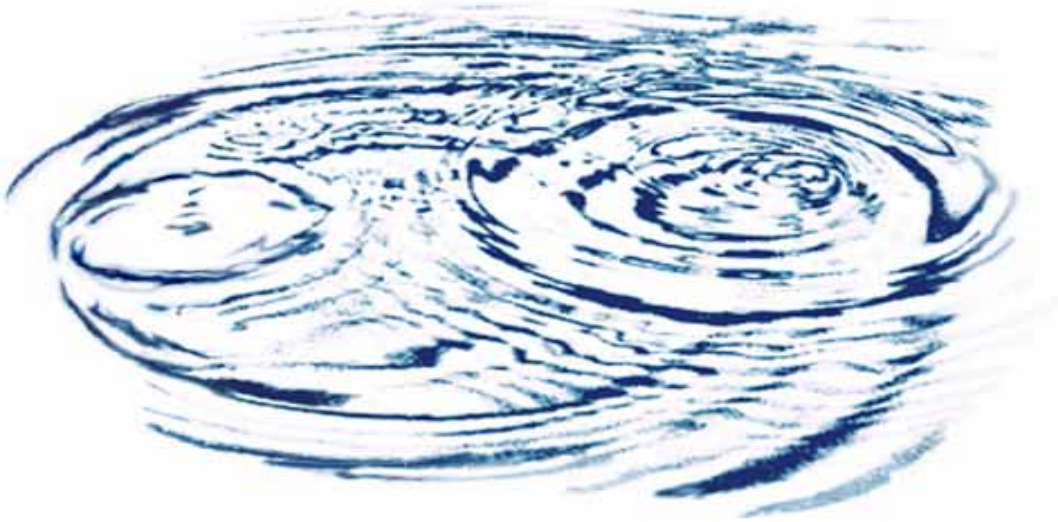
San Jacinto

City of San Jacinto
2010
Urban Water Management Plan



Prepared by:
Stetson Engineers Inc.

861 Village Oaks Drive, Covina, California 91724
Phone: (626) 967-6202, Fax: (626) 331-7065
Covina, CA San Rafael, CA Mesa, AZ

Table of Contents

CHAPTER 1 - INTRODUCTION 1-1

1.1 URBAN WATER MANAGEMENT PLAN 1-1
1.2 CHANGES TO THE PLAN 1-2
1.3 WATER MANAGEMENT TOOLS 1-2
1.4 AGENCY COORDINATION, PUBLIC PARTICIPATION, AND PLAN ADOPTION 1-2

CHAPTER 2 – DESCRIPTION OF SERVICE AREA 2-1

2.1 BACKGROUND [SECTION 10631 (A)] 2-1
2.2 DESCRIPTION OF AREA [SECTION 10631 (A)] 2-1
2.3 CURRENT AND PROJECTED POPULATION [SECTION 10631 (A)] 2-2

CHAPTER 3 – SOURCES OF SUPPLY 3-1

3.1 EXISTING AND PLANNED SOURCES OF WATER SUPPLY [SECTION 10631 (B)] 3-1
3.2 GROUNDWATER MANAGEMENT [SECTION 10631 (B)(1), (B)(2)] 3-2
3.2.1 Groundwater Management Plan 3-2
3.3 DESCRIPTION OF GROUNDWATER BASIN [SECTION 10631(B)(2), (B)(4)] 3-3
3.3.1 Hydrogeology 3-3
3.4 PAST AND PROJECTED LOCATION, AMOUNT AND SUFFICIENCY GROUNDWATER [SECTION 10631 (B)(3), (B)(4)] 3-4
3.5 RELIABILITY OF WATER SUPPLY TO CLIMATE [SECTION 10631 (C)] 3-4
3.6 EXCHANGES AND TRANSFERS [SECTION 10631 (D)] 3-5
3.6.1 Long-Term 3-5
3.6.2 Short-Term 3-5

CHAPTER 4 – WATER USE 4-1

4.1 PAST AND CURRENT WATER USE [SECTION 10631 (E)(1)] 4-1
4.2 PROJECTED WATER USE [SECTION 10631 (E)(2)] 4-2

CHAPTER 5 – CURRENT CONSERVATION MEASURES 5-1

5.1 DEMAND MANAGEMENT MEASURES AND IMPLEMENTATION [SECTION 10631 (F)] 5-2
5.1.1 DMM 1 – Water Survey Programs for Single Family Residential and Multi-Family Residential Customers [Section 10631 (f)(1)(A)] 5-2
5.1.2 DMM 2 – Residential Plumbing Retrofit [Section 10631 (f)(1)(B)] 5-2
5.1.3 DMM 3 – System Water Audits, Leak Detection and Repair [Section 10631 (f)(1)(C)] 5-2
5.1.4 DMM 4 – Metering with Commodity Rates for all New Connections and Retrofit of Existing Connections [Section 10631 (f)(1)(D)] 5-3
5.1.5 DMM 5 – Large Landscape Conservation Programs and Incentives [Section 10631 (f)(1)(E)] 5-3
5.1.6 DMM 6 – High-efficiency Washing Machine Rebate Programs [Section 10631 (f)(1)(F)] 5-4
5.1.7 DMM 7 – Public Information Programs [Section 10631 (f)(1)(G)] 5-4
5.1.8 DMM 8 – School Education Programs [Section 10631 (f)(1)(H)] 5-4
5.1.9 DMM 9 – Conservation Programs for Commercial, Industrial and Institutional

Accounts [Section 10631 (f)(1)(I)] 5-5
5.1.10 DMM 10 – Wholesale Agency Programs 5-6
5.1.11 DMM 11 – Conservation Pricing [Section 10631 (f)(1)(K)] 5-6
5.1.12 DMM 12 – Water Conservation Coordinator [Section 10631 (f)(1)(L)] 5-6
5.1.13 DMM 13 – Water Waste Prohibition [Section 10631 (f)(1)(M)] 5-6
5.1.14 DMM 14 – Residential Ultra Low-Flush Toilet Replacement Program [Section 10631 (f)(1)(N)] 5-7

CHAPTER 6 – WATER SUPPLY OPPORTUNITIES 6-1

6.1 FUTURE WATER SUPPLY PROJECTS AND PROGRAMS [SECTION 10631 (H)] 6-1
6.2 DESALINATED WATER [SECTION 10631 (I)] 6-1

CHAPTER 7 – URBAN WATER SHORTAGE CONTINGENCY ANALYSIS 7-1

7.1 MANAGEMENT OF WATER SHORTAGES [SECTION 10632 (E)] 7-1
7.2 STAGES OF ACTION [SECTION 10632 (A)] 7-2
7.3 THREE YEAR MINIMUM WATER SUPPLY [SECTION 10632 (B)] 7-2
7.4 PREPARATION FOR CATASTROPHIC WATER SUPPLY [SECTION 10632 (C)] 7-2
7.5 PROHIBITIONS AND PENALTIES [SECTION 10632 (D), (F)] 7-2
7.6 REVENUE AND EXPENDITURE IMPACTS [SECTION 10632 (G)] 7-4
7.7 WATER SHORTAGE CONTINGENCY ORDINANCE/RESOLUTION [SECTION 10632 (H)] . 7-4
7.8 REDUCTION MEASURING MECHANISM [SECTION 10632 (I)] 7-4

CHAPTER 8 – RECYCLED WATER 8-1

8.1 EXISTING WATER RECLAMATION FACILITIES [SECTION 10633 (A),(B)] 8-1
8.2 POTENTIAL USES OF RECYCLED WATER [SECTION 10633 (C)] 8-2
8.3 PROJECTED USE OF RECYCLED WATER [SECTION 10633(D-F)] 8-2

CHAPTER 9 – WATER QUALITY 9-1

9.1 SAN JACINTO GROUNDWATER BASIN 9-1

CHAPTER 10 – WATER SUPPLY RELIABILITY 10-1

10.1 SB 7 REQUIRED WATER USE PARAMETERS 10-1
10.1.1 BASELINE DAILY PER CAPITA WATER USE 10-1
10.1.2 URBAN WATER USE TARGET 10-3
10.1.3 INTERIM URBAN WATER USE TARGET 10-5
10.1.4 COMPLIANCE DAILY PER CAPITA WATER USE 10-5
10.1.5 MINIMUM WATER USE REDUCTION REQUIREMENT 10-5
10.2 ASSESSMENT OF THE RELIABILITY OF WATER SUPPLY 10-6
10.2.1 NORMAL WATER YEAR 10-6
10.2.2 SINGLE-DRY YEAR 10-7
10.2.3 MULTIPLE DRY YEARS 10-7
10.2.4 GROUNDWATER RELIABILITY 10-7
10.3 RELIABILITY INFORMATION 10-8
10.4 WATER USE REDUCTION PLAN 10-8
10.5 PROGRESS REPORT 10-8

List of Tables

Table 1 – Climate
Table 2 – Historical Annual Production
Table 3 – Projected Water Supply and Demand
Table 4 – Supply Reliability
Table 5 – Past, Current and Projected Water Sales
Table 6 – Water Rationing Stages and Reduction Goals
Table 7 – Baseline Daily Per Capita Water Use
Table 8 – Projected Normal Water Year Supply and Demand Comparison
Table 9 – Projected Single-Dry Year Supply and Demand Comparison
Table 10 – Projected Multiple Dry Years Supply and Demand Comparison

List of Figures

Figure 1 – Annual Rainfall

List of Plates

Plate 1 – Water Service Area, Wells and EMWD Connections
Plate 2 – San Jacinto Groundwater Basin

List of Appendices

Appendix A – California Urban Water Management Planning Act
Appendix B – Public Notification Letter and Water Use Letter
Appendix C – Draft Groundwater Management Plan
Appendix D – City of San Jacinto's Water Rates
Appendix E – 2004 Annual Water Quality Report
Appendix F – Multi-Hazard Functional Plan
Appendix G – Draft Water Shortage Contingency Resolution
Appendix H – EMWD Draft 2010 Plan
Appendix I – City Resolution Adopting Plan
Appendix J – Urban Water Management Plan Checklist

Chapter 1 - Introduction

Section 10620.

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

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

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

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

(2) Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.

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

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

1.1 Urban Water Management Plan

Section 10617.

"Urban Water Supplier" means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. An urban water supplier includes a supplier or contractor for water, regardless of the basis of right, which distributes or sells for ultimate resale to customers.

This Urban Water Management Plan (Plan) was prepared in accordance with the California Urban Water Management Planning Act (Act),[*] which became effective on January 1, 1985 (see Appendix A.1). The Act requires every "urban water supplier" to prepare and adopt an Urban Water Management Plan, and to periodically review its Plan at least once every five years and make any amendments or changes which are indicated by the review. The City of San Jacinto's (City) Plan is an update for the year 2010.

[*] Water Code Sections 10610 through 10656.

The City's Plan is intended to review the activities of the City as a retail water supplier in the San Jacinto Groundwater Basin (Basin) and to describe the operations of the Basin to achieve the maximum practicable conservation and efficient use of the water resources of the area, both local and imported.

1.2 Changes to the Plan

Section 10621.
(a) Each urban water supplier shall update its plan at least once every five years on or before December 31, in years ending in five and zero.
(b) Every urban water supplier required to prepare a plan pursuant to this part shall notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. The urban water supplier may consult with, and obtain comments from, any city or county that receives notice pursuant to this subdivision.
(c) The amendments to, or changes in, the plan shall be adopted and filed in the manner set forth in Article 3 (commencing with Section 10640).

The following are new amendments to the Act and some reorganization of the water code sections:

1) Senate Bill 1087, Requires reporting of water use projections for lower income households
2) Assembly Bill 1376, Requires 60 days notice of a public hearing on an UWMP
3) Assembly Bill 1420, Conditions state funding
4) Senate Bill 7, Requires 20 percent reduction in use by 2020 (attached in Appendix A.2)

The City has reviewed its 2005 Urban Water Management Plan and included appropriate amendments and changes to its 2010 Urban Water Management Plan.

1.3 Water Management Tools

This Plan describes the management tools and options used by the City to maximize resources and minimize the need to import water from other regions. The City will comply with the anticipated Groundwater Management Plan, which is discussed in Chapter 3; implements Demand Management Measures to reduce water demand whenever possible, as discussed in Chapter 5; and is involved with water supply projects to optimize the use of its groundwater supply, as discussed in Chapter 6.

1.4 Agency Coordination, Public Participation, and Plan Adoption

Section 10620
(a) Every urban water supplier shall prepare and adopt an urban water management plan in the manner set forth in Article 3 (commencing with Section 10640).
(b) Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.

(c) An urban water supplier indirectly providing water shall not include planning elements in its water management plan as provided in Article 2 (commencing with Section 10630) that would be applicable to urban water suppliers or public agencies directly providing water, or to their customers, without the consent of those suppliers or public agencies.
(d) (1) An urban water supplier may satisfy the requirements of this part by participation in area wide, regional, watershed, or basin wide urban water management planning where those plans will reduce preparation costs and contribute to the achievement of conservation and efficient water use.

(2) Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.
(e) The urban water supplier may prepare the plan with its own staff, by contract, or in cooperation with other governmental agencies.

Section 10621
(b) Every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days prior to the public hearing on the plan required by Section 10642, notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. The urban water supplier may consult with, and obtain comments from, any city or county that receives notices pursuant to this subdivision.

Section 10631
(k) Urban water suppliers that rely upon a wholesale agency for a source of water, shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent possible, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water-year types in accordance with subdivision (c). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (c).

Section 10635
(b) The urban water supplier shall provide that portion of its urban water management plan prepared pursuant to this article to any city or county within which it provides water supplies no later than 60 days after submission of its urban water management plan.

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

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

Section 10644
(a) An urban water supplier shall file with the department and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption.

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

The City mainly produces groundwater from the Basin. The City is within the boundaries of Eastern Municipal Water District (EMWD) and has historically purchased minor amounts of treated imported water on an emergency basis to supplement groundwater supplies. EMWD is a wholesale water agency that obtains imported water from the Metropolitan Water District Southern California (MWD). The City has received the Urban Water Management Plans prepared by both EMWD and MWD. The City notified EMWD, the County of Riverside, and the City of San Jacinto of the preparation of its 2010 Plan. Copies of the notification letters to the agencies are in Appendix B.1. In addition, the City informed all parties and other potentially affected agencies to participate in the development of the 2010 Plan by providing comments. The City has provided EMWD with water use projections and existing/planned sources of water through email as required by Section 10631(k) of the California Water Code, as shown in Appendix B.2. EMWD provided the City with water use projections and existing/planned sources of water, as shown in Appendix B.2. The City does not provide water outside its City boundaries and therefore has not notified adjacent cities. The City did not receive any comments on its Draft 2010 Plan.

The City reviewed and implemented its 2005 Plan in accordance with the schedule set forth in the 2005 Plan. The City prepared its 2010 draft Plan and provided at least a 60-day notice of preparation of its 2010 Plan to all relevant public agencies, cities and counties, as shown in Appendix B.1. The City also provided a 2-week notice of a public hearing of its 2010 Draft Plan to all relevant public agencies, water companies, cities, and counties. The City made the Draft 2010 Plan available at City Hall (595 S. San Jacinto Ave) for public review and published a notice of the public review in the City's website and in a local newspaper, as shown in Appendix B.3. The notice of public hearing was published and distributed to allow involvement of local governments, social, cultural, and economic community groups. In addition, a public notification of the Public Hearing was provided to EMWD, the City of San Jacinto and the County of Riverside. Public notification of the review period is required pursuant to Section 10642 of the California Water Code.

The City held a public hearing on December 6, 2011 at 7pm. No agencies attended the public hearing and the City did not receive any comments to its Draft 2010 Plan. City staff reviewed this Plan and comments from the review were incorporated into the final Plan. Following the public hearing, the City adopted the Draft Plan on December 6, 2011, as its Plan. However, a copy of the signed Resolution adopting its Plan was not available until January 23, 2012. A copy of the Resolution showing the City adopted the 2010 Plan is shown in Appendix I. Therefore, the City provided a copy of the Plan

within 30 days from January 23, 2012 to be filed with the State of California, Department of Water Resources (DWR), the State of California Library, the County of Riverside and the City of San Jacinto. The City sent a notice of intention to adopt its Draft Plan to EMWD, the City of San Jacinto and the County of Riverside. Copies of the letters to DWR, the State Library and the City of San Jacinto and the County of Riverside are located in Appendix B.4. A copy of the final 2010 Plan is available for public review in City Hall.

Chapter 2 – Description of Service Area

Section 10631.

A plan shall be adopted in accordance with this chapter and shall do the following:

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

2.1 Background [Section 10631 (a)]

The City owns and operates a water distribution system serving a portion of the City of San Jacinto. The remaining portion of the City is served by EMWD and Lake Hemet Municipal Water District (LHMWD). The City operates under the Public Water System (PWS) Identification Number CA3310032.

The City was incorporated on April 9, 1888. The City has about 4,050 service connections serving a population of approximately 14,200 people. Following is a breakdown of the District's service connections by customer type.

- Residential – 3,090 service connections
- Commercial – 760 service connections
- Industrial – 4 service connections
- Irrigation – 190 service connections
- Other – 7 service connections

2.2 Description of Area [Section 10631 (a)]

The City is located in the southwesterly part of Riverside County at the base of the San Jacinto Mountains. It is generally bounded on the north by the City of Beaumont, the south by the City of Hemet and the west by the City of Moreno Valley. The area surrounding the City is predominantly rural and supports farming and agricultural activity.

The climate in the City of San Jacinto is moderate. Summers are warm and winters are mild. The average temperature ranges from 52.3 degrees Fahrenheit (^{o}F) in January to 80.3 ^{o}F in August, as shown on Table 1. The average rainfall ranges from 2.8 inches in February to 0.1 inches in June and July, as shown on Table 1. The Evapotranspiration ranges from 1.9 inches January and December to 6.5 inches July, as shown on Table 1. There are no other demographic factors affecting water management.

