject to discontinuation of water service.

Section 9. Changes In Acreage of Land Used for Agricultural Account. An Agricultural Account holder shall not be allowed to add additional land to be served by the Agricultural Account.

Section 10. Appeals and Exceptions.

10.1. Appeals. Any water user may appeal penalty rates and restrictions applicable to excessive consumption under Section 8 of this Ordinance to the Board of Directors, by filing a written appeal with District within 30 days of written notice of the penalty rates or restrictions appealed from. Such an appeal shall be accompanied by an appeal fee in an amount established from time to time by resolution of the Board of Directors. If a person appeals any penalty rate under this Ordinance, all amounts due must be paid before the Appeals Committee will hear the appeal, subject to the discretion of the General Manager to allow an appeal to proceed prior to payment of the disputed penalty rate. If the General Manager determines that payment is a prerequisite to appeal, the Appeals Committee may dismiss an appeal for nonpayment, making the action appealed from final as to the District.

10.2. Appeals Committee Recommendation. The Appeals Committee will hear the appellant and make a recommendation to the Board of Directors within 30 days of the filing of the appeal based on the criteria stated in Section 10.3. The Board of Directors shall consider the recommendations of the Appeals Committee. The District shall give the appellant written notice of the meetings at which the appeal will be considered by the Appeals Committee and the Board.

10.3. Board Action. Subject to the meeting schedule of the Board, an appeal shall be heard by the Board within 30 days of the date upon which the Appeals Committee makes its recommendation. The Board may, in its discretion, affirm, reverse, or modify the Appeals Committee's recommendation and make any adjustments and impose any conditions it deems just and proper, if it finds two or more of the following: (1) the penalties or restrictions imposed under this Ordinance would cause an undue hardship, (2) the granting of the appeal will not significantly adversely affect the goals of this Ordinance, (3) due to peculiar facts and circumstances, none of the provisions of this Ordinance are applicable to the situation under consideration; or (4) error in the application of this Ordinance or other applicable rules or law.

10.4. Notice of Decision. The Board's decision shall be written and provided to the appellant. Such decisions are final as to the District and not subject to further appeal unless the Board's decision expressly provides otherwise. Judicial review of final decisions shall be available pursuant to California Code of Civil Procedure section 1094.5.

Section 11. Suspension of Conflicting Ordinances and Rules and Regulations. To the extent that the terms and provisions of this Ordinance are inconsistent, or in conflict with the terms and provisions of any prior District Ordinances, Resolutions and Rules and Regulations, the terms of this Ordinance shall prevail and inconsistent and conflicting provisions of prior Ordinances, Resolutions and Rules and Regulations shall be suspended during the effective period of this Ordinance.

Section 12. Allocation Adjustment. From time to time, the District may be able to obtain temporary supplies of supplemental water in excess of the amounts currently available, or the District's water supply may increase due to a change in weather conditions. In such event, the District may allocate additional water for use in the best interest of the District, and such an additional allocation shall require either an amendment to this Ordinance or a resolution. Conversely, from time to time the District may determine that allocations and associated demands cannot be satisfied without depleting the water supply and jeopardizing public health and safety. In that event, the District may reduce allocations in order to reduce water demand. Such a reduction in allocation shall also require either an amendment of this Ordinance or a resolution.

Section 13. Severability. If any section, subsection, sentence, clause or phrase of this Ordinance is for any reason held to be invalid, that invalidity shall not affect the validity of the remaining portions of this Ordinance. The Board of Directors hereby declares that it would have passed this Ordinance and each section, subsection, sentence, clause or phrase thereof irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases may be invalid.

Section 14. Effective Date. This Ordinance shall become effective during the May, 2015 Monthly Billing Cycle and shall remain in effect until the Board declares that a water shortage emergency no longer exists.

PASSED AND ADOPTED by the Governing Board of the Montecito Water District this 24th day of March, 2015.

AYES: Directors Abel, Bierig, Frye, Morgan, and Shaikewitz

NAYES: None

ABSENT: None

ABSTAIN: None

APPROVED:


Darlene Bierig, President

ATTEST:


Tom Mosby, Secretary

APPROVED AS TO FORM AND CONTENT

Robert Cohen, District Counsel

Michael Colantuono, Special Counsel

Appendix G

SB X7-7 Verification

Forms

SB X7-7 Table 0: Units of Measure Used in UWMP**(select one from the drop down list)*

Acre Feet

**The unit of measure must be consistent with Table 2-3*

NOTES:

SB X7-7 Table-1: Baseline Period Ranges

Baseline	Parameter	Value	Units
10- to 15-year baseline period	2008 total water deliveries	7,085	Acre Feet
	2008 total volume of delivered recycled water	-	Acre Feet
	2008 recycled water as a percent of total deliveries	0.00%	Percent
	Number of years in baseline period ^{1, 2}	10	Years
	Year beginning baseline period range	2001	
	Year ending baseline period range ³	2010	
5-year baseline period	Number of years in baseline period	5	Years
	Year beginning baseline period range	2006	
	Year ending baseline period range ⁴	2010	

¹ If the 2008 recycled water percent is less than 10 percent, then the first baseline period is a continuous 10-year period. If the amount of recycled water delivered in 2008 is 10 percent or greater, the first baseline period is a continuous 10- to 15-year period. ² The Water Code requires that the baseline period is between 10 and 15 years. However, DWR recognizes that some water suppliers may not have the minimum 10 years of baseline data.

³ The ending year must be between December 31, 2004 and December 31, 2010.

⁴ The ending year must be between December 31, 2007 and December 31, 2010.

NOTES:

SB X7-7 Table 2: Method for Population Estimates**Method Used to Determine Population**
(may check more than one)☐**1. Department of Finance (DOF)**
DOF Table E-8 (1990 - 2000) and (2000-2010) and
DOF Table E-5 (2011 - 2015) when available☐**2. Persons-per-Connection Method**☒**3. DWR Population Tool**☐**4. Other**
DWR recommends pre-review

NOTES:

SB X7-7 Table 3: Service Area Population

Year		Population
10 to 15 Year Baseline Population		
Year 1	2001	12,464
Year 2	2002	12,372
Year 3	2003	12,327
Year 4	2004	12,250
Year 5	2005	12,088
Year 6	2006	11,930
Year 7	2007	11,772
Year 8	2008	11,619
Year 9	2009	11,458
Year 10	2010	11,292
Year 11		
Year 12		
Year 13		
Year 14		
Year 15		
5 Year Baseline Population		
Year 1	2006	11,930
Year 2	2007	11,772
Year 3	2008	11,619
Year 4	2009	11,458
Year 5	2010	11,292
2015 Compliance Year Population		
2015		11,370
NOTES: DWR Population Tool value for 2015 population was below regional population data estimates. Persons per connection for SFR and MFR from 2010 was multiplied by 2015 # of connections		

SB X7-7 Table 4: Annual Gross Water Use *

Baseline Year <i>Fm SB X7-7 Table 3</i>		Volume Into Distribution System <i>This column will remain blank until SB X7-7 Table 4-A is completed.</i>	Deductions					Annual Gross Water Use
			Exported Water	Change in Dist. System Storage (+/-)	Indirect Recycled Water <i>This column will remain blank until SB X7-7 Table 4-B is completed.</i>	Water Delivered for Agricultural Use	Process Water <i>This column will remain blank until SB X7-7 Table 4-D is completed.</i>	
10 to 15 Year Baseline - Gross Water Use								
Year 1	2001	4,755	-	-	-	304	-	4,451
Year 2	2002	5,982	-	-	-	470	-	5,512
Year 3	2003	5,715	-	-	-	449	-	5,266
Year 4	2004	6,468	-	-	-	529	-	5,939
Year 5	2005	5,762	-	-	-	381	-	5,381
Year 6	2006	5,887	-	-	-	407	-	5,480
Year 7	2007	7,163	-	-	-	525	-	6,638
Year 8	2008	7,085	-	-	-	516	-	6,569
Year 9	2009	6,480	-	-	-	439	-	6,041
Year 10	2010	5,469	-	-	-	319	-	5,150
Year 11	0	-			-		-	-
Year 12	0	-			-		-	-
Year 13	0	-			-		-	-
Year 14	0	-			-		-	-
Year 15	0	-			-		-	-
10 - 15 year baseline average gross water use								5,643
5 Year Baseline - Gross Water Use								
Year 1	2006	5,887	-	-	-	407	-	5,480
Year 2	2007	7,163	-	-	-	525	-	6,638
Year 3	2008	7,085	-	-	-	516	-	6,569
Year 4	2009	6,480	-	-	-	439	-	6,041
Year 5	2010	5,469	-	-	-	319	-	5,150
5 year baseline average gross water use								5,976
2015 Compliance Year - Gross Water Use								
2015		3,925	-	-	-	313	-	3,612
* NOTE that the units of measure must remain consistent throughout the UWMP, as reported in Table 2-3								
NOTES:								

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)

Complete one table for each source.

Name of Source Fox

This water source is:



The supplier's own water source



A purchased or imported source

Baseline Year <i>Fm SB X7-7 Table 3</i>	Volume Entering Distribution System	Meter Error Adjustment* <i>Optional (+/-)</i>	Corrected Volume Entering Distribution System
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10 to 15 Year Baseline - Water into Distribution System

Year 1	2001	-	-	-
Year 2	2002	5	-	5
Year 3	2003	-	-	-
Year 4	2004	-	-	-
Year 5	2005	-	-	-
Year 6	2006	-	-	-
Year 7	2007	-	-	-
Year 8	2008	-	-	-
Year 9	2009	-	-	-
Year 10	2010	-	-	-
Year 11	0			-
Year 12	0			-
Year 13	0			-
Year 14	0			-
Year 15	0			-

5 Year Baseline - Water into Distribution System

Year 1	2006	-	-	-
Year 2	2007	-	-	-
Year 3	2008	-	-	-
Year 4	2009	-	-	-
Year 5	2010	-	-	-

2015 Compliance Year - Water into Distribution System

2015	-	-	-
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** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES: Per MWD Historical Production Data.

SB X7-7 Table 4-A: Volume Entering the Distribution

Name of Source Jameson Lake

This water source is:



The supplier's own water source



A purchased or imported source

Baseline Year <i>Fm SB X7-7 Table 3</i>		Volume Entering Distribution System	Meter Error Adjustment* <i>Optional</i> (+/-)	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	2,001	1534	0	1,534
Year 2	2,002	1810	0	1,810
Year 3	2,003	1294	0	1,294
Year 4	2,004	1302	0	1,302
Year 5	2,005	1033	0	1,033
Year 6	2,006	1371	0	1,371
Year 7	2,007	1631	0	1,631
Year 8	2,008	1515	0	1,515
Year 9	2,009	1322	0	1,322
Year 10	2,010	1404	0	1,404
Year 11	-			0
Year 12	-			0
Year 13	-			0
Year 14	-			0
Year 15	-			0
5 Year Baseline - Water into Distribution System				
Year 1	2,006	1371	0	1,371
Year 2	2,007	1631	0	1,631
Year 3	2,008	1515	0	1,515
Year 4	2,009	1322	0	1,322
Year 5	2,010	1404	0	1,404
2015 Compliance Year - Water into Distribution System				
2015		351	0	351
* Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document				
NOTES: Per MWD Historical Production Data.				

SB X7-7 Table 4-A: Volume Entering the Distribution				
Name of Source		Juncal Seepage		
This water source is:				
☒	The supplier's own water source			
☐	A purchased or imported source			
Baseline Year <i>Fm SB X7-7 Table 3</i>		Volume Entering Distribution System	Meter Error Adjustment* <i>Optional</i> (+/-)	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	2,001	43	0	43
Year 2	2,002	26	0	26

Year 3	2,003	18	0	18
Year 4	2,004	7	0	7
Year 5	2,005	107	0	107
Year 6	2,006	84	0	84
Year 7	2,007	41	0	41
Year 8	2,008	81	0	81
Year 9	2,009	43	0	43
Year 10	2,010	82	0	82
Year 11	-			0
Year 12	-			0
Year 13	-			0
Year 14	-			0
Year 15	-			0
5 Year Baseline - Water into Distribution System				
Year 1	2,006	84	0	84
Year 2	2,007	41	0	41
Year 3	2,008	81	0	81
Year 4	2,009	43	0	43
Year 5	2,010	82	0	82
2015 Compliance Year - Water into Distribution System				
2015		0	0	0
* Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document				
NOTES: Per MWD Historical Production Data.				

SB X7-7 Table 4-A: Volume Entering the Distribution				
Name of Source		Doulton Tunnel		
This water source is:				
☒	The supplier's own water source			
☐	A purchased or imported source			
Baseline Year <i>Fm SB X7-7 Table 3</i>		Volume Entering Distribution System	Meter Error Adjustment* <i>Optional</i> (+/-)	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	2,001	402	0	402
Year 2	2,002	174	0	174
Year 3	2,003	309	0	309
Year 4	2,004	162	0	162
Year 5	2,005	851	0	851
Year 6	2,006	558	0	558
Year 7	2,007	215	0	215
Year 8	2,008	516	0	516
Year 9	2,009	318	0	318
Year 10	2,010	453	0	453

Year 11	-			0
Year 12	-			0
Year 13	-			0
Year 14	-			0
Year 15	-			0
5 Year Baseline - Water into Distribution System				
Year 1	2,006	558	0	558
Year 2	2,007	215	0	215
Year 3	2,008	516	0	516
Year 4	2,009	318	0	318
Year 5	2,010	453	0	453
2015 Compliance Year - Water into Distribution System				
2015		161	0	161
* Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document				
NOTES: Per MWD Historical Production Data.				

SB X7-7 Table 4-A: Volume Entering the Distribution

Name of Source	Groundwater			
This water source is:				
☒	The supplier's own water source			
☐	A purchased or imported source			
Baseline Year <i>Fm SB X7-7 Table 3</i>	Volume Entering Distribution System	Meter Error Adjustment* <i>Optional (+/-)</i>	Corrected Volume Entering Distribution System	
10 to 15 Year Baseline - Water into Distribution System				
Year 1	2,001	69	0	69
Year 2	2,002	81	0	81
Year 3	2,003	94	0	94
Year 4	2,004	392	0	392
Year 5	2,005	226	0	226
Year 6	2,006	294	0	294
Year 7	2,007	458	0	458
Year 8	2,008	400	0	400
Year 9	2,009	250	0	250
Year 10	2,010	213	0	213
Year 11	-			0
Year 12	-			0
Year 13	-			0
Year 14	-			0
Year 15	-			0
5 Year Baseline - Water into Distribution System				
Year 1	2,006	294	0	294
Year 2	2,007	458	0	458

Year 3	2,008	400	0	400
Year 4	2,009	250	0	250
Year 5	2,010	213	0	213
2015 Compliance Year - Water into Distribution System				
2015	637	0	637	
* Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document				
NOTES: Per MWD Historical Production Data.				

SB X7-7 Table 4-A: Volume Entering the Distribution

Name of Source		Lake Cachuma		
This water source is:				
☐	The supplier's own water source			
☒	A purchased or imported source			
Baseline Year <i>Fm SB X7-7 Table 3</i>	Volume Entering Distribution System	Meter Error Adjustment* <i>Optional</i> (+/-)	Corrected Volume Entering Distribution System	
10 to 15 Year Baseline - Water into Distribution System				
Year 1	2,001	2707	0	2,707
Year 2	2,002	2784	0	2,784
Year 3	2,003	2998	0	2,998
Year 4	2,004	2712	0	2,712
Year 5	2,005	3533	0	3,533
Year 6	2,006	3580	0	3,580
Year 7	2,007	1802	0	1,802
Year 8	2,008	2428	0	2,428
Year 9	2,009	3784	0	3,784
Year 10	2,010	2817	0	2,817
Year 11	-			0
Year 12	-			0
Year 13	-			0
Year 14	-			0
Year 15	-			0
5 Year Baseline - Water into Distribution System				
Year 1	2,006	3580	0	3,580
Year 2	2,007	1802	0	1,802
Year 3	2,008	2428	0	2,428
Year 4	2,009	3784	0	3,784
Year 5	2,010	2817	0	2,817
2015 Compliance Year - Water into Distribution System				
2015	1,160	0	1,160	
* Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document				

NOTES: Per MWD Historical Production Data.

SB X7-7 Table 4-A: Volume Entering the Distribution

Name of Source	State Water Project			
This water source is:				
☐	The supplier's own water source			
☒	A purchased or imported source			
Baseline Year <i>Fm SB X7-7 Table 3</i>	Volume Entering Distribution System	Meter Error Adjustment* <i>Optional (+/-)</i>	Corrected Volume Entering Distribution System	
10 to 15 Year Baseline - Water into Distribution System				
Year 1	2,001	0	0	0
Year 2	2,002	1102	0	1,102
Year 3	2,003	1002	0	1,002
Year 4	2,004	1893	0	1,893
Year 5	2,005	12	0	12
Year 6	2,006	0	0	0
Year 7	2,007	3016	0	3,016
Year 8	2,008	2145	0	2,145
Year 9	2,009	763	0	763
Year 10	2,010	500	0	500
Year 11	-			0
Year 12	-			0
Year 13	-			0
Year 14	-			0
Year 15	-			0
5 Year Baseline - Water into Distribution System				
Year 1	2,006	0	0	0
Year 2	2,007	3016	0	3,016
Year 3	2,008	2145	0	2,145
Year 4	2,009	763	0	763
Year 5	2,010	500	0	500
2015 Compliance Year - Water into Distribution System				
2015	1,616	0	1,616	
* Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document				
NOTES: Per MWD Historical Production Data.				

SB X7-7 Table 4-A: Volume Entering the Distribution

Name of Source	Source 8			
This water source is:				
☐	The supplier's own water source			
☐	A purchased or imported source			

SB X7-7 Table 5: Gallons Per Capita Per Day (GPCD)

Baseline Year <i>Fm SB X7-7 Table 3</i>		Service Area Population <i>Fm SB X7-7 Table 3</i>	Annual Gross Water Use <i>Fm SB X7-7 Table 4</i>	Daily Per Capita Water Use (GPCD)
10 to 15 Year Baseline GPCD				
Year 1	2001	12,464	4,451	319
Year 2	2002	12,372	5,512	398
Year 3	2003	12,327	5,266	381
Year 4	2004	12,250	5,939	433
Year 5	2005	12,088	5,381	397
Year 6	2006	11,930	5,480	410
Year 7	2007	11,772	6,638	503
Year 8	2008	11,619	6,569	505
Year 9	2009	11,458	6,041	471
Year 10	2010	11,292	5,150	407
<i>Year 11</i>	0	-	-	
<i>Year 12</i>	0	-	-	
<i>Year 13</i>	0	-	-	
<i>Year 14</i>	0	-	-	
<i>Year 15</i>	0	-	-	
10-15 Year Average Baseline GPCD				422
5 Year Baseline GPCD				
Baseline Year <i>Fm SB X7-7 Table 3</i>		Service Area Population <i>Fm SB X7-7 Table 3</i>	Gross Water Use <i>Fm SB X7-7 Table 4</i>	Daily Per Capita Water Use
Year 1	2006	11,930	5,480	410
Year 2	2007	11,772	6,638	503
Year 3	2008	11,619	6,569	505
Year 4	2009	11,458	6,041	471
Year 5	2010	11,292	5,150	407
5 Year Average Baseline GPCD				459
2015 Compliance Year GPCD				
2015		11,370	3,612	284
NOTES:				

SB X7-7 Table 6: Gallons per Capita per Day*Summary From Table SB X7-7 Table 5*

10-15 Year Baseline GPCD	422
5 Year Baseline GPCD	459
2015 Compliance Year GPCD	284

NOTES:

SB X7-7 Table 7: 2020 Target Method*Select Only One*

Target Method		Supporting Documentation
☒	Method 1	SB X7-7 Table 7A
☐	Method 2	SB X7-7 Tables 7B, 7C, and 7D <i>Contact DWR for these tables</i>
☐	Method 3	SB X7-7 Table 7-E
☐	Method 4	Method 4 Calculator

NOTES:

SB X7-7 Table 7-A: Target Method 1 20% Reduction	
10-15 Year Baseline GPCD	2020 Target GPCD
422	338
NOTES:	

SB X7-7 Table 7-F: Confirm Minimum Reduction for 2020 Target

5 Year Baseline GPCD <i>From SB X7-7 Table 5</i>	Maximum 2020 Target ¹	Calculated 2020 Target ²	Confirmed 2020 Target
459	436	338	338

¹ Maximum 2020 Target is 95% of the 5 Year Baseline GPCD except for suppliers at or below 100 GPCD.

² 2020 Target is calculated based on the selected Target Method, see SB X7-7 Table 7 and corresponding tables for agency's calculated target.

NOTES:

SB X7-7 Table 8: 2015 Interim Target GPCD

Confirmed 2020 Target <i>Fm SB X7-7 Table 7-F</i>	10-15 year Baseline GPCD <i>Fm SB X7-7 Table 5</i>	2015 Interim Target GPCD
338	422	380

NOTES:

SB X7-7 Table 9: 2015 Compliance

Actual 2015 GPCD	2015 Interim Target GPCD	Optional Adjustments <i>(in GPCD)</i>					2015 GPCD <i>(Adjusted if applicable)</i>	Did Supplier Achieve Targeted Reduction for 2015?
		Enter "0" if Adjustment Not Used			TOTAL Adjustments	Adjusted 2015 GPCD		
		Extraordinary Events	Weather Normalization	Economic Adjustment				
284	380	-	-	-	-	284	284	YES

NOTES:

Appendix H

DWR Population Tool

Confirmation Reports



Please print this page to a PDF and include as part of your UWMP submittal.

Confirmation Information

Generated By	Water Supplier Name	Confirmation #	Generated On
Alicia Brundage	Montecito Water District	3515836417	2/16/2017 2:07:51 PM

Boundary Information

Census Year	Boundary Filename	Internal Boundary ID
1990	WD_1990.kml	1249
2000	WD_2000.kml	1248
2010	WD_2010.kml	1247

Baseline Period Ranges

10 to 15-year baseline period

Number of years in baseline period:

Year beginning baseline period range:

Year ending baseline period range¹: 2010

5-year baseline period

Year beginning baseline period range:

Year ending baseline period range²: 2010

¹ The ending year must be between December 31, 2004 and December 31, 2010.

² The ending year must be between December 31, 2007 and December 31, 2010.

Persons-Per-SF Connection and Persons-Per-MF/GQ Connection

Year	Census Block Group Level	Census Block Level			# SF Connections	# MF/GQ Connections	Persons per SF Connection	Persons per MF/GQ Connection
	% Population in SF Housing	Service Area Population	Population in SF Housing (calculated)	Population in MF/GQ Housing (calculated)				
1990	83.48%	10,433	8,710	1,723	3167	27	2.75	63.81
1991	-	-	-	-	-	-	2.74	60.45
1992	-	-	-	-	-	-	2.74	57.08
1993	-	-	-	-	-	-	2.73	53.72
1994	-	-	-	-	-	-	2.72	50.35
1995	-	-	-	-	-	-	2.71	46.98
1996	-	-	-	-	-	-	2.71	43.62
1997	-	-	-	-	-	-	2.70	40.25
1998	-	-	-	-	-	-	2.69	36.89
1999	-	-	-	-	-	-	2.69	33.52
2000	84.78%	12,486	10,586	1,900	3949	63	2.68	30.16
2001	-	-	-	-	-	-	2.63	30.40
2002	-	-	-	-	-	-	2.58	30.63
2003	-	-	-	-	-	-	2.54	30.87
2004	-	-	-	-	-	-	2.49	31.10
2005	-	-	-	-	-	-	2.44	31.34
2006	-	-	-	-	-	-	2.39	31.58
2007	-	-	-	-	-	-	2.34	31.81
2008	-	-	-	-	-	-	2.30	32.05
2009	-	-	-	-	-	-	2.25	32.28
2010	81.85%	11,292	9,243	2,049	4195	63	2.20	32.52
2015	-	-	-	-	-	-	1.97 *	33.71 *

Population Using Persons-Per-SF Connection and Persons-Per-MF/GQ Connection

Year		# SF Connections	# MF/GQ Connections	Persons per SF Connection	Persons per MF/GQ Connection	SF Population	MF/GQ Population	Total Population
10 to 15 Year Baseline Population Calculations								
Year 1	2001	4008	63	2.63	30.40	10,549	1,915	12,464
Year 2	2002	4041	63	2.58	30.63	10,442	1,930	12,372
Year 3	2003	4094	63	2.54	30.87	10,382	1,945	12,327
Year 4	2004	4136	63	2.49	31.10	10,290	1,960	12,250
Year 5	2005	4145	63	2.44	31.34	10,114	1,974	12,088
Year 6	2006	4156	63	2.39	31.58	9,941	1,989	11,930
Year 7	2007	4167	63	2.34	31.81	9,767	2,004	11,772
Year 8	2008	4181	63	2.30	32.05	9,600	2,019	11,619
Year 9	2009	4192	63	2.25	32.28	9,424	2,034	11,458
Year 10	2010	4195	63	2.20	32.52	9,243	2,049	11,292
5 Year Baseline Population Calculations								
Year 1	2006	4156	63	2.39	31.58	9,941	1,989	11,930
Year 2	2007	4167	63	2.34	31.81	9,767	2,004	11,772
Year 3	2008	4181	63	2.30	32.05	9,600	2,019	11,619
Year 4	2009	4192	63	2.25	32.28	9,424	2,034	11,458
Year 5	2010	4195	63	2.20	32.52	9,243	2,049	11,292
2015 Compliance Year Population Calculations								
2015		4222	64	1.97 *	33.71 *	8,303	2,157	10,461

QUESTIONS / ISSUES? CONTACT THE WUEdata HELP DESK

Please print this page to a PDF and include as part of your UWMP submittal.

Confirmation Information

Generated By	Water Supplier Name	Confirmation #	Generated On
Alicia Brundage	Montecito Water District	3090802848	1/6/2017 10:56:02 AM

Boundary Information

Census Year	Boundary Filename	Internal Boundary ID
1990	WD_1990.kml	1249
2000	WD_2000.kml	1248
2010	WD_2010.kml	1247

Baseline Period Ranges

10 to 15-year baseline period

Number of years in baseline period:

Year beginning baseline period range:

Year ending baseline period range¹: 2004

5-year baseline period

Year beginning baseline period range:

Year ending baseline period range²: 2010

¹ The ending year must be between December 31, 2004 and December 31, 2010.

² The ending year must be between December 31, 2007 and December 31, 2010.