Rainfall data, shown in Figure 1, has been compiled from the National Climatic Center records for San Jacinto over the 50-year period from 1950 to 1999 and from Riverside County Flood Control District over a 10-year period from 2000 to 2010. The City's 60-year average annual rainfall is about 11.7 inches per year. Over the same period of time, the historical high precipitation was 25.61 inches in 1993 and the historical low was 3.7 inches in 2002.

The City relies almost exclusively on groundwater pumped by four wells, as shown on Plate 1. The wells produce groundwater from the Basin, which covers an area of about 60 square miles, as shown on Plate 2. The Basin is drained by the San Jacinto River and is recharged by surface runoff from adjacent mountains and hills, by rainfall directly on the valley floor and by return flow from water applied from overlying uses. The Basin serves as a natural storage reservoir and filtering system for wells constructed therein.

2.3 Current and Projected Population [Section 10631 (a)]

The City of San Jacinto occupies an area of about 12.8 square miles and had a population estimated at 51,300 during calendar year 2010 by the Census. However, the City's water system provides water to about 29.6 percent of the total population. Therefore, this percentage was used to estimate the population the City's water system provides water to, which is estimated to be about 15,200 people (51,300 x 29.6%) during calendar year 2010. The population within the City water service area is estimated to be built out by 2020 at about 6,000 meters or about 23,000 people. The following tabulation presents a comparison of the estimated historic and projected population of the entire City of San Jacinto and the area included in the City service area from calendar year 1950 to 2030.

Year	Population City of San Jacinto (Total)	Source	Population Served by San Jacinto Water District	Percent Increase
1950	1,778	Census	1,778 (Est.)	--
1960	2,553	Census	2,553 (Est.)	44
1970	4,385	Census	4,385 (Est.)	72
1980	7,098	Census	7,098 (Est.)	62
1990	16,210	Census	9,000 (Est.)	27
2000	23,800	Census	12,200 (Est.)	36
2005	30,000	Census	13,200 (Est.)	8
2010	51,300	SCAG	15,200 (Est.)	15
2015	68,700	SCAG	18,700 (Est.)	23
2020	80,900	SCAG	23,000 (Est.)	23
2025	87,000	SCAG	23,000 (Est.)	0
2030	92,200	SCAG	23,000 (Est.)	0

Chapter 3 – Sources of Supply

Section 10631.

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

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

2. A description of any groundwater basin or basins from which the urban water supplier pumps groundwater. For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court of the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree. For basins that have not been adjudicated, information as to whether the department has identified the basin or basins as over drafted or has projected that the basin will become over drafted if present management conditions continue, in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to eliminate the long-term overdraft condition.

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

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

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

1. An average water year.

2. A single dry water year.

3. Multiple dry water years.

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

3.1 Existing and Planned Sources of Water Supply [Section 10631 (b)]

The City has two sources of water supply: groundwater from the Basin and treated imported water from EMWD, as shown in Tables 2 and 3. Historically, 100 percent of the City's water supply is from groundwater. The City's potential sources of supply consist of four active wells, two treatment facilities, and three service connections to EMWD, which are all described below.

The Grand Well is located in the westerly portion of the City's service area, as shown on Plate 1. The Grand Well is 650 feet deep, is perforated from 200 feet to 650 feet below ground surface (bgs) and has a capacity of about 1,700 gallons per minute (gpm).

The Bath Well is located in the easterly portion of the City's service area as shown on Plate 1. The Bath Well is 1,320 feet deep, is perforated from 340 feet to 1,300 feet bgs and has a capacity of 1,700 gpm.

The Artesia Well is located in the easterly portion of the City's service area as shown on Plate 1. The Artesia Well is 1,210 feet deep, is perforated from 390 feet to 1,000 feet bgs and has a capacity of 1,650 gpm.

The Lake Park Well is located east of the City's service area as shown on Plate 1. The Lake Park Well is 1,200 feet deep, is perforated from 625 feet to 1,180 feet bgs and has a capacity of 2,800 gpm.

The City currently owns and operates two Iron and Manganese treatment facilities which are located at the Grand and Bath Well sites. The Iron and Manganese concentrations in the Grand and Bath Wells exceed secondary maximum contaminant levels (MCLs) and are not be suitable for potable use, without treatment. The Iron and Manganese treatment facilities include three dual-media filtering vessels consisting of Anthracite and greensand. The treatment facility at the Grand Well site has a maximum capacity of about 1,350 gpm and the treatment facility at the Bath Well site has a maximum capacity of about 1,500 gpm.

The City has three service connections to EMWD, as shown on Plate 1. The connection at Hewitt and Evans has a capacity of about 2,000 gpm; the connection at Idyllwild and Tiger Lane has a capacity of about 600 gpm; and the connection at Santa Fe and Esplanade has a capacity of about 600 gpm. Historically, the City has relied on groundwater from the Basin, making up 100 percent of the City's total water supply. However, the City has purchased treated imported water from EMWD during calendar years 1995 through 1998, 2002 through 2004, 2006 and 2008 primarily during summer months to supplement peak demands, as shown on Table 2, due to mechanical failure at one of the City's wells.

3.2 Groundwater Management [Section 10631 (b)(1), (b)(2)]

3.2.1 Groundwater Management Plan

Local water purveyors in the Basin have developed a Groundwater Management Plan (GWMP) in November 2007 for the San Jacinto-Hemet Valley to effectively manage the groundwater basin, allocate and protect groundwater resources, and maintain local control over those resources, as shown in Appendix C. Under the GWMP, the City will be allocated an annual quantity of water it may pump from the groundwater basin that is free of replacement water assessments. In the event the City exceeds its annual pumping allocation, the City will be required to purchase replacement water for the Basin.

3.3 Description of Groundwater Basin [Section 10631(b)(2), (b)(4)]

The City water system is primarily reliant on four wells which pump from the Basin. The City's 2005 Water Master Plan notes the general boundaries of the Basin are the Casa Loma Fault on the southwest, which separates it form the Hemet and Lakeview groundwater basins; the San Jacinto Fault on the northeast, along the base of the San Jacinto Mountains; Valle Vista in the southeast and Moreno in the northwest. The Basin is a structural trough located between two faults that have been filled with layered alluvial materials, including clay, silt, sand and gravel. The City's wells overlie a part of the Basin called the "Pressure Area". The Basin in this region is generally divided into an upper, unconfined aquifer and lower confined aquifer. The groundwater in the deeper aquifer is typically under pressure due to the presence of a relatively impervious, confining layer which provides some separation between the upper and lower aquifers. The Grand Well has been constructed to a depth of 650 feet and pumps primarily from the upper aquifer. The Bath Well, Artesia Well and Lake Park Well have been constructed to a depth of approximately 1,300 feet, 1,210 feet, and 1,200 feet respectively, and the primary water source is the lower aquifer.

The Department of Water Resources Bulletin 118 does **not** identify the Basin as being in overdraft.

3.3.1 Hydrogeology

DWR describes the hydrogeology of Basin in its Bulletin 118. That report notes:

Water Bearing Formations. The San Jacinto Groundwater Basin contains sediments that have filled valleys and underlying canyons incised into crystalline basement rock. The valley fill deposits are generally divided into younger and older alluvium. Maximum depths of valley fill reach about 900 feet in the western and northern parts of the Basin, but may exceed 5,000 feet in the eastern part of the Basin between the Casa Loma and Claremont faults. Confined groundwater is found in the eastern part of the Basin between the Casa Loma and Claremont fault. Wells in this Basin produce 200 to 2,600 gpm.

The younger alluvium in the southeastern part of the Basin is generally coarse and permeable with specific yield estimated to range from about 12 to 15 percent. In other parts of the Basin, specific yield is estimated to be about 5 to 10 percent.

The older alluvium may correlate to sediments of Pleistocene age that are exposed in the San Timoteo Badlands and underlies the San Jacinto River near the confluence of Bautista Creek. These sediments generally contain more fine material and have lower specific yield and transmissivity values than the younger alluvium.

Restrictive Structures. The San Jacinto fault zone cuts through the eastern part of the Basin and is composed of five northwest trending sediments: the San Jacinto,

Claremont, Hot Springs, Park Hill, and Casa Loma faults. These active faults are barriers to groundwater movement.

Recharge Areas. Natural recharge to the Basin is primarily from percolation of flow in the San Jacinto River and its tributary stream and from infiltration of rainfall on the valley floor. The primary recharge area for the confined aquifers is found where the San Jacinto River and Bautista Creek enter the San Jacinto Valley. Percolation of water stored in Lake Perris has been an additional source of recharge since construction of the lake in the 1970s.

Groundwater Level Trends. Prior to the extraction of groundwater from the Basin, groundwater flow was generally along the course of the San Jacinto River and westward out of the Basin. High extraction rates had produced groundwater depressions and locally reversed the historical flow pattern. During the 1960s, groundwater levels in the western and central parts of the Basin declined; whereas, in the south-central part of the Basin, they were moderately stable. During the 1970s through the 1990s, groundwater levels declined about 20 to 40 feet in the northern and southwestern parts of the Basin and were relatively stable in the southern part of the Basin. During the 1970s through the 1980s, groundwater levels rose 80 to 200 feet in the western part of the Basin because of infiltration from Lake Perris.

Groundwater Storage. The estimated groundwater storage capacity of the Basin is 3,070,000 acre feet. In 1975, the calculated amount of groundwater in storage was 2,700,000 acre feet.

3.4 Past and Projected Location, Amount and Sufficiency Groundwater [Section 10631 (b)(3), (b)(4)]

The City along with EMWD, LHMWD, the City of Hemet and private producers rely on the Basin for groundwater supplies. The Basin historically had not been managed. However, local agencies are developing a proposed GWMP to maintain long-term reliability of groundwater supplies. A final copy of the proposed GWMP is included in Appendix C. During the City's dry single year and multiple dry year sequence, the City was able to meet its demands, as shown in Table 2 which is based on metered data. Due to the City's GWMP and wells, the City is expected to meet its demands within the next 20 years during a normal year, as shown on Table 3. Due to the City's GWMP, the City is also expected to meet its demands within the next 20 years during a single dry year and multiple dry year sequence, as shown in Table 4.

3.5 Reliability of Water Supply to Climate [Section 10631 (c)]

The City water system is primarily dependent on groundwater supplies from the Basin to meet water demands although historic short-term mechanical failure at a City well resulted in the purchase of treated imported water. The City, along with other local

water agencies, has developed a proposed GWMP. According to the rainfall data on Figure 1, the 60-year average rainfall within the City's service area is about 11.7 inches. Calendar year 2003 represents an average water year for the City in which the total amount of rainfall was about 13.6 inches. A single dry year for the City was experienced in 2004 in which the total amount of rainfall was about 7.6 inches. A multiple dry year sequence for the City is represented from 2006 to 2009. During those years, the total amount of rainfall was about 8.8, 6.5, 11.3, and 7.4 inches respectively. Table 4 shows that during an average year, single dry year and multiple dry years, the City's supplies met its customer's demands. Therefore, the climate and environmental factors do not affect the City's supply. In addition, there are no other factors resulting in inconsistent sources of supply.

3.6 Exchanges and Transfers [Section 10631 (d)]

3.6.1 Long-Term

The City does not have long-term exchanges or transfers of water.

3.6.2 Short-Term

The City may purchase water from EMWD through three interconnections. The three interconnections have a total capacity of approximately 3,200 gpm. Historically, the City has relied on EMWD for purchased treated imported water only for emergency supplies, as shown in Table 2.

Chapter 4 – Water Use

Section 10631.

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

- *(A) Single-family residential.*
- *(B) Multifamily.*
- *(C) Commercial.*
- *(D) Industrial.*
- *(E) Institutional and governmental.*
- *(F) Landscape.*
- *(G) Sales to other agencies.*
- *(H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof.*
- *(I) Agricultural*

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

4.1 Past and Current Water Use [Section 10631 (e)(1)]

The City maintains records of groundwater production and treated imported water, which it occasionally purchases from EMWD. Water is sold to residential, commercial, industrial, irrigation and other customers. Prior to 2009, **historical records are not available for water sales by customer group**, as shown on Table 5. Historical annual water sales are shown on Table 2.

During calendar year 2009, the City had a total of about 4,050 service connections. Records of water sales and number of meters during calendar year 2009 by customer group are shown on Table 5. The City does not have low-income housing within its service area.

The City water system historically has served primarily single family residential customers and the City does not anticipate that trend will change over the next 20 years. Table 2 indicates the water use per customer has remained relatively constant over the past 20 years indicating no significant influx of large (commercial, industrial, agricultural) water users. Much of the agricultural water use is from privately owned wells and not associated with the City. The growth over the next 20 years of the City's water system will likely consist of additional single family residences. Current and historical water uses are presented in Tables 2 and 5. The City's estimated unaccounted system water loss is about 2 percent. The City does not have other additional water uses.

4.2 Projected Water Use [Section 10631 (e)(2)]

The projected water use by customer group is shown in Table 5. Chapter 2 indicates the City water system's future population is estimated to increase from about 15,200 people in 2010 to about 23,000 people in 2030. The City does not have low-income housing within its service area. The City anticipates providing all future demands from its groundwater sources. The GWMP for the Basin will enhance the City's ability to rely solely on groundwater. In the event of mechanical failure to any of the City's wells, the City has connections with EMWD to provide sufficient imported water supply until the equipment is repaired or replaced.

Chapter 5 – Current Conservation Measures

Section 10631.

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

1. *A description of each water demand management measure that is currently being implemented, or scheduled for implementation, including the steps necessary to implement any proposed measures, including, but not limited to, all of the following:*
   - *(A) Water survey programs for single-family residential and multi-family residential customers.*
   - *(B) Residential plumbing retrofit.*
   - *(C) System water audits, leak detection, and repair.*
   - *(D) Metering with commodity rates for all new connections and retrofit of existing connections.*
   - *(E) Large landscape conservation programs and incentives.*
   - *(F) High-efficiency washing machine rebate programs.*
   - *(G) Public information programs.*
   - *(H) School education programs.*
   - *(I) Conservation programs for commercial, industrial and institutional accounts.*
   - *(J) Wholesale agency programs.*
   - *(K) Conservation pricing.*
   - *(L) Water conservation coordinator.*
   - *(M) Water waste prohibition.*
   - *(N) Residential ultra-low-flush toilet replacement programs.*
2. *A schedule of implementation for all water demand management measures proposed or described in the plan.*
3. *A description of the methods, if any, that the supplier will use to evaluate the effectiveness of water demand management measures implemented or described under the plan.*
4. *An estimate, if available, of existing conservation savings on water use within the supplier's service area, and the effect of the savings on the supplier's ability to further reduce demand.*

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

1. *Take into account economic and non-economic factors, including environmental, social, health, customer impact, and technological factors.*
2. *Include a cost-benefit analysis, identifying total benefits and total costs.*
3. *Include a description of funding available to implement any planned water supply project that would provide water at a higher unit cost.*
4. *Include a description of the water supplier's legal authority to implement the measure and efforts to work with other relevant agencies to ensure the implementation of the measure and to share the cost of implementation.*

5.1 Demand Management Measures and Implementation [Section 10631 (f)]

The City is not a signatory to the Memorandum of Understanding regarding Urban Water Conservation in California and not a member of the California Urban Water Conservation Council (CUWCC). Each of the 14 water Demand Management Measures (DMM) [Section 10631 (f)] are addressed in the sections below. The City plans to coordinate with EMWD and MWD on the DMMs.

5.1.1 DMM 1 – Water Survey Programs for Single Family Residential and Multi-Family Residential Customers [Section 10631 (f)(1)(A)]

City staff regularly reviews water usage within the service area. If the City finds that a customer has an unusually high water consumption, City staff may conduct field inspections, check customer meters for accuracy and review historical water usage in an attempt to identify the cause of the high usage for both indoor and outdoor water surveys. In addition, the City will endeavor to educate customers on how to find leaks and read meters. It is unknown when the program first started. Historical survey data is not readily available and the number of surveys is not readily available. The evaluation of the effectiveness is not readily available. The estimates of existing conservation savings on water use and the effect of such savings are not readily available.

5.1.2 DMM 2 – Residential Plumbing Retrofit [Section 10631 (f)(1)(B)]

The City is interested in expanding its water conservation programs and plans to coordinate with EMWD and MWD to implement an agreement for participation in the distribution of low flow showerheads, toilet displacement devices, toilet flappers and faucet aerators to City customers. This conservation program will be designed to increase indoor water use efficiency and assist the City in conserving water. The City plans to inform all its customers within its service area of EMWD and MWD's residential plumbing retrofit programs available. More information on devices provided to customers, quantifications and implementation can be found in EMWD's 2010 Plan and MWD's 2010 Plan. It is unknown when the program first started. The evaluation of the effectiveness and the estimates of existing conservation savings on water use and the effect of such savings are not readily available.

5.1.3 DMM 3 – System Water Audits, Leak Detection and Repair [Section 10631 (f)(1)(C)]

The City established an Ordinance for Water Conservation and Water Supply Shortage Program and Regulations (Water Conservation Ordinance) on January 22, 2009, as shown in Appendix G. Section E.5 of the City's Water Conservation Ordinance states, "Excessive use, loss or escape of water through breaks, leaks or other malfunctions in the water user's plumbing or distribution system for any period of time after such escape of water should have reasonably been discovered and corrected and in no event more than 72 hours of receiving notice from the City of San Jacinto, is prohibited."

In addition, City staff regularly inspects the water system to identify potential leaks from underground water pipelines, wells, pumps and reservoirs. In addition, the City has a program to compare metered water production (at wells) to metered customer sales on a monthly basis. A discrepancy of more than 10 percent will serve as an indication for City staff to conduct additional field inspections and meter checking in an attempt to identify the cause of the discrepancy. The City conducts this program monthly, and an audit was last completed in November 2010 and the next audit will be completed the following month, December 2010. As previously mentioned in Chapter 4, the City's unaccounted water loss is about 2 percent. The actual historical audits are not readily available. The evaluation of the effectiveness is not readily available. The estimates of existing conservation savings on water use and the effect of such savings are not readily available.

5.1.4 DMM 4 – Metering with Commodity Rates for all New Connections and Retrofit of Existing Connections [Section 10631 (f)(1)(D)]

The City meters all water sales to its customers. As stated in Chapter 2, the number of meters (accounts) is about 4,050. The City does not have any unmetered accounts. The commodity rates are based on a tiered system that rewards conservation with lower rates. The City's commodity rates include a fixed "availability of service" charge, plus additional charges for water use, as shown in Appendix D. The fixed charge is used by the City to offset fixed operating costs, such as staffing, and reduces the possibility of revenue shortfalls should water sales decrease. It is unknown when the program first started. The evaluation of the effectiveness and the estimates of existing conservation savings on water use and the effect of such savings are not readily available.

5.1.5 DMM 5 – Large Landscape Conservation Programs and Incentives [Section 10631 (f)(1)(E)]

As discussed in Chapter 2, the City has 424 commercial customers, 3 industrial customers, and two irrigation customers. The City plans to create a tiered rate structure to promote conservation for its irrigation, industrial and commercial meters. The City plans to create the tiered rate structure within the next 5 years.

In addition the City established a Water Conservation Ordinance on January 22, 2009, as shown in Appendix G. Section E of the City's Water Conservation Ordinance prohibits waste of water at all times. Under Sections E.1, E.2, and E.3, the City established requirements on landscape, which are discussed below.

Section E.1 – Limits on Water Hours: Watering or irrigating of lawn, landscape or other vegetated area with potable water is prohibited between the hours of 9:00 a.m. and 5:00 p.m., Pacific Standard Time on any day, except by use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off nozzle or device, or for very short periods of time for express purposes of adjusting or repairing an irrigation system.

Section E.2 – Limit on Water Duration: Watering or irrigating of lawn, landscape or other vegetated area with potable water using a landscape irrigation system or a water device that is not continuously attended is limited to no more than fifteen minutes of watering per day per station. This subsection does not apply to landscape irrigation systems that exclusively use very low-flow drip type irrigation systems when no emitter producers more than two (2) gallons of water per hour and weather based controllers or stream rotor sprinklers that meet a 70 percent efficiency standard.

Section E.3 – No Excessive Water Flow or Runoff: Watering or irrigating of any lawn, landscape or other vegetated area in manner that causes or allows excessive water flow or runoff onto an adjoining sidewalk, driveway, street, alley, gutter or ditch is prohibited.

The evaluation of the effectiveness and the estimates of existing conservation savings on water use and the effect of such savings are not readily available.

5.1.6 DMM 6 – High-efficiency Washing Machine Rebate Programs [Section 10631 (f)(1)(F)]

The City is interested in expanding its water conservation programs and plans to coordinate with EMWD and MWD to implement an agreement for participation in MWD's high efficiency washing machine rebate program. The City plans to inform its customers of EMWD and MWD's high-efficiency washing machine rebate programs. According to EMWD's 2010 draft Plan, EMWD offers a rebate of $85 for washing machines with a water use factor of 5.0 or less. EMWD has provided incentives for high-efficiency washing machines since 2001 and to date has estimated 6,624 high-efficiency washing machines have received incentives. This rebate program is designed to aid homeowners in purchasing high-efficiency washing machines and to assist the City in conserving water supplies. The evaluation of the effectiveness and the estimates of existing conservation savings on water use and the effect of such savings are not readily available.

5.1.7 DMM 7 – Public Information Programs [Section 10631 (f)(1)(G)]

The City distributes an annual Consumer Confidence Report to all its customers. The Consumer Confidence Report identifies water quality of the City's distribution system, the impact to human health and actions taken to ensure a high quality of water served to customers. In addition, the City plans to inform its customers of EMWD and MWD's water conservation programs. It is unknown when the program first started. The evaluation of the effectiveness and the estimates of existing conservation savings on water use and the effect of such savings are not readily available.

5.1.8 DMM 8 – School Education Programs [Section 10631 (f)(1)(H)]

The City is interested in expanding its water conservation programs and plans to coordinate with EMWD to implement an agreement for participation in EMWD's school education programs. According to EMWD's 2010 draft Plan, EMWD offers water

conservation programs to students in kindergarten through the twelfth grade. EMWD has a substantial school education program that promotes water conservation and all environmental education. It is unknown when the program first started. The evaluation of the effectiveness and the estimates of existing conservation savings on water use and the effect of such savings are not readily available.

5.1.9 DMM 9 – Conservation Programs for Commercial, Industrial and Institutional Accounts [Section 10631 (f)(1)(I)]

As discussed in Chapter 2, the City has 424 commercial customers, 3 industrial customers, and no institutional customers. The City plans to create a tiered rate structure to promote conservation for its industrial and commercial meters. The City plans to create the tiered rate structure within the next 5 years.

In addition the City established a Water Conservation Ordinance on January 22, 2009, as shown in Appendix G. Section E of the City's Water Conservation Ordinance prohibits waste of water at all times. Under Sections E.6, E.8, E.9, E.10, E.11, E.12, and E.13, the City established requirements on commercial and industrial customers, which are discussed below.

Section E.6 – Re-circulating Water Required for Water Fountains and Decorative Water Features: Operating a water fountain or other decorative water feature that does not use re-circulated water is prohibited.

Section E.8 – Drinking Water Served Upon Request Only: Eating or drinking establishments, including but not limited to a restaurant, hotel, café, cafeteria, bar other public place where food or drinks are sold, served, or offered for sale, are prohibited from providing drinking water to any person unless expressly requested.

Section E.9 – Commercial Lodging Establishments Must Provide Guests Option to Decline Daily Linen Services: Hotels, motels and other commercial lodging establishments must provide customers the option of not having towels and linen laundered daily. Commercial lodging establishments must prominently display notice of this option in each bathroom using clear and easily understood language.

Section E.10 – No Installation of Single Pass Cooling Systems: Installation of single pass cooling systems is prohibited in buildings requesting new water service.

Section E.11 – No Installation of Non-re-circulating in Commercial Car Wash and Laundry Systems: Installation of non-re-circulating water systems is prohibited in new commercial conveyor car wash and new commercial laundry systems.

Section E.12 – Restaurants Required to Use Water Conservation Dish Wash Spray Valves: Food preparation establishments, such as restaurants or cafes, are prohibited from using non-water conserving dish wash spray valves.

Section E.13 – Commercial Car Wash Systems: Effective on January 1, 2010 all commercial conveyor car wash systems must have installed operational re-circulating water systems, or must have secured a waiver of this requirement from the City of San Jacinto.

The actual historical survey data is not readily available. The evaluation of the effectiveness and the estimates of existing conservation savings on water use and the effect of such savings are not readily available.

5.1.10 DMM 10 – Wholesale Agency Programs

The City is a retailer and not a wholesale agency. Although, this program does not apply, the City coordinates with its wholesalers (EMWD and MWD) regarding water conservation opportunities. These programs are incorporated by reference.

5.1.11 DMM 11 – Conservation Pricing [Section 10631 (f)(1)(K)]

As previously discussed, the City has a tiered rate structure. As shown in Appendix D, the City's tiered rate structure creates an incentive to reduce water use. In addition, the City provides sewer service to its customers. However, EMWD owns and operates the wastewater treatment facility. The City's sewer rate structure is attached in Appendix D. It is unknown when the program first started. The evaluation of the effectiveness and the estimates of existing conservation savings on water use and the effect of such savings are not readily available.

5.1.12 DMM 12 – Water Conservation Coordinator [Section 10631 (f)(1)(L)]

The City has designated its Public Works Director as the City's water conservation coordinator, which oversees conservation programs. In addition, the City will coordinate with EMWD and MWD on expanding it's conservation programs. The City began implementing this program in 2005. The evaluation of the effectiveness and the estimates of existing conservation savings on water use and the effect of such savings are not readily available.

5.1.13 DMM 13 – Water Waste Prohibition [Section 10631 (f)(1)(M)]

The City established an Ordinance for Water Conservation and Water Supply Shortage Program and Regulations on January 22, 2009, as shown in Appendix G. Section E of the City's Water Conservation Ordinance prohibits waste of water at all times. The following are the subject requirements under Section E and violation of these requirements at any time is considered to be wasting water. Details of Section E can be found in Appendix G.

1. Limits on Water Hours
2. Limit on Watering Duration
3. No Excessive Water Flow or Runoff
4. No Washing Down Hard or Paved Surfaces

5. Obligation to Fix Leaks, Breaks or Malfunctions
6. Re-circulating Water Required for Water Fountains and Decorative Water Features
7. Limits on Washing Vehicles
8. Drinking Water Served Upon Request only
9. Commercial Lodging Establishments Must Provide Guests Option to Decline Daily Linen Services
10. No Installation of Single Pass Cooling Systems
11. No Installation of Non-re-circulating in Commercial Car Wash and Laundry Systems
12. Restaurants Required to Use Water Conserving Dish Wash Spray Valves
13. Commercial Car Wash Systems

Section K of the City's Water Conservation Ordinance states the penalties and violations of any requirements listed in the City's Water Conservation Ordinance. The number of on-site visits is not readily available. The evaluation of the effectiveness and the estimates of existing conservation savings on water use and the effect of such savings are not readily available.

5.1.14 DMM 14 – Residential Ultra Low-Flush Toilet Replacement Program [Section 10631 (f)(1)(N)]

The City is interested in expanding its water conservation programs and plans to coordinate with EMWD and MWD to implement an agreement for participation in MWD's Residential Ultra Low-Flush Toilet Rebate Program. According to EMWD's 2010 draft Plan, EMWD offers a rebate with funding through MWD. This rebate program is designed to aid homeowners in replacing toilets manufactured before 1992 with new, water efficient toilets and to assist the City in conserving water supplies. EMWD began offering incentives for toilet retrofits in 1992. Incentives for High Efficiency Toilets were added in 2005. It is unknown when the program first started. The evaluation of the effectiveness and the estimates of existing conservation savings on water use and the effect of such savings are not readily available.

Chapter 6 – Water Supply Opportunities

Section 10631.

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

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

6.1 Future Water Supply Projects and Programs [Section 10631 (h)]

The City, along with EMWD, LHMWD, and the City of Hemet have developed a proposed GWMP to ensure the Basin continues to provide a reliable source of supply and is discussed in Chapter 3. With the implementation of the GWMP, the City will have enough water supply to meet its demands in the future. As of December 2010, the City does not expect additional water supply projects or programs in the future.

6.2 Desalinated Water [Section 10631 (i)]

The City does not have opportunities to incorporate desalinated water into its supply. The City pumps groundwater from the Basin which is low in Total Dissolved Solids (TDS) and does not require desalination. According to "The City of San Jacinto's 2009 Annual Water Quality Report", which is provided in Appendix E, the average TDS value for the City's active wells is about 295 parts per million (ppm) and ranges from 290 ppm to 300 ppm.

Chapter 7 – Urban Water Shortage Contingency Analysis

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

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

7.1 Management of Water Shortages [Section 10632 (e)]

As discussed in Chapter 5, the City established a Water Conservation and Water Supply Shortage Program Ordinance on January 22, 2009, as shown in Appendix G. In addition to a Water Conservation Program, the Ordinance also established a three-level Water Supply Shortage Program, which is also discussed in Chapter 5.

The City water system typically relies exclusively on groundwater supplies from the Basin and has never experienced a groundwater supply shortage, regardless of the hydrologic conditions. In the event of mechanical failure of one of its wells, the City has interconnections with EMWD. However, as noted in Chapters 3 and 4 treated imported water from EMWD has been used infrequently.

7.2 Stages of Action [Section 10632 (a)]

The City has developed a 'four-stage' rationing plan including up to 50 percent reduction in water supply if the City experiences a water supply shortage. The City's plan includes voluntary and mandatory stages. In the event of a prolonged and severe drought, the rationing programs could be implemented as shown in Table 6. Stages I and II are voluntary stages and the customer reduction goal is 10 percent and 20 percent, respectively. Stages III and IV are mandatory stages and the customer reduction goal is 30 percent and 50 percent or greater, respectively.

7.3 Three Year Minimum Water Supply [Section 10632 (b)]

The City's driest three-year period was 2006, 2007, and 2008. During those years, the City's demand was 3,858, 3,681, and 3,029 acre-feet per year, respectively, as shown on Table 4. The City had adequate water supply from groundwater and imported water from EMWD to meet its demands, as shown on Table 2. Based on the City's GWMP and historical data of meeting its demands during multiple dry year periods, it is anticipated the City will be able to provide adequate water to its customers in the next three-year period. Therefore, the three-year estimated minimum water supply available to the City is about 3,000 acre-feet per year from groundwater and 25 acre-feet per year from imported water from EMWD. Consequently, the City will have adequate supply in an average, single-dry and multiple dry year sequence.

7.4 Preparation for Catastrophic Water Supply [Section 10632 (c)]

The City has prepared an Emergency Operations Plan, as shown in Appendix F. The Emergency Operations Plan describes the actions the City will take during a catastrophic interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster. In the event of a system failure, the City has three emergency water interconnections with EMWD. These interconnections are manually activated and can supply water in the event the City may need additional water due to a power failure or disaster.

7.5 Prohibitions and Penalties [Section 10632 (d), (f)]

As previously discussed, the City established a Water Conservation and Water Supply Shortage Program Ordinance on January 22, 2009, as shown in Appendix G. Section E of the Ordnance lists all the prohibitions the City requires and Section K of the Ordinance lists the penalties for violating any of the waste water prohibitions.

The following are the subject requirements under Section E and violation of these requirements at any time is considered to be wasting water. Details of Section E can be found in Appendix G.

1. Limits on Water Hours
2. Limit on Watering Duration
3. No Excessive Water Flow or Runoff
4. No Washing Down Hard or Paved Surfaces
5. Obligation to Fix Leaks, Breaks or Malfunctions
6. Re-circulating Water Required for Water Fountains and Decorative Water Features
7. Limits on Washing Vehicles
8. Drinking Water Served Upon Request only
9. Commercial Lodging Establishments Must Provide Guests Option to Decline Daily Linen Services
10. No Installation of Single Pass Cooling Systems
11. No Installation of Non-re-circulating in Commercial Car Wash and Laundry Systems
12. Restaurants Required to Use Water Conserving Dish Wash Spray Valves
13. Commercial Car Wash Systems

The following are the penalties and violations under Section K. Details of Section K can be found in Appendix G.

1. Misdemeanor: Any violation of this section may be prosecuted as a misdemeanor punishable by imprisonment in the county jail for not more than 30 days, or by a fine not exceeding $1,000, or by both.
2. Penalties: Penalties for failure to comply with any provisions of the section are as follows:
    a. First Violation: The City of San Jacinto will issue a written warning and deliver a copy of the section by mail.
    b. Second Violation: A second violation within the preceding 12 calendar months is punishable by a fine not to exceed $25.
    c. Third Violation: A third violation within the preceding 12 calendar months is punishable by a fine not to exceed $100.
    d. Fourth and Subsequent Violations: A fourth and any subsequent violation is punishable by a fine not to exceed $500.
        i. Water Flow Restrictor: In addition to any fines, the City of San Jacinto may install a water flow restrictor device of approximately one gallon per minute capacity for services up to one and one-half inch size and comparatively sized restrictors for larger services after written notice of intent to install a flow restrictor for a minimum of 48 hours.
    e. Discontinuing Service: In addition to any fines and the installation of a water flow restrictor, the City of San Jacinto may disconnect a customer's water service for willful violations of this section and adequate notice to the customer.

7.6 Revenue and Expenditure Impacts [Section 10632 (g)]

The City has developed a tiered rate structure that 1) establishes a minimum monthly fixed charge for water service and 2) rewards water conservation with lower water rates. The City is cognizant of seasonal variation of water supply and, in turn, water sales. As a result, the City has developed a rate structure that conservatively and consistently will generate sufficient fixed income, based on water connections, to fund fixed costs. As an example, the water rates during calendar year 2009, which is provided in Appendix D, would conservatively generate about $750,000 using the water service rate of $15.36 per customer per month and assuming all 4,050 customers were small residential users. Over the same period fixed costs for staffing, insurance and rent were adequately funded. Variable costs such as repairs, cost of energy, and supplies are tied to the level of water service actually provided and will be funded by water sales. In addition, the City regularly reviews its revenues and expenses. Therefore, the City can adjust its rates if need to. This cursory review of the City's fixed revenue and expenses along with the adopted rate structure indicates a reduction in sales should not result in a funding deficit.

In the event of insufficient water sales, groundwater production could be reduced by 50 percent. In fiscal year 2008-09, the City's revenues from water sales were about $1.8 million; which is about 60 percent of the total water revenues ($3.5 million) during fiscal year 2008-09. If revenue from water sales was reduced by 50 percent ($0.9 million), the City would face a reduction in its total revenue of about 70 percent. The City may be faced with the necessity to utilize operating reserve funds and/or capital reserve funds to cover fixed operating expenses until normal operating revenues could be reestablished. Significant reductions in the City's operating and non-operating reserves could postpone or otherwise impact established water supply project and program schedules.

7.7 Water Shortage Contingency Ordinance/Resolution [Section 10632 (h)]

As previously discussed, the City established a Water Conservation and Water Supply Shortage Program Ordinance on January 22, 2009, as shown in Appendix G.

7.8 Reduction Measuring Mechanism [Section 10632 (i)]

As previously discussed, the City established a Water Conservation and Water Supply Shortage Program Ordinance on January 22, 2009, as shown in Appendix G. Section E of the Ordinance discusses the methods of reducing water use. Sections F, G and H of the Ordinance discusses the three levels the City established during a water supply shortage.

The following are the subject requirements under Section E and violation of these

requirements at any time is considered to be wasting water. Details of Section E can be found in Appendix G.

1. Limits on Water Hours
2. Limit on Watering Duration
3. No Excessive Water Flow or Runoff
4. No Washing Down Hard or Paved Surfaces
5. Obligation to Fix Leaks, Breaks or Malfunctions
6. Re-circulating Water Required for Water Fountains and Decorative Water Features
7. Limits on Washing Vehicles
8. Drinking Water Served Upon Request only
9. Commercial Lodging Establishments Must Provide Guests Option to Decline Daily Linen Services
10. No Installation of Single Pass Cooling Systems
11. No Installation of Non-re-circulating in Commercial Car Wash and Laundry Systems
12. Restaurants Required to Use Water Conserving Dish Wash Spray Valves
13. Commercial Car Wash Systems

Below discusses the three levels established during a water supply shortage under Sections F, G, and H. The percentage of water use reductions (up to 50 percent) will be determined by the City Manager.