Persons-Per-SF Connection and Persons-Per-MF/GQ Connection

Census Block Group Level		Census Block Level							
Year	% Population in SF Housing	Service Area Population	Population in SF Housing (calculated)	Population in MF/GQ Housing (calculated)	# SF Connections	# MF/GQ Connections	Persons per SF Connection	Persons per MF/GQ Connection	
1990	83.48%	10,433	8,710	1,723	3167	27	2.75	63.81	
1991	-	-	-	-	-	-	2.74	60.45	
1992	-	-	-	-	-	-	2.74	57.08	
1993	-	-	-	-	-	-	2.73	53.72	
1994	-	-	-	-	-	-	2.72	50.35	
1995	-	-	-	-	-	-	2.71	46.98	
1996	-	-	-	-	-	-	2.71	43.62	
1997	-	-	-	-	-	-	2.70	40.25	
1998	-	-	-	-	-	-	2.69	36.89	
1999	-	-	-	-	-	-	2.69	33.52	
2000	84.78%	12,486	10,586	1,900	3949	63	2.68	30.16	
2001	-	-	-	-	-	-	2.63	30.40	
2002	-	-	-	-	-	-	2.58	30.63	
2003	-	-	-	-	-	-	2.54	30.87	
2004	-	-	-	-	-	-	2.49	31.10	
2005	-	-	-	-	-	-	2.44	31.34	
2006	-	-	-	-	-	-	2.39	31.58	
2007	-	-	-	-	-	-	2.34	31.81	
2008	-	-	-	-	-	-	2.30	32.05	
2009	-	-	-	-	-	-	2.25	32.28	
2010	81.85%	11,292	9,243	2,049	4195	63	2.20	32.52	
2015	-	-	-	-	-	-	1.97 *	33.71 *	

Population Using Persons-Per-SF Connection and Persons-Per-MF/GQ Connection

Year		# SF Connections	# MF/GQ Connections	Persons per SF Connection	Persons per MF/GQ Connection	SF Population	MF/GQ Population	Total Population
10 to 15 Year Baseline Population Calculations								
Year 1	1995	3352	28	2.71	46.98	9,101	1,316	10,416
Year 2	1996	3787	63	2.71	43.62	10,255	2,748	13,003
Year 3	1997	3819	63	2.70	40.25	10,315	2,536	12,851
Year 4	1998	3848	63	2.69	36.89	10,367	2,324	12,691
Year 5	1999	3913	63	2.69	33.52	10,514	2,112	12,626
Year 6	2000	3949	63	2.68	30.16	10,586	1,900	12,486
Year 7	2001	4008	63	2.63	30.40	10,549	1,915	12,464
Year 8	2002	4041	63	2.58	30.63	10,442	1,930	12,372
Year 9	2003	4094	63	2.54	30.87	10,382	1,945	12,327
Year 10	2004	4136	63	2.49	31.10	10,290	1,960	12,250
5 Year Baseline Population Calculations								
Year 1	2006	4156	63	2.39	31.58	9,941	1,989	11,930
Year 2	2007	4167	63	2.34	31.81	9,767	2,004	11,772
Year 3	2008	4181	63	2.30	32.05	9,600	2,019	11,619
Year 4	2009	4192	63	2.25	32.28	9,424	2,034	11,458
Year 5	2010	4195	63	2.20	32.52	9,243	2,049	11,292
2015 Compliance Year Population Calculations								
2015		4222	64	1.97 *	33.71 *	8,303	2,157	10,461

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QUESTIONS / ISSUES? CONTACT THE WUEdata HELP DESK

Appendix I

CUWCC BMP Report



CUWCC BMP Retail Coverage Report 2013

Foundational Best Management Practices for Urban Water Efficiency

BMP 1.1 Operation Practices

ON TRACK

164 Montecito Water District

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

Name:

mike clark

Title:

water conservation coordinator 1

Email:

mike@montecitowater.com

2. Water Waste Prevention Documents

WW Document Name	WWP File Name	WW Prevention URL	WW Prevention Ordinance Terms Description
Option A Describe the ordinances or terms of service adopted by your agency to meet the water waste prevention requirements of this BMP.	SECTION 7 DMM's.doc		These Demand management measures require the efficient use of water in all areas/classifications here in MWD, and establish basic forms of water waste to be avoided when at all possible.
Option B Describe any water waste prevention ordinances or requirements adopted by your local jurisdiction or regulatory agencies within your service area.	Ord 92.pdf		Ordinance 92 attached
Option C Describe any documentation of support for legislation or regulations that prohibit water waste.			See our water waste ordinance as written in the UWMP for MWD. Also see Ordinance 89 as listed below; addresses maximum water allocations per acre of Landscaped Property.
Option D Describe your agency efforts to cooperate with other entities in the adoption or enforcement of local requirements consistent with this BMP.			
Option E Describe your agency support positions with respect to adoption of legislation or regulations that are consistent with this BMP.			
Option F Describe your agency efforts to support local ordinances that establish permits requirements for water efficient design in new development.			Ordinance 89 requires efficient water use in new developments by limiting the water allotment to 1 AF/yr maximum.

At Least As effective As

No



CUWCC BMP Retail Coverage Report 2013
Foundational Best Management Practices for Urban Water Efficiency

BMP 1.1 Operation Practices

ON TRACK

Exemption

No

Comments:

The Ordinance 92 was adopted February 11, 2014 in response to the current drought and limited supplies here, and severely restricts landscape watering and seeks to reduce water waste. Fines may be levied for various offenses.



CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.2 Water Loss Control

ON TRACK

164 Montecito Water District

Completed Standard Water Audit Using AWWA Software? No

AWWA File provided to CUWCC? Yes

Copy42_of_Roseville_2011_Water_AWWA_REV_7-10-12.xls

AWWA Water Audit Validity Score?

Complete Training in AWWA Audit Method No

Complete Training in Component Analysis Process? No

Component Analysis? No

Repaired all leaks and breaks to the extent cost effective? Yes

Locate and Repair unreported leaks to the extent cost effective? Yes

Maintain a record keeping system for the repair of reported leaks, including time of report, leak location, type of leaking pipe segment or fitting, and leak running time from report to repair. Yes

Provided 7 Types of Water Loss Control Info

Leaks Repairs	Value Real Losses	Value Apparent Losses	Miles Surveyed	Press Reduction	Cost Of Interventions	Water Saved (AF)
19		8274	9	True		

At Least As effective As

Yes

See the file 2014 CUWCC for infrastructure R&R details; also can FWD electronically our break report summary for calendar year 2013 if req'd.

Exemption

No

Comments:

See both of the above uploaded file for complete detailed information and procedures for water loss control for MWD. Our current methodology has been approved by the USBR in 2013.



CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.3 Metering With Commodity

NOT ON TRACK

164 Montecito Water District

Numbered Unmetered Accounts	No
Metered Accounts billed by volume of use	Yes
Number of CII Accounts with Mixed Use Meters	241
Conducted a feasibility study to assess merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters?	No
Feasibility Study provided to CUWCC?	No
Date: 1/1/0001	
Uploaded file name:	
Completed a written plan, policy or program to test, repair and replace meters	Yes
At Least As effective As	No
Exemption	No

Comments:

All customer accounts are metered and billed volumetrically except for Standby Fire connections.



CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.4 Retail Conservation Pricing

On Track

164 Montecito Water District

Implementation (Water Rate Structure)

Customer Class	Water Rate Type	Conserving Rate?	(V) Total Revenue Commodity Charges	(M) Total Revenue Fixed Carges
Single-Family	Increasing Block	Yes	9474395	2642661
Multi-Family	Increasing Block	Yes	287299.7	93532
Institutional	Allocation Based	Yes	899528	175584
Commercial	Allocation Based	Yes	614250.7	121670.8
Agricultural	Increasing Block Seasonal	Yes	546760	70085
Dedicated Irrigation	Non-Volumetric Flat Rate	No	89159	8728
			11911392.4	3112260.8

Calculate: $V / (V + M)$

79 %

Implementation Option: Use Annual Revenue As Reported

☐ Use 3 years average instead of most recent year

Canadian Water and Wastewater Association

Upload file:

Agency Provide Sewer Service: No

At Least As effective As

Exemption

Comments:

Now we have a very strict allocation based rate with increasing block structure in effect for all potable water and customer classes for 2014 due to the drought and limited supply.



CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.1 Public Outreach

ON TRACK

164 Montecito Water District

Retail

Does your agency perform Public Outreach programs? Yes

The list of wholesale agencies performing public outreach which can be counted to help the agency comply with the BMP

Santa Barbara County Water Agency

The name of agency, contact name and email address if not CUWCC Group 1 members

Did at least one contact take place during each quarter of the reporting year? No

Public Outreach Program List	Number
Flyers and/or brochures (total copies), bill stuffers, messages printed on bill, information packets	1000
Website	19826
Landscape water conservation media campaigns	3
Total	20829

Did at least one contact take place during each quarter of the reporting year? Yes

Number Media Contacts	Number
Television contacts	8
News releases	4
Radio contacts	8
Total	20

Did at least one website update take place during each quarter of the reporting year? Yes

Public Information Program Annual Budget

Annual Budget Category	Annual Budget Amount
Media campaign	3713
website maintenance	446
highschool video contest	371
Total Amount:	4530

Description of all other Public Outreach programs

Partners in Landscape Water Conservation MTNGS quarterly...

Comments:

MWD participates fully in the Regional Water Efficiency Program (RWEPP) conducted by the County of SB Water Agency which helps us meet all the BMP's for Public Information and school education aspects.



CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.1 Public Outreach

ON TRACK

At Least As effective As

No

--

Exemption

No

0



CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.2 School Education Programs

On Track

164 Montecito Water District

Retail

Does your agency implement School Education programs? No

The list of wholesale agencies performing public outreach which can be counted to help the agency comply with the BMP

Santa Barbara County Water Agency

Materials meet state education framework requirements? Yes

Contract with "Shows that Teach" for elem. school assembly presentations on Water conservation. cost sharing program BTWN County and retail agencies. Nine shows reached 1,762 in 2013.

Materials distributed to K-6? No

Materials distributed to 7-12 students? No (Info Only)

Annual budget for school education program:

Description of all other water supplier education programs

Comments:

Since there are no High Schools within District boundaries we contract w/ the County to provide the "Shows That Teach" assemblies to our schools, but had no takers here in 2013. The current school Curriculums teach basic water conservation.

At Least As effective As

No

Exemption

No

0



CUWCC BMP Coverage Report 2013

BMP3 - Residential

On Track

Agency **Montecito Water District**

Date Agency Signed MOU: 12/11/1991

Coverage Option: Traditional

Total Measured Water Savings (AF/Year)

TRADITIONAL	FLEXTRACK	ACTUAL	TARGET	Prior Activities Credit
69.09	25.8	94.89	12.12	

Residential Assistance

	Single Family Accounts	Single Family Target	Multi Family Accounts	Multi Family Target
Total Number Of Customers	4222		77	
Total Participants during Reporting	264		28	
Number of Leak Detection Surveys or Assistance on Customer Property	132	31.67	2	0.58
Number of Faucet Aerators Distributed	12		120	
Number of WSS Showerheads Distributed	6		88	
Landscape Water Surveys	132	31.66		

Has agency reached a 75% market saturation for showerheads?

Yes

High Efficiency Clothes Washers

Single Family Accounts

Single Family Target

Number of installations for HECW

2255

42.22

Are financial incentives provided for HECWs?

No

Has agency completed a HECW Market Penetration Study?

No

Water Sense Specification Toilets

Retrofit 'On Resale' Ordinance exists

No

75% Market Penetration Achieved

Yes

Single Family Units

Multi Family Units

Five year average Resale Rate

0.03

0.05

Number Toilets per Household

3

2

Number WSS Toilets Installed

0

0

Target Number of WSS Toilets

158.33

3.85

WSS for New Residential Development

Does an Ordinance Exists Requiring WSS Fixtures and Appliances in new SF and MF residences?

Single Family Units

Multi Family Units

Yes

Yes

Number of new SF & MF units built

9

0

Incentives



CUWCC BMP Coverage Report 2013

BMP3 - Residential

On Track

Unique Conservation Measures

Residential Assistance / Landscape Water Survey unique water savings

Measured water savings (AF/YR) 25.8

Uploaded file name: 2013 Consavings.xls

High Efficiency Clothes Washers unique water savings

Measured water savings (AF/YR) 0

Uploaded file name:

WaterSense Specification toilets unique water savings

SF Measured water savings (AF/YR) MF Measured water savings (AF/YR)

Uploaded file name:

WaterSense Specification toilets for New Residential development unique water savings

Measured water savings (AF/YR) 0

Uploaded file name:

High bill contact with single-family and multi-family customers

Measured water savings (AF/YR)

Uploaded file name:

Educate residential customers about the behavioral aspects of water conservation

Measured water savings (AF/YR) 0

Uploaded file name:

Notify residential customers of leaks on the customer's side of the meters

Measured water savings (AF/YR) 0

Uploaded file name:

Provide bill or surcharge refunds for customers to repair leaks on the customer's side of the meters

Measured water savings (AF/YR) 0

Uploaded file name:

Provide unique water savings fixtures that are not included in the BMP list above

Measured water savings (AF/YR) 0

Uploaded file name:

Install residence water use monitors

Measured water savings (AF/YR) 0

Uploaded file name:

Participate in programs that provide residences with school water conservation kits

Measured water savings (AF/YR) 0

Uploaded file name:

Implement in automatic meter reading program for residential customers



CUWCC BMP Coverage Report 2013

BMP3 - Residential

On Track

Measured water savings (AF/YR) 0

Uploaded file name:

OTHER Types of Measures

Measured water savings (AF/YR) 0

Uploaded file name:

Traditional Water Savings Calculation result:

Measures	Target Water Savings (AF):	Actual Water Savings (AF):
SF Leak Detection Surveys	0.71	2.96
MF Leak Detection Surveys	0.01	0.02
Landscape Water Surveys	0.71	2.96
SF WSS Toilets Installed	9.12	0.00
MF WSS Toilets Installed	0.39	0.00
HECW	1.18	63.15

Comments:

We have an pro-active landscape water use efficiency audit program offered to all our large SFR accounts, who account for 90+% of our water demand in the District. Since 2005 Mike has completed approx. 1000 audits.

At Least As Effective As No

Exemption No



CUWCC BMP Coverage Report 2013

BMP4 - Commercial Industrial
Institutional

Exempt

Agency **Montecito Water District**

Date Agency Signed MOU: 12/11/1991

Coverage Option: Flextrack

CII Baseline Water Use (AF): 553.90

CII Water Use Reduction(AF): 55.39

Total Measured Water Savings (AF/Year)

TRADITIONAL	FLEXTRACK	ACTUAL	TARGET	Prior Activities Credit
0	0	0		22.480

<u>Water Efficiency Measures:</u>	<u>Quantity Installed:</u>	<u>Water Savings:</u>	<u>Accept Council's default value</u>
1 High Efficiency Toilets (1.2 GPF or less)	0	0.00	Yes
2 High Efficiency Urinals (0.5 GPF or less)	0	0.00	Yes
3 Ultra Low Flow Urinals	0.00	0.00	Yes
4 Zero Consumption Urinals	0.00	0.00	Yes
5 Commercial High Efficiency Single Load Clothes Washers	0.00	0.00	Yes
6 Cooling Tower Conductivity Controllers	0.00	0.00	Yes
7 Cooling Tower pH Controllers	0.00	0.00	Yes
8 Connectionless Food Steamers	0.00	0.00	Yes
9 Medical Equipment Steam Sterilizers	0.00	0.00	Yes
10 Water Efficient Ice Machines	0.00	0.00	Yes
11 Pressurized Water Brooms	0.00	0.00	Yes
12 Dry Vacuum Pumps	0.00	0.00	Yes

Total Water Savings: 0.00

Unique Conservation Measures

Industrial Process Water Use Reduction

Measured water savings (AF/YR)

Uploaded file name:

Commercial Laundry Retrofits

Measured water savings (AF/YR)

Uploaded file name:

Industrial Laundry Retrofits

Measured water savings (AF/YR)

Uploaded file name:

Filter Upgrades (for pools, spas and fountains)



CUWCC BMP Coverage Report 2013

BMP4 - Commercial Industrial
Institutional

Exempt

Measured water savings (AF/YR)

Uploaded file name:

Car Wash Reclamation Systems

Measured water savings (AF/YR)

Uploaded file name:

Wet Cleaning

Measured water savings (AF/YR)

Uploaded file name:

Water Audits (to avoid double counting, do not include device/replacement water savings)

Measured water savings (AF/YR)

Uploaded file name:

Clean In Place (CIP) Technology (such as bottle sterilization in a beverage processing plant)

Measured water savings (AF/YR)

Uploaded file name:

Waterless Wok

Measured water savings (AF/YR)

Uploaded file name:

Alternative On-site Water Sources

Measured water savings (AF/YR)

Uploaded file name:

Sub-metering

Measured water savings (AF/YR)

Uploaded file name:

High Efficiency Showerheads

Measured water savings (AF/YR)

Uploaded file name:

Faucet Flow Restrictors

Measured water savings (AF/YR)

Uploaded file name:

Water Efficiency Dishwashers

Measured water savings (AF/YR)

Uploaded file name:

Hot Water on Demand

Measured water savings (AF/YR)

Uploaded file name:

Pre-rinse spray Valves of 1.3 gpm (gallons per minute) or less



CUWCC BMP Coverage Report 2013

BMP4 - Commercial Industrial Institutional

Exempt

1. The maximum spray volume is 2.0 gpm (gallons per minute) or less

Measured water savings (AF/YR)

Uploaded file name:

Central Flush Systems

Measured water savings (AF/YR)

Uploaded file name:

IOther Measures chosen by the Agency

Measured water savings (AF/YR)

Uploaded file name:

Comments:

already have exemption from this BMP as our commercial sector is such a small % of our account base, and the plumbing codes already stipulate very efficient fixtures for SFR accounts as well. There's not much room for volumetric savings here in MWD.

At Least As Effective As

Yes We offer our landscape efficiency and total use audits to our small commercial sector here, but due to the small number of CII accounts and up to date plumbing codes that mandate efficient fixtures in all BLDGS & SFR's, we don't focus here.

Exemption

Yes Cost Effectiveness



CUWCC BMP Coverage Report 2013

BMP5 - Landscape

ON TRACK

Agency **Montecito Water District**

Date Agency Signed MOU: 12/11/1991

Coverage Option: Flextrack

Total Measured Water Savings (AF/Year)

TRADITIONAL	FLEXTRACK	ACTUAL	TARGET	PRIOR ACTIVITIES CREDIT
0	0	0	0	54.88

1) Accounts with Dedicated Irrigation Meters

- a) Number of dedicated irrigation meter accounts
- b) Number of dedicated irrigation meter accounts with water budgets
- c) Aggregate water use for all dedicated non-recreational landscape accounts with water budgets
- d) Aggregate acreage assigned water budgets for dedicated non-recreational landscape accounts with budgets

Aggregate acreage of recreational areas assigned water budgets for dedicated recreational landscape accounts with budgets

Preserved water use records and budgets for customers with dedicated landscape irrigation accounts for at least four years No

Unique measured water Savings (AF/YR) in this measure

Uploaded the backup data if there are unique measured water savings? No

Technical Assistance

Number of Accounts 20% over-budget

Number of Accounts 20% over-budget offered technical assistance

Number of Accounts 20% over-budget accepting technical assistance

Unique measured water Savings (AF/YR) in technical assistance

Uploaded the backup data if there are unique measured water savings? No

2) Commercial / Industrial / Institutional Accounts without Meters or with Mixed-Use Meters

Number of mixed use and un-metered accounts.

Number of irrigation water use surveys offered

Number of irrigation water use surveys accepted

Type: Incentives numbers received by customers: \$ Value: 0

Type: Rebates numbers received by customers: \$ Value: 0

Type No- or low-Interest loan offered numbers received by customers: \$ Value: 0

Annual water savings by customers receiving irrigation water savings surveys and implementing recommendations

Estimated annual water savings by customers receiving surveys and implementing recommendations



CUWCC BMP Coverage Report 2013

BMP5 - Landscape

ON TRACK

Unique measured water Savings (AF/YR) in this measure

Uploaded the backup data if there are unique measured water savings?

No

Financial Incentives

Unique measured water Savings (AF/YR) in Financial incentives

Uploaded the backup data if there are unique measured water savings?

No

Unique Conservation Measures

1. Monitor and report on landscape water use

1a. Measure landscapes and develop water budgets for customers with dedicated landscape meters. Provide timely water use reports with comparisons of water use to budget that provide customers the information they need to adjust irrigation schedules.

Uploaded file name:

1b. Measure landscapes and develop water budgets for customers with Mixed Use meters. Provide timely water use reports with comparisons of water use to budget that provide customers the information they need to adjust irrigation schedules.

25.8

Uploaded file name:

1c. Establish agency-wide water budget. (Include in Help notes: ETo based water budget in the MWELO changed in 2010 from .8ETo to .7ETo.)

Uploaded file name:

1d. Establish agency-wide, sector-based irrigation goal to reduce water use, based on season.

Uploaded file name:

2. Provide technical landscape resources and training

2a. Upon customer requests, provide landscape irrigation management and landscape design information and resources: provide assistance, answer customer questions, respond to run-off and high-bill calls.

Uploaded file name:

2b. Perform landscape & irrigation audits: including irrigation scheduling, plant information, and landscape area measurement.

Uploaded file name:

2c. Sponsor, co-sponsor, promote, or support landscape workshops, training, presentations and other technical educational events for homeowners and professionals: design, installation, maintenance, water management.

Uploaded file name:

2d. Establish time-of-day irrigation restrictions.

Uploaded file name:

2e. Establish day-of-week irrigation restrictions.

Uploaded file name:

3. Provide incentives



CUWCC BMP Coverage Report 2013

BMP5 - Landscape

ON TRACK

3a. Establish landscape budget-based rates.

Uploaded file name:

3b. Provide incentives for conversions from mixed-use meters to dedicated landscape meters.

Uploaded file name:

3c. Provide incentives for irrigation equipment upgrades that improve distribution uniformity, irrigation efficiency, or scheduling capabilities.

Uploaded file name:

3d. Provide incentives for the reduction of water use over an irrigated area, or reduction in the size of the irrigated area due to replacement of turf or other high water-using plants with low water-using plants, artificial turf, or permeable surfaces.

Uploaded file name:

3e. Provide incentives for conversions from potable to recycled water.

Uploaded file name:

3f. Provide incentives for the use of alternative sources of water in the landscape (i.e. gray water, rainwater, cisterns, etc.)

Uploaded file name:

4. Participate in local and regional planning and regulatory activities

4a. Collaborate with planning agencies at the local and regional level, other water suppliers in the area and stakeholders in response to state or federal requirements such as the State Model Water Efficient Landscape Ordinance and AB 1881. Participate in the development, review, implementation, and enforcement of requirements for new developments. Provide water use data to planning agencies.

4b. Establish or participate in a water conservation advisory committee or other community outreach effort to drive market transformation and exchange information about landscape water conservation with developers, community-based organizations, homeowners associations, residential customers, landscape professionals, educators, other water suppliers in region.

4c. Participate in regional efforts: integrated water resource management, watershed management, NPDES permit agencies, etc.

5. Develop a holistic approach to landscape water use efficiency

5a. Develop and implement a comprehensive landscape water conservation program for all customers. Target marketing efforts to those most likely to result in benefits to both customer and Agency. 26

Uploaded file name:

6. Other Measures

Other Landscape Measures.

Uploaded file name:

Comments:



CUWCC BMP Coverage Report 2013

BMP5 - Landscape

ON TRACK

Saved approx 26 AF in 2013 during a drought year. We collaborate with the RWEF group of SB County to promote all activities related to water efficiency in the landscape in ALL SECTORS. MWD has new strict allocations for all customers.

At Least As Effective As Yes 2013 Consavings.xls

Exemption No

X-TNA Copy.



CUWCC BMP Retail Coverage Report 2014

Foundational Best Management Practices for Urban Water Efficiency

BMP 1.1 Operation Practices

ON TRACK

164 Montecito Water District

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

Name:

mike clark

Title:

water Conservation coordinator

Email:

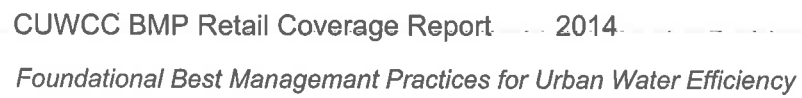
mike@montecitowater.com

2. Water Waste Prevention Documents

WW Document Name	WWP File Name	WW Prevention URL	WW Prevention Ordinance Terms Description
Option A Describe the ordinances or terms of service adopted by your agency to meet the water waste prevention requirements of this BMP.	Copy_of_Ord_92.pdf		These DMM's require the efficient use of water for all Customer classifications here in the District, and establish basic forms of water waste to be avoided at all times.
Option B Describe any water waste prevention ordinances or requirements adopted by your local jurisdiction or regulatory agencies within your service area.			MWD Ordinance 92 attached here
Option C Describe any documentation of support for legislation or regulations that prohibit water waste.			See our water waste Ordinance as written in the UWMP for MWD. Also see ORD 89 as listed below; addresses Maximum water allocations per acre of Landscaped Property/Lot size. We are the Only District in Sb county with mandatory Allocations!
Option D Describe your agency efforts to cooperate with other entities in the adoption or enforcement of local requirements consistent with this BMP.	Copy_of_Ordinance_89.pdf		
Option E Describe your agency support positions with respect to adoption of legislation or regulations that are consistent with this BMP.			
Option F Describe your agency efforts to support local ordinances that establish permits requirements for water efficient design in new development.	Copy1_of_Ordinance_89.pdf		ORD 89 requires efficient water use in new developments by limiting the allotment per acre to 1 AF/yr., or 436 HCF.

At Least As effective As

No



ON TRACK

No

--



CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.2 Water Loss Control

ON TRACK

164 Montecito Water District

Completed Standard Water Audit Using AWWA Software? No

AWWA File provided to CUWCC? No

AWWA Water Audit Validity Score?

Complete Training in AWWA Audit Method No

Complete Training in Component Analysis Process? No

Component Analysis? No

Repaired all leaks and breaks to the extent cost effective? Yes

Locate and Repair unreported leaks to the extent cost effective? Yes

Maintain a record keeping system for the repair of reported leaks, including time of report, leak location, type of leaking pipe segment or fitting, and leak running time from report to repair. No

Provided 7 Types of Water Loss Control Info

Leaks Repairs	Value Real Losses	Value Apparent Losses	Miles Surveyed	Press Reduction	Cost Of Interventions	Water Saved (AF)

At Least As effective As

Yes

Yes, BTNWn the Annual inspections and break responses and data keeping we also follow up on all calls related to water loss and running water reports we have an Xcellent response time to stop water loss in our system.