1. Level 1 Water Supply Shortage – Upon the declaration of a Level 1, the City will implement the mandatory Level 1 conservation measures:
    a. Limits on Water Days: Limit to three days per week or one day per week during November through March.
    b. Obligation to Fix Leaks, Breaks and Malfunctions: All leaks, breaks and malfunctions must be repaired within 72 hours of notification by the City.
2. Level 2 Water Supply Shortage – Upon the declaration of a Level 2, the City will implement the mandatory Level 2 conservation measures:
    a. Watering Days: Watering is limit to two days a week or one day per week during November through March.
    b. Obligation to Fix Leaks, Breaks and Malfunctions: All leaks, breaks and malfunctions must be repaired within 48 hours of notification by the City.
    c. Limits on Filling Ornamental Lakes or Ponds: Filling or re-filling ornamental lakes or ponds is prohibited, except to sustain aquatic life.
    d. Limits on Washing Vehicles: Using water to wash or clean vehicles is prohibited except by use of a hand-held bucket, a hand-held hose equipped with a positive self-closing water shut-off nozzle or a commercial car washing facility that utilizes a re-circulating water system.
    e. Limits on Filling Residential Swimming Pools and Spas: Re-filling of more than one foot with potable water is prohibited.
3. Level 3 Water Supply Shortage – Upon the declaration of a Level 2, the City will implement the mandatory Level 2 conservation measures:
    a. No Watering or Irrigating

b. Obligation to Fix Leaks, Breaks and Malfunctions: All leaks, breaks and malfunctions must be repaired within 24 hours of notification by the City.
c. No New Potable Water Service
d. Limits on Building Permits
e. Discontinue Service
f. No New Annexations

Chapter 8 – Recycled Water

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

(a) A description of the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.

(b) A description of the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.

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

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

(e) The projected use of recycled water within the supplier's service area at the end of 5, 10, 15 and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected pursuant to this subdivision.

(f) A description of actions, including financial incentives, which may be taken to encourage the use of recycled water, and the projected results of these actions in terms of acre-feet of recycled water used per year.

(g) A plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.

8.1 Existing Water Reclamation Facilities [Section 10633 (a),(b)]

The City does not own or operate any wastewater treatment facilities. All sewage generated within the City water system is provided to the Hemet/San Jacinto Regional Water Reclamation Facility (RWRF), which is operated by EMWD. A more thorough discussion of the RWRF is included in EMWD's 2010 Plan, which is shown in Appendix H. According to EMWD's 2010 Plan all treated wastewater is discharged into EMWD's regional recycled water distribution system. EMWD has developed over 135 miles of regional transmission pipelines which connect all four of EMWD's RWRFs, providing a flexible recycled water delivery system. In conjunction with over 6,000 acre-feet of surface storage reservoirs, these pipelines allow EMWD to sell over 90 percent to 100 percent of the treated wastewater produced in its service area. The balance of the treated recycled water is lost to incidental percolation during winter storage when

demands for recycled water are minimal. The amount of wastewater collected, treated and disposed is shown in EMWD's 2010 draft Plan, which is attached in Appendix H.

8.2 Potential Uses of Recycled Water [Section 10633 (c)]

As noted above, EMWD owns, operates and controls all recycled water use in the City's service area. The recycled water production is sold for agricultural use, landscape, wildlife habitat, wetlands/lake, and industrial use.

Prior to constructing a recycled water distribution system, the potential uses for recycled water must be identified. Potential uses of recycled water include:

1. Landscape irrigation;
2. Irrigation of community parks and schoolyards;
3. Industrial process (i.e. heating and cooling and contingent on suitable recycled water quality;
4. Car washes;
5. Residential landscaping and toilet flushing in new developments, incorporating dual piping systems for recycled and potable water.

8.3 Projected Use of Recycled Water [Section 10633(d-f)]

As previously mentioned, there is no recycled water available to the City for a reuse program at this time. The City will look at the possibility of using recycled water in the future when supplies may be available. Currently, the potential use of recycled water by the City is not technically or economically feasible.

Chapter 9 – Water Quality

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

9.1 San Jacinto Groundwater Basin

The City supplies water to its customers from four active wells, as described in Chapter 3. The City tests water from each of its wells and files water quality reports with the California Department of Public Health (CDPH), as required. A copy of the City's 2009 Annual Water Quality Report is presented in Appendix E, which shows high levels of Manganese and Iron in the raw water (untreated) at the City's Grand and Bath Wells. The City operates two groundwater treatment plants for removal of Manganese and Iron located at the City's Grand and Bath wellsites. After treatment, all water delivered to the City's customers meets CDPH guidelines and is not expected to change over the next 20 years. Therefore, the water available to the City over the next 20 years will not be affected by the water quality.

Chapter 10 – Water Supply Reliability

10.1 SB 7 REQUIRED WATER USE PARAMETERS

Section 10608.20 (a)

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

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

Section 10608.20 (e)

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

Methodologies for calculating baseline and compliance urban per capita water use for the consistent implementation of the Water Conservation Act of 2009 have been published by DWR in its October 2010 guidance document.[1] DWR's guidance document was used by the City to determine the required water use parameters which are discussed below.

10.1.1 BASELINE DAILY PER CAPITA WATER USE

The Baseline Daily Per Capita Water Use is defined as the average water use, expressed in gallons per capita per day (GPCD), for a continuous, multi-year baseline period. There are two different baseline periods for calculating Baseline Daily Per Capita Water Use, as follows (CWC Sections 10608.20 and 10608.22):

- *The first baseline period is a continuous 10- to 15-year period, and is used to calculate Baseline Per Capita Water Use per CWC Section 10608.20. The first baseline period is determined as follows:*
    - *If recycled water makes up less than 10 percent of 2008 retail water delivery, use a continuous 10-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.*

[1] California Department of Water Resources, Division of Statewide Integrated Water Management, Water Use and Efficiency Branch. *Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use*. October 1, 2010.

- *If recycled water makes up 10 percent or more of 2008 retail water delivery, use a continuous 10- to 15-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.*

The City does not use recycled water. Consequently, the first baseline period will consist of a continuous 10-year period that can be selected between 1995-96 and 2008-09.

- *The second baseline period is a continuous five-year period, and is used to determine whether the 2020 per capita water use target meets the legislation's minimum water use reduction per CWC Section 10608.22. The continuous five-year period shall end no earlier than December 31, 2007, and no later than December 31, 2010.*

  The second baseline period consisting of a continuous five-year period can be selected between 2004 and 2009.

Unless the urban water retailer's five-year Baseline Daily Per Capita Water Use per CWC Section 10608.12(b)(3) is 100 GPCD or less, Baseline Daily Per Capita Water Use must be calculated for both baseline periods.

The calculation of the Baseline Daily Per Capita Water Use entails the following four steps:

Step 1 *Calculate gross water use for each year in the baseline period using Methodology 1 in DWR's guidance document. According to Methodology 1, gross water use is a measure of water supplied to the distribution system over 12 months and adjusted for changes in distribution system storage and deliveries to other water suppliers that pass through the distribution system. Recycled water deliveries are to be excluded from the calculation of gross water use. Water delivered through the distribution system for agricultural use may be deducted from the calculation of gross water use. Under certain conditions, industrial process water use also may be deducted from gross water use.*

The calculated gross water use, based on recorded groundwater use, for each year in the baseline period is shown on Table 7.

Step 2 *Estimate service area population for each year in the baseline period using Methodology 2 in DWR's guidance document. To obtain an accurate estimate of GPCD, water suppliers must estimate population of the areas that they actually serve, which may or may not coincide with either their jurisdictional boundaries or with the boundaries of cities. According to Methodology 2, data published by the California Department of Finance (DOF) or the U.S. Census Bureau must serve as the foundational building block for population estimates. In some instances, data published by these two sources may be directly applicable. In other*

instances, additional refinements may be necessary. For example, to account for distribution areas that do not match city boundaries, customers with private sources of supply, or other unique local circumstances, water suppliers may have to supplement the above sources of data with additional local data sources such as county assessor data, building permits data, and traffic analysis zone data. These refinements are acceptable as long as they are consistently applied over time, and as long as they build upon population data sources of the DOF or the U.S Census Bureau.

The City's service area population for each year in the baseline period was based on the U.S. Census Bureau data (see Table 7).

Step 3 *Calculate daily per capita water use for each year in the baseline period. Divide gross water use (determined in Step 1) by service area population (determined in Step 2).*

The calculated daily per capita water use for each year in the baseline period is shown on Table 7.

Step 4 *Calculate Baseline Daily Per Capita Water Use. Calculate average per capita water use by summing the values calculated in Step 3 and dividing by the number of years in the baseline period. The result is Baseline Daily Per Capita Water Use for the selected baseline period.*

The average per capita water use calculated for a continuous 10-year baseline period (first baseline period) is shown on Table 7, with the highest value of 218 GPCD.

The Baseline Daily Per Capita Water Use for the City was determined to be **218 GPCD**, based on the highest value calculated for a continuous 10-year period (first baseline period) between 1996 and 2009 (see Table 7).

10.1.2 URBAN WATER USE TARGET

Section 10608.20 (b)

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

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

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

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

(B) For landscape irrigated through dedicated or residential meters or connections, water efficiency equivalent to the standards of the Model Water Efficient Landscape Ordinance set forth in Chapter 2.7 (commencing with Section 490) of Division 2 of Title 23 of the California Code of Regulations, as

in effect the later of the year of the landscape's installation or 1992. An urban retail water supplier using the approach specified in this subparagraph shall use satellite imagery, site visits, or other best available technology to develop an accurate estimate of landscaped areas.

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

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

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

(A) Consider climatic differences within the state.

(B) Consider population density differences within the state.

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

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

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

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

The Urban Water Use Target is determined using one of the following methods:

Method 1: Eighty percent of the urban retail water supplier's Baseline Per Capita Daily Water Use.

Using this method, the Urban Water Use Target for the City was calculated as **174 GPCD**, based on the City's Baseline Per Capita Daily Water Use of 218 GPCD.

Method 2: Estimate using the sum of the specified three performance standards.

Due to insufficient data, this method was not considered.

Method 3: Ninety-five percent of the applicable state hydrologic region target, as set forth in the state's 20x2020 Water Conservation Plan.[2]

Based on the 20x2020 Water Conservation Plan, the City's service area lies in DWR Hydrologic Region 4 (South Coast), with an established Baseline Per Capita Daily Water Use of 180 GPCD and a Target Per Capita Daily Water Use of 149 GPCD. Using this method,

[2] California Department of Water Resources, State Water Resources Control Board, California Bay-Delta Authority, California Energy Commission, California Department of Public Health, California Public Utilities Commission, and California Air Resources Board. *20x2020 Water Conservation Plan*. February 2010.

the Urban Water Use Target for the City was calculated as **142 GPCD**.

Method 4: [**To be developed by DWR**]

The City's Urban Water Use Target was determined to be **174 GPCD** for 2020, based on Method 1 above.

10.1.3 INTERIM URBAN WATER USE TARGET

Based on the City's Baseline Daily Per Capita Water Use of 218 GPCD and Urban Water Use Target of 174 GPCD, the City's Interim Urban Water Use Target for 2015 was calculated as **196 GPCD**.

10.1.4 COMPLIANCE DAILY PER CAPITA WATER USE

Compliance Daily Per Capita Water Use is defined as the Gross Water Use during the final year of the reporting period, and reported in GPCD. The Compliance Daily Per Capita Water Use will be reported in the City's 2015 Plan (interim compliance) and 2020 Plan (final compliance).

10.1.5 MINIMUM WATER USE REDUCTION REQUIREMENT

Section10608.22

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

The following calculation is made because the five-year Baseline Per Capita Water Use per CWC Section 10608.12(b)(3) is greater than 100 GPCD. The calculation is used to determine whether the water supplier's 2015 and 2020 per capita water use targets meet the legislation's minimum water use reduction requirement per CWC Section 10608.22. The calculation entails three steps:

Step 1: Calculate Baseline Daily Per Capita Water Use using a continuous five-year period ending no earlier than December 31, 2007, and no later than December 31, 2010.

This value was calculated as **218 GPCD** (see Table 7).

Step 2: Multiply the result from Step 1 by 0.95. The 2020 per capita water use target cannot exceed this value (unless the water supplier's five-year Baseline Per Capita Water Use is 100 GPCD or less). If the 2020 target is greater than this value, reduce the target to this value.

This value was calculated as **207 GPCD**. The City's 2020 Urban Water Use Target was determined using Method 3 above to be 174 GPCD, which is lower than the value calculated in this step. Therefore, no adjustment is needed for the City's 2020 Urban Water Use Target of 174 GPCD.

Step 3: Set the 2015 target to mid-point between the 10- or 15-year Baseline Per Capita Water Use and the 2020 target determined in Step 2.

The City's 2015 Interim Urban Water Use Target is therefore set at **196 GPCD**, which is the same value determined in Section 10.1.3 above.

Therefore, the City's 2015 Interim Urban Water Use Target of 196 GPCD and 2020 Urban Water Use Target of 174 GPCD meet the legislation's minimum water use reduction requirement per CWC Section 10608.22.

10.2 ASSESSMENT OF THE RELIABILITY OF WATER SUPPLY

Section 10635

(a) Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry year water year, and multiple dry water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.

As previously discussed in Section 10.1, the City applied Senate Bill No. 7 to estimate the City's 2015 Interim Urban Water Use Target of 196 GPCD and the City's 2020 Urban Water Use Target of 174 GPCD. These Urban Water Use Targets were then applied to estimate the City's projected normal year supplies in 2015, 2020, 2025 and 2030. However, the City estimates buildout by 2020 at an estimated demand of 4,271 acre-feet or 166 GPCD, which is lower than the required 2015 and 2020 Urban Water Use Targets of 196 GPCD and 174 GPCD, respectively, as shown on Table 3. Therefore, the City expects to meet its 2015 and 2020 Urban Water Use Targets. The City will continue to use groundwater as its future water supplies over the next 20 years. The following sections discuss the City's water service reliability assessment, which compares the City's supply and demand over the next 20 years during normal, dry and multiple dry years.

10.2.1 NORMAL WATER YEAR

As previously discussed, the City will meet the required 2015 and 2020 Urban Water Use Targets during a normal water year. The City's projected demand and supply was based on the estimated buildout by 2020 at 4,271 acre-feet, as shown on Table 3. The

comparison of the City's projected supply and demand during a normal water year is shown on Table 8. As shown on Table 8, the City's supply can meet demands during a normal water year for the next 20 years.

10.2.2 SINGLE-DRY YEAR

As shown on Table 4, the City experienced a single-dry year during calendar year 2004 and a normal water year during calendar year 2003. The ratio between the normal water year and single-dry year was estimated for the City's supply and demand, as shown on Table 4. This ratio and the projected supply and demand during a normal water year from Table 8 was used to estimate the City's projected supply and demand during a single-dry year over the next 20 years in five-year increments. The comparison of the City's projected supply and demand during a single-dry year is shown on Table 9. As shown on Table 9, the City's supply can meet demands during a single-dry year for the next 20 years.

10.2.3 MULTIPLE DRY YEARS

As shown on Table 4, the City experienced multiple dry years during calendar years 2006, 2007, 2008, and 2009. The ratio between the normal water year in 2003 and multiple dry years were estimated for the City's supply and demand, as shown on Table 4. This ratio and the projected supply and demand during a normal water year from Table 8 was used to estimate the City's projected supply and demand during multiple dry years over the next 20 years in five-year increments. However, if this calculation was greater than the City's estimated buildout of 4,271 acre-feet, then projected the supply/demand during multiple dry years would be capped at 4,271 acre-feet, as shown on Table 10. The comparison of the City's projected supply and demand during multiple dry years is shown on Table 10. As shown on Table 10, the City's supply can meet demands during multiple dry years for the next 20 years.

10.2.4 GROUNDWATER RELIABILITY

The City has historically relied on the Basin as its source to meet all demands. The City has satisfactory met all water demands, even during the prolonged statewide drought in the late 1980's. The City does not anticipate any water supply problems over the next 20 years. Demands based on projected population increased are estimated to increase from about 2,900 acre-feet during calendar year 2010 to about 4,271 acre-feet in calendar year 2030, increase of 1,371 acre-feet. In addition, the City has treated imported water connections with EMWD in the event of a mechanical failure at one of its wells as backup water supply.

The City primarily relies on groundwater from the Basin. The City and other local water agencies are developing a GWMP, cooperatively manage water supplies and continue to pursue water management options. Consequently, the City believes its water supplies will reliably meet demand, even under multiple dry years.

10.3 RELIABILITY INFORMATION

Section 10635(b)

The urban water supplier shall provide that portion of its urban water management plan prepared pursuant to this article to any city or county within which it provides water supplies no later than 60 days after submission of its urban water management plan.

The City will provide a copy of the 2010 Plan to the following agencies, cities and counties no later than 60 days after submission of the 2010 Plan to DWR:

1. City of San Jacinto
2. County of Riverside
3. Eastern Municipal Water District

10.4 WATER USE REDUCTION PLAN

Section 10608.36.

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

The City is not an urban wholesale water supplier. Therefore, this requirement is not applicable to the City.

10.5 PROGRESS REPORT

Section 10608.40.

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

The City will report to the DWR on its progress in meeting its urban water use targets, using a standardized form to be developed by the DWR, when the form becomes available.