Exemption

No

Comments:



CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.3 Metering With Commodity

ON TRACK

164 Montecito Water District

Numbered Unmetered Accounts	No
Metered Accounts billed by volume of use	Yes
Number of CII Accounts with Mixed Use Meters	261
Conducted a feasibility study to assess merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters?	No
Feasibility Study provided to CUWCC?	No
Date: 1/1/0001	
Uploaded file name:	
Completed a written plan, policy or program to test, repair and replace meters	Yes
At Least As effective As	Yes
Exemption	No
Comments:	



CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.4 Retail Conservation Pricing

On Track

164 Montecito Water District

Implementation (Water Rate Structure)

Customer Class	Water Rate Type	Conserving Rate?	(V) Total Revenue Comodity Charges	(M) Total Revenue Fixed Carges
Multi-Family	Allocation Based	Yes	194330	111491
Commercial	Allocation Based	Yes	572123	137650
Dedicated Irrigation	Allocation Based	Yes	67294	9945
Agricultural	Allocation Based	Yes	488392	79860
Single-Family	Allocation Based	Yes	5813039	3010679
Institutional	Allocation Based	Yes	716543	202455
			7851721	3552080

Calculate: $V / (V + M)$

69 %

Implementation Option:

Use Annual Revenue As Reported

☒ V Use 3 years average instead of most recent year

Canadian Water and Wastewater Association

Upload file:

Agency Provide Sewer Service: No

At Least As effective As

No

Exemption

No

Comments:



CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.1 Public Outreach

ON TRACK

164

Montecito Water District

Retail

Does your agency perform Public Outreach programs? Yes

The list of wholesale agencies performing public outreach which can be counted to help the agency comply with the BMP

Santa Barbara County Water Agency

The name of agency, contact name and email address if not CUWCC Group 1 members

Did at least one contact take place during each quarter of the reporting year? Yes

Public Outreach Program List	Number
Flyers and/or brochures (total copies), bill stuffers, messages printed on bill, information packets	1000
Website	34863
Landscape water conservation media campaigns	4
Total	35867

Did at least one contact take place during each quarter of the reporting year? Yes

Number Media Contacts	Number
Television contacts	16
News releases	5
Radio contacts	15
Total	36

Did at least one website update take place during each quarter of the reporting year? Yes

Public Information Program Annual Budget

Annual Budget Category	Annual Budget Amount
Media Outreach	50000
Total Amount:	50000

Public Outreach Additional Programs

weekly watering Index updated weekly
scrolling photos updated regularly w/ links to program
WEb Committee reviews & edits pages quarterly
homepage updated regularly w/ Announcements & Events
new Garden wise TV Show added quarterly

Description of all other Public Outreach programs

Partners in Landscape Water Conservation MTNGS quarterly...



CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.1 Public Outreach

ON TRACK

Comments:

MWD participates fully in the Regional Water Efficiency Program (RWEF) conducted by the County of SB Water Agency which helps us meet all the BMP's for Public Information and school education aspects.

At Least As effective As

No

Exemption

No

0



CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.2 School Education Programs

ON TRACK

164 Montecito Water District

Retail

Does your agency implement School Education programs?

No

The list of wholesale agencies performing public outreach which can be counted to help the agency comply with the BMP

Santa Barbara County Water Agency

Materials meet state education framework requirements?

Yes

Materials distributed to K-6?

No

Materials distributed to 7-12 students?

No (Info Only)

Annual budget for school education program:

Description of all other water supplier education programs

We completed a big sheet mulching project at Montecito Union school of approx. 2100 sf that is highly visible to the Public and student body and just what needs to be done more in the Community here to promote and realize long term water savings!

Comments:

At Least As effective As

Yes

We don't have any highschools within MWD boundaries; so the SB County Water agency does this through "Shows that Teach". Our gradeschools cover WC.

Exemption

No

0



CUWCC BMP Coverage Report 2014

164 Montecito Water District

Baseline GPCD: 376.33

GPCD in 2014: 248.71

GPCD Target for 2018: 308.60

Biennial GPCD Compliance Table

ON TRACK

Year	Report	Target		Highest Acceptable Bound	
		% Base	GPCD	% Base	GPCD
2010	1	96.4%	362.80	100%	376.30
2012	2	92.8%	349.20	96.4%	362.80
2014	3	89.2%	335.70	92.8%	349.20
2016	4	85.6%	322.10	89.2%	335.70
2018	5	82.0%	308.60	82.0%	308.60



CUWCC BMP Retail Coverage Report 2015

Foundational Best Management Practices for Urban Water Efficiency

BMP 1.1 Operation Practices

ON TRACK

164 Montecito Water District

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

Name:

mike clark

Title:

water conservation coordinator

Email:

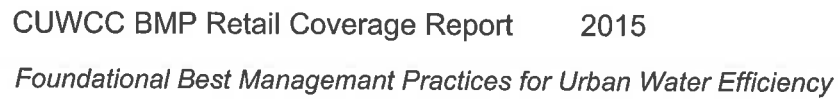
mike@montecitowater.com

2. Water Waste Prevention Documents

WW Document Name	WWP File Name	WW Prevention URL	WW Prevention Ordinance Terms Description
Option A Describe the ordinances or terms of service adopted by your agency to meet the water waste prevention requirements of this BMP.	FINAL ELECTRONIC MONTECITO UWMP 2005.doc		See Section 4, BMPS #13 and specifically Ordinance 76 which addresses water waste prohibition in the District. Also see same as last year DMM's which address water waste within the District.
Option B Describe any water waste prevention ordinances or requirements adopted by your local jurisdiction or regulatory agencies within your service area.	Ord 92.pdf		Outlines the current Stage 3&4 restrictions on watering times, no filling of pools with potable water, no washing down of sidewalks or any surfaces, leaks must be fixed immediately, etc. All our policies are in here...
Option C Describe any documentation of support for legislation or regulations that prohibit water waste.			we Follow and exceed most all the current state requirements for water waste prohibition...
Option D Describe your agency efforts to cooperate with other entities in the adoption or enforcement of local requirements consistent with this BMP.			We work with the county Water Agency of Santa Barbara and other local retailers in a Regional Water Efficiency Program with monthly meetings to make sure we are all following or exceeding the most up to Regulations to minimize water waste.
Option E Describe your agency support positions with respect to adoption of legislation or regulations that are consistent with this BMP.			
Option F Describe your agency efforts to support local ordinances that establish permits requirements for water efficient design in new development.	Copy_of_Ordinance_89.pdf		This Ordinance of ours limits the amount of potable water for All new deveolpments within the District.

At Least As effective As

No



ON TRACK

No

--



CUWCC BMP Coverage Report 2015

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.2 Water Loss Control

ON TRACK

164 Montecito Water District

Completed Standard Water Audit Using AWWA Software? No

AWWA File provided to CUWCC? No

AWWA Water Audit Validity Score?

Complete Training in AWWA Audit Method No

Complete Training in Component Analysis Process? No

Component Analysis? No

Repaired all leaks and breaks to the extent cost effective? Yes

Locate and Repair unreported leaks to the extent cost effective? Yes

Maintain a record keeping system for the repair of reported leaks, including time of report, leak location, type of leaking pipe segment or fitting, and leak running time from report to repair. No

Provided 7 Types of Water Loss Control Info

Leaks Repairs	Value Real Losses	Value Apparent Losses	Miles Surveyed	Press Reduction	Cost Of Interventions	Water Saved (AF)

At Least As effective As

We track our monthly unaccounted Water loss in a detailed format that has been accepted by the SWRCB and DWR.

Exemption

Comments:



CUWCC BMP Coverage Report 2015

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.3 Metering With Commodity

ON TRACK

164 Montecito Water District

Numbered Unmetered Accounts No

Metered Accounts billed by volume of use Yes

Number of CII Accounts with Mixed Use Meters 259

Conducted a feasibility study to assess merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters? No

Feasibility Study provided to CUWCC? No

Date: 1/1/0001

Uploaded file name:

Completed a written plan, policy or program to test, repair and replace meters Yes

At Least As effective As

Yes

yes per Ordinance 89 we limit water use to our small number of CII accts. (5.6%) based oh Hist. usage btwn 2003>2006. dedicated meters would not realize enuf measurable savings to justify the cost and we aren't issuing any new meters since 2013.

Exemption

No

Comments:

All accounts metered and read monthly for Volumetric billing...



CUWCC BMP Coverage Report 2015

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.4 Retail Conservation Pricing

On Track

164 Montecito Water District

Implementation (Water Rate Structure)

Customer Class	Water Rate Type	Conserving Rate?	(V) Total Revenue Comodity Charges	(M) Total Revenue Fixed Carges
Single-Family	Allocation Based	Yes	5722795	3262116
Dedicated Irrigation	Allocation Based	Yes	66069	12001
Multi-Family	Allocation Based	Yes	139187	108630
Commercial	Allocation Based	Yes	590826	149425
Agricultural	Allocation Based	Yes	400665	85301
Institutional	Allocation Based	Yes	744235	223266
			7663777	3840739

Calculate: $V / (V + M)$

67 %

Implementation
Option:

Use Annual Revenue As Reported

☒

Use 3 years average instead of most recent year

Canadian Water and Wastewater Association

Upload file:

Agency Provide Sewer Service: No

At Least As effective As

No

Exemption

No

Comments:



CUWCC BMP Coverage Report 2015

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.1 Public Outreach

ON TRACK

164 Montecito Water District

Retail

Does your agency perform Public Outreach programs? Yes

The list of wholesale agencies performing public outreach which can be counted to help the agency comply with the BMP

Santa Barbara County Water Agency

Tyrone Lafay is the new lead Conservation Coordinator w/SBCWA and is at tylafay@co.santa-barbara.ca.us

The name of agency, contact name and email address if not CUWCC Group 1 members

Did at least one contact take place during each quarter of the reporting year? Yes

Public Outreach Program List	Number
Flyers and/or brochures (total copies), bill stuffers, messages printed on bill, information packets	1000
Website	34863
Landscape water conservation media campaigns	4
Total	35867

Did at least one contact take place during each quarter of the reporting year? Yes

Number Media Contacts	Number
Television contacts	56
News releases	16
Radio contacts	112
Total	184

Did at least one website update take place during each quarter of the reporting year? Yes

Public Information Program Annual Budget

Annual Budget Category	Annual Budget Amount
Media Outreach	50000
Total Amount:	50000

Public Outreach Additional Programs

weekly watering Index updated weekly

scrolling photos updated regularly w/ links to program

Web Committee reviews & edits pages quarterly

homepage updated regularly w/ Announcements & Events

new Garden wise TV Show added quarterly

Description of all other Public Outreach programs



CUWCC BMP Coverage Report 2015

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.1 Public Outreach

ON TRACK

Partners in Landscape Water Conservation MTNGS quarterly...

Comments:

MWD participates fully in the Regional Water Efficiency Program (RWEPP) conducted by the County of SB Water Agency which helps us meet all the BMP's for Public Information and school education aspects. See the File uploaded above for details.

At Least As effective As

No

see comments below...and this file,

Exemption

No

0



CUWCC BMP Coverage Report 2015

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.2 School Education Programs

ON TRACK

164 Montecito Water District

Retail

Does your agency implement School Education programs?

No

The list of wholesale agencies performing public outreach which can be counted to help the agency comply with the BMP

Materials meet state education framework requirements?

No

Materials distributed to K-6?

No

Materials distributed to 7-12 students?

No (Info Only)

Annual budget for school education program:

Description of all other water supplier education programs

Comments:

MWD doesn't have any high schools within the District and the gradeschools already teach the water cycle, etc. and last couple times i requested to do a presentation they replied their curriculums were full.

At Least As effective As

Yes

the SB county Water Agency Water Agency does the Student Education programs through "shows that Teach" presentations and the Annual HSVA. see pg 8.

Exemption

No

0



CUWCC BMP Coverage Report 2015

164 Montecito Water District

Baseline GPCD: 376.33

GPCD in 2015 154.87

GPCD Target for 2018: 308.60

Biennial GPCD Compliance Table

ON TRACK

Year	Report	Target		Highest Acceptable Bound	
		% Base	GPCD	% Base	GPCD
2010	1	96.4%	362.80	100%	376.30
2012	2	92.8%	349.20	96.4%	362.80
2014	3	89.2%	335.70	92.8%	349.20
2016	4	85.6%	322.10	89.2%	335.70
2018	5	82.0%	308.60	82.0%	308.60

Appendix J

Groundwater Basin Management Plan

GROUNDWATER BASIN MANAGEMENT PLAN
FOR THE
MONTECITO WATER DISTRICT

Prepared By:

Montecito Water District
583 San Ysidro Road
Montecito, CA 93108

November, 1998

Montecito Water District Board of Directors

Robert W. Puddicombe, President
J. Timothy Campbell, Vice-President
Jan E. Abel
Robert M. Jones
Larry Wilson

This Groundwater Basin Management Plan was researched, written, and produced by Ryan Pingree, a student intern from UC Santa Barbara's Bren School of Environmental Science and Management, under the direction of Tom Mosby, Montecito Water District (MWD) Engineering Manager. The author gratefully acknowledges C. Charles Evans, MWD General Manager, Tom Mosby, MWD Engineering Manager, Cathy Muneio, MWD Secretary, and Chip Wullbrandt of Price, Postel and Parma for their assistance in the research and review of the Plan.

Additional copies of this document can be obtained from the Montecito Water District Office at 583 San Ysidro Road, Montecito.

<u>TABLE OF CONTENTS</u>	<u>PAGE</u>
<u>SECTION 1: THE GROUNDWATER MANAGEMENT PLAN</u>	5
1.1 INTRODUCTION TO PLAN	5
1.2 DEFINITION AND ROLE OF RESPONSIBLE AGENCY	6
1.3 PREPARATION, REVIEW, AND ADOPTION OF PLAN	7
<u>SECTION II: THE MONTECITO WATER DISTRICT</u>	8
2.1 THE MONTECITO WATER DISTRICT	8
2.2 WATER PRODUCTION SUPPLIES	9
STATE WATER PROJECT	9
LAKE CACHUMA	9
JAMESON LAKE, ALDER & FOX CREEKS	9
DOULTON TUNNEL	10
RECYCLED WATER	10
GROUNDWATER	10
<u>SECTION III: GROUNDWATER BASIN CHARACTERISTICS</u>	11
3.1 GEOGRAPHY	11
CLIMATE	12
LAND USE	12
3.2 GROUNDWATER BASIN BOUNDARIES	12
MONTECITO GROUNDWATER BASIN	12
MONTECITO GROUNDWATER BASIN WATERSHED	13
STORAGE UNITS OF THE GROUNDWATER BASIN	13
STORAGE UNITS OF THE GROUNDWATER BASIN MAP	14
TORO CANYON STORAGE AREA	15
3-3 HYDROGEOLOGY OF THE GROUNDWATER BASIN	15
3.4 RECHARGE PROCESSES AND LOCATIONS	16
STREAMFLOW SEEPAGE	16
INFILTRATION OF RAINFALL	16
SUBSURFACE INFLOW	17
IRRIGATION INFLOW	17
RAINFALL VS. GROUNDWATER ELEVATION CHART	18
IDENTIFICATION OF RECHARGE LOCATIONS	19
3.5 BASIN STORAGE CAPACITY	19
3.6 SAFE YIELD	20
3.7 HISTORICAL PRODUCTION	21
3.8 BASIN WELLS	22
NUMBER OF WELLS	22
PRODUCTION CAPACITY	23
3.9 WATER QUALITY	23
BASIN WATER QUALITY	23
PRIVATE MONITORING WELL LOCATIONS MAP	24

WATER QUALITY CONCERNS	25
3.10 GROUNDWATER POLLUTION SOURCES	25
CAUSES OF GROUNDWATER POLLUTION	25
FERTILIZERS	26
AGRICULTURAL AND LIVESTOCK ACTIVITIES	26
SEWERAGE SYSTEMS	27
SERVICE BOUNDARIES OF MONTECITO SANITARY DISTRICT	29
UNDERGROUND STORAGE TANKS	30
SEAWATER INTRUSION	30
NATURAL CONTAMINANTS	31
3.11 FUTURE DEMANDS	31
3.12 WATER CONSERVATION	32
<u>SECTION IV: GROUNDWATER PLAN ELEMENTS</u>	33
4.1 WELLHEAD AND RECHARGE AREAS	33
4.2 WELL CONSTRUCTION: STANDARDS	33
4.3 WELL ABANDONMENT AND DESTRUCTION	34
4.4 BASIN MONITORING	34
4.5 MITIGATION OF BASIN OVERDRAFT	35
4.6 ACTIONS FOR CONTAMINATED GROUNDWATER	35
4.7 OPTIMIZATION THROUGH CONJUNCTIVE USE	36
4.8 LAND USE POLICIES AND PLANNING	37
4.9 ROLE OF STATE AND FEDERAL AUTHORITIES	37
<u>SECTION V: GUIDELINES FOR MANAGEMENT</u>	39
5.1 GROUNDWATER MANAGEMENT PROGRAM	39
<u>SECTION VI: FEES AND ASSESSMENTS</u>	40
<u>SECTION VII: AMENDMENT PROCEDURES</u>	41
<u>SECTION VIII: APPENDIXES</u>	42
8.1 AB 3030	42
8.2 GOVERNMENT CONTACTS	49
8.3 GLOSSARY	51
<u>SECTION IX: ATTACHMENTS</u>	52
9.2 STATE STATUTES	58
9.3 WATER CONSERVATION REGULATIONS	60
9.4 GROUNDWATER POLLUTANTS	62
9.5 GROUNDWATER MONITORING DATA	68
<u>SECTION X: LITERATURE CITED</u>	

SECTION 1: GROUNDWATER MANAGEMENT PLAN

1.1 INTRODUCTION TO GROUNDWATER MANAGEMENT PLAN

The State of California has recognized and subsequently declared that groundwater contained in the basins within the State of California is a valuable natural resource. As a result of this declaration, a mechanism for encouraging the development of a comprehensive groundwater management plan was developed to ensure that groundwater resources remain a safe and reliable source of water in the years to come. With the passage of Assembly Bill 3030, the State of California encouraged all local agencies, in cooperation with other users within a groundwater basin, to implement and adopt a comprehensive groundwater management plan and associated ongoing groundwater management program.

As defined in AB 3030, the Montecito Water District (District) is designated as the lead agency to initiate the development of a groundwater management plan in all areas within the service boundary. As the lead agency, the Montecito Water District has initiated the development of a comprehensive groundwater management plan for the groundwater contained within the Montecito and portion of the Toro Canyon community. By developing a groundwater management plan, the District aims to:

1. preserve and promote local control of groundwater management
2. encourage cooperation among all basin users
3. develop information and tools for effective basin management

This Groundwater Management Plan, when used in conjunction with the Groundwater Management Program, will ensure that the aquifers within the boundaries of the Montecito Water District will continue to supply the community with a safe and reliable source of water.

By designing and implementing a comprehensive groundwater management plan, the long-term viability of this valuable resource can be sustained without negatively impacting the socioeconomic needs of the community. As new wells are constructed and associated groundwater demands increase, additional development of the groundwater basins will approach, and possibly exceed, the natural recharge capability of the groundwater basins. Continued development thereafter without a management plan could potentially deplete the groundwater resource, resulting in damaging economic and environmental consequences. The predicted future increase in water demand, as well as continued current demand, necessitates careful and accurate management of the groundwater basins if adequate long-term water supplies are to be maintained.

Lengthy historical records have documented that the Montecito and Summerland communities have had to endure periods of extended drought and flood. In times of drought, when surface water supplies are limited, groundwater demand increases. In times of flood, when surface supplies of water are plentiful, there is reduced production of water from the groundwater basins, and the basins are recharged. By implementing a comprehensive groundwater management plan, the Montecito Water District and individual well users can effectively respond to episodic changes in the quantity and quality of groundwater.

Cooperation and participation of all well owners in the program will provide the community with a better means of determining groundwater availability and quality, and the remaining storage for long-term planning purposes and optimal use of the water for all concerned interests. If the groundwater basins confined within the boundaries of the District become overdrafted, the State of California has the authority to adjudicate, or take control of, the groundwater basins.

Additionally, the development of a groundwater management plan is required as a result of the Montecito Water District's participation in the Cachuma Project with the Bureau of Reclamation.

An effective groundwater management plan only occurs as a result of careful studying, planning, and cooperative efforts between water purveyors, private well owners and regulators within the scope of the groundwater basin. Of specific importance regarding community input will be the formation of certain essential elements concerning monitoring, conjunctive use and remedies imposed on all groundwater basin users to minimize potential groundwater overdraft conditions. This cooperative effort will identify and fully define existing regulations and enable the District and the community as a whole to modify these regulations to meet the unique characteristics of the groundwater basins. By actively soliciting input from the community, the District will be able to alert the community as to the importance of properly monitoring this finite resource.

1.2 DEFINITION AND ROLE OF RESPONSIBLE AGENCY

The Montecito Water District, as the local water purveyor to the Montecito and Summerland communities, is designated by Assembly Bill 3030 as the lead agency to develop a groundwater management plan and associated groundwater management program. As the designated lead agency in the community, the Montecito Water District will actively solicit input from all concerned individuals and agencies within the boundaries of the Montecito Water District in developing the plan.

Assembly Bill 3030 authorizes any local agency that provides water service to adopt and implement a groundwater management plan in a groundwater basin underlying its jurisdiction that is not currently being managed. Groundwater basins are defined in the Department of Water Resources Bulletin #118 and its accompanying amendments. AB 3030 does not apply to existing groundwater management agencies or adjudicated basins.

If several public agencies overlie a basin, the legislation contained in AB 3030 encourages a coordinated groundwater management plan between the agencies. This coordination may vary from coordinated planning to the creation of a Memorandum of Understanding or a Joint Powers Agreement. A Joint Powers Agreement is restricted to public agencies, whereas a Memorandum of Understanding can involve both public agencies and private entities.

The District only acts as the lead agency in adopting the rules and regulations to implement and enforce the plan. The plan does not authorize the District to make a binding determination of the water rights of any person or entity. The District will not have the authority to limit or suspend groundwater extraction by others unless the District and the community of basin users as one entity has determined, through study and investigation, that groundwater recharge or replenishment programs have proven insufficient and degradation of the groundwater basin will continue without the control of groundwater production.

1.3 PREPARATION, PUBLIC REVIEW, AND ADOPTION OF GMP

In developing a comprehensive groundwater management plan, it is essential that the public understand the different issues and concerns that will compose the elements of the groundwater management plan. These issues and concerns consist of different elements that address overall groundwater management. They will be described in detail in the following sections of the Groundwater Management Plan.

The District has notified mutual water companies and private well owners about the adoption of AB 3030 and scheduled a public workshop to introduce and explain the purpose and intent of the Groundwater Management Plan. This public workshop outlined the respective roles of the District, basin users, individuals and other public agencies integral to the development of the Groundwater Management Plan. As the lead agency, the District also prepared the Groundwater Management Plan in response to public concerns and challenges. The District also contacted the Carpinteria Valley Water District regarding the Toro Canyon area overlying the groundwater basin within both Districts. The section of the Groundwater Management Plan involving the Toro Canyon sub-basin is covered between the two Districts by a Memorandum of Understanding (MOU).

SECTION 11: THE MONTECITO WATER DISTRICT

2.1 THE MONTECITO WATER DISTRICT

The Montecito Water District was established on November 10, 1921, by an act of the California legislature. Although it is a political body of the State of California, the Montecito Water District is an independent government organization, governed by an elected five member Board of Directors who must be residents of the District. The District's governing authority is Division 12 of the California County Water District Act, which is included in Sections 30000-33901 of the California Water Code.

The District is located in the southern coastal portion of Santa Barbara County and includes the unincorporated communities of Montecito and Summerland, as well as the Toro Canyon area. Also included are the Coast Village Road and Montecito Circle areas in the City of Santa Barbara. The Summerland Water District became a part of the Montecito Water District on December 6, 1995. The District encompasses an area of approximately 9,900 acres with a current (1998) population estimated to be 13,100. The District provides water service to approximately 3,960 municipal, residential, recreational, agricultural and business customers in the following categories:

Table 2.1.2: Water Service Customers

CUSTOMERS	NUMBER
Residential	3801
Commercial	93
Agricultural	66
TOTAL	3960

The District directly operates and maintains a water transmission and distribution system including approximately 100 miles of pipelines of various sizes, two water treatment facilities for the treatment of Jameson Lake surface water, 18 developed water wells, and 11 potable water reservoirs. In addition, the District is a member of the Cachuma Project and the Central Coast Water Authority, together which provide the District with its primary sources of potable water. Water from these two sources is treated at the City of Santa Barbara Cater Water Treatment plant.

2.2 WATER PRODUCTION SUPPLIES

Serving for many decades as the water purveyor for the Montecito community, the District has strongly emphasized the development of water supplies to meet the increasing needs of the community. Due to the limited storage and aquifer capabilities of the groundwater basins, only a small percentage of the District's total water needs are provided by groundwater resources. Realizing the limited potential of the groundwater basins' the District has focused efforts on securing adequate surface water supplies. The District's own Jameson Lake was developed in the late 1920's. In the mid 1950's, following the severe drought of 1947-51, the Cachuma Project was developed to provide additional surface water resources to the South Coast and upper Santa Ynez Valley water purveyors. In response to increasing community demands, the District and the Goleta

Water District participated in the construction of an emergency desalination facility with the City of Santa Barbara in 1992, following the severe drought beginning in 1988. However, due to lack of need, the desalination facility was decommissioned in 1997.

In 1988, due to drought, the District initiated groundwater production with several of the District's water wells. Additionally, funds were allocated to conduct geotechnical studies to determine if there existed any opportunity for additional development of the groundwater basin to supplement the District's dwindling surface water supplies. These studies, initiated by the District concluded that the groundwater basins, in conjunction with existing surface supplies, could not provide the District with a reliable quality and quantity of water to serve its customers. Faced with the possibility of insufficient water resources to meet future demands, the District proposed to the community a voter referendum for approval to secure State Water rights. In June 1991, by popular vote, the community approved the State Water Project. The procurement of State Water ensured that the District would be able to provide water in sufficient quantities and of reliable quality to meet current and future demands for full community build-out and development.

The Montecito Water District utilizes the following sources for supplying water to its customers:

STATE WATER PROJECT

In June of 1991, customers of Montecito and Summerland Water Districts approved the acquisition of 2,700 acre feet and 300 acre feet of water, respectively, from the State Water Project. This water is used to support traditional demand, to reduce current groundwater demand, to support new construction, and to offset reservoir siltation at Cachuma and Jameson Reservoirs. In December 1995, the Summerland Water District merged with the Montecito Water District. The Montecito Water District's total State Water Project entitlement is 3,000 acre feet.

LOCAL SURFACE WATER SUPPLIES

LAKE CACHUMA

Lake Cachuma is an open-surface water reservoir developed in the early 1950's and is owned by the United States Bureau of Reclamation. Currently (1998), the capacity of Lake Cachuma is 190,400 acre feet, and the annual average safe yield is 25,700 acre feet. The Montecito Water District is one of four water purveyors on the South Coast of Santa Barbara County that receives water from Lake Cachuma. In addition, the Santa Ynez I.D. Number One in the Santa Ynez Valley below Cachuma utilizes water from the Lake. The District is entitled to 2,660 acre feet of water in years of normal rainfall. All District water from the lake is treated at the Cater treatment facility. The treated water flows down the South Coast Conduit to the District. The District employs the use of multiple turnouts from the South Coast Conduit to provide water to District customers.

JAMESON LAKE, ALDER AND FOX CREEKS

Jameson Lake, restrained by Juncal Dam, is an open-surface water reservoir owned and operated by the District. Jameson Lake is located in the upper reaches of the Santa Ynez River and is under permit with the State Department of Water Resources, Division of Safety of Dams. Current

capacity, based on a silt survey done in May 1998, when the Lake was at its maximum elevation, is 5,300 acre feet. Water from Jameson Lake is diverted through Doulton Tunnel to the District on a year-round basis. The District is limited to a maximum diversion of 2,000 acre feet per year from the Santa Ynez River and its tributaries.

Alder Creek is a small tributary to the Santa Ynez River adjacent to Jameson Lake. An average of 240 acre feet per year of water from this creek has been diverted directly into Jameson Lake since the 1930's.