Table 1
Climate

	January	February	March	April	May	June	July	August	September	October	November	December	Annual
Average Rainfall (in.)	2.6	2.7	2.2	0.6	0.4	0	0	0.2	0.3	0.5	0.9	0.3	11.7
Average Temperature (^{o}F)	52.3	54.4	56.2	61.4	67	73.9	79.8	80.3	75.5	67.2	57.6	52.5	64.8
Evapotranspiration (ETo)	1.9	2.2	3.4	4.8	5.6	6.3	6.5	6.2	4.8	3.7	2.4	1.9	49.7

Source: Data from www.city-data.com under City of San Jacinto

Table 2
City of San Jacinto
Historical Annual Production
(acre-feet)

Calendar Year	Water Supply (AF)									Customers (meters)	Water Use per Customer (AF/meter)
	Local Groundwater Wells							Purchased Water from EMWD	Total		
	Grand	Old Bath	New Bath	Mistletoe	Artesia	Lake Park	Subtotal				
1982	1/	1/	--	1/	--	--	1,908	0	1,908	2,519	0.76
1983	1/	1/	--	1/	--	--	1,991	0	1,991	2,561	0.78
1984	1/	1/	--	1/	--	--	2,345	0	2,345	2,602	0.90
1985	1/	1/	--	1/	--	--	2,442	0	2,442	2,633	0.93
1986	1/	1/	--	1/	--	--	2,572	0	2,572	2,687	0.96
1987	1/	1/	--	1/	--	--	2,573	0	2,573	2,715	0.95
1988	1/	1/	--	1/	--	--	2,394	0	2,394	2,802	0.85
1989	1/	2/	1/	1/	--	--	2,497	0	2,497	2,917	0.86
1990	1/	--	1/	1/	--	--	2,430	0	2,430	3,165	0.77
1991	1/	--	1/	1/	--	--	1,953	0	1,953	3,325	0.59
1992	1/	--	1/	1/	--	--	NA	0	NA	3,406	NA
1993	1,274	--	1,460	20	--	--	2,753	0	2,753	3,418 3/	0.81 3/
1994	1,018	--	1,600	216	--	--	2,834	0	2,834	3,430 3/	0.83 3/
1995	1,357	--	1,221	12	--	--	2,590	54	2,644	3,441 3/	0.77 3/
1996	1,163	--	1,774	46	--	--	2,982	47	3,029	3,453 3/	0.88 3/
1997	987	--	1,282	2/	--	--	2,269	600	2,869	3,465 3/	0.83 3/
1998	1,080	--	1,734	--	--	--	2,814	120	2,934	3,477 3/	0.84 3/
1999	550	--	1,357	--	819	--	2,725	0	2,725	3,488 3/	0.78 3/
2000	465	--	934	--	1,381	--	2,780	0	2,780	3,500 3/	0.79 3/
2001	495	--	941	--	1,306	--	2,742	0	2,742	3,510 3/	0.78 3/
2002	866	--	996	--	1,369	--	3,231	34	3,265	3,520 3/	0.93 3/
2003	895	--	963	--	1,296	--	3,154	2	3,157	3,529 3/	0.89
2004	510	--	712	--	1,572	--	2,794	175	2,968	3,539 3/	0.84 3/
2005	370	--	939	--	1,773	--	3,082	0	3,082	4,228	0.73
2006	652	--	1,002	--	2,152	--	3,806	52	3,858	4,634	0.83
2007	687	--	705	--	1,540	749	3,681	0	3,681	4,030	0.91
2008	508	--	483	--	705	1,310	3,006	23	3,029	3,998	0.76
2009	505	--	679	--	401	1,283	2,868	0	2,868	3,956	0.72
2010	733	--	703	--	424	935	2,795	0	2,795	4,045	0.69
										Average	0.82

1/ Not quantified seperately

2/ Ceased Operation

3/ Estimated

NA Information Not Available

Table 3
City of San Jacinto
Projected Water Supply and Demand
(acre-feet)

Year	Demand [1/]			Supply			Estimated Water Use Based on Projected Demands (GPCD) [3/]	Urban Water Use Target (GPCD) [4/]
	Ag	Domestic	Total	Ground Water [2/]	EMWD	Total		
2010	0	2,900	2,900	2,900	0	2,900	170	--
2015	0	3,469	3,469	3,469	0	3,469	166	196
2020	0	4,271	4,271	4,271	0	4,271	166	174
2025	0	4,271	4,271	4,271	0	4,271	166	174
2030	0	4,271	4,271	4,271	0	4,271	166	174

1/ Data from City staff. City staff estimates buildout at 4,271 acre-feet by 2020.

2/ Includes Soboba Settlement and information from Groundwater Management Plan

3/ Based on projected demands from City staff and projected population from Chapter 2

4/ Estimated Water Use based on projected demands is lower than Urban Water Use Targets. Therefore, the City will be able to meet the State's requirements.

Table 4
City of San Jacinto
Supply Reliability
(acre-feet)

	Average/ Normal Water Year (2003)	Single Dry Water Year (2004)	Multiple Dry Water Years			
			Year 1 (2006)	Year 2 (2007)	Year 3 (2008)	Year 4 (2009)
Anticipated Demand [1/]	**3,157**	**2,968**	**3,858**	**3,681**	**3,029**	**2,868**
Percent of Normal Year Demand	--	94	122	117	96	91
Anticipated Supply [1/]						
San Jacinto Basin	3,154	2,794	3,806	3,681	3,006	2,868
EMWD	2	175	52	0	23	0
Total	**3,157**	**2,968**	**3,858**	**3,681**	**3,029**	**2,868**
Percent of Normal Year Supply	--	94	122	117	96	91

1/ See Table 2

Table 5
City of San Jacinto
Past, Current and Projected Water Sales

Water Use Sectors	Calendar Year 2005			
	metered		unmetered	
	# of accounts	Deliveries AFY	# of accounts	Deliveries AFY
Single family	NA	NA	NA	NA
Multi family	NA	NA	NA	NA
Commercial/Institutional	NA	NA	NA	NA
Industrial	NA	NA	NA	NA
Landscape Irrigation	NA	NA	NA	NA
Other	NA	NA	NA	NA
Low Income Housing	NA	NA	NA	NA
Total	NA	NA	NA	NA

Water Use Sectors	Calendar Year 2009			
	metered		unmetered	
	# of accounts	Deliveries AFY	# of accounts	Deliveries AFY
Single family	2,780	1,061	0	0
Multi family	310	721	0	0
Commercial/Institutional	758	447	0	0
Industrial	4	3	0	0
Landscape Irrigation	190	459	0	0
Other	7	126	0	0
Low Income Housing	NA	NA	NA	NA
Total	4,049	2,817	0	0

Water Use Sectors	Calendar Year 2015			
	metered		unmetered	
	# of accounts	Deliveries AFY	# of accounts	Deliveries AFY
Single family	3,500	1,544	0	0
Multi family	410	821	0	0
Commercial/Institutional	760	447	0	0
Industrial	4	3	0	0
Landscape Irrigation	190	459	0	0
Other	7	126	0	0
Low Income Housing	NA	NA	NA	NA
Total	4,871	3,400	0	0

Table 5
City of San Jacinto
Past, Current and Projected Water Sales
(continued)

Water Use Sectors	Calendar Year 2020			
	metered		unmetered	
	# of accounts	Deliveries AFY	# of accounts	Deliveries AFY
Single family	4,398	2,244	0	0
Multi family	639	921	0	0
Commercial/Institutional	762	447	0	0
Industrial	4	3	0	0
Landscape Irrigation	190	459	0	0
Other	7	126	0	0
Low Income Housing	NA	NA	NA	NA
Total	6,000	4,200	0	0

Water Use Sectors	Calendar Year 2025			
	metered		unmetered	
	# of accounts	Deliveries AFY	# of accounts	Deliveries AFY
Single family	4,398	2,244	0	0
Multi family	639	921	0	0
Commercial/Institutional	762	447	0	0
Industrial	4	3	0	0
Landscape Irrigation	190	459	0	0
Other	7	126	0	0
Low Income Housing	NA	NA	NA	NA
Total	6,000	4,200	0	0

Water Use Sectors	Calendar Year 2030			
	metered		unmetered	
	# of accounts	Deliveries AFY	# of accounts	Deliveries AFY
Single family	4,398	2,244	0	0
Multi family	639	921	0	0
Commercial/Institutional	762	447	0	0
Industrial	4	3	0	0
Landscape Irrigation	190	459	0	0
Other	7	126	0	0
Low Income Housing	NA	NA	NA	NA
Total	6,000	4,200	0	0

Table 6

Water Rationing Stages and Reduction Goals

Shortage Condition	Stage	Customer Reduction Goal	Type of Rationing Program
Up to 15%	I	10%	Voluntary
15 - 25%	II	20%	Voluntary
25 - 35%	III	30%	Mandatory
35 - 50%	IV	50% or greater	Mandatory

Table 7
City of San Jacinto
Baseline Daily Per Capita Water Use

Water Use			Service Area Population		Per Capita Water Use		
						Average Per Capita Water Use	
Calendar Year	Recorded Supply (acre-feet) [1/]	Calculated Gross Water Use (gallons per day)	Calendar Year	Estimated Service Area Population [2/]	Calculated Daily Per Capita Water Use	10-Year Continuous [3/]	5-Year Continuous [4/]
1996	3,029	2,704,076	1996	10,920	248		
1997	2,869	2,560,800	1997	11,240	228		
1998	2,934	2,618,940	1998	11,560	227		
1999	2,725	2,432,863	1999	11,880	205		
2000	2,780	2,481,274	2000	12,200	203		
2001	2,742	2,447,514	2001	12,400	197		
2002	3,265	2,914,627	2002	12,600	231		
2003	3,157	2,817,862	2003	12,800	220		
2004	2,968	2,649,890	2004	13,000	204		
2005	3,082	2,750,937	2005	13,200	208	217	
2006	3,858	3,443,814	2006	13,600	253	218	
2007	3,681	3,286,163	2007	14,000	235	218	
2008	3,029	2,703,626	2008	14,400	188	214	218
2009	2,868	2,560,032	2009	14,800	173	211	211

10-Year Baseline Daily Per Capita Water Use =	218
5-Year Baseline Daily Per Capita Water Use =	218

1/ See Table 2. Includes EMWD purchases

2/ See Chapter 2 on population.

3/ Average per capita water use for first base period of 10-year continuous, ending no earlier than December 31, 2004 and no later than December 31, 2010.

4/ Average per capita water use for second base period of 5-year continuous, ending no earlier than December 31, 2007 and no later than December 31, 2010.

5/ Highest value calculated for a 10-year continuous period between 1995-96 and 2008-09.

6/ Highest value calculated for a 5-year continuous period between 2003-04 and 2008-09.

Table 8
Projected Normal Water Year Supply and Demand Comparison
(acre-feet)

	2015	2020	2025	2030
Projected Normal Water Year Supply				
Total Supply [1/]	3,469	4,271	4,271	4,271
Percent of Base Year for Normal Year (2003) [2/]	110	135	135	135
Projected Normal Water Year Demand				
Demand [1/]	3,469	4,271	4,271	4,271
Percent of Current Year (2009) [3/]	121	149	149	149
Projected Normal Year Supply and Demand Comparison				
Difference (Supply minus Demand)	0	0	0	0
Difference as Percent of Supply	0	0	0	0
Difference as Percent of Demand	0	0	0	0

1/ See Table 3

2/ Ratio of projected water supply with Base Year for Normal Water Year (2003). See Table 2

3/ Ratio of projected water demand with Current Year (2009). See Table 2

Table 9
Projected Single-Dry Year Supply and Demand Comparison
(acre-feet)

	2015	2020	2025	2030
Projected Single-Dry Year Supply				
Total Supply [1/]	3,262	4,016	4,016	4,016
Percent of Projected Normal Year [2/]	94	94	94	94
Projected Normal Water Year Demand				
Demand [1/]	3,262	4,016	4,016	4,016
Percent of Projected Normal Year [3/]	94	94	94	94
Projected Normal Year Supply and Demand Comparison				
Difference (Supply minus Demand)	0	0	0	0
Difference as Percent of Supply	0	0	0	0
Difference as Percent of Demand	0	0	0	0

1/ See Table 3

2/ Ratio of projected Single-Dry water supply with projected Normal Year supply. See Table 8

3/ Ratio of projected Single-Dry water demand with projected Normal Year demand See Table 8

Table 10
Projected Multiple Dry Years Supply and Demand Comparison
(acre-feet)

Period Beginning 2015	Year 1	Year 2	Year 3	Year 4	Year 5
Projected Multiple-Dry Year Water Supply					
Supply [1/]	4,240	4,046	3,328	3,152	3,152
Percent of Projected Normal Year [2/]	122	117	96	91	91
Projected Multiple-Dry Year Water Demand					
Demand [1/]	4,240	4,046	3,328	3,152	3,152
Percent of Projected Normal Year [2/]	122	117	96	91	91
Projected Multiple-Dry Year Water Supply and Demand Comparison					
Difference (Supply minus Demand)	0	0	0	0	0
Difference as Percent of Supply	0	0	0	0	0
Difference as Percent of Demand	0	0	0	0	0

Period Beginning 2020	Year 1	Year 2	Year 3	Year 4	Year 5
Projected Multiple-Dry Year Water Supply					
Supply [1/]	4,271	4,271	4,098	3,880	3,880
Percent of Projected Normal Year [2/]	100	100	96	91	91
Projected Multiple-Dry Year Water Demand					
Demand [1/]	4,271	4,271	4,098	3,880	3,880
Percent of Projected Normal Year [2/]	100	100	96	91	91
Projected Multiple-Dry Year Water Supply and Demand Comparison					
Difference (Supply minus Demand)	0	0	0	0	0
Difference as Percent of Supply	0	0	0	0	0
Difference as Percent of Demand	0	0	0	0	0

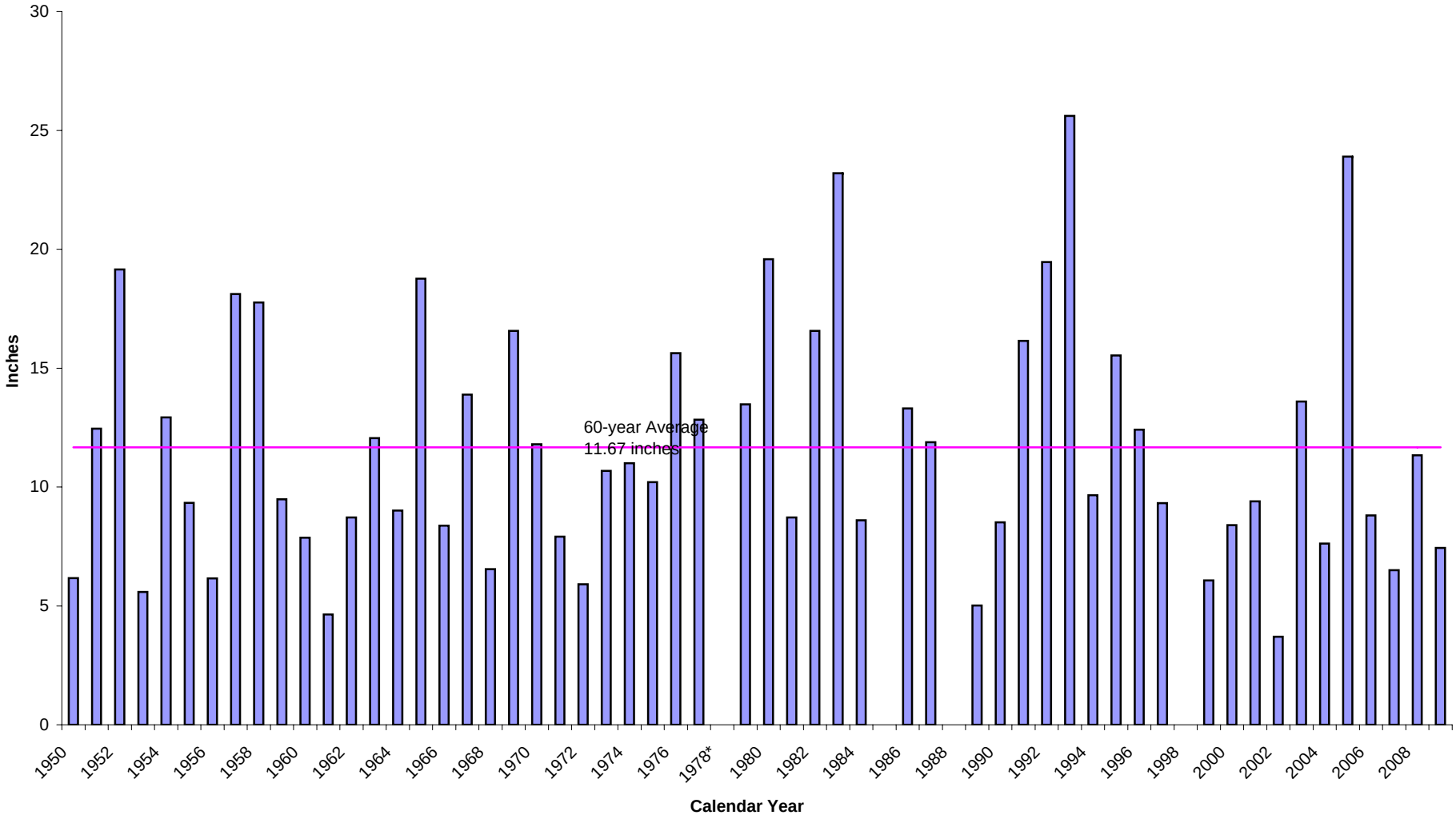
Table 10
Projected Multiple Dry Years Supply and Demand Comparison
(acre-feet)
(continued)

Period Beginning 2025	Year 1	Year 2	Year 3	Year 4	Year 5
Projected Multiple-Dry Year Water Supply					
Supply [1/]	4,271	4,271	4,098	3,880	3,880
Percent of Projected Normal Year [2/]	100	100	96	91	91
Projected Multiple-Dry Year Water Demand					
Demand [1/]	4,271	4,271	4,098	3,880	3,880
Percent of Projected Normal Year [2/]	100	100	96	91	91
Projected Multiple-Dry Year Water Supply and Demand Comparison					
Difference (Supply minus Demand)	0	0	0	0	0
Difference as Percent of Supply	0	0	0	0	0
Difference as Percent of Demand	0	0	0	0	0

Period Beginning 2030	Year 1	Year 2	Year 3	Year 4	Year 5
Projected Multiple-Dry Year Water Supply					
Supply [1/]	4,271	4,271	4,098	3,880	3,880
Percent of Projected Normal Year [2/]	100	100	96	91	91
Projected Multiple-Dry Year Water Demand					
Demand [1/]	4,271	4,271	4,098	3,880	3,880
Percent of Projected Normal Year [2/]	100	100	96	91	91
Projected Multiple-Dry Year Water Supply and Demand Comparison					
Difference (Supply minus Demand)	0	0	0	0	0
Difference as Percent of Supply	0	0	0	0	0
Difference as Percent of Demand	0	0	0	0	0

1/ Based on ratio between Normal Water Year with Multiple Dry Years. See Tables 4 and 8. However, if calculation is greater than the City's estimated buildout of 4,271 AF, then supply/demand will cap at 4,271 AF.