Fox Creek has supplied water into the pipeline leading to the Doulton Tunnel South Portal since the early 1940's. The Fox Creek diversion has annually averaged 100 acre feet.

The reliability of these two surface water streams as water production sources has been severely impacted by stringent environmental protection requirements. As required by the Endangered Species Act, the District currently diverts water from these two streams at only a fraction of their previous production capabilities.

DOULTON TUNNEL

Doulton Tunnel is a two and one-quarter mile long unlined conduit that transfers water from Jameson Lake to the Montecito side of the Santa Ynez Mountains. The size and length of the tunnel permits significant water production from direct infiltration to the tunnel. For planning purposes, the annual infiltration yield, even in a prolonged dry period, is set at 400 acre feet.

RECYCLED WATER

A Water Reclamation Study prepared by CH2M HILL in November 1990, authorized and funded jointly by the Montecito Sanitary and Water Districts, concluded that the use of reclaimed water is not economically feasible at this time in Montecito. The study determined that sites capable of using reclaimed water were not located within a reasonable distance from where the tertiary treated water would be produced. The costs associated with the development of pumping stations, reclaimed transmission and distribution facilities were determined to be economically infeasible. Future drought conditions could, however, justify the building and short-term utilization of such facilities.

GROUNDWATER SUPPLIES

The Montecito Water District currently has 18 groundwater production wells distributed throughout the District. For planning purposes, the District has determined that 700 acre feet of water can be produced on an annual basis. The District pumps groundwater from these wells in times of water shortages due to drought or other disaster that may limit the availability of surface water supplies.

SECTION III: GROUNDWATER BASIN CHARACTERISTICS

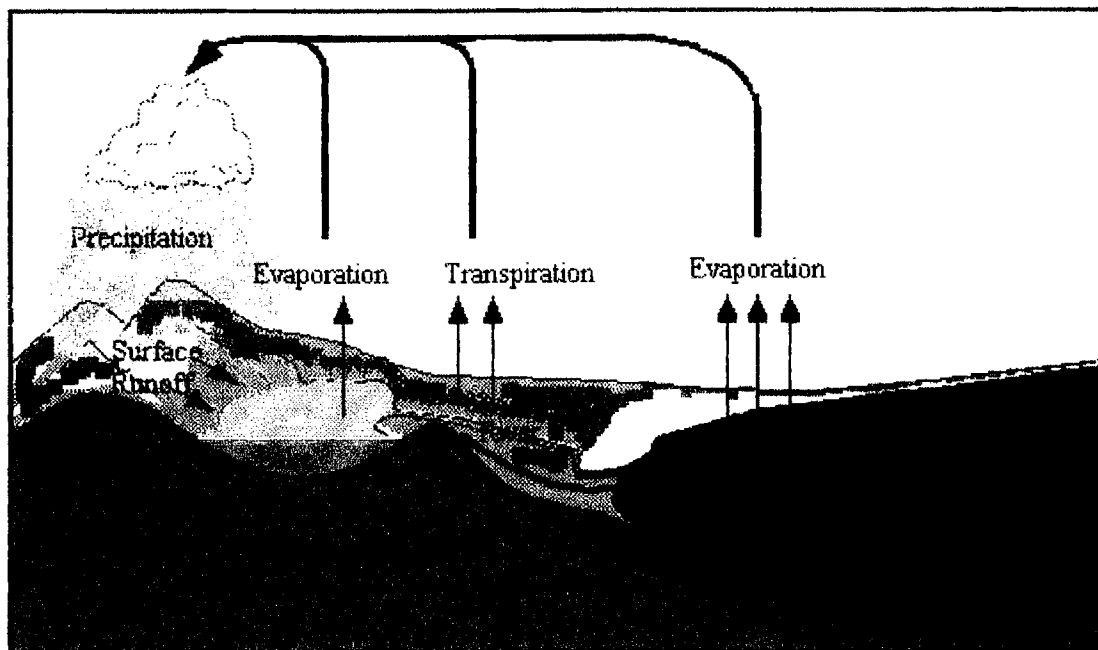
3.1 GEOGRAPHY

BASIN CLIMATE

The groundwater basins described by the Montecito Water District are subject to a Mediterranean-type of climate. Summers are generally long and dry and are frequently followed by short, wet winters with cooler temperatures. On average, the seasonal temperatures range from a low of 54 degrees in the winter to a high of approximately 65 degrees in the summer.

Figure 3.3.1 shows how water is conveyed throughout a coastal environment similar to the Montecito Community. Precipitation falls on the local mountains, resulting in surface runoff and groundwater infiltration. Surface runoff can be stored in a reservoir (Jameson Lake) for use in dry periods. Groundwater is recharged from water percolating from surface runoff and stream seepage.

Figure 3.1.1: Coastal Zone Hydrologic Cycle



The majority of precipitation falls between the months of November and April. The Montecito Water District has continuously recorded rainfall at the District's office since the winter 1924-25. Beginning in 1924-1925 and continuing up to the winter of 1995-1996, annual rainfall over this 71-year period has averaged 19.75 inches (DW-UWMP, 96). Annual rainfall totals have varied from a high of 45 inches in the winter of 1997-1998 to a low of 7.06 inches in the winter of 1989-1990. Below average amounts of annual rainfall have occurred in 67 percent of the recorded years. As the Montecito area is characterized by dramatic rises in elevation, and orographically enhanced along the coast, annual rainfall along the crest of the drainage divide averages approximately nine inches greater (27 inches) than at the coast (GTC, 73).

Surface drainage is generally in a southerly direction along Montecito, Oak, San Ysidro, Romero, Picay and Toro Canyon Creeks. These streams are typically perennial in their upper reaches, but become intermittent across the recharge area of the groundwater basin (GTC, 73). These six creeks have a combined drainage area (above the upper basin boundary) of approximately 9,852 acres (Hoover, 80). Groundwater movement in the basin is north to south and, in general, follows the surface topography of the area (GTC, 73).

LAND USE

The overlying Montecito area is primarily residential with generally large (one or more acres) sized parcels. Citrus and avocado orchards compose the majority of the estimated 807 acres (8% of the total District area) devoted to agriculture (USBR WCP, 95). The remainder of the community is urbanized or characterized by tracts of undeveloped natural hillsides and lowlands vegetated with native brush. The majority of human development has occurred within the narrow coastal plains and foothills. Future development in the community is regulated by the Santa Barbara County Department of Planning and Development.

3.2 GROUNDWATER BASIN BOUNDARIES

The Montecito Water District encompasses two distinct groundwater basins. The Montecito Groundwater Basin and the Toro Canyon Storage Unit of the Carpinteria Groundwater Basin together store all of the available groundwater for users in the area. The Montecito Groundwater Basin, which underlies 3,632 useable acres, is substantially larger than the Toro Canyon Subbasin and is divided into three main storage units- Numbers 1, 2, and 3 (Slade, 91). The Toro Canyon Storage Unit, which underlies 347 useable acres, is considered to be a part of the adjoining Carpinteria Groundwater Basin (Slade, 91).

BOUNDARIES OF THE MONTECITO GROUNDWATER BASIN

The Montecito Groundwater Basin covers 11.5 square miles and is situated in the southwestern coastal area of Santa Barbara County. The Basin consists of a four-mile long, two-mile wide, low-lying alluviated plain (GTC, 73). The Basin is bounded to the north by the Santa Ynez Mountains and to the east by consolidated Tertiary age rocks (GTC, 73). The southern boundary of the basin is defined by the offshore trace of the Rincon Creek Thrust Fault (GTC, 73). However, no definite hydrologic barrier exists between the Montecito Groundwater Basin and the Santa Barbara Groundwater Basin to the west (GTC, 73). Here, surface topography features delineate the two Basins, not underlying geological formations. Therefore, while the Montecito Groundwater Basin is effectively sealed to the north, south, and east, as no definite barrier to groundwater movement to the west exists, groundwater is able to travel horizontally between the two basins (GTC, 73).

The underlying geological Montecito Groundwater Basin boundaries correspond to the following surface landmarks: the northern boundary is bounded approximately by a tortuous line beginning at Mountain Drive and Coyote Road, eastward to where Bella Vista Drive intersects Ladera Lane. This line approximates the course of the Santa Ynez Ridgeline throughout its course.

The Basin's approximate eastern boundary begins near where Bella Vista and Ladera Lanes intersect. From here, a southward trending line travels along Ladera Lane until reaching East Valley Road. The boundary then trends westward along East Valley Road, until reaching Ortega Ridge Road, whereupon it trends south to the ocean. The southern Basin boundary can be imagined as a westward trending line that begins where the western end of Ortega Road intersects the ocean. This line, setback 500 feet from the coast, mirrors the coastline until it reaches the western end of the Santa Barbara Cemetery. Finally, the western boundary approximates a line beginning at Cabrillo Boulevard and the SB Cemetery. From here, the line trends northward along Hot Springs Road to where it intersects with Sycamore Canyon Road. The line continues along Sycamore Canyon Road until it reaches Coyote Road. The boundaries of the Montecito Groundwater Basin are finally enclosed where Coyote Road bisects Mountain Drive.

BOUNDARIES OF THE GROUNDWATER BASIN WATERSHED

The Montecito Groundwater Basin is recharged by precipitation that initially falls within a defined area, or watershed. All of the precipitation that falls within this watershed can be thought of as having the potential of recharging only the Montecito Groundwater Basin. For the Montecito Groundwater Basin, this associated watershed extends from the ocean on the south to the crest of the Santa Ynez Range on the north. Elevations along the northern divide range from about 3,000 feet on the east to 3,800 feet on the west. Foothills to the east and west constitute the western and eastern components of the watershed divide. Elevations along the base of the foothills range from approximately 350 feet on the eastern side of the area to about 500 feet on the west. From these foothills, ground elevation rises sharply northward, whereupon it connects with the Santa Ynez Mountains.

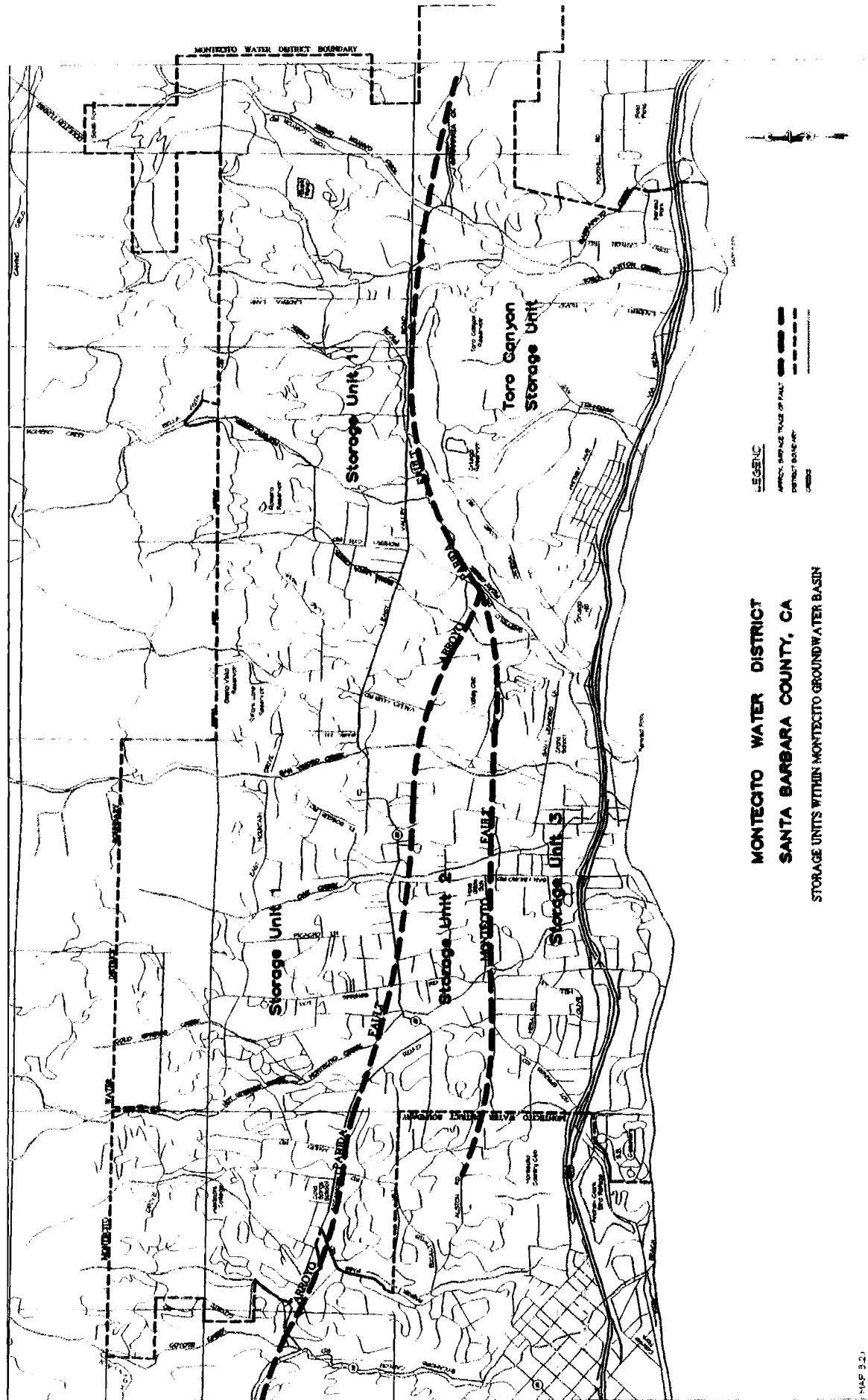
The northern boundary of the Montecito Groundwater Basin Watershed is defined by East Camino Cielo, which traverses the ridgeline of the Santa Ynez Mountains. Hills and ridges that extend seaward from the Santa Ynez Mountains bind the watershed on the east and west.

STORAGE UNITS OF THE MONTECITO GROUNDWATER BASIN

The Montecito Groundwater Basin is divided into three distinct storage units separated by eastwest trending faults (MWD, 88). For the most part, these east-west trending faults represent significant barriers to groundwater movement (Slade, 87). Higher water levels and steeper groundwater gradients north of the Arroyo Parida and Montecito Faults confirm the separation of the units. North of the Montecito Fault, groundwater levels have historically remained about 150 feet higher than south of the Fault (GTC, 73). These storage units are numbered one through three, with unit number three being the closest to the ocean. Map 3.2.1 describes the boundaries of the Montecito Water District and the nested three distinct groundwater storage basins.

Storage Unit Number One. Unit Number One is the northernmost and largest of the three storage units. Unit Number One is bounded on the north, east, and west by non-water-bearing consolidated rocks. The Arroyo Parida Fault defines the southern boundary. The Arroyo Parida Fault can be best approximated by drawing a straight line from the intersection of Coyote and Sycamore Canyon Roads, southeast to where Sheffield Drive is bisected by Birnam Wood Drive. Storage Unit One covers an area of approximately 2,040 acres, attaining a maximum saturated thickness of about 100 feet (Slade, 91).

3.2.1: Storage Units of the Montecito Groundwater Basin



Storage Unit Number Two. The smallest of the three units is Storage Unit Two. This aquifer lies between the Arroyo Parida and Montecito Faults. The Montecito Fault can be best approximated by drawing a line from the intersection of Rametto and Alston Roads eastward to where Sheffield Drive is bisected by Birnam Wood Drive. Surface area of this unit constitutes approximately 300 acres. The average saturated thickness is approximately 20 feet (Slade, 91). Unit Two represents an up-thrown, fault-bounded block with only a thin veneer of water-bearing sediments (Slade, 87). The relatively shallow bedrock found here is strongly suspected of containing very poor quality water (Slade, 91). It is often under artesian head and may leak into portions of Storage Units One and Three (Slade, 91).

Storage Unit Number Three. Unit Number Three is the second largest of the three storage units. This Unit is bounded by the Montecito Fault to the north, the Rincon Creek Thrust Fault offshore, and by consolidated sediments near Summerland to the west. As mentioned earlier, as no definite geological delineation exists between Storage Unit Three and the Santa Barbara Groundwater Basin, the western boundary can be described by the western boundary of the Montecito Groundwater Basin south of the Arroyo Parida Fault. Storage Unit Three covers approximately 1,040 acres with an average saturated thickness of 100 feet (Slade, 91).

TORO CANYON STORAGE AREA

The fourth sub-basin from which water is available to the Montecito Water District underlies Toro Canyon. Referred to as Storage Unit Number Four, the Toro Canyon Storage Area is a part of the Carpinteria Groundwater Basin. The Toro Canyon Storage Unit area is enclosed by consolidated sediments to the east and west, and by the Santa Ynez Mountains to the north. The offshore Rincon Creek Thrust Fault binds the unit to the south. The useable area of the Toro Canyon Storage Unit is approximately 347 acres (Slade, 91). The average saturated thickness of the unit is 60 feet (Slade, 91).

3.3 HYDROGEOLOGY OF THE GROUNDWATER BASINS

The groundwater basins within the Montecito Water District are composed of two types of rocks: unconsolidated sediments consisting of clay, sand, and gravels of Plio-Pleistocene and recent ages and consolidated Tertiary age sandstones, siltstones, and shales (Hoover, 80).

UNCONSOLIDATED SEDIMENTS

Principal water-bearing deposits in the groundwater basins include deposits of alluvium (stratified beds of sand, gravel, silt and clay deposited by flowing water) and terrace of recent age, in addition to deposits from the Plio-Pleistocene Casitas and Santa Barbara Formations (GTC, 73). While the Casitas Formation represents the primary aquifer in the Basin (Hoover, 80), much of the deeper Casitas sediments are very fine grained and display very poor water transmitting characteristics (Slade, 91). These deposits consist of tan to red-brown, poorly sorted boulders, cobbles, and sands with variable amounts of sand and clay (GTC, 73). In general, data has suggested that the aquifers found within the Montecito Water District are generally thin and separated by somewhat thicker zones of sandy clay or clayey sand of low permeability (GTC, 73). These unconsolidated formations are underlain and bounded by consolidated Tertiary aged basement rocks which are essentially non-water bearing.

Elevated and dissected water bearing deposits present in the basins are composed of older alluvium, terrace deposits, and Riviera Fanglomerate (GTC, 73). Shallow wells and deeper wells with near-surface perforations can obtain water from these deposits. Recent deposits of alluvium consisting of clay, boulders, sands and gravels occur adjacent to and within active stream channels.

CONSOLIDATED SEDIMENTS

Although the majority area of the groundwater basins is comprised of unconsolidated sediments, the northern portion, generally the area above Mountain Drive, is comprised of consolidated or bedrock formations (MWD, 88). These consolidated and bedrock formations yield small quantities of water to wells. The consolidated formations do however, supply moderate to large quantities of water to horizontal tunnels such as Doulton Tunnel (Hoover, 80).

3.4 BASIN RECHARGE PROCESSES AND LOCATIONS

Recharge to the groundwater basins within the Montecito Water District occurs through the processes of infiltration of rainfall, seepage of streamflow, and subsurface inflow from consolidated rocks. Annual recharge to the groundwater basins from all sources is approximately 1,614 acre feet (Hoover, 80).

STREAMFLOW SEEPAGE

The most significant component of recharge to the groundwater basins within the Montecito Water District is through streamflow seepage. On their passage to the ocean, the six streams draining the watershed recharge the groundwater table. The amount of water available to seep from the streams into the groundwater basin is dependent upon the volume of potential runoff present in the watershed. Runoff varies significantly depending on the amount of seasonal rainfall. When rainfall is less than 12 inches per year, runoff is negligible. When 26 inches of rainfall in a year occurs, runoff will be 25% of total rainfall (Hoover, 80). When rainfall reaches 40 inches in a year, runoff is greater than 50% of total precipitation (Hoover, 80).

Because surface runoff occurring in the District is not gauged, stream seepage estimates are based on theoretical relationships. Seepage loss estimates for the Montecito Basin have been extrapolated from observed relationships in the nearby Goleta and Carpinteria Basins, which indicate that stream seepage averages-ages about 14 percent of runoff. Based on comparisons of the drainage area of creeks in the Montecito area with the observed drainage area-runoff ratio from the San Jose Creek drainage in the Goleta Basin, the average annual stream seepage rate is approximated to be 764 acre feet (Hoover, 80).

INFILTRATION OF RAINFALL

A large amount of recharge to the groundwater basins occurs through the direct infiltration of rainfall. Precipitation falling on the ground can seep into the soil, percolate down to the water table, and recharge the basin. Infiltration rates will vary according to the type of surface encountered by the water. Due to the predominantly narrow and steep topography present in the

District, there is relatively little opportunity for rainfall to percolate into the water table, as runoff is quick to occur. However, where the land is flatter and infiltration capacities are high, rainfall has the potential to recharge the groundwater basin. Experiments have shown that groundwater recharge rates should be expected to be greatest for large grained, tilled loams (agricultural fields), and lowest (approximately zero) for paved surfaces (parking lots). Chart 3.4.1 illustrates the effect of rainfall on groundwater elevations for the District's office well located at 583 San Ysidro Road, for the period 1964 to 1997. The graph presents the effects of both prolonged dry and wet precipitation cycles on groundwater elevations. Observe how the prolonged drought beginning in 1988 affected groundwater elevations. Additionally, notice how the groundwater elevations quickly responded to above average rainfall. In areas where the surface has a higher infiltration capacity (higher permeability), greater rates of groundwater recharge are observed. Using technology developed by Blaney in 1963, the average annual infiltration of rainfall to the groundwater basins with the boundaries of the District by rainfall is approximately 500 acre feet (Hoover, 80).

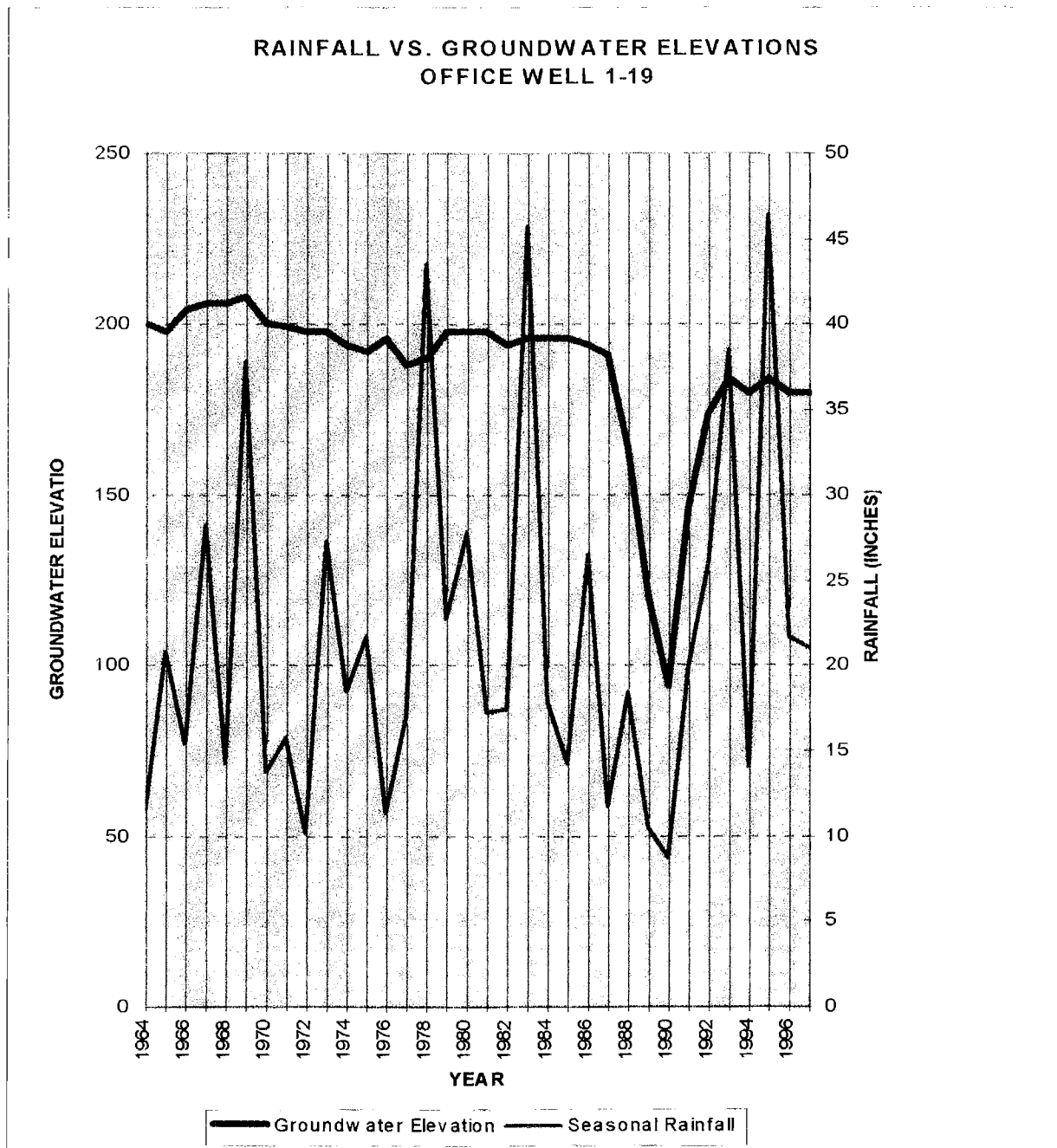
SUBSURFACE INFLOW

Subsurface groundwater inflow is dependent upon the hydraulic gradient between the consolidated sandstone formations and the groundwater basins. If heavy pumping of the consolidated sandstone aquifers were to occur, then the long-term average for subsurface inflow from consolidated rocks to the basin of 250 acre feet could be reduced (Hoover, 79). At this time, the District has no pumping records from private wells located in the consolidated sandstone aquifers.

IRRIGATION INFLOW

The long-term average annual infiltration rate of water from the irrigation of agriculture areas and residential landscaping is estimated to be on the order of 100 acre feet (Hoover, 80).

Chart 3.4.1. Rainfall Vs. Groundwater Elevations



IDENTIFICATION OF RECHARGE LOCATIONS

The identification and designation of areas in the Montecito community that are essential to the recharge processes described above can contribute to the ability of surface water to recharge the aquifers. These essential areas include streambeds and lands adjacent to streams and creeks; when future land-use changes are proposed, the impacts of such changes can be evaluated as to their impacts on the groundwater basins. By recognizing these areas for their significance in aquifer recharge processes, groundwater basin recharge processes can be sustained. The Montecito Community Plan, adopted by the County of Santa Barbara in 1992, has recognized the importance of recharge areas to groundwater quantity and quality.

3.5 BASIN STORAGE CAPACITY

Within a groundwater basin, the amount of available groundwater storage capacity represents the total volume of water that can be held in underground storage for a given period. The amount of groundwater available for extraction by wells depends on the volume of the water-bearing sediments that are, or can become, saturated, and the specific yield of the water-bearing sediments. A rising water- table will increase the thickness of the saturated water-bearing zone, thereby resulting in a greater volume of available groundwater storage. Conversely, when the height of the water table decreases, the volume of water made available decreases.