2/ Ratio of projected multiple dry years with projected normal water year. See Table 8



Source: Climatological Data Annual Summary, VOL. 54 through103 for calendar years 1950 - 1999 and County of Riverside Flood Control for Calendar Years 2000 - 2005

*Station moved from San Jacinto to San Jacinto Ranger Station beginning in 1978

STETSON ENGINEERS INC.

Covina San Rafael Mesa, Arizona

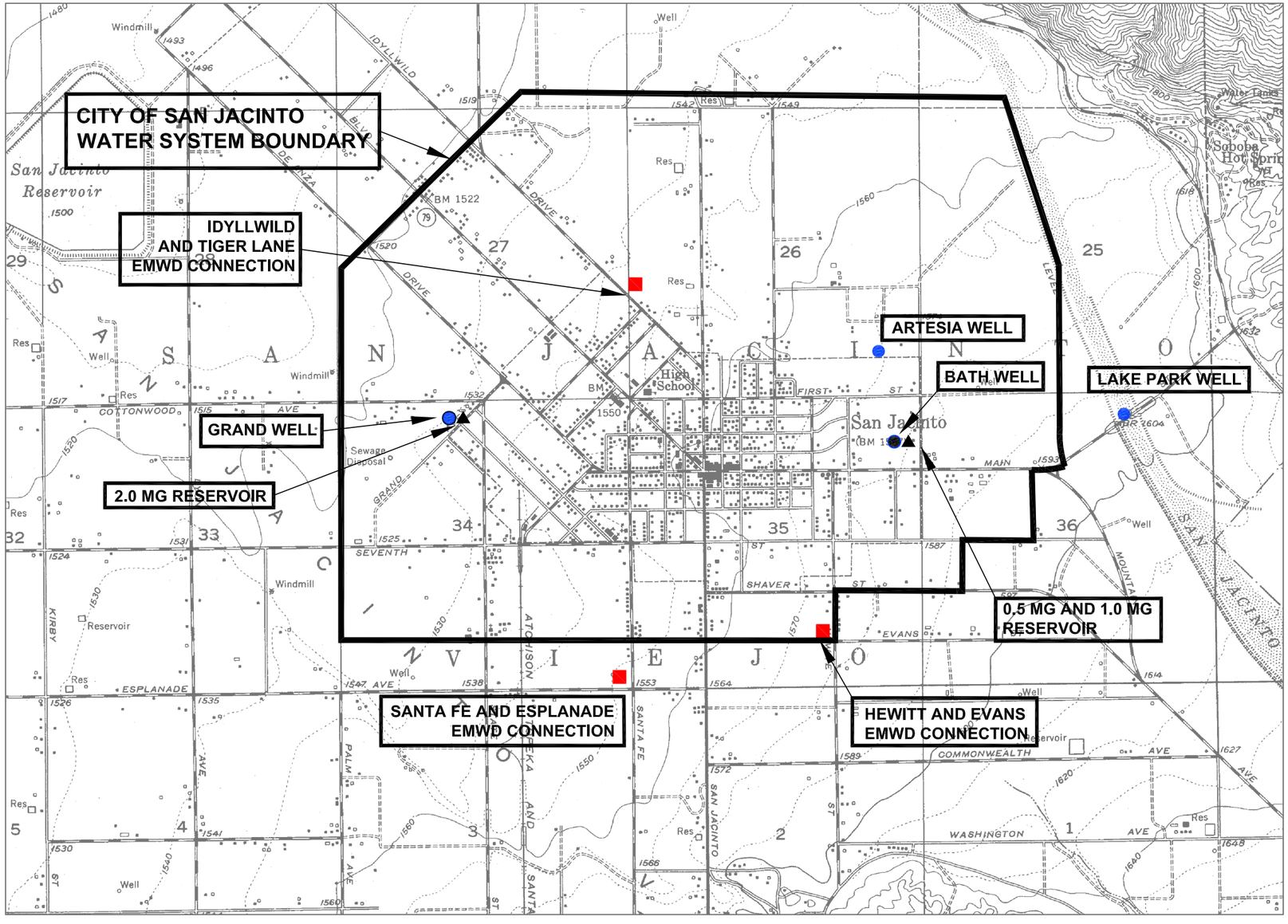
WATER RESOURCE ENGINEERS

CITY OF SAN JACINTO

ANNUAL RAINFALL

Figure 1

Z:\Jobs\1935\09\2010 UWMP\figures\Figure1



LEGEND

- WELL
- RESERVOIR
- EMWD CONNECTION

STETSON ENGINEERS INC.
861 VILLAGE OAKS DRIVE, SUITE 100
COVINA, CALIFORNIA 91724
TEL: (626) 967-6202
FAX: (626) 331-7065

2171 E Francisco Blvd., Suite K
San Rafael California 94901

2651 W Guadalupe Rd., Suite A209
Mesa Arizona 85202

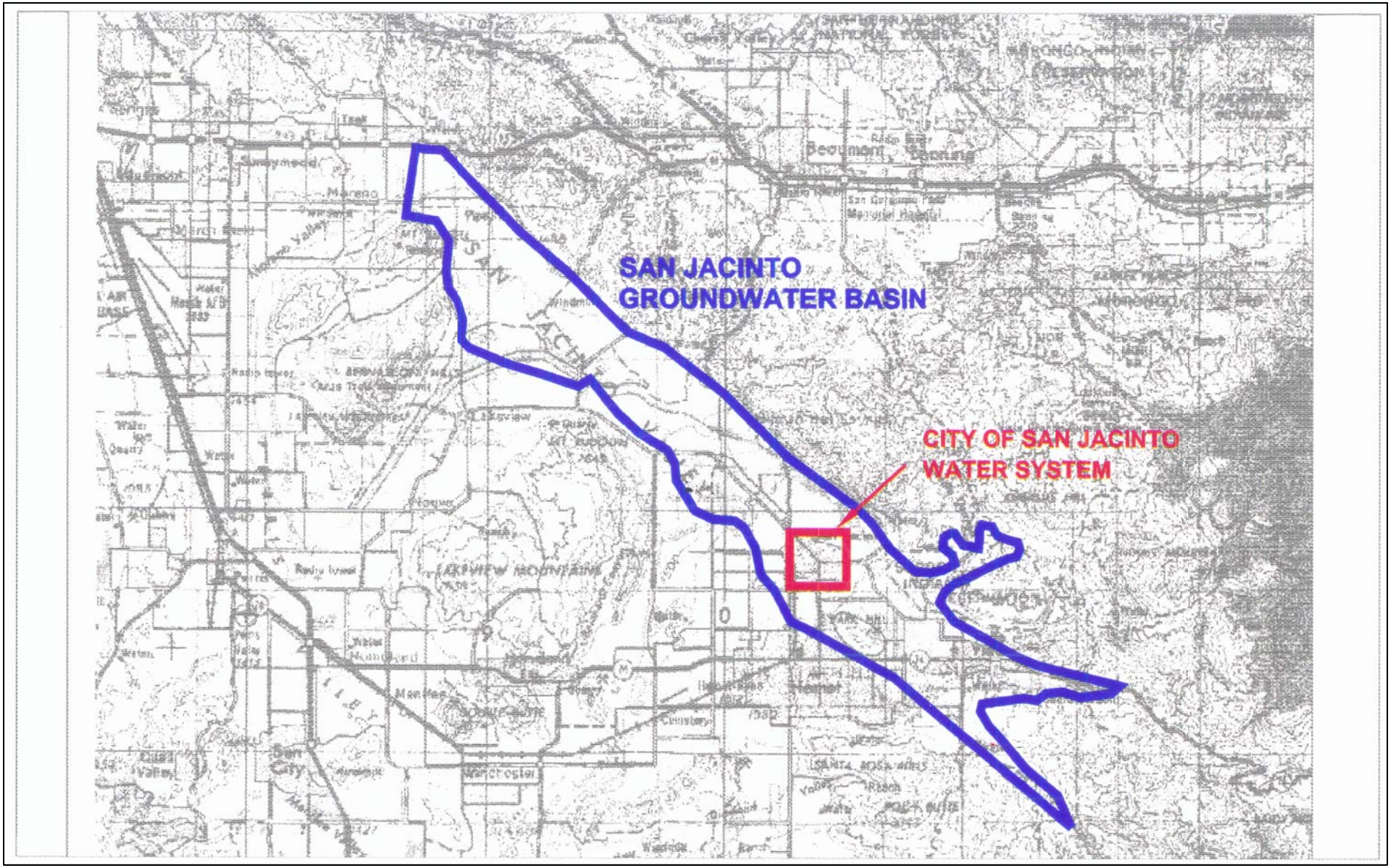
N

1,000' 1,000'

CITY OF SAN JACINTO

WATER SERVICE AREA WELLS AND EMWD CONNECTIONS

F:\JOBS\1935\09\2010 UWMP\Plates\PLATE 1.DWG
F:\JOBS\1935-09.CTB



STETSON
ENGINEERS INC.

861 VILLAGE OAKS DRIVE, STE 100
COVINA, CALIFORNIA 91724
TEL: (626) 967-6202
FAX: (626) 331-7065

2171 E Francisco Blvd., Suite K
San Rafael California 94901

2651 W Guadalupe Rd., Suite A209
Mesa Arizona 85202

N

10,000' 10,000'

CITY OF SAN JACINTO

VICINITY MAP
SAN JACINTO GROUNDWATER BASIN

PLATE 2

F:\JOBS\1935\09\2010 UWMP\Plates\PLATE 2.DWG
F:\JOBS\1935-09.CTB

APPENDIX A.1

California Urban Water Management Planning Act

Established: AB 797, Klehs, 1983
Amended: AB 2661, Klehs, 1990
AB 11X, Filante, 1991
AB 1869, Speier, 1991
AB 892, Frazee, 1993
SB 1017, McCorquodale, 1994
AB 2853, Cortese, 1994
AB 1845, Cortese, 1995
SB 1011, Polanco, 1995
AB 2552, Bates, 2000
SB 553, Kelley, 2000
SB 610, Costa, 2001
AB 901, Daucher, 2001
SB 672, Machado, 2001
SB 1348, Brulte, 2002
SB 1384, Costa, 2002
SB 1518, Torlakson, 2002
AB 105, Wiggins, 2004
SB 318, Alpert, 2004
SB 1087, Florez, 2005
SBX7 7, Steinberg, 2009

CALIFORNIA WATER CODE DIVISION 6
PART 2.6. URBAN WATER MANAGEMENT PLANNING

CHAPTER 1. GENERAL DECLARATION AND POLICY

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

10610.2. (a) The Legislature finds and declares all of the following:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

CHAPTER 2. DEFINITIONS

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

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

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

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

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

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

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

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

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

CHAPTER 3. URBAN WATER MANAGEMENT PLANS
Article 1. General Provisions

10620.

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

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

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

(d)

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

(2) Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.

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

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

10621.

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

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

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

Article 2. Contents of Plans

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

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

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

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

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

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

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

(3) A detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the

past five years. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

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

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

(1) An average water year.
(2) A single dry water year.
(3) Multiple dry water years.

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

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

(e)

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

(A) Single-family residential.
(B) Multifamily.
(C) Commercial.
(D) Industrial.
(E) Institutional and governmental.
(F) Landscape.
(G) Sales to other agencies.
(H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof.
(I) Agricultural.

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

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

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

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

(B) Residential plumbing retrofit.

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

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

(E) Large landscape conservation programs and incentives.

(F) High-efficiency washing machine rebate programs.

(G) Public information programs.

(H) School education programs.

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

(J) Wholesale agency programs.

(K) Conservation pricing.

(L) Water conservation coordinator.

(M) Water waste prohibition.

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

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

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

(4) An estimate, if available, of existing conservation savings on water use within the supplier's service area, and the effect of the savings on the supplier's ability to further reduce demand.

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

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

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

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

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

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

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

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

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

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

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

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

(b) An estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency's water supply.

(c) Actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster.

(d) Additional, mandatory prohibitions against specific water use practices during water shortages, including, but not limited to, prohibiting the use of potable water for street cleaning.

(e) Consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.

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

(g) An analysis of the impacts of each of the actions and conditions described in subdivisions (a) to (f), inclusive, on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments.

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

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

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

(a) A description of the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.

(b) A description of the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.

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

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

(e) The projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected pursuant to this subdivision.

(f) A description of actions, including financial incentives, which may be taken to encourage the use of recycled water, and the projected results of these actions in terms of acre-feet of recycled water used per year.

(g) A plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.

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

Article 2.5 Water Service Reliability

10635.

(a) Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years. The water service reliability assessment shall be based upon the information compiled

pursuant to Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.

(b) The urban water supplier shall provide that portion of its urban water management plan prepared pursuant to this article to any city or county within which it provides water supplies no later than 60 days after the submission of its urban water management plan.

(c) Nothing in this article is intended to create a right or entitlement to water service or any specific level of water service.

(d) Nothing in this article is intended to change existing law concerning an urban water supplier's obligation to provide water service to its existing customers or to any potential future customers.

Articl 3. Adoption and Implementation of Plans

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

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

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

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

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

10644.

(a) An urban water supplier shall file with the department and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption. Copies of amendments or changes to the plans shall be filed with the department and any city or county within which the supplier provides water supplies within 30 days after adoption.

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

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

CHAPTER 4. MISCELLANEOUS PROVISIONS

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

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

(b) Any action or proceeding alleging that a plan, or action taken pursuant to the plan, does not comply with this part shall be commenced within 90 days after filing of the plan or amendment thereto pursuant to Section 10644 or the taking of that action.

10651. In any action or proceeding to attack, review, set aside, void, or annul a plan, or an action taken pursuant to the plan by an urban water supplier on the grounds of noncompliance with this part, the inquiry shall extend only to whether there was a prejudicial abuse of discretion. Abuse of discretion is established if the supplier has not proceeded in a manner required by law or if the action by the water supplier is not supported by substantial evidence.

10652. The California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) does not apply to the preparation and adoption of plans pursuant to this part or to the implementation of actions taken pursuant to Section 10632. Nothing in this part shall be interpreted as exempting from the California Environmental Quality Act any project that would significantly affect water

supplies for fish and wildlife, or any project for implementation of the plan, other than projects implementing Section 10632, or any project for expanded or additional water supplies.

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

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

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

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

10657.

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

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

APPENDIX A.2

Senate Bill No. 7

Senate Bill No. 7

CHAPTER 4

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

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

LEGISLATIVE COUNSEL'S DIGEST

SB 7, Steinberg. Water conservation.

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

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

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

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

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

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

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

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

PART 2.55. SUSTAINABLE WATER USE AND DEMAND REDUCTION

CHAPTER 1. GENERAL DECLARATIONS AND POLICY

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(k) Advance regional water resources management.

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

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

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

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

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

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

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

Chapter 2. Definitions

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(A) Metered.

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

(C) Treated to a minimum tertiary level.

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

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

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

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

(2) The use of recycled water.

(3) The desalination of brackish groundwater.

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

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

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

(q) "Urban water use target" means the urban retail water supplier's targeted future daily per capita water use.

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

CHAPTER 3. URBAN RETAIL WATER SUPPLIERS

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

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

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

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

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

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

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

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

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

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

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

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

(A) Consider climatic differences within the state.

(B) Consider population density differences within the state.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(1) Through an urban wholesale water supplier.

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

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

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

(5) By hydrologic region.

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

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

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

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

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

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

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

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

(a) Appropriate metrics for evaluating commercial, industrial, and institutional water use.

(b) Evaluation of water demands for manufacturing processes, goods, and cooling.

(c) Evaluation of public infrastructure necessary for delivery of recycled water to the commercial, industrial, and institutional sectors.

(d) Evaluation of institutional and economic barriers to increased recycled water use within the commercial, industrial, and institutional sectors.

(e) Identification of technical feasibility and cost of the best management practices to achieve more efficient water use statewide in the commercial, industrial, and institutional sectors that is consistent with the public interest and reflects past investments in water use efficiency.

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

CHAPTER 4. AGRICULTURAL WATER SUPPLIERS

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

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

(1) Measure the volume of water delivered to customers with sufficient accuracy to comply with subdivision (a) of Section 531.10 and to implement paragraph (2).

(2) Adopt a pricing structure for water customers based at least in part on quantity delivered.

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

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

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

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

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

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

(B) Conjunctive use of groundwater.

(C) Appropriate increase of groundwater recharge.

(D) Reduction in problem drainage.

(E) Improved management of environmental resources.

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

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

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

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

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

(9) Automate canal control structures.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Chapter 5. Sustainable Water Management

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

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

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

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

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

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

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

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

Chapter 6. Standardized Data Collection

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

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

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

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

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

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

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

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

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

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

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

CHAPTER 8. QUANTIFYING AGRICULTURAL WATER USE EFFICIENCY

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

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

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

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

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

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

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

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

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

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

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

(i) Compliance on an individual basis.

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

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

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

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

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

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

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

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

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

PART 2.8. AGRICULTURAL WATER MANAGEMENT PLANNING

CHAPTER 1. GENERAL DECLARATIONS AND POLICY

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

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

(a) The waters of the state are a limited and renewable resource.

(b) The California Constitution requires that water in the state be used in a reasonable and beneficial manner.

(c) Urban water districts are required to adopt water management plans.