Groundwater is found in the pore, or void spaces of a soil. These spaces fill with water when water percolates down from the surface. To be usable, the void space for groundwater storage in a given volume of sediments must be economically capable of being withdrawn during periods of insufficient surface supply (discharge). The void spaces must also be capable of being resaturated either naturally or artificially during periods of excess surface supply (recharge). Groundwater extraction can result in compaction of fine sediments found within the aquifer. Compaction of these fine sediments reduces the total amount of groundwater stored in the aquifer. In addition, compaction of these fine materials leads to subsidence of the land surface that can change the gradients in rivers and streams, and cause structural damage to highways, bridges and buildings (CGM, 97). However, the part of the aquifer that yields water to wells is not compacted. The coarser sediments, consisting of sands and gravels, in which most of the available water is stored, are not compacted (CGM, 97).

Groundwater in storage is a constantly changing value that fluctuates in response to both seasonal and long-ten-n changes in recharge and discharge rates to the groundwater reservoir. By using recognized maximum and minimum well hydrograph records, approximations to the maximum and minimum amounts of useable groundwater in storage can be obtained. Useable water is defined as being of satisfactory quality for prevailing beneficial uses and in sufficient quantity within the underground reservoir to be available without excessive drawdown or uneconomic yield occurring. It has been accepted that during the Spring of 1983, the groundwater basin was at its highest observed level (Slade, 91). It has also been agreed that the groundwater basin was at an all time low level in the Winter of 1991 (Slade, 91). The total amount of groundwater in storage that is potentially available for extraction is determined by multiplying the total volume of water-bearing sediments by the specific yield of the sediments.

The maximum total volume of useable groundwater in Storage Unit One has been estimated to be 8,770 acre feet (Slade, 91). The minimum total volume of useable groundwater in Storage Unit One is approximately 2,830 acre feet (Slade, 91).

The maximum total volume of useable groundwater in Storage Unit Two is estimated to be 730 acre feet (Slade, 91). The minimum total volume of useable groundwater in Storage Unit Two is approximately 70 acre feet (Slade, 91). However, since sediments here do not generally attain a thickness greater than 50 feet, wells would not adhere to State standards for well construction.

The maximum total volume of useable groundwater in Storage Unit Three is estimated to be 4,990 acre feet (Slade, 91). The minimum total volume of useable groundwater in Storage Unit Three is approximately 3,710 acre feet (Slade, 91). Included in calculating the volume of useable groundwater was a 500-foot wide strip along the coastline where no extractions would occur to lower water levels. It is believed that this "buffer zone" would provide protection from possible seawater intrusion.

The maximum total volume of useable groundwater in the Toro Canyon Storage Area is estimated to be 1,620 acre feet (Slade, 91). The minimum total volume of useable groundwater in the Toro Canyon Storage Area is approximately 1,150 acre feet (Slade, 91).

The total maximum volume (all four sub basins) of useable groundwater is approximately 16,110 acre feet (Slade, 91). The total minimum volume of useable groundwater is approximately 7,760 acre feet (Slade, 91). In terms of distinct groundwater basins, the Montecito Groundwater Basin has maximum and minimum volumes of 14,490 acre feet and 6,610 acre feet respectively (Slade, 91). The Toro Canyon Storage Area has maximum and minimum values of 1,620 acre feet and 1,150 acre feet respectively (Slade, 91). It can be expected that at any one time the total amount of available groundwater in storage is somewhere between these two accepted values.

3.6 GROUNDWATER BASIN SAFE YIELD

According to a study in 1980 by the District consulting geologist, Michael Hoover, (Safe Yield of the Montecito Basin and Toro Canyon Area) the safe yield of the groundwater basins within the Montecito Water District is 1,650 acre feet per year (AFY) (Hoover, 80). Breakdown by groundwater storage units is as follows:

Table 3.6. 1: Groundwater Sub Basin Safe Annual Yields

SUB BASIN	SAFE YIELD (AFY)
Storage Unit 1	550
Storage Unit 2	100
Storage Unit 3	700
Toro Canyon	300
Groundwater Basin Safe Yield	1,650 AFY

The safe yield of 1,650 AF is an annual average. In addition to this value, there is also the opportunity for additional groundwater withdrawals by "mining". The term "mining" refers to a program of deliberately exceeding the safe yield during critically dry years. This is done with the reasonable expectation that, based upon historic rainfall data, the basin will recharge an amount of the mined water in the following wet years. It is the Districts policy that mining of the groundwater basins will only be considered if no other feasible alternative exists for meeting water demand, given an extreme event.

3.7 HISTORICAL GROUNDWATER PRODUCTION

All groundwater basins located within the boundaries of the District are subject to groundwater production. However, because of aquifer characteristics described in earlier sections, withdrawal rates vary between the four storage units. The District has historically depended on the water contained in Storage Unit Number One for the majority of its groundwater production. The only exception to this pattern was in 1990, when groundwater production from Storage Unit Number Three surpassed the extractions from Storage Unit One (Slade, 91). Historically, the Montecito Water District has not withdrawn water from Storage Unit Number Two, nor from the Toro Canyon Storage Unit (Slade, 91).

Annual groundwater production by the Montecito Water District has been recorded since 1947. As described in its conjunctive use program, groundwater production by the District has varied historically in response to changes in annual rainfall. From 1960 to 1972, the District withdrew no groundwater. After 1972, groundwater production slowly increased. During the height of the drought in 1990, when surface water supplies were scarce, groundwater production by the District was at an all time high of 562 acre feet. Following the drought, when surface supplies of water became plentiful, groundwater production decreased substantially. Annual Montecito Water District groundwater production for the period from 1980 to 1990 averaged 180 acre feet per year (Slade, 91).

Groundwater production by private well owners and mutual water companies occurs in all four storage units. Although complete records are not available, historical groundwater production has been estimated by Hoover, 80 and Slade, 91, as follows:

Table 3.7. 1: Estimated Historical Groundwater Production

YEAR	EST. PRODUCTION (AFY)
1929	1658
1954	1322
1962	872
1979	458
1980-1990	940 (average)

Total groundwater extractions by all users (MWD, private well owners and mutual water companies) averaged 940 acre feet per year for the eleven-year period from 1980 to 1990 (Slade, 91).

3.8 GROUNDWATER BASIN WELLS

NUMBER OF WELLS

The Montecito Water District currently has 18 wells distributed throughout the Montecito Groundwater Basin and the Toro Canyon Storage Area. Of these 18 wells, 11 are located in Storage Unit Number One, 4 are located in Storage Unit Three, and there are 3 wells drilled in the Toro Canyon Storage Area. The District has no wells drilled into Storage Unit Number Two. All 18 of the District's wells are monitored from the time they go on line.

Private and/or small mutual water company wells are present in all four storage units. These production sites are fairly evenly distributed throughout the storage units. Private water companies in the District still actively provide water to its customers. Many customers of private water companies have District meters as a supplementary supply source. Many of the private water companies, small water systems and individual wells were drilled following the District's water meter moratorium beginning in 1973. The moratorium on the issuing of District water meters to property owners within the District's boundaries was a consequence of insufficient water supplies and the District's increasing demand. The water meter moratorium was suspended in 1993 and finally terminated in the fall of 1997 following voter approval of State Water in 1991 and the subsequent construction of State Water facilities.

The drought of 1987-91 also severely limited the District's ability to provide adequate supplies of water to District customers. District customers were placed under severe restrictions under a District allocation program from 1988 to 1991 due to declining surface water supplies. Customers that exceeded their allocations paid for water at over twice its current cost. Flow restrictors were placed in some District meters to prevent customers from using too much water. Many new private wells were added to the District's service area during this period. The District began to depend upon groundwater supplies to meet demand. Even with continuous pumping, District wells in the groundwater basin could only satisfy a small part of the District's overall need for water. District water demand and District well production during pre-and post-drought periods as shown in Table 3.8.2 indicates the severity of water allocation restrictions, in addition to the variable dependance on groundwater.

Table 3.8.2: District Water Demand and Groundwater Production 1987-1995

YEAR	METERED USAGE (AF)	WELL PRODUCTION-MWD (AF)
1987-1988	4,865	117
1988-1989	5,174	197
1989-1990	4,402	368
1990-1991	3,749	562
1991-1992	2,866	360
1992-1993	3,901	98
1993-1994	3,820	134
1994-1995	3,955	118

At present, there are 70 private wells in the District's biannual monitoring program. The locations of the monitoring wells currently active in the District's Monitoring Well Program are plotted on Map 3.8. 1. It is estimated that there are an additional several hundred active wells in the community. While records for the District's wells are available, production data for private wells is virtually nonexistent.

WELL PRODUCTION CAPACITY

The total estimated production capacity of the District wells scheduled to be in service by the 1991-1992 water year was in the range of 1048.8 to 1238.4 acre feet per year (Slade, 91). This value is dependent upon actual production during drought conditions of wells that were not yet on line, or that were then producing at less than full potential. In addition, this estimate assumes 70 to 80% of possible operational usage. Although the total estimated production capacity of the private wells and small mutual water companies cannot be accurately determined, it is believed that, if needed, annual withdrawal of groundwater can exceed the current estimated average private production of 756 acre feet per year.

3.9 GROUNDWATER QUALITY

BASIN WATER QUALITY

Overall, water quality of the groundwater basin is classified as good to moderately good (GTC, 73). For irrigation purposes, the water is classified as Class I to Class 2 (GTC, 73). In general, water quality south of the Arroyo Parida Fault is of calcium bicarbonate character (GTC, 73). On the north side of the fault, water is of primarily sodium sulfate character (GTC, 73). Observed total dissolved solids (TDS) concentrations range from 600 to 1100 milligrams per liter (mg/l) (GTC, 73). Concentrations of iron and manganese in District wells exceed Federal standards (GTC, 73). The water is typically hard to very hard and may encrust wells (GTC, 73).

The District has been able to correlate an overall improvement in groundwater quality with the abundance of rainfall and the high groundwater elevations occurring since 1995. During the height of the drought in 1990, water quality in several of the District's wells was being impacted by high levels of nitrates. Nitrates have been proven to be harmful to young children and babies at levels above 45 mg/l. In some District wells, nitrate levels were near the maximum allowed contaminant level. These wells were blended with other District sources so that delivered nitrate levels to customers was well below the maximum allowed contaminant level. These high nitrate levels were located downgradient of recreational golf courses in the community. Recent monitoring of nitrate throughout the District indicates that concentrations have dropped well below the maximum allowable contaminant level. Table 3.9.1 presents how certain chemical constituents of groundwater in the District's wells are affected by groundwater elevations. As groundwater elevations decrease (drought), the chemical constituents increase in concentration. Conversely, when there is more water in the aquifer, there is a corresponding improvement in water quality.

Map 3.8.1: Private Monitoring Well Locations

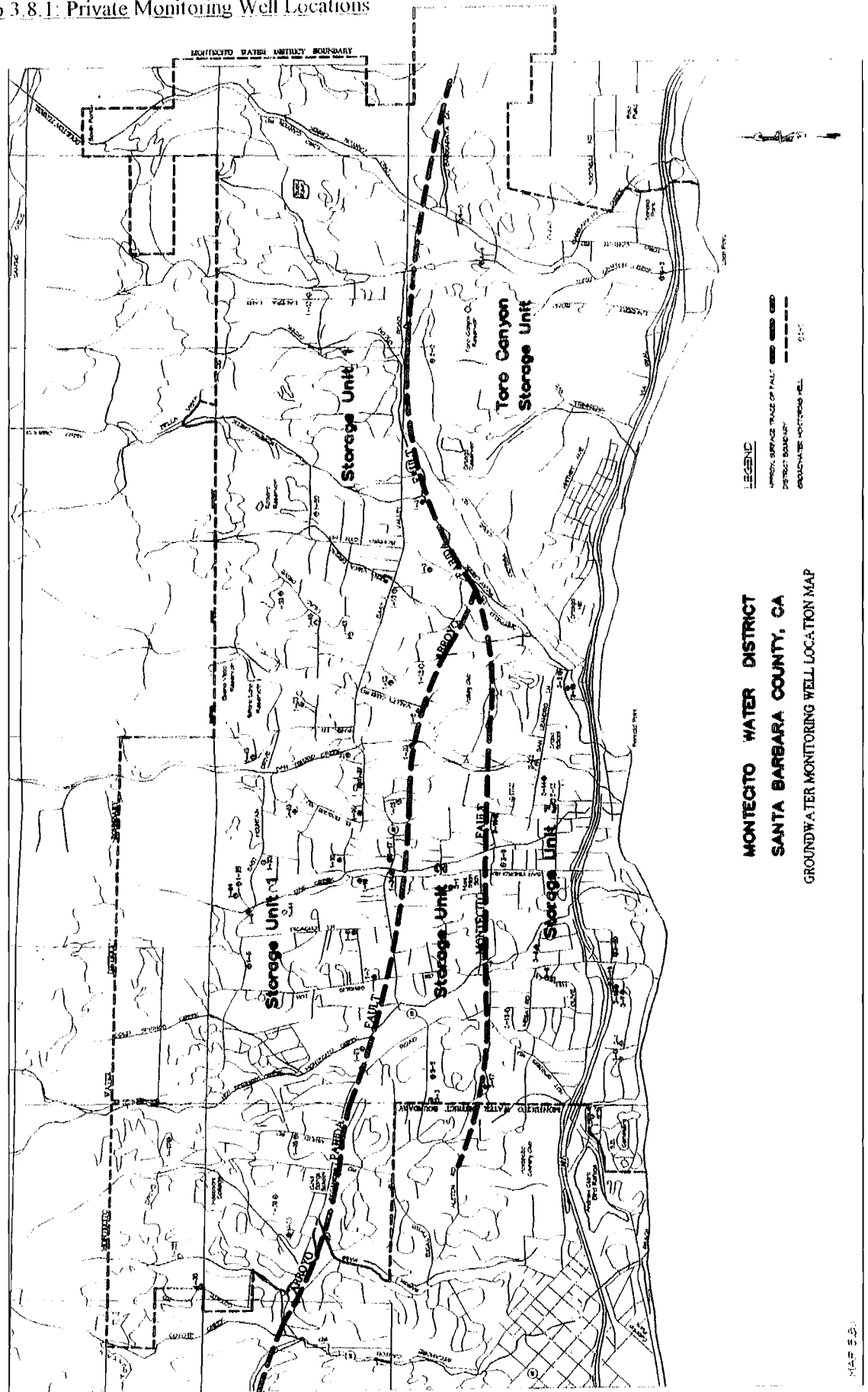


Table 3.9.1: Valley Club Well; Groundwater Elevations and Water Quality

DATE	STATIC ELEVATION (FMSL)	NITRATE as NO3(mg/l)
05/91	159	36
11/94	212	32
06/97	221	29

District wells are tested in accordance with requirements of the State Department of Health. Active District wells are tested at least every three years for chemical constituents. It should be noted that because historical data collection has been random and intermittent, no long-term records exist. Furthermore, as it is often difficult to obtain complete historical records from private wells within the basin, groundwater basin-wide coverage is unavailable.

WATER QUALITY CONCERNS

All members of the Montecito community need to be concerned with the quality of the water contained in the aquifers found within the boundaries of the Montecito Water District. Water found in the groundwater basins is subject to negative influences that can severely affect not only the quality of the water, but the quantity of water available for consumption as well. Through the Groundwater Management Program, these possible effects and consequences will be monitored and observed to ensure that the long-term health and vitality of the aquifer are being maintained. Through this process, the groundwater contained in the aquifers within the Montecito Water District will continue to supply all concerned interests with water of the highest possible quality in the years to come.

3.10 GROUNDWATER POLLUTION SOURCES

CAUSES OF GROUNDWATER POLLUTION

Human activities and natural processes have the potential to cause changes in the quality and quantity of groundwater contained in the aquifers within the Montecito Water District. Contaminants can enter aquifers through infiltration, recharge from surface water, direct flow through improperly built wells and cross-contamination and from other polluted aquifers through improperly constructed wells (CGM, 97). Contamination is classified as being a point source contaminant or a non-point source contaminant. Point source contaminants come from specific locations, such as underground petroleum storage tanks, septic systems and landfills. Non-point sources of contamination include agricultural wastes and stormwater runoff. Some common point and non-point sources of contamination are listed in Attachment 9.4. The following list outlines some particular actions and processes having the potential to affect groundwater quality and quantity:

- Commercial and domestic landscaping activities
- Agriculture and livestock
- Septic systems, synthetic organics used in household cleaning products and septic tank cleaners
- Underground storage tanks

- Seawater intrusion
- Natural contaminants

FERTILIZERS

Within the community, intricate landscaping designs are commonplace. This landscaping provides an opportunity for surface irrigation and precipitation to percolate into the groundwater basins. (See Recharge Processes, 3.4) In order to help maintain the high quality of these landscapes, fertilizers are often utilized. While fertilizers can enhance the production of flora in the area, over-fertilization of grasses and landscaped areas can lead to unnatural concentrations of nitrates, phosphates and other detrimental chemicals accumulating in the groundwater basins. Since groundwater moves slowly, many years may pass before a pollutant released on the land surface is detected in the groundwater aquifers. This means that contamination from over-fertilization is often already widespread before it is detected. Given enough time, the accumulation of these harmful chemicals could lead to the aquifers becoming too polluted for safe use by the community. Although groundwater can be treated to remove chemical contaminants, it is often costly.

While it is understood that fertilization of soils and plants may be sometimes necessary, in order to help maintain the safe chemical composition of the aquifers, efforts should be made by both individuals and companies alike to ensure that over-fertilization and subsequent aquifer degradation does not occur.

The best protection against groundwater pollution from over-fertilization can be obtained by making a conscious effort to keep the use of fertilizers to an absolute minimum. This is known as utilizing Best Management Practices (BMP's). For more discussion of BMP'S, consult the District's latest Water Conservation Plan Annual Update, compiled for the Bureau of Reclamation, or the District's Urban Water Management Plan, created for the Department of Water Resources.

AGRICULTURE AND LIVESTOCK ACTIVITIES

Although agricultural or livestock production in the community is not widespread, in the areas that it does occur, the potential exists for groundwater contamination. Of most concern are nitrates. Nitrates have been responsible for shutting down more public water supply wells than any other contaminant (CGM, 97). Nitrates most commonly enter the groundwater from fertilizers, manure, septic systems and nitrate-laden wastewater percolating downward from holding ponds. Nitrate is very soluble in water and is not readily absorbed by soil, allowing it to be very mobile in the subsurface environment (CGM,97). Excess nitrates in groundwater used for drinking water are a health concern because they can lead to almost immediate harmful effects on humans with little exposure. Although fertilizers applied to crops and livestock constitute the biggest source of nitrates to the environment, agricultural chemical purveyors and septic systems also contribute nitrates to the environment (CGM, 97).

Fecal material associated with livestock and domestic animals can pollute the aquifers if the number of animals in a given area proves to produce more waste than the groundwater aquifer can safely filter. In addition, pesticides and fertilizers associated with agricultural and citrus production can contaminate the basins if chemicals are used irresponsibly and chronically.

SEWERAGE SYSTEMS

Within the Montecito and Summerland communities, some households and organizations discharge their domestic wastes through septic tanks. Septic tanks provide a method of sewage disposal when sewer hook-ups are not available, as well as being inexpensive to install and maintain. However, resulting environmental costs can be serious on groundwater aquifers if groundwater levels are high, or if the septic systems are placed too close to bodies of water.

Figure 3.10.1 demonstrates how the placement of a septic tank system in a soil with low permeability can result in contaminated groundwater flow down-gradient above the aquaclude to an otherwise clean production well, thereby polluting the produced water. Figure 3.10.2 shows how a newly constructed well with a high production rate can create a cone of depression large enough to reverse the groundwater gradient, subsequently contaminating previously clean well water.

Figure 3.10.1: Septic Tank System Pollution Pathways (I)

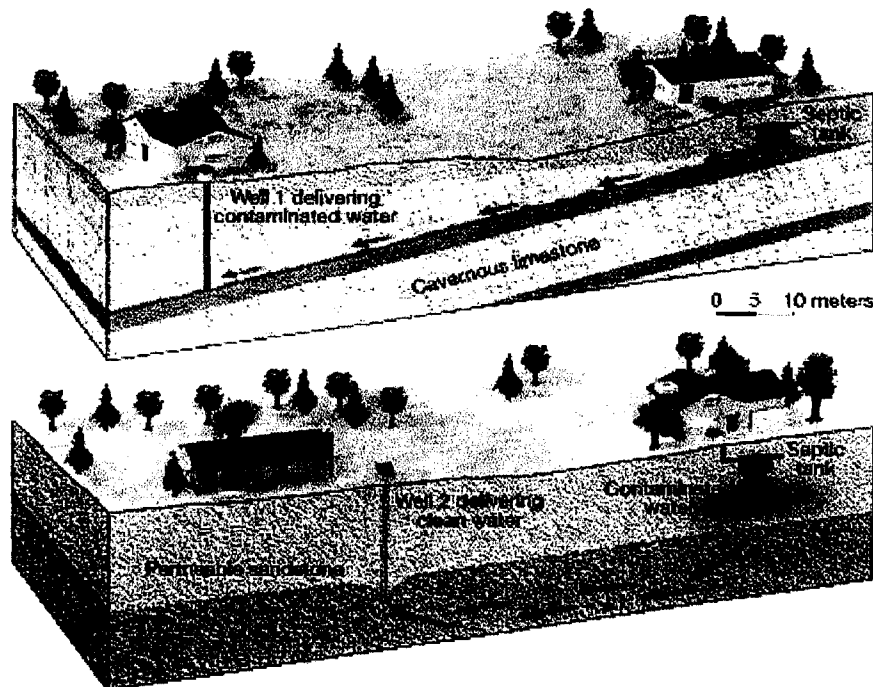
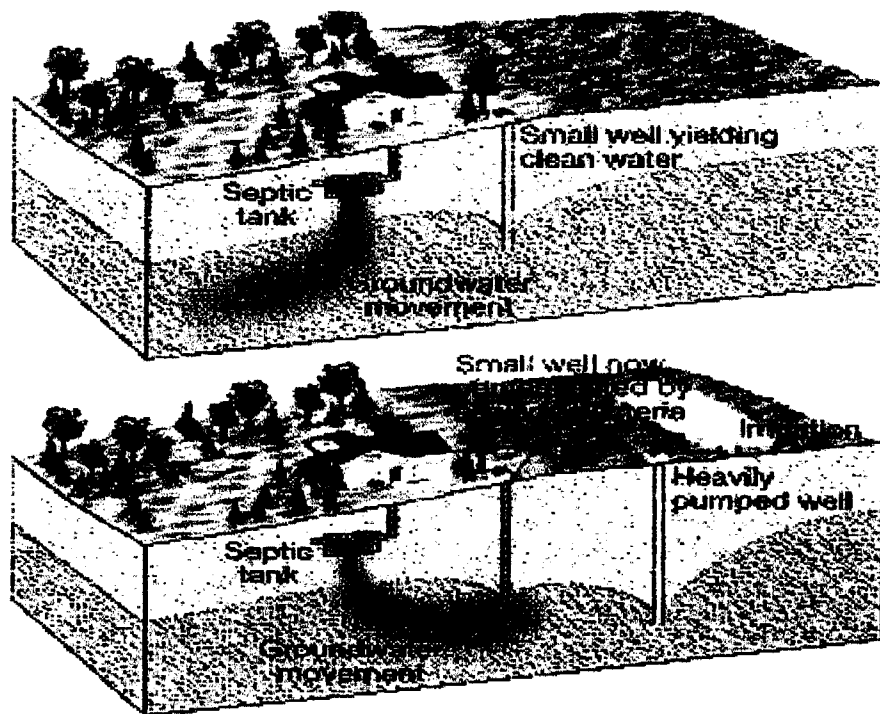
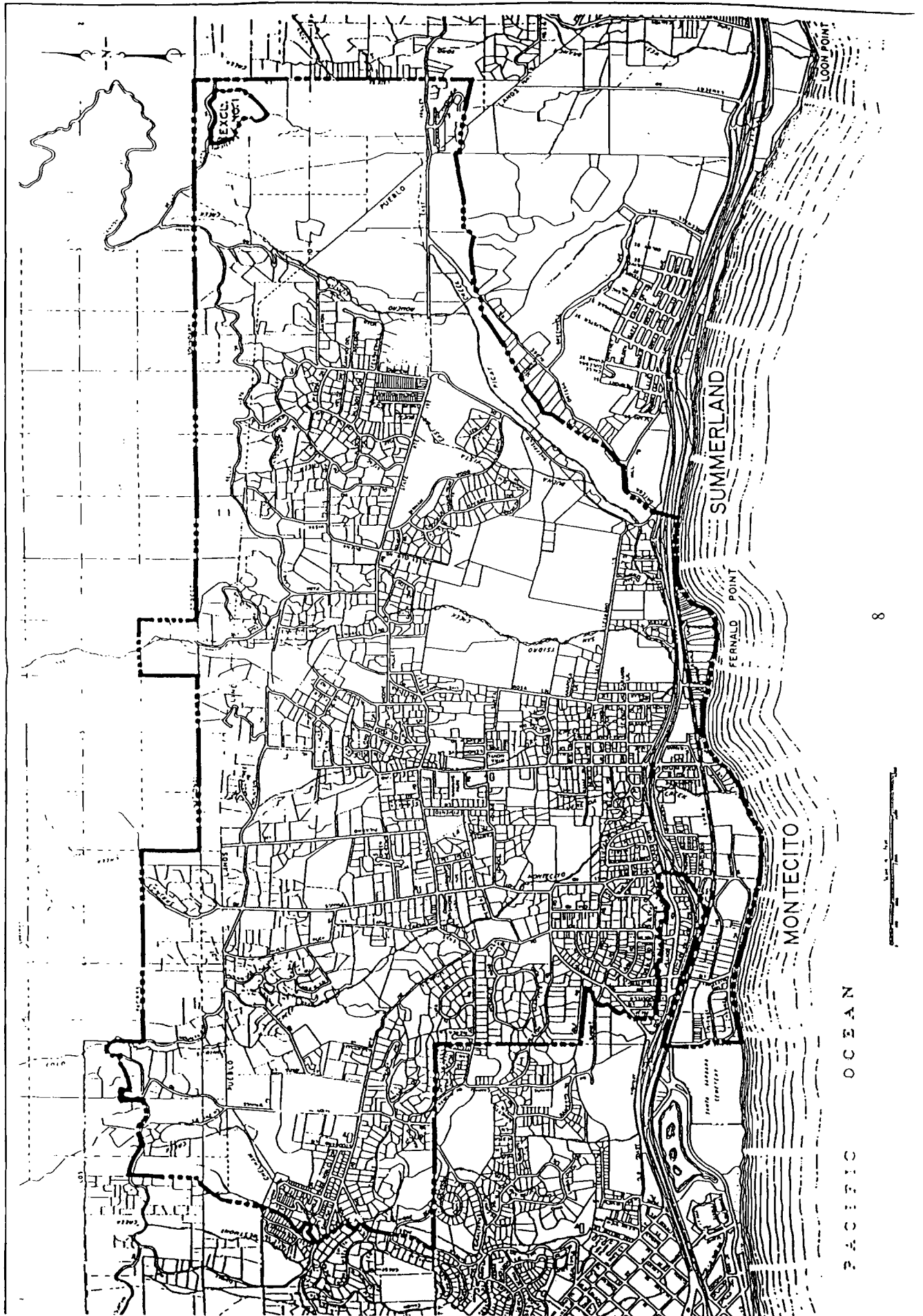


Figure 3.10.2: Septic System Pollution Pathways (II)



To minimize the threat of groundwater pollution from septic systems, a change from septic systems to sewer lines would be beneficial. Where sewer hook-ups are not feasible, it is critical that existing and future septic systems be located in areas that will minimize the threat of groundwater pollution. In addition, if septic systems are to be used, it is essential that the tanks are of proper sizing, and location, and that frequent inspection and maintenance of septic tanks and accompanying drainfields occur. Septic tanks and leach fields will continue to be a source of nitrate contamination as long as most rural areas are not required to provide off-site secondary or tertiary sewage treatment. The District is comprised of individual septic systems and the sewer hook-ups provided by the Montecito and Summerland Sanitary Districts. Map 3.10.1 describes the service boundaries of the Montecito Sanitary District. All areas outside the service boundary of the sanitary districts have either dry wells or leach fields for sewage disposal. The number of properties with private septic systems in the community is substantial. Construction of septic systems is under the jurisdiction of the Santa Barbara County Department of Environmental Health. The Health Department only oversees construction and does not oversee operation unless there is a reported health threat. Adding areas outside the current service boundaries of the Montecito and Summerland Sanitary Districts requires annexation of the properties and installation of new sewer mains and laterals. Additionally, costs associated with annexation and infrastructure improvements are high.

Map 3.10.1: Service Boundaries of the Montecito Sanitary District



UNDERGROUND STORAGE TANKS

In the community, there are a handful of service stations and similar sites that have underground oil and/or gas tanks. The District previously had underground gas and diesel tanks. Over time, it is possible for the tanks to degrade and subsequently leak hazardous materials into the groundwater aquifers. Extensive contamination has resulted from tanks and other subsurface facilities used by industry and the government (CGM, 97). Because of the highly toxic nature of these contaminants, the potential exists for major aquifer contamination to result from small amounts of leakage. By frequently monitoring the integrity of the underground tanks and by replacing those that are leaking or have the potential for leaking, potential contamination from underground storage tanks can be averted.

Currently, besides storage tanks associated with gas stations, there are several contaminated sites in the Montecito area. These contaminated areas are all outside the sphere of influence of existing groundwater wells and subject to ongoing clean up. These clean up sites are under the jurisdiction of the Santa Barbara County Fire Department. Previously, the clean-up programs were directly under the Santa Barbara County Department of Environmental Health.

SEAWATER INTRUSION

Being situated on a narrow coastal plain, a concern of those who produce groundwater from the basins found within the Montecito Water District is seawater intrusion. Specifically, well users in Storage Unit Number Three need to be most concerned. As mentioned earlier, groundwater flows along a north-south gradient towards the ocean. As long as this flow gradient remains directed out to sea, seawater intrusion is not likely. However, if the gradient approaches zero, or possibly reverses, seawater has the potential to flow into the groundwater basins, causing severe and long-lasting detrimental effects to the quality and quantity of available groundwater. Analysis has shown that during times of drought and associated substantial groundwater withdrawals, water levels south of the Arroyo Parida Fault have been depressed (GTC, 73).

Investigations have indicated that the offshore Rincon Thrust Fault is an effective barrier to seawater intrusion into the deeper water-bearing zones (GTC, 73). Conversely, shallow, actively pumped sediments in Unit Three are in direct hydraulic continuity with the ocean (Slade, 87). Although wells in this unit have historically displayed relatively high (TDS) concentrations (700-900 mg/l), the majority of wells in Storage Unit Number Three provide groundwater of acceptable quality for domestic use (Slade, 87).

Using electric logs, general water quality has been shown to decrease at irregular depths and locations along the coastline (Slade, 91). Some wells in Storage Unit Number Three very near the coast have, upon occasion, yielded groundwater samples containing chloride concentrations as high as 1000 to 2000 mg/l (Slade, 91). These concentrations exceed the State limit for chloride in drinking water of 250 mg/l. Although no wells in the unit have the long-term quality records to definitely confirm if seawater intrusion has occurred, the Murphy Park Well in the eastern portion of the City of Santa Barbara, (4N/27W-24D2, 473 feet deep) has shown a continuous increase in chloride concentrations from 78 mg/l to 1100 mg/l over a twenty-five year period (Slade, 87). The highest chloride concentrations have been recorded when water levels south of the Arroyo

Parida Fault were generally depressed to at or below sea level due to drought conditions and increased pumping demands (Slade, 91). It is unclear whether the increases in chloride concentrations were an effect of seawater intrusion, or the result of an inadequate cement seal that could possibly allow shallow brackish water into the casing (Slade, 91).

None of the above examples of elevated TDS and chloride concentrations are high enough to prove that substantial seawater intrusion and resulting aquifer degradation has occurred (GTC, 73). They only indicate that there exists a narrow zone along the coast into which there has been some horizontal migration of seawater. This observed migration has occurred simultaneously with increased pumping from the basin and associated depressed water levels. Additionally, it is possible for seawater to migrate vertically between aquifers. Improperly constructed wells or wells that have deteriorated with time can permit seepage of saline water into aquifers of fresh water, thereby contaminating the fresh water source(s).

Given the intrinsic characteristics of Storage Unit Three, there is, and always will be, a delicate balance between useable groundwater and unsafe seawater. It is only through the careful monitoring of groundwater chemical properties and well hydrographs that steps can be taken to guarantee that seawater intrusion does not occur. In order to ensure the long-term health and viability of the groundwater storage basin, it is critical to maintain a positive seaward groundwater gradient to the ocean, although it is noted that that will create a small loss of fresh water discharging into the ocean.

NATURAL CONTAMINANTS

As water percolates through the soil, it picks up naturally occurring minerals, salts and organic compounds. As the water continues to migrate downward, concentrations of the dissolved minerals and salts increase. This process, known as mineralization, can in some instances result in chemical concentrations high enough to degrade groundwater quality so that it can no longer be of beneficial use without treatment (CGM, 97).

Some of the more common natural contaminants include hydrogen sulfide, a decay product of organic materials; radon, a radioactive gas formed when uranium decays in rocks; and arsenic. Iron and manganese are often found in high concentrations. Together they constitute the most common impurities in California drinking water that may exceed secondary drinking water standards (CGM, 97).

3.11 FUTURE GROUNDWATER DEMANDS

The most effective way of obtaining maximum beneficial use of water from all sources is by employing a conjunctive use water management approach. This entails relying primarily on water from surface reservoirs during periods of adequate rainfall and conserving water in the groundwater basins as a natural underground reservoir for use during prolonged dry periods. Due to the current period of more than adequate rainfall, the District, in accordance with the District's conjunctive use program, has relied primarily on surface water supplies to meet demand. Future groundwater supply projections are complicated because the District does not control the basins, nor does the District have the authority to limit the present production from, or future drilling of private wells. Further, although District wells are equipped with production meters, private wells generally are

not. It is assumed that future water needs not met by the District will be served by private wells in the basins. The adoption and implementation of the community's groundwater management program will enable the community to strive to better understand the factors affecting groundwater supply and quality. The insight and knowledge gained from the program will aid in increasing the ability to make accurate long and short-term groundwater demand estimates.

Since 1992, new water service connections have increased approximately 1% per year (DWR, 95). Following the suspension of the water shortage emergency in April 1992, and the water moratorium in April 1993, water demand has slowly increased from District-imposed water allocation levels at an annual rate of 7%.

It should be observed that the annual reliance upon groundwater in the near future is expected to be substantially below the District's safe allocation of 700 acre feet, assuming that other sources of water remain constant. As noted earlier, if a prolonged drought were to occur, the District would increase production from the groundwater aquifers to meet customer demand. It is the position of the District that a basin is over-committed when the total potential demand of all active wells, including those of the District, has exceeded the annual safe yield. The basins will be in a state of overdraft when the potential demand becomes the actual demand and when the amount of water being extracted from the basin is greater than the annual safe yield on a sustained basis.

3.12 WATER CONSERVATION PROGRAMS

Montecito Water District's water conservation measures and programs are an essential element in the District's operations. The District has been active in devising and implementing various types of water conservation programs. A detailed description of the programs currently in use by the District can be found in the District's latest Water Conservation Plan Annual Update, compiled for the Bureau of Reclamation. In addition to these reports, the District's Urban Water Management Plan for the Department of Water Resources chronicles water conservation measures employed by the District.

SECTION IV: GROUNDWATER PLAN ELEMENTS

The following groundwater plan elements are as described in AB 3030. They can be applied to the groundwater basins found within the Montecito Water District where appropriate. As part of an effective groundwater basin management plan, the planning and implementation of projects that protect the quality and quantity of groundwater in storage to meet long-term demands must be included. The following are examples of methods that aid in the efficient management of groundwater resources.

4.1 BASIN WELLHEAD AND RECHARGE AREAS

The Federal Wellhead Protection Program was established by Section 1428 of the Safe Drinking Water Act Amendments of 1986. The purpose of the program is to protect groundwater sources of public drinking water supplies from contamination, thereby eliminating the need for costly treatment to meet drinking water standards. The program is based on the concept that the development and application of land-use controls (usually applied at the local level in California) and other preventative measures, can protect groundwater.

A Wellhead Protection Area (WHPA), as defined by the 1986 Amendments, is "the surface and subsurface area surrounding a water well or wellfield supplying a public water system, through which contaminants are reasonably likely to move toward and reach such water well or wellfield. The WHPA may also be the recharge area that provides the water to a well or wellfield. Unlike surface watersheds that can be easily determined from topography, WHPAs can vary in size and shape depending on geology, pumping rates, and well construction. Several different methods can be used to delineate the lateral boundaries of a WHPA. These include simple fixed-radius techniques, analytical equations, numerical modeling, and geologic mapping. Under the Act, states are required to develop an EPA-approved Wellhead Protection Program. To date, California has no formal state-mandated program, but instead relies on local agencies to plan and implement programs. For this reason, AB 3030 was enacted. Wellhead Protection Programs are not regulatory by nature, nor do they address specific sources. They are designed to focus on the management of the resource rather than to control a limited set of activities or contamination sources.

4.2 WELL CONSTRUCTION PROCEDURES AND STANDARDS

Improperly constructed wells can result in poor water quantity and quality. More importantly, inferior well construction may result in aquifer contamination by establishing a pathway for pollutants to enter a well from drainage from the surface, allowing communication between aquifers of varying quality, or providing the opportunity for unauthorized waste disposal.

Well construction policies shall be established to ensure that well drillers comply with local ordinances and State law. A permit from the Santa Barbara County Department of Environmental Health is required for drilling, deepening, modifying, or repairing a well. Whoever performs the work must have an active C-57 Contractor's license. An inspection is required prior to the sealing of all wells. All wells drilled are recorded with the State and assigned a State number. Sections 13700 through 13806 of the California Water Code require proper construction of wells. Minimum standards for the construction of wells are specified in Department of Water Resources

Bulletins 74-81 and 74-90. These standards apply to all water wells, cathodic protection wells, and monitoring wells. If a local regulatory agency does not have its own well standards ordinance, it must enforce the State's Model Well Ordinance (State Water Resources Control Board Resolution No. 89-98).

4.3 WELL ABANDONMENT AND DESTRUCTION PROCEDURES

All wells shall be properly destroyed or decommissioned if they are not to be used in the future. Wells that are abandoned or improperly destroyed can pollute groundwater to the point where it is unusable, or require expensive cleansing treatment. There are three general means by which this occurs:

- Pollutants enter the well from the surface.
- Wells establish vertical communication, allowing poor quality groundwater and pollutants to move from one aquifer to another.
- The well is used for illegal waste disposal.

Groundwater contamination is not the only threat to public health due to abandoned wells. Abandoned wells also pose a serious physical risk to especially children and household pets, as it is possible for the children and animals to fall down the unsealed wells. Proper destruction or decommissioning of the wells will ensure that this does not occur.

Property owners or lessees who do not properly destroy an abandoned well on their land may be guilty of a misdemeanor (Section 24400 of the Health and Safety Code). Wells do not have to be destroyed if future use is anticipated, but they must be properly capped and maintained, as specified in the code. Criminal penalties do not apply unless the well presents a public health hazard or a probable preferential pathway for the movement of pollutants, contaminants, or poor quality water. The owner can also be assessed clean-up costs if the well causes groundwater contamination.

Sections 13700 through 13806 of the California Water Code require proper destruction of wells. Minimum standards for the destruction of wells are specified in Department of Water Resources Bulletins 74-81 and 74-90. These standards apply to all water wells, cathodic protection wells, and monitoring wells. If a local agency does not have its own well standards ordinance, it must enforce the State's Model Well Ordinance (State Water Resources Control Board Resolution No. 89-98).

4.4 GROUNDWATER BASIN MONITORING

The purpose of a groundwater monitoring program is to provide minimum information-nation that will allow computation of the change in groundwater storage. Information-nation needed shall include spring and fail static groundwater levels, hydraulic properties of the aquifer(s) including the dynamic pumping level, pumping rate, and an estimate of the annual quantity of water pumped. An adequate monitoring well network includes wells that are representative of the vertical and lateral dimensions of the aquifer(s). Establishing the network of monitoring wells requires that each well be designed to tap individual aquifers in the basin.

Data collected from the monitoring well shall be entered into a computer database maintained by the District. This data will be used to create hydrographs, groundwater elevation contour maps, and groundwater change contour maps that will provide the tools to evaluate groundwater levels and determine changes (positive or negative) of the groundwater in storage. Other data collected shall be the size and depth of the well and the State ID Number. Each well and discharge piping shall be inspected by the owner to ensure that well construction and operating standards are in compliance.

4.5 MITIGATION OF BASIN OVERDRAFT

Uncontrolled overdraft, long-term depletion of storage, and prolonged mining of groundwater can cause several problems to aquifers. Surface subsidence, the degradation of groundwater quality, and increased pumping costs can all result from groundwater basin overdraft conditions. In addition, if groundwater basin storage is depleted and not replaced naturally, groundwater may not be a dependable resource when surface water sources are limited. Shallow wells in the basin have gone dry in the past, and therefore the potential of this occurring in the future exists. The development of a groundwater basin monitoring program will assist in keeping the groundwater basin from becoming in a condition of overdraft.

Mitigation of groundwater overdraft can occur through: 1) the termination or regulation of extractions and/or the increase of recharge to offset mining practices, 2) restrictions through strict regulations on the amount of water extracted, and 3) the use of financial incentives to control the amounts extracted. Significant surcharges on quantities extracted in excess of a prescribed limit could be imposed.

4.6 ACTIONS FOR CONTAMINATED GROUNDWATER

Groundwater contamination originates from several sources or activities. Effective control and clean-up of contaminated groundwater requires a coordinated effort between the community and all regulatory agencies involved, control of the pollution source(s), an understanding of the hydrogeology, and delineating the scope of the contamination.

Agencies with a role to play in mitigating groundwater contamination include the Santa Barbara County Department of Environmental Health, the Central Coast Regional Water Quality Control Board (based in San Luis Obispo), the State Water Resources Control Board, the Department of Toxic Substances Control, the U.S. Environmental Protection Agency. Each agency has a unique set of regulatory authorities and expertise to contribute. The degree to which they participate depends on the nature and magnitude of the problem.

Regarding the investigation of waste disposal or other pollution mechanisms that affect groundwater basins water quality, the Santa Barbara County Department of Environmental Health and the Central Coast Regional Water Quality Control Board will have active jurisdiction and enforcement powers. The Santa Barbara County Department of Environmental Health refers to the Central Coast Regional Water Quality Control Board's Water Quality Control Plan (1975) for the Central Coastal Basin of California. The District and other basin users would report groundwater basin problems to these agencies if a reported problem cannot be mitigated. In many cases, the Regional Water Quality Control Board conducts this activity. If, during the verification process,

evidence of any uncontrolled discharge or spill of these materials is found, then the Regional Water Quality Control Board can order investigation into the extent of contamination and subsequent cleanup. These investigations are usually conducted on a site by site basis.

Controlling the migration of contamination requires an understanding of the hydrogeology of the basin and delineating the lateral and vertical extent of the contaminant plume(s). Technical information for many basins is available from a number of sources such as the United States Geological Survey (USGS) and the State Department of Water Resources (DWR). The most common tool for delineating the boundaries of a plume is by using monitoring wells. Monitoring wells can sample one aquifer or many, depending on the design and need. Monitoring wells can provide accurate information concerning the scope and intensity of the contamination.

Once the location of the contamination is verified, the contamination can be monitored, contained from moving further into clean aquifers, or removed from the aquifer. Contaminant containment is essential in attempting to stop downgradient aquifers and drinking water supplies from also being polluted. Containment also provides time to complete investigations and to develop a more comprehensive long-term treatment system while confining the scope of the pollution.

Complete removal of some contaminants, such as solvents and nitrates, is often difficult, if not impossible. The level of effort undertaken to deal with contamination depends on several factors. Available funds, risk to drinking water supplies and public health, the extent and concentration of contamination, the ability to use the groundwater that is removed and treated, and state and federally mandated clean-up levels all influence the scope of groundwater remediation.

4.7 OPTIMIZATION THROUGH CONJUNCTIVE USE

Conjunctive operation of a groundwater basin is defined in DWR Bulletin 118-80 as:

"Operation of a groundwater basin in coordination with a surface water reservoir system. The basin is intentionally recharged in years of above-average precipitation, so groundwater can be extracted in years of below-average precipitation when surface water supplies are below normal."

A conjunctive use program can vary from a limited program to a comprehensive, intensively managed program that coordinates surface water use and delivery, and groundwater use and extraction. A limited program makes use of surplus surface water only when it happens to be available, whereas the comprehensive program includes contractual commitments to purchase surface water for recharge, metered extraction, and control of points and amounts of extraction to minimize pump lift and minimize or correct groundwater quality problems. Many programs may fall between the two extremes.

In general, conjunctive operations promise to be less costly than traditional surface water projects, increase the efficiency of water supply systems and cause fewer negative environmental impacts than do new surface water reservoirs. Understanding this, the Montecito Water District utilizes a conjunctive use program.

4.8 LAND USE POLICIES AND PLANNING

An important component of developing a groundwater management plan is the review of land use plans for the surrounding area or basin, and coordinating efforts with regional, sub-regional, and local land use planning agencies. In California, the majority of land use decisions are made by city and county governmental agencies. Land activities and how they are managed can affect both groundwater quality and quantity. The threat that a certain land use may pose to a groundwater resource is a function of the groundwater aquifer properties, management practices associated with the individual land use, and actual use of surrounding land (cumulative impact of all activities). As an example, hydrologic conditions may dictate that, in certain areas, the aquifers more vulnerable to pollution. This may be due to the permeability of the underlying aquifers and/or a shallower depth to the water table. To assure protection of groundwater quality in the basin, this type of information may be taken into consideration when making land use decisions regarding zoning.

Examples of common land uses with a potential to adversely impact groundwater supplies include large-scale residential development and industrial development without proper control measures or management practices. Cumulative impacts to a basin and relative land development density should also be evaluated.

An essential aspect of groundwater management is maintaining quantity or supply. Land use planning decisions that lead to covering large portions of land with impervious surfaces can increase storm water runoff. This can lead to excessive down cutting and erosion in stream channels and flooding in the lower part of the watershed. Additionally, the amount of natural recharge to the groundwater basin can be significantly reduced. Land use decisions such as maintaining green space in areas of high recharge and encouraging the use of permeable surface materials will have a net benefit to the groundwater basin.

The Montecito Community Plan, developed in 1992 by the County of Santa Barbara, serves as a long term planning tool for the Montecito Community. This Plan details standards, goals, policy and management strategies for current and future land use within the community. By referencing The Montecito Community Plan, in conjunction with the Districts' Groundwater Management Plan, effective protection and management of the groundwater resource can be sustained.

The District shall, as lead agency, continue its role in reviewing land use proposals and identifying concerns for the County Planning Agency. In the event further action is needed, the District will notify and request participation from other basin users.

4.9 ROLE OF LOCAL, STATE AND FEDERAL AGENCIES

The formation of a groundwater management district involves the development of relationships and communication strategies with a variety of local, state and federal regulatory agencies. Working effectively with each of these agencies requires the local groundwater management district to understand the role of these players in regulating and managing groundwater resources. Groundwater planning, as defined in AB 3030, is a state-led activity. The State Water Resources Control Board (State Water Board), as the lead State water agency responsible for maintaining water quality standards, provides the framework and direction for California's groundwater

protection efforts. Through the Regional Water Quality Control Boards, the State Water Board initiates statewide planning and protection programs.

National policy direction and consistency in groundwater protection efforts are provided by the Environmental Protection Agency (EPA). The EPA provides national guidance in state-led comprehensive groundwater protection plans, and a portion of the resources needed to carry out those planning efforts. While states are provided the flexibility to design programs that make sense on a regional and local basis, EPA guidelines ensure that all groundwater protection plans and programs are preventive in nature, comprehensive in scope and consistent in maintaining a high level of protection across the nation.

A comprehensive list of all levels of governmental agencies concerned or affiliated with groundwater, in addition to appropriate points of contact, can be found in Appendix 8.2.

SECTION V: GUIDELINES FOR MANAGEMENT

5.1 GROUNDWATER MANAGEMENT PROGRAM

The initiation and subsequent utilization of a comprehensive groundwater management program is essential to providing water of the highest quality and quantity for all concerned interests of the Montecito and Summerland communities. It is in the best interests of all concerned members of the community to enact such a program to obtain the maximum potential from the groundwater basin resources found within the Montecito Water District. In addition, the State encourages the creation of a comprehensive monitoring and action plan to be developed by the designated lead agencies as defined in AB 3030. Understanding this, the District and basin users will construct a comprehensive groundwater management program that, when used in conjunction with this groundwater management plan, will provide the mechanism for ensuring the long-term health and viability of the groundwater aquifers. The Ground Water Management Program will be ordered and enacted if monitoring and a cooperative effort by all basin users is unable to prevent over-commitment and or water quality degradation of basin supplies. Existing regulatory agencies have sufficient oversight and authority to correct or cause to correct individual well deficiencies. It is the intent of the basin users and the District to act as an advisory organization under the Ground Water Management Plan and to take further action as a collective in initiating restrictions or corrective actions that solve developing or reported problems with the groundwater basin.

The Groundwater Management Program, when enacted, will produce an annual report that summarizes the state of the aquifer and any changes that might have occurred since the last report. These reports will greatly enhance the ability of the Montecito Water District, local and regional policy makers, and other concerned interests to make educated decisions on projects or plans that might have the potential for affecting the health of the groundwater basins.

SECTION VI: FEES AND ASSESSMENTS

With the adoption of AB 3030, Sections 10754-10754.3 of the Water Code authorize the District as lead agency and with the approval of basin users to collect fees and assessments for groundwater management. In order for the District to collect said fees and assessments for the replenishment or extraction of groundwater, the District must hold an election to determine if the District shall be authorized to levy a groundwater management assessment or collect fees for the replenishment or extraction of groundwater. No fees or assessments are being considered under the groundwater monitoring plan.

SECTION VII: MANAGEMENT PLAN AMENDMENT PROCEDURES

For the purposes of amending the groundwater monitoring plan, should this occur, the following action shall be required. An initial proposal will be made to the District Board of Directors, by District staff or community members, whereupon the proposal will be made available to all concerned interests for review and comment. If no majority for amendment rejection occurs, the Board of Directors may approve the amendment at a public meeting. If at some time an amendment is proposed that would affect another agency or interest outside the District, the said party will have an opportunity for comment and evaluation of the amendment. Specifically, this would entail contacting the Carpinteria Valley Water District concerning any amendment proposals affecting the Toro Canyon area, or the City of Santa Barbara concerning any amendment proposals affecting the District - City boundary area.

SECTION VIII: APPENDIXES

8.1 ASSEMBLY BILL 3030

CHAPTER	947
FILED WITH SECRETARY OF STATE	SEPTEMBER 28, 1992
APPROVED BY GOVERNOR	SEPTEMBER 26, 1992
PASSED THE ASSEMBLY	AUGUST 27, 1992
PASSED THE SENATE	AUGUST 25, 1992
AMENDED IN SENATE	AUGUST 21, 1992
AMENDED IN SENATE	AUGUST 14, 1992
AMENDED IN SENATE	AUGUST 11, 1992
AMENDED IN SENATE	JUNE 26, 1992
AMENDED IN SENATE	JUNE 15, 1992
AMENDED IN ASSEMBLY	MAY 12, 1992
AMENDED IN ASSEMBLY	APRIL 20, 1992

INTRODUCED BY Assembly Member Costa

FEBRUARY 19, 1992

An act to repeal and add Part 2.75 (commencing with Section 10750) of Division 6 of the Water Code, relating to water.

LEGISLATIVE COUNSEL'S DIGEST

AB 3030, Costa. Groundwater management.

(1) Existing law authorizes prescribed local agencies to establish, by ordinance, or by resolution if not authorized to act by ordinance, programs for the management of groundwater in accordance with prescribed procedures.

This bill would repeal those provisions. The bill would authorize a local agency that provides water service, or a prescribed local public agency under certain conditions, whose service area includes a groundwater basin or a portion of a groundwater basin, that is not subject to groundwater management,

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to adopt and implement, by ordinance, or by resolution if the local agency is not authorized to act by ordinance, a groundwater management plan, in accordance with specified procedures. The bill would require a local agency that has adopted a resolution of intention to adopt a groundwater management plan to prepare the plan within 2 years, as prescribed. The bill would authorize a local agency that adopts a groundwater management plan to impose, with certain exceptions, fees and assessments for the purpose of groundwater management. The bill would make a legislative finding relating to groundwater. The bill would define terms.

(2) This bill would require the Department of Water Resources, by January 1, 1998, to prepare and publish in a department bulletin a report on the status of groundwater management plans adopted and implemented pursuant to the bill.

THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

SECTION 1. Part 2.75 (~~commencing~~ with Section 10750) of Division 6 of the Water Code is repealed.

SEC. 2. Part 2.75 (~~commencing~~ with Section 10750) is added to Division 6 of the Water Code, to read:

PART 2.75. GROUNDWATER MANAGEMENT
CHAPTER 1. GENERAL PROVISIONS

10750. The Legislature finds and declares that groundwater is a valuable natural resource in California, and should be managed to ensure both its safe production and its quality. It is the intent of the Legislature to encourage local agencies to work cooperatively to manage groundwater resources within their jurisdictions.

10750.2. (a) Subject to subdivision (b), this part applies to all groundwater basins in the state.

(b) This part does not apply to any portion of a groundwater basin that is subject to groundwater management by a local agency or a watermaster pursuant to other provisions of law or a court order, judgment, or decree, unless the local agency or watermaster agrees to the application of this part.

10750.4. Nothing in this part requires a local agency overlying a groundwater basin to adopt or implement a groundwater management plan or

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groundwater management program pursuant to this part.

10750.6. Nothing in this part affects the authority of a local agency or a watermaster to manage groundwater pursuant to other provisions of law or a court order, judgment, or decree.