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

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

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

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

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

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

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

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

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

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

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

Chapter 2. Definitions

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

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

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

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

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

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

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

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

Chapter 3. Agricultural Water Management Plans

Article 1. General Provisions

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

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

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

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

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

Article 2. Contents of Plans

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

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

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

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

(1) Size of the service area.

(2) Location of the service area and its water management facilities.

(3) Terrain and soils.

(4) Climate.

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

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

(1) Surface water supply.
(2) Groundwater supply.
(3) Other water supplies.
(4) Source water quality monitoring practices.
(5) Water uses within the agricultural water supplier's service area, including all of the following:
(A) Agricultural.
(B) Environmental.
(C) Recreational.
(D) Municipal and industrial.
(E) Groundwater recharge.
(F) Transfers and exchanges.
(G) Other water uses.
(6) Drainage from the water supplier's service area.
(7) Water accounting, including all of the following:
(A) Quantifying the water supplier's water supplies.
(B) Tabulating water uses.
(C) Overall water budget.
(8) Water supply reliability.

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

(d) Describe previous water management activities.

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

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

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

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

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

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

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

Article 3. Adoption and Implementation of Plans

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

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

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

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

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

(1) The department.

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

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

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

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

(6) The California State Library.

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

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

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

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

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

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

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

Chapter 4. Miscellaneous Provisions

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

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

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

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

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

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

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

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

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

O

APPENDIX B.1

Notification to Agencies of Preparation of Plan

SAN JACINTO

MEMORANDUM

DATE: November 15, 2010

TO: Rick Miller, City Clerk

FROM: Mike Emberton, Public Works Director ME

RE: 2010 Urban Water Management Plan Update

The Urban Water Management Planning Act requires every "urban water supplier[1]" to prepare and adopt an Urban Water Management Plan (UWMP) and periodically update that plan at least once every five years on or before December 31, in years ending in five and zero. The UWMP is a planning document and a source document to direct urban water suppliers to evaluate and compare their water supply and reliability to their existing water conservation efforts. The City of San Jacinto (City) is currently in the process of updating our 2010 UWMP.

As an urban water supplier, the City is required pursuant to Section 10620(d)(2) of the UWMP Act to coordinate with water management agencies, relevant public agencies and other water suppliers on the preparation of the UWMP. The City will be reviewing the UWMP and will make amendments and changes, as appropriate. The City invites you to submit comments in anticipation of the development of our 2010 UWMP.

Please provide written comments within the next 30 days to the City.

---

[1]Section 10617 of the Urban Water Management Planning Act states, "*"Urban Water Supplier" means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually.*

SAN JACINTO

MEMORANDUM

DATE: November 15, 2010

TO: County of Riverside
Attn: County Administration Center
4080 Lemon Street
Riverside, CA 92501

FROM: Mike Emberton, Public Works Director M.E.

RE: 2010 Urban Water Management Plan Update

The Urban Water Management Planning Act requires every "urban water supplier[1]" to prepare and adopt an Urban Water Management Plan (UWMP) and periodically update that plan at least once every five years on or before December 31, in years ending in five and zero. The UWMP is a planning document and a source document to direct urban water suppliers to evaluate and compare their water supply and reliability to their existing water conservation efforts. The City of San Jacinto (City) is currently in the process of updating our 2010 UWMP.

As an urban water supplier, the City is required pursuant to Section 10620(d)(2) of the UWMP Act to coordinate with water management agencies, relevant public agencies and other water suppliers on the preparation of the UWMP. The City will be reviewing the UWMP and will make amendments and changes, as appropriate. The City invites you to submit comments in anticipation of the development of our 2010 UWMP.

Please provide written comments within the next 30 days to the City.

---

[1]Section 10617 of the Urban Water Management Planning Act states, "*"Urban Water Supplier" means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually.*

SAN JACINTO

MEMORANDUM

DATE: November 15, 2010

TO: Eastern Municipal Water District
Attn: Elizabeth Lovsted
PO Box 8300
Perris, CA 92572-8300

FROM: Mike Emberton, Public Works Director M.E.

RE: 2010 Urban Water Management Plan Update

The Urban Water Management Planning Act requires every "urban water supplier[1]" to prepare and adopt an Urban Water Management Plan (UWMP) and periodically update that plan at least once every five years on or before December 31, in years ending in five and zero. The UWMP is a planning document and a source document to direct urban water suppliers to evaluate and compare their water supply and reliability to their existing water conservation efforts. The City of San Jacinto (City) is currently in the process of updating our 2010 UWMP.

As an urban water supplier, the City is required pursuant to Section 10620(d)(2) of the UWMP Act to coordinate with water management agencies, relevant public agencies and other water suppliers on the preparation of the UWMP. The City will be reviewing the UWMP and will make amendments and changes, as appropriate. The City invites you to submit comments in anticipation of the development of our 2010 UWMP.

Please provide written comments within the next 30 days to the City.

---

[1]Section 10617 of the Urban Water Management Planning Act states, "*"Urban Water Supplier" means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually.*

APPENDIX B.2

City Provided EMWD with Projections

EMWD Provided City with Projections

SAN JACINTO

MEMORANDUM

TO: **Elizabeth Lovsted, Eastern Municipal Water District**

FROM: **Mike Emberton, Public Works Director** M.E.

SUBJECT: **2010 Urban Water Management Plan Update**

DATE: **December 27, 2010**

As an urban water supplier that rely upon a wholesale agency for a source of water, the City is required pursuant to Section 10631(k) of the Urban Water Management Plan (UWMP) Act to provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. Attached is the City's water use projections of treated imported water from EMWD in five-year increments to 20 years.

In addition, Section 10631(k) requires the wholesale agency to provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent possible, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water-year types in accordance with subdivision (c). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (c). Please provide the data to the City by January 10, 2011.

APPENDIX B.3

Notice of Public Hearing

DRAFT

Printed at: 12:55 pm
on: Wednesday, Aug 3, 2011
Ad #: 0000586504
Order Taker: Maria Tinajero

enterprise media
Classified Advertising
Receipt

3450 Fourteenth St.
Riverside, CA 92501-3878
(800) 514-7253
(951) 684-1200
(951) 368-9006 Fax

Payment Information

Date	Payment #	Type	Card Holder	Exp.	Approval	Amount
					Total Payments:	

Account Information

Phone #: (951) 487-7330
Name: SAN JACINTO, CITY OF
Address: 1P O BOX 488 ,
SAN JACINTO, CA 92583
USA

Account # 100141775
Client:
Placed By: Rick Miller
Fax #: (951) 654-8021

Ad Information

Classification: EN CLS Legals Hemet News
Publication: PE.com, Zone East

Start Date: 08/05/2011
Stop Date: 08/12/2011
Insertions: 4

Rate code: LGL HN City Legal
Ad type: CLS 10 Liner

Size: 2.0 X 31 Li
Bill Size:

Amount Due: **$70.15**

Gross price:	$70.15
Net price:	$70.15
Total Payments:	$0.00
Amount Due:	**$70.15**

Ad Copy:

NOTICE OF PUBLIC HEARING

The City of San Jacinto (City) will hold a PUBLIC HEARING on September 6, 2011 at 7:00 pm for the purpose of adopting its 2010 draft Urban Water Management Plan.

The 2010 draft Urban Water Management Plan (Plan) was prepared pursuant to the "Urban Water Management Planning Act", California Water Code, Sections 10608 through 10656. The State Department of Water Resources requires every urban water supplier to prepare and adopt a Plan and periodically update that plan at least once every five years, in years ending in five and zero.

Information regarding the City's PUBLIC HEARING follows:

Date: September 6, 2011
Time: 7:00 pm
Place: 625 S. Pico Ave, San Jacinto, CA 92583

The City invites all interested parties and groups to attend and present their comments. A copy of the draft 2010 Plan is available at the City's office and website. Please provide comments by 5 p.m. on August 18, 2011 to the City at 595 S. San Jacinto Ave, San Jacinto, CA 92583.

8/5, 8/12

APPENDIX B.4

Final Plan Sent to:

State of California

Department of Water Resources

State of California Library

County of Riverside

City of San Jacinto

STETSON
ENGINEERS INC.

861 Village Oaks Drive, Suite 100 • Covina, California 91724
Phone: (626) 967-6202 • FAX: (626) 331-7065 • Web site: www.stetsonengineers.com

Northern California • Southern California • New Mexico • Arizona • Nevada • Colorado

1935-09

Reply to: Covina

February 16, 2012

Department of Water Resources
Statewide Integrated Water Management
Water Use Efficiency Branch
P.O. Box 942836
Sacramento, California 94236-0001
Attn: Coordinator, Urban Water Management Plans

Subject: City of San Jacinto
2010 Urban Water Management Plan

Dear Coordinator, Urban Water Management Plans:

The City of San Jacinto (City) has authorized this office to provide you with the City's 2010 Urban Water Management Plan as a hardcopy and as a CD electronic copy in accordance with Section 10644 of the California Water Code. As part of the Urban Water Management Plan process, the City took the following actions:

- Notified any city or county within its service area of the preparation of its 2010 Urban Water Management Plan Update and encouraged participation and the submittal of comments
- Gave 60-day notice, prior to a public hearing, to any city or county within which the supplier provides water supplies notifying that the City is reviewing the Plan and is considering changes according to Assembly Bill 1376
- Made the plan available to the public for review 2 weeks prior to holding a public hearing on December 6, 2011
- Adopted the draft Urban Water Management Plan as its 2010 Urban Water Management Plan on December 6, 2011. Signed the resolution to Adopt the Urban Water Management Plan on January 23, 2012
- Submitted its Urban Water Management Plan to all cities and county within its service area.

Please, feel free to contact Mr. Dan Mudrovich of the City of San Jacinto at (951) 487-7381 or me at (626) 967-6202 should you have any questions.

Sincerely,

Kevin R. Smead, P.E.
Stetson Engineers Inc.

cc: Mr. Dan Mudrovich, City of San Jacinto

STETSON ENGINEERS INC.

861 Village Oaks Drive, Suite 100 • Covina, California 91724
Phone: (626) 967-6202 • FAX: (626) 331-7065 • Web site: www.stetsonengineers.com

Northern California • Southern California • New Mexico • Arizona • Nevada • Colorado

Reply to: Covina

1935-09

February 16, 2012

California State Library
P.O. Box 942837
Sacramento, CA 94237-0001

Subject: City of San Jacinto
2010 Urban Water Management Plan

California State Library:

City of San Jacinto (City) has authorized this office to provide the California State Library with a copy of the City's 2010 Urban Water Management Plan in accordance with Section 10644 of the California Water Code.

Please, feel free to contact Mr. Dan Mudrovich of the City of San Jacinto at (951) 487-7381 or me at (626) 967-6202 should you have any questions.

Sincerely,

Kevin R. Smead, P.E.
Stetson Engineers Inc.

cc: Mr. Dan Mudrovich, City of San Jacinto

Z:\Jobs\1935\09\2010 UWMP\Transmittal to StateLibrary.doc

STETSON ENGINEERS INC.

861 Village Oaks Drive, Suite 100 • Covina, California 91724
Phone: (626) 967-6202 • FAX: (626) 331-7065 • Web site: www.stetsonengineers.com

Northern California • Southern California • New Mexico • Arizona • Nevada • Colorado

Reply to: Covina

MEMORANDUM

TO: **CITY OF SAN JACINTO (CITY CLERK)**
EASTERN MUNICIPAL WATER DISTRICT (ELIZABETH LOVSTED)
COUNTY OF RIVERSIDE (COUNTY CLERK)

FROM: **CITY OF SAN JACINTO**

SUBJECT: **FINAL 2010 URBAN WATER MANAGEMENT PLAN**

JOB NO.: **1935-09**

DATE: **FEBRUARY 16, 2012**

City of San Jacinto (City) has adopted its 2010 Urban Water Management Plan (UWMP) on December 6, 2011 and received its resolution on January 23, 2012. The City has requested Stetson Engineers Inc. to provide you with the enclosed electronic Final 2010 UWMP for your files. Please let the City office know if you would like a hard copy in addition to the electronic copy.

Z:\Jobs\1935\09\2010 UWMP\City and County Draft Transmittal.doc

STETSON ENGINEERS INC.

861 Village Oaks Drive, Suite 100 • Covina, California 91724
Phone: (626) 967-6202 • FAX: (626) 331-7065 • Web site: www.stetsonengineers.com
Northern California • Southern California • New Mexico • Arizona • Nevada • Colorado

Reply to: Covina

MEMORANDUM

TO: **Mr. Dan Mudrovich**
City of San Jacinto

FROM: **Jenny Arevalo**
Stetson Engineers Inc.

SUBJECT: **2010 Urban Water Management Plan**

JOB NO.: **1935-09**

DATE: **February 16, 2012**

Enclosed are four hardcopy and one electronic copy of the final 2010 Urban Water Management Plan.

If you have any questions, please feel free to contact Kevin Smead or me at (626) 967-6202.

Enclosure

Z:\Jobs\1935\09\2010 UWMP\Transmittal of Final UWMP to SPAS.doc

APPENDIX C

Draft Groundwater Management Plan

Hemet/San Jacinto

Groundwater Management Area

Water Management Plan

Prepared for:

Eastern Municipal Water District, Since 1950

Lake Hemet Municipal Water District, Incorporated 1955

City of Hemet, Riverside County, California

San Jacinto

in coordination with:

Department of Water Resources, State of California

Prepared by:

WRIME Water Resources & Information Management Engineering, Inc.

in association with Stetson Engineers and Geoscience

November 7, 2007

WRIME Water Resources & Information Management Engineering, Inc.
1451 River Park Drive, Suite 142, Sacramento, CA 95815
Phone: 916-564-2236 Fax: 916-564-1639
E-mail: info@wrime.com
www.wrime.com

Hemet/San Jacinto Groundwater Management Area
Water Management Plan

November 7, 2007

Prepared for:

Eastern Municipal Water District
Lake Hemet Municipal Water District
City of Hemet
City of San Jacinto

in coordination with
California Department of Water Resources

Prepared by:

Water Resources & Information Management Engineering, Inc.
(WRIME)
1451 River Park Drive, Suite 142
Sacramento, CA 95815

in association with:
Stetson Engineers
Geoscience

Project Management Team
Behrooz Mortazavi, *EMWD*
Ali Taghavi, *WRIME*

Technical Team
Jim Blanke, *WRIME*
John Loncar, *LHMWD*
Steve Johnson, *Stetson Engineers*
Dennis Williams, *Geoscience*

Legal Team
Art Littleworth, *Best Best & Krieger*
Gerry Shoaf, *Redwine & Sherrill*
Eric Vale, *Burke, Williams, Sorenson*
Bob Hargreaves, *Best Best & Krieger*

Facilitation
Dale Schafer, *Center for Collaborative Policy*

Department of Water Resources
Eric Hong, *DWR*
Maurice Hall, *DWR*

(This Page Left Blank Intentionally)

TABLE OF CONTENTS

TABLE OF CONTENTS i

List of Figures vii
List of Tables ix
Selected Acronyms, Abbreviations, and Terminology x

EXECUTIVE SUMMARY 1

Background and Goals 1
Groundwater as a Cornerstone for Water Management 2
Integration of Groundwater with Other Water Sources and Demand Management to Meet Future Water Needs 2
Physical Solution is the Basis of Water Supply Project in the Management Area 4
A Firm Legal and Institutional Arrangement 5
Implementation and Plan Evolution 6

SECTION 1 INTRODUCTION 9

1.1 Project Background 9
1.2 Water Management Plan 11
1.3 Physical Solution 11
1.4 Water Management Plan Goals 12

SECTION 2 MANAGEMENT PLAN FRAMEWORK 13

2.1 Management Area 13
2.2 Management Plan Participants 13
2.2.1 Public Agencies 13
2.2.2 Private Water Producers 17
2.2.3 Role of State of California Department of Water Resources 19
2.2.4 Public Participation 19
2.3 Previous Agreements and Institutional Bodies 19
2.3.1 Fruitvale Judgment and Decree 19
2.3.2 Hemet/San Jacinto Groundwater Association 20
2.4 Active Institutional Bodies 21
2.4.1 Hemet/San Jacinto Policy Committee 21

2.4.2 Hemet/San Jacinto Technical Committee 21
2.4.3 Hemet/San Jacinto Consultant-Attorney-Managers Committee 22
2.5 Related Groundwater Management Activities 22

SECTION 3 WATER MANAGEMENT PLAN ELEMENTS 27

3.1 Management Plan Goals 27
3.1.1 Address Pumping Overdraft and Declining Groundwater Levels 27
3.1.2 Provide for Soboba Prior and Paramount Water Rights 28
3.1.3 Ensure Reliable Water Supply 28
3.1.4 Provide for Planned Urban Growth 28
3.1.5 Protect and Enhance Water Quality 29
3.1.6 Develop Cost-Effective Water Supply 29
3.1.7 Provide Adequate Monitoring for Water Supply and Water Quality 29
3.1.8 Supersede the Fruitvale Judgment and Decree 30
3.2 Water Management Plan Strategies 30
3.2.1 Reduce Public Agency Native Groundwater Production 30
3.2.2 Implement the San Jacinto River Recharge and Recovery Project 31
3.2.3 Implement Groundwater Replenishment Program 34
3.2.4 Expand the Use of Recycled Water 35
3.2.5 Provide for Reliable Water Supply to Meet the Future Demand 36
3.2.6 Implement Additional Water Conservation Measures 36
3.2.7 Implement and Expand Monitoring Program 36

SECTION 4 STATE OF THE MANAGEMENT AREA 41

4.1 Geography and Climate 41
4.1.1 Geography 41
4.1.2 Climate 43
4.2 Surface Water Conditions 46
4.3 Geology 48
4.4 Delineation of Management Zones 50
4.5 Soils 51
4.6 Groundwater Conditions 55
4.6.1 Artificial Recharge Operations 55
4.6.2 Groundwater Levels and Flow 56
4.6.3 Groundwater Budget 64
4.6.4 Land Subsidence 67