10750.7. (a) A local agency may not manage groundwater pursuant to this part within the service area of another local agency, a water corporation regulated by the Public Utilities Commission, or a mutual water company without the agreement of that other entity.

(b) This section applies only to groundwater basins that are not critically overdrafted.

10750.8. (a) A local agency may not manage groundwater pursuant to this part within the service area of another local agency without the agreement of that other entity.

(b) This section applies only to groundwater basins that are critically overdrafted.

10750.9. A local agency that commences procedures, prior to January 1, 1993, to adopt an ordinance or resolution to establish a program for the management of groundwater pursuant to Part 2.75 (commencing with Section 10750), as added by Chapter 903 of the Statutes of 1991, may proceed to adopt the ordinance or resolution pursuant to that Part 2.75, and the completion of those procedures is deemed to meet the requirements of this part.

10750.10. This part is in addition to, and not a limitation on, the authority granted to a local agency pursuant to other provisions of law.

CHAPTER 2. DEFINITIONS

10752. Unless the context otherwise requires, the following definitions govern the construction of this part:

(a) "Groundwater" means all water beneath the surface of the earth within the zone below the water table in which the soil is completely saturated with water, but does not include water which flows in known and definite channels.

(b) "Groundwater basin" means any basin identified in the department's Bulletin No. 118, dated September 1975, and any amendments to that bulletin, but does not include a basin in which the average well yield is less than 100 gallons per minute.

(c) "Groundwater extraction facility" means any device or method for the extraction of groundwater within a groundwater basin.

(d) "Groundwater management plan" or "plan" means a document that describes the activities intended to be included in a groundwater management program.

(e) "Groundwater management program" or "program" means a coordinated and ongoing activity undertaken for the benefit of a groundwater basin, or a portion of a groundwater basin, pursuant to a groundwater management plan adopted pursuant to this part.

(f) "Groundwater recharge" means the augmentation of groundwater, by natural or artificial means, with surface water or recycled water.

(g) "Local agency" means any local public agency that provides water service to all or a portion of its service area.

(h) "Recharge area" means the area that supplies water to an aquifer in a groundwater basin and includes multiple wellhead protection areas.

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(i) "Watermaster" means a watermaster appointed by a court or pursuant to other provisions of law.

(j) "Wellhead protection area" means the surface and subsurface area surrounding a water well or well field that supplies a public water system through which contaminants are reasonably likely to migrate toward the water well or well field.

CHAPTER 3. GROUNDWATER MANAGEMENT PLANS

10753. (a) Any local agency, whose service area includes a groundwater basin, or a portion of a groundwater basin, that is not subject to groundwater management pursuant to other provisions of law or a court order, judgment, or decree, may, by ordinance, or by resolution if the local agency is not authorized to act by ordinance, adopt and implement a groundwater management plan pursuant to this part within all or a portion of its service area.

(b) Notwithstanding subdivision (a), a local public agency, other than an agency defined in subdivision (g) of Section 10752, may exercise the authority of this part within a groundwater basin if both of the following requirements are met:

(1) Water service is not provided by a local agency.

(2) The local public agency provides flood control, groundwater quality management, or groundwater replenishment.

10753.2. (a) Prior to adopting a resolution of intention to draft a groundwater management plan, a local agency shall hold a hearing, after publication of notice pursuant to Section 6066 of the Government Code, on whether or not to adopt a resolution of intention to draft a groundwater management plan pursuant to this part for the purposes of implementing the plan and establishing a groundwater management program.

(b) At the conclusion of the hearing, the local agency may draft a resolution of intention to adopt a groundwater management plan pursuant to this part for the purposes of implementing the plan and establishing a groundwater management program.

10753.3. (a) After the conclusion of the hearing, and if the local agency adopts a resolution of intention, the local agency shall publish the resolution of intention in the same manner that notice for the hearing held under Section 10753.2 was published.

(b) Upon written request, the local agency shall provide any interested person with a copy of the resolution of intention.

10753.4. The local agency shall prepare a groundwater management plan within two years of the date of the adoption of the resolution of intention. If the plan is not adopted within two years, the resolution of intention expires, and no plan may be adopted except pursuant to a new resolution of intention adopted in accordance with this chapter.

10753.5. (a) After a groundwater management plan is prepared, the local agency shall hold a second hearing to determine whether to adopt the plan. Notice of the hearing shall be given pursuant to Section 6066 of the Government Code. The notice shall include a summary of the plan and shall state that copies of the plan may be obtained for the cost of reproduction at the office of the local agency.

(b) At the second hearing, the local agency shall consider protests to the adoption of the plan. At any time prior to the conclusion of the second

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hearing, any landowner within the local agency may file a written protest or withdraw a protest previously filed.

10753.6. (a) A written protest filed by a landowner shall include the landowner's signature and a description of the land owned sufficient to identify the land. A public agency owning land is deemed to be a landowner for the purpose of making a written protest.

(b) The secretary of the local agency shall compare the names and property descriptions on the protest against the property ownership records of the county assessors.

(c) (1) A majority protest shall be determined to exist if the governing board of the local agency finds that the protests filed and not withdrawn prior to the conclusion of the second hearing represent more than 50 percent of the assessed value of the land within the local agency subject to groundwater management pursuant to this part.

(2) If the local agency determines that a majority protest exists, the groundwater plan may not be adopted and the local agency shall not consider adopting a plan for the area proposed to be included within the program for a period of one year after the date of the second hearing.

(3) If a majority protest has not been filed, the local agency, within 35 days after the conclusion of the second hearing, may adopt the groundwater management plan.

10753.7. A groundwater management plan may include components relating to all of the following:

(a) The control of saline water intrusion.

(b) Identification and management of wellhead protection areas and recharge areas.

(c) Regulation of the migration of contaminated groundwater.

(d) The administration of a well abandonment and well destruction program.

(e) Mitigation of conditions of overdraft.

(f) Replenishment of groundwater extracted by water producers.

(g) Monitoring of groundwater levels and storage.

(h) Facilitating conjunctive use operations.

(i) Identification of well construction policies.

(j) The construction and operation by the local agency of groundwater contamination cleanup, recharge, storage, conservation, water recycling, and extraction projects.

(k) The development of relationships with state and federal regulatory agencies.

(l) The review of land use plans and coordination with land use planning agencies to assess activities which create a reasonable risk of groundwater contamination.

10753.8. (a) A local agency shall adopt rules and regulations to implement and enforce a groundwater management plan adopted pursuant to this part.

(b) Nothing in this part shall be construed as authorizing the local agency to make a binding determination of the water rights of any person or entity.

(c) Nothing in this part shall be construed as authorizing the local agency to limit or suspend extractions unless the local agency has determined through study and investigation that groundwater replenishment programs or other alternative sources of water supply have proved insufficient or infeasible to

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lessen the demand for groundwater.

10753.9. In adopting rules and regulations pursuant to Section 10753.8, the local agency shall consider the potential impact of those rules and regulations on business activities, including agricultural operations, and to the extent practicable and consistent with the protection of the groundwater resources, minimize any adverse impacts on those business activities.

CHAPTER 4. FINANCES

10754. For purposes of groundwater management, a local agency that adopts a groundwater management plan pursuant to this part has the authority of a water replenishment district pursuant to Part 4 (commencing with Section 60220) of Division 18 and may fix and collect fees and assessments for groundwater management in accordance with Part 6 (commencing with Section 60300) of Division 18.

10754.2. (a) Subject to Section 10754.3, except as specified in subdivision (b), a local agency that adopts a groundwater management plan pursuant to this part, may impose equitable annual fees and assessments for groundwater management based on the amount of groundwater extracted from the groundwater basin within the area included in the groundwater management plan to pay for costs incurred by the local agency for groundwater management, including, but not limited to, the costs associated with the acquisition of replenishment water, administrative and operating costs, and costs of construction of capital facilities necessary to implement the groundwater management plan.

(b) The local agency may not impose fees or assessments on the extraction and replacement of groundwater pursuant to a groundwater remediation program required by other provisions of law.

10754.3. Before a local agency may levy a water management assessment pursuant to Section 10754.2 or otherwise fix and collect fees for the replenishment or extraction of groundwater pursuant to this part, the local agency shall hold an election on the proposition of whether or not the local agency shall be authorized to levy a groundwater management assessment or fix and collect fees for the replenishment or extraction of groundwater. The local agency shall be so authorized if a majority of the votes cast at the election is in favor of the proposition. The election shall be conducted in the manner prescribed by the laws applicable to the local agency or, if there are no laws so applicable, then as prescribed by laws relating to local elections. The election shall be conducted only within the portion of the jurisdiction of the local agency subject to groundwater management pursuant to this part.

CHAPTER 5. MISCELLANEOUS

10755. (a) If a local agency annexes land subject to a groundwater management plan adopted pursuant to this part, the local agency annexing the land shall comply with the groundwater management plan for the annexed property.

(b) If a local agency subject to a groundwater management plan adopted pursuant to this part annexes land not subject to a groundwater management

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plan adopted pursuant to this part at the time of annexation, the annexed territory shall be subject to the groundwater management plan of the local agency annexing the land.

10755.2. (a) It is the intent of the Legislature to encourage local agencies, within the same groundwater basin, that are authorized to adopt groundwater management plans pursuant to this part, to adopt and implement a coordinated groundwater management plan.

(b) For the purpose of adopting and implementing a coordinated groundwater management program pursuant to this part, a local agency may enter into a joint powers agreement pursuant to Chapter 5 (commencing with Section 6500) of Division 7 of Title 1 of the Government Code with public agencies, or a memorandum of understanding with public or private entities providing water service.

(c) A local agency may enter into agreements with private parties for the purpose of implementing a coordinated groundwater management plan.

10755.3. Local agencies within the same groundwater basin that conduct groundwater management programs within that basin pursuant to this part shall, at least annually, meet to coordinate those programs.

10755.4. Except in those groundwater basins that are subject to critical conditions of groundwater overdraft, as identified in the department's Bulletin 118-80, revised on December 24, 1982, the requirements of a groundwater management plan that is implemented pursuant to this part do not apply to the extraction of groundwater by means of a groundwater extraction facility that is used to provide water for domestic purposes to a single-unit residence and, if applicable, any dwelling unit authorized to be constructed pursuant to Section 65852.1 or 65852.2 of the Government Code.

SEC. 3. The Department of Water Resources shall, on or before January 1, 1998, prepare and publish, in a bulletin of the department published pursuant to Section 130 of the Water Code, a report on the status of groundwater management plans adopted and implemented pursuant to Part 2.75 (commencing with Section 10750) of Division 6 of the Water Code.

8.2 GOVERNMENT CONTACTS

1. Santa Barbara County Water Agency
123 E. Anapamu, Santa Barbara, 93105
Robert Almy, (805) 568-3542.
2. Santa Barbara County Fire Department
Underground Storage Tank Contaminant Clean-up
195 N. Hwy 246, #102, Buellton, 93427
Kate Sulka, (805) 686-8169.
3. Santa Barbara County Health Care Services
225 Camino del Remedio, Santa Barbara, 93110.
Daniel Reid, (805) 681-4900.
4. Santa Barbara County Department of Planning & Development
123 E. Anapamu, Santa Barbara, 93105.
Greg Mohr, (805) 568-2080.
5. Santa Barbara County Department of Environmental Health
225 Camido del Remedio, Santa Barbara, 93110
Norman Fujimoto, (805) 681-4900.
6. Montecito Sanitary District
1042 Monte Cristo Lane, Montecito, 93108
Ed Hallenbeck, (805) 969-4200.
7. Carpinteria Valley Water District
PO Box 578, Carpinteria, 93014
Norm Cota, (805) 684-2816.
8. California Coastal Commission
89 South CA Street, Suite 200, Ventura, 93001
Mark Capelli, (805) 641-0142.
9. United States Geological Survey
Water Resources Division
Place Hall, 6000 J Street, Sacramento, 95819
Walt Swain. (916) 278-3000.
10. California Fish & Game
530 E. Montecito, Room 104, Santa Barbara, 93103.
Maurice Cardenas, (805) 568-1223.
11. Regional Water Quality Control Board - Central Coast Region
81 Higuera Street, San Luis Obispo, 93401
Roger Briggs, (805) 549-3147.

12. State Health Services
Division of Drinking Water
530 E. Montecito, Suite 102, Santa Barbara, 93103
John Curphey, (805) 963-8616.
13. State Water Resources Control Board
1416 9th Street, Sacramento, 95814-5515
Ken Harris, (916) 657-0876.

8.3 GLOSSARY OF TERMS USED IN PLAN

ACRE FOOT - The quantity of water to cover one area to a depth of one foot; equal to 43,560 cubic feet, or 325,851 gallons.

APPLIED WATER DEMAND - The water that would be delivered for urban or agricultural applications if no conservation measures were in place.

ARTIFICIAL RECHARGE - The addition of water to a ground water reservoir by human activity, such as irrigation or induced infiltration from streams, wells, or recharge basins. See also **GROUND WATER RECHARGE**, **RECHARGE BASIN**.

BRACKISH WATER - Water containing dissolved minerals in amounts that exceed normally acceptable standards for municipal, domestic, and irrigation uses.

CONJUNCTIVE USE - The operation of a groundwater basin in coordination with a surface water storage and conveyance system. The purpose is to recharge the basin during years of above-average water supply to provide storage that can be withdrawn during drier years when surface water supplies are below normal.

CONSERVATION - As used in this report, urban water conservation includes reductions realized from voluntary, more efficient, water use practices promoted through public education and from State-mandated requirements to install water-conserving fixtures in newly constructed and renovated buildings. Agricultural water conservation, as used in this report, means reducing the amount of water applied in irrigation through measures that increase irrigation efficiency. See **NET WATER CONSERVATION**.

CRITICAL DRY PERIOD - A series of water-deficient years, usually an historical period, in which a full reservoir storage system at the beginning is drawn down (without any spill) to minimum storage at the end.

CRITICAL DRY YEAR - A dry year in which full commitments for a dependable water supply cannot be met and deficiencies are imposed on water deliveries.

DESALTING - A process that converts seawater or brackish water to fresh water or an otherwise more usable condition through removal of dissolved solids. Also called "desalination".

FIRM YIELD - The maximum annual supply of a given water development that is expected to be available on demand, with the understanding that lower yields will occur in accordance with a predetermined schedule or probability.

GROUNDWATER - Water that occurs beneath the land surface and completely fills all pore spaces of the alluvium or rock formation in which it is located.

GROUNDWATER BASIN - A groundwater reservoir, together with all the overlying and underlying aquifers that contribute water to the reservoir.

GROUNDWATER MINING - The withdrawal of water from an aquifer greatly in excess of replenishment; if continued, the underground supply will eventually be exhausted or the water table will drop below economically feasible pumping lifts.

GROUNDWATER OVERDRAFT - The condition of a groundwater basin in which the amount of water withdrawn by pumping exceeds the amount of water that replenishes the basin over a period of years.

GROUNDWATER RECHARGE - Increases in groundwater by natural conditions or by human activity. See also **ARTIFICIAL RECHARGE**.

GROUNDWATER STORAGE CAPACITY - The space contained in a given volume of soil deposits. Under optimum use conditions, the usable groundwater storage capacity is the volume of water that can, within specified economic limitations, be alternately extracted and replaced in the reservoir.

GROUNDWATER TABLE - The surface between the zone of saturation and the zone of aeration or the level at which the hydraulic pressure of a body of unconfined groundwater is equal to atmospheric pressure. No water table exists if the upper surface of the zone of saturation is in contact with an overlying confining layer.

HARDNESS - The content of metallic ions which react with sodium soaps to produce solid soaps or scummy residue and which react with negative ions. Hardness is normally expressed as the total concentration of Ca^{2+} and Mg^{2+} as milligrams per liter equivalent to CaCO_3 .

HYDRAULIC CONDUCTIVITY - the degree of permeability of a porous or water-bearing stratum, expressed as the rate of flow of water in gallons/day through a cross section of 1 square foot at a unit hydraulic gradient at either the prevailing temperature in the field or at a temperature adjusted to 60 degrees F. Can also be expressed in ft/day, cm/day or m/day.

HYDROGEOLOGY - the science that deals with subsurface waters and with related geologic aspects of surface waters.

HYDROGRAPH - A time record of groundwater level or stream discharge at a given cross section or stream surface elevation, and at a given point. Stream hydrographs generally indicate rate of flow and represent stage, flow, velocity or other characteristics, while groundwater hydrographs represent water level or head.

HYDROLOGIC BALANCE - An accounting of the inflow, outflow, storage, and evaporation of water from a hydrologic unit such as a drainage basin, aquifer, soil zone, lake or reservoir, and expressed by the hydrologic equation as the relationship between evaporation, precipitation, runoff and water storage within a hydrologic unit over a specified period of time.

HYDROLOGIC CYCLE - The process involving the continuous circulation of water from the oceans and the land surface of the Earth to the atmosphere through transpiration and evaporation, and its eventual return to the Earth's surface through various forms of precipitation.

HYDROLOGY- The study of the origin, distribution and circulation of water of the Earth.

IMPERMEABLE- A textural condition of rock, sediment or soil that makes it incapable of transmitting fluid under pressure. The cause is generally low porosity or the presence of small individual pores that lack conductivity.

IMPORTED WATER- Water transported into a watershed from a different watershed. Native water is water that occurs naturally within a watershed.

INFILTRATION- (1) The flow of a fluid, such as water, into a solid substance through pores or small interstices, and particularly referring to the movement of water into soil or porous rock; (2) the absorption by the soil of water either from precipitation or streamflow; (3) the amount of groundwater that enters pipes through breaks, joints or porous walls.

INJECTION WELL- A well through which water is pumped under pressure to recharge an aquifer.

IRRIGATION- Distribution of water to land through artificial means to enhance crop production, either where natural water sources are so deficient as to make crop production impossible or where it is advantageous to supplement the natural water supply at certain critical stages in the development of crops.

LAND SUBSIDENCE - The lowering of a natural land surface in response to: Earth movements; lowering of fluid pressure; removal of underlying supporting materials by mining or solution of solids, either artificially or from natural causes; compaction caused by wetting; oxidation of organic matter in soils; added load on the land surface; by tectonic activity; or by lithification.

LEACHING- The flushing of salts from the soil by the downward percolation of surface water.

MAXIMUM CONTAMINANT LEVEL - The highest concentration of a constituent in drinking water permitted under Federal and State Safe Drinking Water Act regulations.

MILLIGRAMS PER LITER - The weight in milligrams of any substance dissolved in one liter of liquid; nearly the same as parts per million.

MINERALIZATION- The process whereby concentrations of minerals, such as salts, increase in water, a natural process resulting from water dissolving minerals found in rocks and soils through which it flows.

MINING- The withdrawal of water from a groundwater resource at a rate that exceeds the rate of replenishment so that the supply is threatened or its economic usefulness is endangered. See **OVERDRAFT**.

MOU- Memorandum of understanding.

NITRATE - A salt of nitric acid, a compound containing the radical (NO₃)-I. Dissolved nitrogen in the form of nitrate is the most common contaminant identified in groundwater. Used colloquially to denote all forms of nitrogen.

NON-POINT SOURCE - Wastewater or contaminant discharge other than from point sources.

OUTFLOW - The water that is discharged from a drainage basin or from a stream, lake, reservoir, or aquifer system.

OVERDRAFT- the intentional or inadvertent withdrawal of water from an aquifer in excess of the amount of water that recharges the basin over a period of years during which water supply conditions approximate average, and which, if continued over time, could eventually cause the underground supply to be exhausted, cause subsidence, cause the water table to drop below economically feasible pumping lifts, or cause a detrimental change in water quality.

OVERLYING LAND - property, a portion of which overlies the water-bearing portion of a groundwater basin. If a portion of the property overlies the water-bearing formation, the entire parcel is located within the drainage area of the basin it is overlying.

PARTS PER MILLION (PPM) - a measure, by weight and not by volume, of the concentration of a foreign substance in a solution.

PATHOGENS - any viruses, bacteria, protozoa or fungi that cause disease.

PERCHED GROUNDWATER - Groundwater supported by a zone of material of low permeability located above an underlying main body of groundwater with which it is not hydraulically connected.

PERCOLATION- The movement of water through small openings within a porous material.

PERENNIAL YIELD - The maximum quantity of water that can be withdrawn annually from a groundwater resource under a given set of conditions without causing an undesirable result.

PERMEABILITY - The capability of soil or other geologic formation to transmit water.

PESTICIDE- Any organic or inorganic substance used to kill or inhibit plant or animal life.

PHREATIC ZONE - The zone beneath the water table in which the pore space is filled with water. Also referred to as the saturated zone.

POINT SOURCE - A specific site from which waste or polluted water is discharged into a water body, the source of which can be identified and measured.

POROSITY - Voids or open spaces in alluvium and rocks that can be filled with water, frequently expressed as the percentage of the volume of the entire material that constitutes the volume of the openings.

PRECIPITATION - The discharge of water, in either liquid or solid form, from the atmosphere to the surface of the Earth, including rain, drizzle, sleet, snow, pellets, snow grains, ice crystals, ice pellets, hail dew and frost, usually measured in inches, hundredths of inches, or millimeters of equivalent depth of water.

PRESCRIPTIVE RIGHTS - The rights acquired by parties who use water adverse to the rights of the lawful owner of property.

RADIUS OF INFLUENCE - The distance from the center of a well to the limit of the cone of depression.

RECHARGE - Flow to groundwater storage from precipitation, infiltration from streams, irrigation, spreading basins, injection wells and other sources of water.

RECHARGE BASIN - A surface facility, often a large pond or other similar artificial basin, used to increase the percolation of surface water into a groundwater basin thereby replenishing a groundwater supply.

RECYCLED WATER - Wastewater that become suitable, as a result of treatment, for a specific direct beneficial use.

REGIONAL WATER QUALITY CONTROL BOARDS (RWQCB) - The primary State agencies that regulate water quality and which are operated pursuant to policies adopted or approved by the State Water Resources Control Board. The regional boards have the authority to compel cleanup and abatement of groundwater pollution under the Porter-Cologne Water Quality Control Act.

RETURN FLOW - The portion of withdrawn water not consumed by evapotranspiration or system losses which returns to its source or to another body of water.

RIPARIAN LAND - Land that adjoins or abuts a natural watercourse. To be riparian, the land must be within the watershed of the natural watercourse.

RUNOFF - The surface flow of water from an area; the total volume of surface flow from an area during a specified time.

SAFE YIELD - See perennial yield.

SALINE - Consisting of or containing salts, the most common of which are potassium, sodium or magnesium in combination with chloride, nitrate or carbonate.

SALINITY - generally, the concentration of mineral salts dissolved in water.

SALT WATER BARRIER - A physical facility or method of operating which is designed to prevent the intrusion of salt water into a body of fresh water.

SALT WATER INTRUSION - The phenomenon occurring when a body of salt water, because of its greater density, invades a body of fresh water. It can occur either in surface or groundwater bodies. When groundwater is pumped from aquifers that are in hydraulic connection with the sea, the gradients that are set up may induce a flow of salt water from the sea toward the well.

SATURATED ZONE - The area below the water table in which the soil is completely saturated with groundwater.

SEDIMENT- Soil or mineral material transported by water and deposited in streams or other bodies of water.

SEEPAGE - The gradual movement of a fluid into, through or from a porous medium.

SEWAGE - The liquid waste from domestic, commercial and industrial establishments.

SOLUBLE MINERALS - Naturally occurring substances capable of being dissolved.

SPECIFIC CAPACITY - The volume of water pumped from a well in gallons per foot of drawdown.

SPECIFIC YIELD - The ratio of the volume of water that a given mass of saturated rock or soil will yield by gravity to the volume of that mass.

SPRING - A location from which groundwater flows from rock or soil onto the land surface or into a water body. The occurrence of a spring is dependent upon the location of permeable and impermeable rock layers, the level of the water table and on the local topography.

STATIC GROUNDWATER LEVEL - The water level in a well that is not flowing or being pumped; generally the level immediately before pumping is started after being stopped for a period of time.

SURFACE SUPPLY - Water in reservoirs, lakes or streams, expressed either in terms of rate of flow or volume.

STATE WATER RESOURCES CONTROL BOARD (SWRCB) - The administrative agency with primary responsibility for regulating and determining rights to surface water and groundwater occurring within known and defined channels and as subsurface flow. In addition, the SWRCB has primary responsibility for enforcing the constitutional reasonable use requirement.

TOTAL DISSOLVED SOLIDS (TDS) - The quantity of minerals (salts) in solution in water, usually expressed in milligrams per liter or parts per million.

TRANSMISSIVITY- The capacity of rock to transmit groundwater under pressure, expressed as a quantity of water, at the prevailing temperature, transmitted horizontally in a given period of time through a vertical strip of a given width of the fully saturated thickness of the aquifer, under a hydraulic gradient of 1.

UNCONFINED AQUIFER - Groundwater that has a free water table. It is not confined under pressure beneath rocks or soil.

UNSATURATED ZONE - A subsurface soil zone, also called the vadose zone or the zone of aeration, that lies above the zone of saturation (the water table).

USABLE STORAGE CAPACITY- The quantity of groundwater of acceptable quality that can be economically withdrawn from storage.

WATER BANKING - A water conservation and use optimization system whereby water is allocated for current use or stored in surface water reservoirs or in aquifers for later use. Water banking is a means of handling surplus water supplies.

WATER CONSERVATION - Reduction in applied water due to more efficient water use such as implementation of Urban Best Management Practices.

WATER QUALITY - Used to describe the chemical, physical and biological characteristics of water, usually in regard to its sustainability for a particular purpose or use.

WATER RECLAMATION - As used in this report, water recycling, sea water desalting, groundwater reclamation, and desalting agricultural brackish water.

WATER RECYCLING - The treatment of urban wastewater to a level rendering it suitable for a specific, direct, beneficial use.

WATER RIGHT- A legally protected right to take possession of and use the water occurring in a natural waterway and to divert that water for beneficial use. It includes the right to change the place of diversion, storage or use of water if rights of other water users will not be injured.

WATER TABLE - See groundwater table.

WATER YEAR - A continuous twelve month period for which hydrologic records are compiled and summarized. In California, it begins on October 1 and ends on September 30 of the following year.

WELL - An artificial pit, hole or other excavation that is often walled or lined and is sunk into the ground in order to penetrate water-yielding rock or soil in order to withdraw water for use at the land surface.

WELL CASING - A lining to maintain an open hole from the ground surface to the aquifer. It seals out surface water and any undesirable groundwater and provides structural support against caving materials outside the well.

WELL CONSTRUCTION - The procedures necessary, using the proper materials and equipment, to build a well for a specific purpose.

WELL DESTRUCTION - The procedures necessary, using the proper materials and equipment, to ensure the boring is no longer a conduit for contamination of groundwater.

WELL LOG - A graphic record of a well, generally a lithologic and/or stratigraphic record of the units traversed by a borehole.

9.2 PRIMARY STATE STATUTES ADDRESSING GROUNDWATER PROTECTION

Civil Code

§ 3479 *et seq* Public and Private Nuisance

Food and Agriculture Code

§ 11401 *et seq* Pest Control Operations

§ 12811 *et seq* Registration

§ 13121 *et seq* Birth Defect Prevention Act

§ 13141 *et seq* Pesticide Contamination Prevention Act

§ 14001 *et seq* Restricted Materials

Government Code

§ 8574.16 *et seq* Toxic Disasters

§ 8574.19 *et seq* Hazardous Substance Emergency Response Training

§ 65000 *et seq* Local Planning

§ 65300 *et seq* General Plans

§ 66410 *et seq* Subdivisions

§ 66484.5 Groundwater Recharge Facilities

§ 66700 *et seq* Solid Waste Management, Resource, Recovery and Recycling

Health and Safety Code

§ 4010 *et seq* Safe Drinking Water Act

§ 24400 *et seq* Abandoned Excavations

§ 25100 *et seq* Hazardous Waste Control

§ 25159.0 *et seq* Toxic Injection Well Control Act

§ 25179.1 Hazardous Waste Management Act

§ 25207 *et seq* Banned, Unregistered or Outdated Agricultural Wastes

§ 25208 *et seq* Toxic Pits Cleanup Act

§ 25242 *et seq* Hazardous Waste Disposal on Public Land

§ 25244 *et seq* Hazardous Waste Reduction, Recycling and Treatment

§ 25249.5 *et seq* Safe Drinking Water and Toxic Enforcement Act

§ 25270 *et seq* Aboveground Storage of Petroleum

§ 25280 *et seq* Underground Storage of Hazardous Substances

§ 25300 *et seq* Carpenter-Presley-Tanner Hazardous Substances Account Act

§ 25500 *et seq* Hazardous Materials Release Response Plans and Inventory

§ 28740 *et seq* California Hazardous Substance Act

§ 11695 *et seq* Water Supply

Public Resources Code

§ 2710 *et seq* Surface Mining and Reclamation Act

§ 3000 *et seq* Oil and Gas Resources

§ 3700 *et seq* Geothermal Resources

§ 21000 *et seq* California Environmental Quality Act (CEQA)

§ 40000 *et seq* California Integrated Solid Waste Management Act

Vehicle Code

§ 2450 *et seq* Hazardous Substances Highway Spill Containment and Abatement Act

Water Code

§ 2100 *et seq* Adjudications to Protect the Quality of Groundwater

§ 10750 *et seq* Groundwater Management

§ 12920 *et seq* Porter-Dolwig Groundwater Basin Protection Law

§ 13000 *et seq* Porter-Cologne Water Quality Control Act Code (includes Basin Planning, Solid Waste Disposal Site Assessment Texts, Water Reclamation Law, and Well Standards)

§ 13397 *et seq* Drainage from Abandoned Mines

§ 13700 *et seq* Water Wells and Cathodic Protection Wells

9.3 WATER CONSERVATION LEGISLATION AND REQUIREMENTS

PENDING AND APPROVED LEGISLATION REQUIRING EFFICIENT USE OF WATER

Water Code Section 10610, Part 2.6 - Urban Water Management Planning (AB 797, Klehs, 19895) - Requires urban water purveyors serving 3,000 customers or 3,000 acre feet per year of water to prepare water management plan to achieve conservation and efficient use. Update to these plans is due after 5 years.

AB 2662 - Amended the above referenced section of the Water Code to require updates of urban water management plans to be submitted to the Department of Water Resources every 5 years, beginning December 31, 1990.

Article 10.8 (commencing with Section 65590), Chapter 3 of Division 1 of Title 7 of the Government Code (AB 325, Clute, Chapter 1145) - Requires adoption of water efficient landscape ordinances for development. Affects all cities unless they make findings that, due to geologic and topographical conditions, such an ordinance is not necessary in their area. Ordinances must be adopted by January 1, 1993.

AB 2355 - Requires installation of water efficient plumbing fixtures (i.e., 1.6 gallon per flush toilets and 2.0 gallons per minute showerheads) in all new construction beginning January 1, 1992.

AB 11 - Water Shortage Contingency Plans. - Requires urban water purveyors serving a minimum number of customers (3,000) to prepare water shortage contingency plans, with a phased approach for reducing demand during droughts. Plans were due in January 1992.

SB 1520 - Requires installation of water efficient plumbing fixtures in all new public facilities beginning January 1, 1992.

SB 2334 - Requires automatic shutoff valves for in-home reverse osmosis devices installed after January 1, 1991.

CURRENT REQUIREMENTS AND VOLUNTARY AGREEMENTS

Bureau of Reclamation: Requires preparation of water conservation plans by agencies receiving construction funds for water projects, or those managing or operating Bureau facilities (reservoirs) serving a designated minimum of acres of agriculture. Updates to these plans are due every five years. New criteria for these plans is being developed in response to HR 429 regarding the Central Valley Project.

State Water Resources Control Board: Requires preparation and implementation of water conservation plans as a condition of receiving loans or grants from the Board, or for new water rights permits.

Department of Water Resources: As required by the Governor in 1991, due to the drought all urban water purveyors of designated size must prepare and submit a drought (water shortage) response plan to DWR. The plans must include specific programs to reduce water demand during periods of severe water shortage, as defined in the Plan. DWR also administers the requirement for urban water utilities to prepare an urban water management plan and updates every five years.

Memorandum of Understanding for Best Management Practices (MOU) - Urban: The MOU is a voluntary agreement to implement 16 identified urban best management practices and consider potential best management practices for future adoption. This MOU is now under consideration by the State Water Resources Control Board to become mandatory standards for all affected parties in water rights decisions regarding the Bay-Delta.

9.4 POTENTIAL SOURCES OF GROUNDWATER POLLUTION

SOURCE NATURALLY OCCURRING SOURCES

CONTAMINANT

Rocks and Soils	Aesthetic Contaminants: Iron and iron bacteria; manganese; calcium and magnesium (hardness) Health and Environmental Contaminants: Arsenic; asbestos; metals; chlorides; fluorides; sulfates; sulfate-reducing bacteria and other microorganisms
Contaminated Water	Excessive sodium; bacteria; viruses; low pH (acid) water
Decaying organic matter	Bacteria
Geological radioactive gas	Radionuclides (radon, etc.)
Natural hydrogeological evens and formations	Salt water/brackish water intrusion (or intrusion of other poor quality water); contamination by a variety of substances through sink-hole infiltration in limestone terrain

AGRICULTURAL SOURCES

Animal feedlots and burial areas	Livestock sewage wastes; nitrates; phosphates; chloride; chemical sprays and dips for controlling insect, bacterial, viral, and fungal pests on livestock; coliform ⁴ and non-coliform bacteria; viruses
Manure spreading areas and storage pits	Livestock sewage wastes; nitrates
Livestock waste disposal	Livestock sewage wastes; nitrates
Crop areas and irrigation sites	Pesticides; ⁵ fertilizers; ⁶ gasoline and motor oils from chemical applicators
Chemical storage areas and containers	Pesticide ⁵ and fertilizer ⁶ residues
Agricultural drainage wells canals	Pesticides; ⁵ fertilizers; ⁶ bacteria; salt water (In areas where the fresh-saltwater interface lies at shallow depths and where the water table is lowered by channelization, pumping, or other causes)

RESIDENTIAL SOURCES

Common household	<i>Common Household Products:</i> ⁸ Household cleaners; oven cleaners; drain cleaners; toilet cleaners; disinfectants; metal polishes; jewelry cleaners; shoe polishes; synthetic detergents; bleach; laundry soil and stain removers; spot removers and dry cleaning fluid; solvents; lye or caustic soda; household pesticides; ⁹ photochemicals; printing ink; other common products. <i>Wall and Furniture Treatments:</i> Paints; varnishes, stains; dyes; wood preservatives (creosote); paint and lacquer thinners; paint and varnish removers and deglossers; paint brush cleaners; floor and furniture strippers. <i>Mechanical Repair and Other Maintenance Products:</i> Automotive wastes; waste oils; diesel fuel; kerosene; #2 heating oil; grease; degreasers for driveways and garages; metal degreasers; asphalt and roofing tar; tar removers; lubricants; rustproofers; car wash detergents; car waxes and polishes; rock salt; refrigerants
Lawns and gardens	Fertilizers, ⁵ herbicides and other pesticides used for lawn and garden maintenance ¹⁰
Swimming pools	Swimming pool maintenance chemicals ¹¹
Septic systems, cesspools, and sewer lines	Seepage; coliform and non-coliform bacteria; ⁴ viruses; nitrates; heavy metals; synthetic detergents; cooking and motor oils; bleach; pesticides; ^{9,10} paints; paint thinner; photographic chemicals; swimming pool chemicals; ¹¹ septic tank/cesspool cleaner chemicals; ¹² elevated levels of chloride, sulfate, calcium, magnesium, potassium, and phosphate
Underground storage tanks	Home heating oil
Apartments and condominiums	Swimming pool maintenance chemicals; ¹¹ pesticides for lawn and garden maintenance and cockroach, termite, ant, rodent, and other pest control; ^{9,10} wastes from onsite sewage treatment plants; household hazardous wastes ¹³

MUNICIPAL SOURCES

Schools and government offices and grounds	Solvents; pesticides; ^{9,10} acids; alkalis; waste oils; machinery/vehicle servicing wastes; gasoline and heating oil from storage tanks; general building wastes ¹³
Park lands	Fertilizers; ⁶ herbicides, ¹⁰ insecticides ⁹

Public and residential areas infested with mosquitoes, gypsy moths, ticks, ants, or other pests	Pesticides ^{5,9}
Highways, road maintenance depots, and deicing operations	Herbicides in highway rights-of-way; ^{5,10} road salt (sodium and calcium chloride); road salt anti-caking additives (ferric ferrocyanide, sodium ferrocyanide); road salt anticorrosive (phosphate and chromate); automotive wastes ⁷
Municipal sewage treatment plants and sewer lines	Municipal wastewater; sludge; ¹⁴ treatment chemicals ¹⁵
Storage, treatment, and disposal ponds, lagoons, and other surface impoundments	Sewage, wastewater; nitrates; other liquid wastes; microbiological contaminants
Lands areas applied with wastewater or wastewater byproducts	Organic matter; nitrate; inorganic salts; heavy metals; coliform and non-coliform bacteria; ⁴ viruses; nitrates; sludge; ¹⁴ non-hazardous wastes ¹⁶
Storm water drains and basins	Urban runoff; gasoline; oil; other petroleum products; microbiological contaminants
Combined sewer overflows (municipal sewers and storm water drains)	Municipal wastewater; sludge; ¹⁴ treatment chemicals; ¹⁵ urban runoff; gasoline; oil; other petroleum products; road salt; microbial contaminants
Water supply wells, monitoring wells, older wells, domestic and live-stock wells, unsealed and abandoned wells, and test hole wells	Surface runoff; effluents from barnyards, feedlots, septic tanks or cesspools; gasoline; used motor oil; road salt
Sumps and dry wells	Storm water runoff; excess irrigation water; stream flow; cooling water; treated sewage effluent; other substances that may contain contaminants, such as nitrates, metals, detergents, synthetic organic compounds, bacteria and viruses

COMMERCIAL SOURCES

Auto repair shops	Waste oils; solvents; acids; paints; automotive wastes; ⁷ miscellaneous cutting oils
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Barber and beauty shops	Perm solutions; dyes; miscellaneous chemicals contained in hair rinses
Cemeteries	Leachate; lawn and garden maintenance chemicals ¹⁰
Construction trade areas and materials (plumbing, heating and air conditioning, painting, paper hanging, decorating, dry wall and plastering, acoustical insulation, carpentry, flooring, roofing and sheet metal, wrecking and demolition, etc.)	Solvents; asbestos; paints; glues and other adhesives; waste insulation; lacquers, tars; sealant; epoxy waste; miscellaneous chemical wastes
Country clubs	Fertilizers; ⁶ herbicides; ^{5,10} pesticides for controlling mosquitoes, ticks, ants, gypsy moths, and other pests; ⁹ swimming pool chemicals; ¹¹ automotive wastes
Dry cleaners	Solvents (perchloroethylene, petroleum solvents, freon); spotting chemicals (trichloroethane, methylchloroform; ammonia, peroxides, hydrochloric acid, rust removers, amyl acetate
Gasoline service stations	Oils; solvents; miscellaneous wastes
Golf courses	Fertilizers; ⁶ herbicides; ^{5,10} pesticides for controlling mosquitoes, ticks, ants, gypsy moths, and other pests ⁹
Above-ground and underground storage tanks	Heating oil; diesel fuel; gasoline; other petroleum products; other commercially used chemicals
Storage, treatment, and disposal ponds, lagoons, and other surface impoundments	Hazardous and non-hazardous liquid wastes; ¹⁶ seepage; sludge ¹⁴

Pollution Source Footnotes:

¹In general, groundwater contamination stems from the misuse and improper disposal of liquid and solid wastes; the illegal dumping or abandonment of household, commercial, or industrial chemicals; the accidental spilling of chemicals from trucks, railways, aircraft, handling facilities, and storage tanks; or the improper siting, design, construction, operation, or maintenance of agricultural, residential, municipal, commercial, and industrial drinking water wells and liquid and solid waste disposal facilities. Contaminants also can stem from atmospheric pollutants, such as airborne sulfur and nitrogen compounds, which are created by smoke, flue dust, aerosols, and automobile

emissions, fall as acid rain, and percolate through the soil. When the sources listed in this table are used and managed properly, groundwater contamination is not likely to occur.

²Contaminants can reach groundwater from activities occurring on the land surface, such as industrial waste storage; from sources below the land surface but above the water table, such as septic systems; from structures beneath the water table, such as wells; or from contaminated recharge water.

³This table lists the most common wastes, but not all potential wastes. For example, it is not possible to list contaminants contained in storm water runoff or research laboratory wastes.

⁴Coliform bacteria can indicate the presence of pathogenic (disease-causing) microorganisms that may be transmitted in human feces. Diseases such as typhoid fever, hepatitis, diarrhea, and dysentery can result from sewage contamination of water supplies.

⁵Pesticides include herbicides, insecticides, rodenticides, fungicides, and adicides. EPA has registered approximately 50,000 different pesticide products for use in the United States. Many are highly toxic and quite mobile in the subsurface. An EPA survey found that the most common pesticides found in drinking water wells were DCPA (dacthal) and atrazine, which EPA classifies as moderately toxic (class 3) and slightly toxic (class 4) materials, respectively.

⁶The EPA National Pesticides Survey found that the use of fertilizers correlates to nitrate contamination of ground water supplies.

⁷Automotive wastes can include gasoline; antifreeze; automatic transmission fluid; battery acid; engine and radiator flushes; engine and metal degreasers; hydraulic (brake) fluid; and motor oils.

⁸Toxic or hazardous components of common household products are noted in Table 3-2.

⁹Common household pesticides for controlling pests such as ants, termites, wasps, flies, cockroaches, silverfish, mites, ticks, fleas, worms, rats and mice can contain ingredients including naphthalene, phosphorus, xylene, chloroform, heavy metals, chlorinated hydrocarbons, arsenic, strychnine, kerosene, nitrosamines, and dioxin.

¹⁰Common pesticides used for lawn and garden maintenance (i.e., weed killers, and mite, grub and aphid controls) include such chemicals as 2,4-D; chlorpyrifos; diazinon; benomyl; captan; dicofol; and methoxychlor.

¹¹Swimming pool chemicals can contain free and combined chlorine; bromine; iodine, mercury-based, copper-based, and quaternary aldehydes; cyanuric acid; calcium or sodium hypochlorite; muriatic acid; sodium carbonate.

¹²Septic tank/cesspool cleaners include synthetic organic chemicals such as 1,1,1 trichloroethane, tetrachloroethylene, carbon tetrachloride, and methylene chloride.

¹³Common wastes from public and commercial buildings include automotive wastes; rock salt; and residues from cleaning products that may contain chemicals such as xlenols, glycol esters, isopropanol, 1,1,1-trichloroethane, sulfonates, chlorinated phenols, and cresols.

¹⁴Municipal wastewater treatment sludge can contain organic matter; nitrates; inorganic salts; heavy metals; coliform and non-coliform bacteria; and viruses.

¹⁵Municipal wastewater treatment chemicals include calcium oxide; alum; activated alum, carbon, and silica; polymers; ion exchange resins; sodium hydroxide; chlorine; ozone; and corrosion inhibitors.

¹⁶The Resource Conservation and Recovery Act (RCRA) define a hazardous waste as a solid waste that may cause an increase in mortality or serious illness or pose a substantial threat to human health and the environment when improperly treated, stored, transported, disposed of, or otherwise managed. A waste is hazardous if it exhibits characteristics of ignitability, corrosivity, reactivity, and/or toxicity. Not covered by RCRA regulations are domestic

sewage; irrigation waters or industrial discharges allowed by the Clean Water Act; certain nuclear and mining wastes; household wastes; agricultural wastes (excluding some pesticides); and small quantity hazardous wastes (i.e., less than 220 pounds per month) generated by businesses.

¹⁷X-ray developers and fixers may contain reclaimable silver, glutaldehyde, hydroquinone, phenedone, potassium bromide, sodium sulfite, sodium carbonate, thiosulfates, and potassium alum.

¹⁸This table lists potential groundwater contaminants from many common industries, but it does not address all industries.

MONTECITO WATER DISTRICT
GROUNDWATER MONITORING PROGRAM

WELL WATER LEVEL DATA

NAME/ADDRESS	USGS WELL #	MWD WELL #	SPR 83	FALL 94	SPR 95	FALL 95	SPR 96	FALL 96	SPR 97	FALL 97	1 YEAR CHANGE	CURRENT VS. 1983
FEET ABOVE SEA LEVEL:												
VALLEY CLUB RD EAST		1-1		212.62	221.02	221.02	221.02	221.02	221.02	193.42	-27.60	
VALLEY CLUB RD WEST		1-2		213.00	221.58	221.58	221.58	221.58	221.58	210.58	-11.00	
EVR #8		1-3		205.32	218.58	210.21	218.58	207.58	218.58	212.48	4.90	
925 BROOKTREE RD		1-4		418.16	426.74	421.86	425.54	420.82	424.24	424.94	4.12	
1359 EAST MTN DR		1-5		499.84	512.56	503.95	510.10	501.25	507.10	503.70	2.45	
633 PICACHO LN	8M2	1-6		DRY	271.90	196.57	188.00	NA	126.10	40.90		
550 HOT SPRINGS RD	7R1	1-7	270.71	215.49	249.51	233.92	253.72	224.12	240.72	240.72	16.60	-29.99
550 HOT SPRINGS RD	7R2	1-8	276.15	217.66	257.25	226.60	254.52	215.39	230.82	230.42	15.03	-45.73
VC GOLF COURSE	15D2	1-9	252.12	229.67	252.00	237.64	247.00	246.80	246.80	228.00	-18.80	-24.12
2109 BOUNDARY DR	9Q1	1-10	237.98	224.83	243.07	230.84	231.13	226.11	230.33	226.22	0.11	-11.76
2109 BOUNDARY DR	9Q2	1-11	240.23	224.25	244.33	228.85	233.03	228.05	231.63	224.83	-3.22	-15.40
1983 INVERNESS LN	16C1	1-12	209.47	200.84	215.00	207.13	209.40	205.26	210.70	201.90	-3.36	-7.57
1988 INVERNESS LN	9P1	1-13	236.88	217.71	236.00	226.41	228.90	223.80	207.50	218.90	-4.90	-17.98
1683 E VALLEY RD	8R2	1-14	227.34	208.05	227.52	217.66	223.90	217.16	221.80	213.10	-4.06	-14.24
LIVE OAKS WELL	17B4	1-15	195.75	184.10	205.50	191.07	203.50	191.33	199.39	187.70	-3.63	-8.05
600 EL BOSQUE RD	8Q2	1-16	247.56	198.40	226.00	210.71	233.00	206.11	216.00	261.90	55.79	14.34
HODGES WELL	8P1	1-17	193.60	179.68	195.50	184.78	195.50	182.50	191.20	182.40	-0.10	-11.20
650 SAN YSIDRO RD	8L1	1-18	250.00	243.23	251.00	NA	251.00	243.46	251.00	247.79	4.33	-2.21
OFFICE WELL	8P3	1-19	204.98	180.30	196.72	183.84	194.28	180.63	190.10	179.50	-1.13	-25.48
810 ROMERO CANYON RD		1-20		379.92	388.80	386.50	388.79	381.50	387.67			
650 RANDALL RD		1-21		281.96	287.30	284.17	286.07	284.62	283.47	280.07	-4.55	
965 BROOKTREE RD		1-24		453.71	456.55	455.25	456.10	455.30	457.89	451.90	-3.40	
ENNISBROOK #3		1-26		196.14	210.33	204.99	210.33	204.48	210.33	136.23	-68.25	
873 KNOLLWOOD DR		1-28		437.30	438.67	478.33	483.58	474.76	480.28			
969 BROOKTREE RD		1-29		475.96	482.28	479.39	485.07	481.17	481.27	444.07	-37.10	
1485 E MOUNTAIN DR		1-30		379.42	382.91	378.43	379.99	380.13	382.77			

**MONTECITO WA & DISTRICT
GROUNDWATER MONITORING PROGRAM**

WELL WATER LEVEL DATA

NAME/ADDRESS	USGS WELL #	MWD WELL #	SPR 83	FALL 94	SPR 95	FALL 95	SPR 96	FALL 96	SPR 97	FALL 97	1 YEAR CHANGE	CURRENT VS. 1983
FEET ABOVE SEA LEVEL:												
570 MEADOW WOOD LN		1-31		252.17	270.62	254.82	254.86	267.67	243.25			
193 E MOUNTAIN DR		1-32		554.67	580.07	578.67	579.01	580.17	576.77			
704 PARK LN		1-33		315.67	346.29	329.75	330.76	322.17	334.67	314.57	-7.60	
1521 E VALLEY RD		1-34		172.50	181.50	181.50	181.50	178.29	NA			
WESTMONT COLLEGE		1-35		480.51	491.49	488.71	491.37	506.12	487.29			
260 CLOYDON CIRCLE		1-36		379.01	387.07	383.50	390.07	386.50	392.67			
1678 E VALLEY RD		1-37		189.91	214.38	199.08	208.38	198.08	203.97	192.98	-5.10	
890 COYOTE RD		1-38		531.96	535.14	533.33	532.23	526.90	529.33			
749 FUERA LN		1-40		310.65	330.20	323.92	326.70	323.88	293.88			
627 LILAC DR		1-42		257.75	325.84	288.50	277.20	291.32	281.50	253.50	-37.82	
872 LADERA LN		1-43		NA		730.00	736.73	734.59	736.40			
1419 E MOUNTAIN DR		1-44		313.58	350.08	347.91	355.79	352.48	353.88			
1972 TOLLIS AVE		1-45		351.47	381.84	370.83	371.55	348.32	360.06			
788 PARK HILL LN		1-46		477.21	NA	NA	478.11	479.21	481.01	478.71	-0.50	
1075 COLD SPRINGS RD		1-47		611.00	615.25	NA	611.50	604.13	NA			
695 ASHLEY ROAD (LOTUSLAND)		1-48		437.00	493.00	461.00	461.00	468.00	454.00	470.00	2.00	
1413 SCHOOL HOUSE R	17E1	2-1		NA	32.55	34.76	36.50	21.50	37.30	23.40	1.90	
1065 CAMINO VIEJO RD	17E3	2-2		281.24	282.29	282.96	284.47	282.71	290.67	289.57	6.86	
1053 CAMINO VIEJO RD	17E4	2-3		284.34	285.81	302.34	288.14	NA	NA	NA		
1120 HILL RD		3-1		4.30	5.14	4.80	4.20	4.80	4.60	3.40	-1.40	
LAS ENTRADAS 2		3-2		51.07	60.41	53.80	55.07	53.17	55.07	58.77	5.60	
130 OLIVE MILL LN	18R1	3-3	23.59	NA	17.77	25.03	26.50	22.89	21.10	22.97	0.08	-0.62
S B CEMETERY	13R1	3-5	5.71	6.70	6.65	7.57	6.30	7.70	9.17	12.89	5.19	7.18
1076 FAIRWAY RD	19C4	3-6		3.93	-4.66	4.11	0.50	4.18	4.00	NA		
BILTMORE HOTEL	19H3	3-7	6.93	2.83	2.13	3.55	2.85	3.19	2.34	3.45	0.26	-3.48
NEAL WELL	17N1	3-8	37.23	25.05	27.60	31.59	29.00	26.20	30.70	35.20	9.00	-2.03
HOWARD SCHOOL	17L1	3-9	30.14	10.40	32.73	16.53	29.66	13.86	25.03	15.66	1.80	-14.48
1599 SINALOA DR-DEEP	17K2	3-10	31.48	17.20	22.79	22.85	22.10	20.99	25.40	18.70	-2.29	-12.78

69

**MONTECITO WATER DISTRICT
GROUNDWATER MONITORING PROGRAM**

WELL WATER LEVEL DATA

NAME/ADDRESS	USGS WELL #	MWD WELL #	SPR 83	FALL 94	SPR 95	FALL 95	SPR 96	FALL 96	SPR 97	FALL 97	1 YEAR CHANGE	CURRENT VS. 1983
FEET ABOVE SEA LEVEL:												
1599 SINALOA DR (S)	17K1	3-11	23.66	16.32	26.40	22.55	24.30	17.91	22.80	16.10	-1.81	-7.56
LE1-PADEN WELL	16M3	3-12		56.19	13.93	1.94	13.31	12.71	14.71	12.31	-0.40	
168 POMAR LN	17Q2	3-13	14.43	4.56	20.46	8.95	13.01	6.83	12.61	7.51	0.68	-6.92
1640 N JAMESON LN	17Q3	3-14	23.05	7.85	20.88	12.95	19.89	10.28	19.90	15.50	5.22	-7.55
157 LOUREYRO RD	16N1	3-15	8.78	6.74	10.98	11.72	10.20	8.30	10.30	NA		
271 MIDDLE RD		3-16		50.52	55.63	57.25	62.52	65.52	71.52	73.42	7.90	
1123 GLENVIEW RD		3-17		182.63	183.79	185.26	187.20	187.83	189.00			
VILLA ESCONDIDO		3-18		5.09	6.61	6.90	6.90	6.88	7.89	7.00	0.12	
1278 SPRING RD		3-19		383.11	384.00	383.21	383.80	383.06	383.60	383.40	0.34	
MONTECITO DEL MAR		3-20		10.97	11.50	11.79	11.60	12.15	13.30	12.30	0.15	
AMAPOLA	17K3	3-22	26.67	13.26	25.84	19.26	23.91	-15.50	23.88	3.81	19.31	-22.86
3165 PADARO LN	23G3	4-1	19.26	9.95	16.09	12.61	17.28	11.03	12.70	10.10	-0.93	-9.16
EDGEWOOD RANCH #2	23F6	4-2	22.17	9.41	13.81	12.43	15.24	12.06	14.24	9.84	-2.22	-12.33
340 TORO CYN RD		4-3		128.25	147.31	138.77	138.00	130.98	137.95			
545 TORO CYN RD		4-4		350.50	342.24	353.38	337.55	NA	352.90			
2900 TORITO RD		4-5		311.75	310.84	NA	286.65	290.54	280.52			
368 LAMBERT RD	23C4	4-6		33.92	40.27	38.75	34.92	36.92	48.52	NA		

70