4.7 Land Use 68
4.8 Current Water Supplies 71
4.8.1 Groundwater 71
4.8.2 Imported Water 80
4.8.3 Recycled Water 81
4.8.4 Surface Water 82
4.8.5 Purchases from EMWD 83
4.9 Estimates of Safe Yield and Overdraft 83
4.9.1 Safe Yield 83
4.9.2 Overdraft 88
4.10 Water Quality Conditions 88

SECTION 5 PROJECTED WATER DEMANDS AND FUTURE PLAN PHASES 95

5.1 Projected Land Use Conditions 95
5.2 Projected Water Demands 97
5.2.1 EMWD 97
5.2.2 LHMWD 98
5.2.3 City of Hemet Water Service Area 99
5.2.4 City of San Jacinto 99
5.2.5 Soboba Tribe 100
5.2.6 Private Water Producers 101
5.2.7 Management Area 101
5.3 Future Plan Phases 102
5.3.1 San Jacinto River Integrated Recharge and Recovery Project, Phase II 102
5.3.2 Potential Conjunctive Use Projects 104
5.3.3 Direct Recharge Projects 105
5.3.4 In-Lieu Projects 110

SECTION 6 GROUNDWATER RIGHTS 113

6.1 Public Agencies Base Production Rights 113
6.1.1 General 113
6.1.2 EMWD Base Production Rights 114
6.1.3 LHMWD Base Production Rights 115
6.1.4 City of Hemet Base Production Rights 115
6.1.5 City of San Jacinto Base Production Rights 115
6.2 Private Water Producer's Production Rights 115

6.2.1 General 115
6.2.2 Class A Production Rights 116
6.2.3 Class B Production Rights 116
6.3 Soboba Tribe Water Rights 117

SECTION 7 SURFACE WATER RIGHTS 119

7.1 LHMWD's Diversion Rights 119
7.1.1 Lake Hemet 119
7.1.2 South Fork of the San Jacinto River 119
7.1.3 North Fork of the San Jacinto River 121
7.1.4 Strawberry Creek 121
7.2 EMWD's Diversion Rights 121

SECTION 8 SOBOBA TRIBE SETTLEMENT REQUIREMENTS 123

8.1 Original Soboba Claim 123
8.1.1 Early Negotiations 123
8.1.2 United States Settlement Proposal 123
8.1.3 Tribal Claim Against MWD 123
8.1.4 MWD's Cross Complaint 123
8.1.5 Final Negotiations 124
8.1.6 Status of Congressional Approval 124
8.2 Framework of the Settlement Agreement 124
8.3 Tribal Water Right 124
8.4 Payments to the Tribe 124
8.5 Funds Received by the Local Agencies 124
8.6 Imported Water 125
8.6.1 MWD Storage Right 125
8.6.2 Use of MWD Supply 125
8.7 Water Quality Requirements 125
8.8 Property Transactions 125
8.9 Approval of Water Management Plan 125

SECTION 9 INSTITUTIONAL PLAN 127

9.1 Purpose 127
9.2 Watermaster 127
9.2.1 Composition 127

9.2.2 Terms of Office 127
9.2.3 Removal and Replacement 127
9.2.4 Voting 127
9.3 Rules and Regulations 128
9.4 Meetings 128
9.5 Watermaster Organization 128
9.6 General Duties 130
9.6.1 Policy 130
9.6.2 Water Management Plan Implementation 130
9.6.3 Technical Oversight 131
9.7 Watermaster Interaction with EMWD 132
9.7.1 Contract for Services 132
9.7.2 Financial Responsibilities 132

SECTION 10 FINANCIAL PLAN 133

10.1 Annual Budget 133
10.2 Ownership of Facilities 133
10.2.1 Existing Facilities 133
10.2.2 Future Projects 134
10.2.3 Use of Member Agency Assets 134
10.3 Assessments 134
10.3.1 Administrative Assessments 134
10.3.2 Replenishment Assessments 135
10.3.3 Collections and Accounts 135
10.4 Phase I Facilities Construction and Soboba Settlement Financing 136
10.4.1 EMWD Construction Cost 136
10.4.2 Payments to Soboba Tribe 136
10.4.3 EMWD Obligation 137
10.4.4 Right to Transfer Entitlement to Use Facilities and/or Entitlement to Share in Rights to Water Not Used by Tribe 137
10.5 Future Capital Facilities 137

SECTION 11 IMPLEMENTATION PLAN 139

11.1 Organization 139
11.2 Monitoring Program Implementation 141
11.3 Management Planning Tools 144

11.4 Financial Administration 145
11.5 Stipulated Judgment Administration 146
11.6 Facilities and Projects 147
11.7 Special Projects and Studies 148
11.8 Conservation Programs 148
11.9 Well Construction, Abandonment, and Destruction 148
11.10 Public Participation 149
11.11 Groundwater Management Plan Components and Consistency with the California Water Code 150
11.12 Schedule 150

SECTION 12 REFERENCES 153

APPENDIX A. SETTLEMENT AGREEMENT

APPENDIX B. STIPULATED JUDGMENT

APPENDIX C. LIST OF GOVERNING BODIES

APPENDIX D. PRINCIPLES FOR WATER MANAGEMENT

APPENDIX E. LIST OF COMMITTEE ATTENDEES

APPENDIX F. HISTORICAL WATER SUPPLIES

APPENDIX G. EMWD LICENSE FOR SAN JACINTO RIVER DIVERSION

APPENDIX H. MEMORANDA OF UNDERSTANDING

APPENDIX I. SB1938 GROUNDWATER MANAGEMENT PLAN COMPLIANCE CHECKLIST

LIST OF FIGURES

Figure ES.1 Hemet/San Jacinto Groundwater Management Area and Management Zones.. 1
Figure ES.2 Components of Management Area Water Supply 3
Figure ES.3 Historical and Projected Water Demand 4
Figure ES.4 Plan Institutional Setup 6
Figure 1.1 Management Area and Management Zones 10
Figure 2.1 Public Agencies and Soboba Reservation 14
Figure 3.1 Schematic of Integrated Recharge and Recovery Program - Phase I 32
Figure 4.1 San Jacinto Watershed 42
Figure 4.2 Average Annual Precipitation in Watershed 44
Figure 4.3 Annual Precipitation and Cumulative Departure from Mean Precipitation 45
Figure 4.4 Fault Locations 49
Figure 4.5 Soil Series 53
Figure 4.6 Hydrologic Soils Groups 54
Figure 4.7 Annual Imported Water Recharged 56
Figure 4.8 Early 20th Century Groundwater Flow Direction 57
Figure 4.9 Current Groundwater Flow Direction 58
Figure 4.10 Spring 2004 Groundwater Elevation 60
Figure 4.11 Location of Representative Well Hydrographs 61
Figure 4.12 Groundwater Elevation, Canyon Management Zone, EMWD #6 Cienega 62
Figure 4.13 Groundwater Elevation, Upper Pressure Management Zone, EMWD #9 Hewitt and Evans 63
Figure 4.14 Groundwater Elevation, Hemet North Management Zone, EMWD #21 Old Dairyland 65
Figure 4.15 Groundwater Elevation, Hemet South Management Zone, EMWD #22 Sneed .. 66
Figure 4.16 1998 Land Use 69
Figure 4.17 Population Growth in Incorporated Hemet and San Jacinto 70
Figure 4.18 Components of Hemet/San Jacinto Groundwater Balance 72
Figure 4.19 Annual Management Area Water Supplies 73
Figure 4.20 EMWD Historical Annual Demand 73
Figure 4.21 LHMWD Historical Annual Demand 74
Figure 4.22 City of Hemet Water Service Area Historical Annual Demand 74
Figure 4.23 City of San Jacinto Water Service Area Historical Annual Demand 75
Figure 4.24 Private Water Producers Historical Annual Demand 75
Figure 4.25 Soboba Historical Annual Demand 76
Figure 4.26a Annual Groundwater Production, by Management Zone 76
Figure 4.26b Annual Groundwater Production, by Entity 77
Figure 4.27 Average Annual Entity Groundwater Production, by Management Zone, 1984-2004 77

Figure 4.28a EMWD 2004 Groundwater Production, Percentage by Supply Source 78
Figure 4.28b LHMWD 2004 Groundwater Production, Percentage by Supply Source 78
Figure 4.28c City of Hemet Water Service Area 2004 Groundwater Production, Percentage by Supply Source 78
Figure 4.28d Soboba 2004 Groundwater Production, Percentage by Supply Source 78
Figure 4.28e Private Water Producers 2004 Groundwater Production, Percentage by Supply Source 78
Figure 4.29a EMWD Historical Groundwater Production, Percentage by Supply Source 79
Figure 4.29b LHMWD Historical Groundwater Production, Percentage by Supply Source . 79
Figure 4.29c City of Hemet Water Service Area Historical Groundwater Production, Percentage by Supply Source 79
Figure 4.29d Soboba Historical Groundwater Production, Percentage by Supply Source 80
Figure 4.29e Private Water Producers Historical Groundwater Production, Percentage by Supply Source 80
Figure 4.30 Annual Imported Water Supply 81
Figure 4.31 Annual Recycled Water Supply 82
Figure 4.32 Annual Surface Water Supply 82
Figure 4.33 Annual Sales by EMWD to Other Agencies within Management Area 83
Figure 4.34 Safe Yield Estimates 87
Figure 4.35 Groundwater Production and Range of Safe Yield Estimates 89
Figure 4.36 2004 Nitrate as N Concentrations in Groundwater (mg/L) 92
Figure 4.37 2004 TDS Concentrations in Groundwater (mg/L) 93
Figure 5.1 Projected Ultimate Land Use 96
Figure 5.2 EMWD Historical and Projected Demand 98
Figure 5.3 LHMWD Historical and Projected Demand 98
Figure 5.4 City of Hemet Water Service Area Historical and Projected Demand 99
Figure 5.5 City of San Jacinto Water Service Area Historical and Projected Demand 100
Figure 5.6 Soboba Tribe Historical and Projected Demand 100
Figure 5.7 Private Water Producers Historical and Projected Demand 101
Figure 5.8 Management Area Historical and Projected Demand 102
Figure 5.9 Schematic of Integrated Recharge and Recovery Program - Phase II 103
Figure 5.10 Location of 9 Preferred Projects 106
Figure 6.1 Average Annual Groundwater Production, 1995 - 1999 113
Figure 7.1 Location of Surface Water Diversions 120
Figure 11.1 Relationships between Entities 140
Figure 11.2 Stream Gages and Groundwater Monitoring Sites 143

LIST OF TABLES

Table ES.1 Public Agency Base Production Rights 5
Table ES.2 Implementation Schedule 7
Table ES.3 Ongoing Schedule 7
Table 4.1 USGS Surface Water Gaging Stations 47
Table 4.2 Hydrologic Soils Groups 55
Table 4.3 Groundwater Budget for the Management Area 67
Table 4.4 Land Use Distribution Based on the 1998 Survey 68
Table 4.5 Published Estimates of Safe Yield for the Management Area 85
Table 4.6 Historical (1954-1973), 1997 Current (1978-1997), and 2003 Current (1984-2003) Ambient Nitrate as N and TDS Concentrations (mg/L) 90
Table 4.7 Change in Ambient Concentration (mg/L) of Nitrate as N and TDS, Between Historical (1954-1973) and 2003 Current (1984-2003) Time Periods 91
Table 5.1 Generalized Projected Acreage in the Management Area 97
Table 5.2 Summary of Selected Conjunctive Use Site Conditions 107
Table 6.1 Base Production Rights 114
Table 11.1 Plan Implementation Schedule 151
Table 11.2 Phase I Project Construction 152

SELECTED ACRONYMS, ABBREVIATIONS, AND TERMINOLOGY

Advisor	independent engineering firm or a qualified individual
AF	acre-foot
AFY	acre-feet per year
Agreement	Settlement Agreement
Association	Hemet/San Jacinto Groundwater Association
CAM	Consultants-Attorneys-Managers
CEQA	California Environmental Quality Act
cfs	cubic feet per second
DWR	California Department of Water Resources
EIR	Environmental Impact Report
EMWD	Eastern Municipal Water District
FMWC	Fruitvale Mutual Water Company
GIS	Geographic Information System
Hemet North	Hemet North portion of the Lakeview/Hemet North
IRRP	Integrated Recharge and Recovery Program
JPA	Joint Powers Authority
JUDGMENT	Stipulated Judgment
Legal Counsel	independent attorney or legal firm
LHMWD	Lake Hemet Municipal Water District
Management Area	Hemet/San Jacinto Groundwater Management Area
MGD	million gallons per day
MOU	Memorandum of Understanding
MWD	Metropolitan Water District of Southern California
PC	Policy Committee
Plan	Hemet/San Jacinto Water Management Plan
Plan Participants	EMWD, LHMWD, Private Water Producers, and Cities of Hemet and San Jacinto (collectively)
Principles	Principles for Water Management
Private Water Producers	Property owners who are pumping groundwater pursuant to overlying water rights
Public Agencies	EMWD, LHMWD, and Cities of Hemet and San Jacinto (collectively)
RCFC&WCD	Riverside County Flood Control and Water Conservation District
RWQCB	Santa Ana Regional Water Quality Control Board
RWRD	Regional Water Resources Database
S.A.A.	Settlement Agreement Approval
S.J.A.	Stipulated Judgment Approval
Soboba Tribe	Soboba Band of Luiseno Indians
TC	Technical Committee
TDS	Total Dissolved Solids

TM	Technical Memorandum
TMDL	Total Maximum Daily Load
Upper Pressure	San Jacinto - Upper Pressure Management Zone
USGS	United States Geological Survey
UWMP	Urban Water Management Plan
Watermaster	Watermaster Governing Board
WRIME	Water Resources & Information Management Engineering, Inc.

(This Page Left Blank Intentionally)

BACKGROUND AND GOALS

The stakeholders in the Hemet/San Jacinto Groundwater Management Area (Figure ES.1) have developed the Hemet/San Jacinto Water Management Plan (Plan) to provide a foundation that guides and supports responsible water management into the future. The Participants in the Plan are Eastern Municipal Water District (EMWD), Lake Hemet Municipal Water District (LHMWD), Cities of Hemet and San Jacinto (Public Agencies), and Private Water Producers.

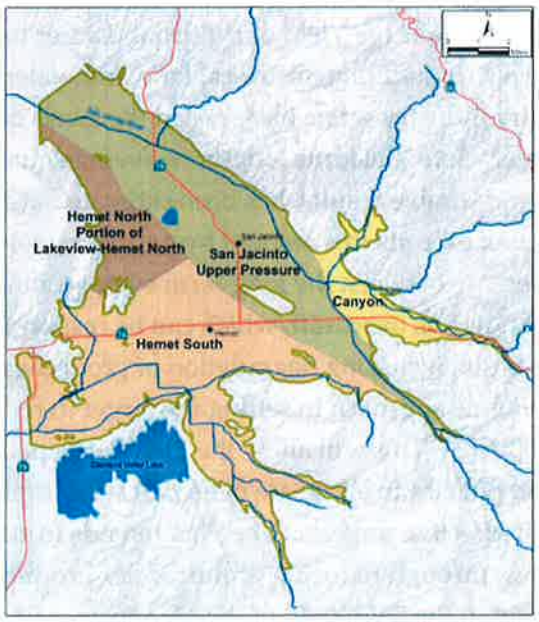


Figure ES.1 Hemet/San Jacinto Groundwater Management Area and Management Zones

Private Water Producers are those property owners who are pumping groundwater pursuant to overlying water rights, typically for agricultural or domestic uses. Private Water Producers may elect two levels of participation in the Plan, with varying levels of benefits and responsibilities, or may elect not to participate. The details on this matter are described in Section 2 of the Plan document.

The Plan, adopted by the governing bodies of the Plan Participants, has eight primary goals:

- Address pumping overdraft and declining groundwater levels,
- Provide for Soboba Tribe prior and paramount water rights,

- Ensure reliable water supply,
- Provide for planned urban growth,
- Protect and enhance water quality,
- Develop cost-effective water supply,
- Provide adequate monitoring for water supply and water quality, and
- Supersede the Fruitvale judgment and agreement.

GROUNDWATER AS A CORNERSTONE FOR WATER MANAGEMENT

The goals of the Plan are interrelated and begin with maintaining groundwater as a high-quality, low-cost, flexible source of water. Efforts are needed to make this happen, as historical groundwater pumping in excess of the Safe Yield of the groundwater basin has resulted in decreasing trends in water levels. In addition, historical land and water use practices for agricultural irrigation and dairy industry waste have raised the levels of nitrates and total dissolved solids in groundwater. Safe Yield, the long-term average quantity of water that can be pumped without causing undesirable results, has been estimated at 40,000 to 45,000 AFY, while average annual production exceeds this amount by approximately 10,000 to 15,000 AFY. The 10,000 to 15,000 AFY difference between the long-term average annual groundwater production and Safe Yield is known as overdraft, which can be responsible for creating undesirable conditions in the basin, including degradation of groundwater quality. The Plan assumes a pragmatic and economic approach in setting the target to reduce overdraft, and assumes an overdraft of 10,000 AFY. This will allow the Plan Participants and the Watermaster to initiate and adopt plans and policies to eliminate overdraft with implementation of economically feasible and cost-effective projects. The Plan intends to stabilize or reverse the decreasing trend in water levels through reducing groundwater production to a level that brings the basin production within the Safe Yield of the Management Area. Higher water levels will increase water in storage, decrease energy costs for pumping, and inhibit the migration of poor quality groundwater from surrounding basins, helping to protect groundwater quality in the Management Area.

INTEGRATION OF GROUNDWATER WITH OTHER WATER SOURCES AND DEMAND MANAGEMENT TO MEET FUTURE WATER NEEDS

The Plan Participants have several options available to increase water supply and reliability in the Management Area. Water used in the Management Area for agricultural and domestic use comes from groundwater, surface water, imports, and recycled water. As shown on Figure ES.2, most of this water has historically been from groundwater, based on 2004 data. This allows significant opportunities for underutilized sources, particularly recycled water and

winter-time imported water, to replace or augment groundwater production. The regional cooperation developed over the years is also of importance as the supply mix varies between the different water users in the Management Area; by cooperating, the water users can fully utilize their available water resources.

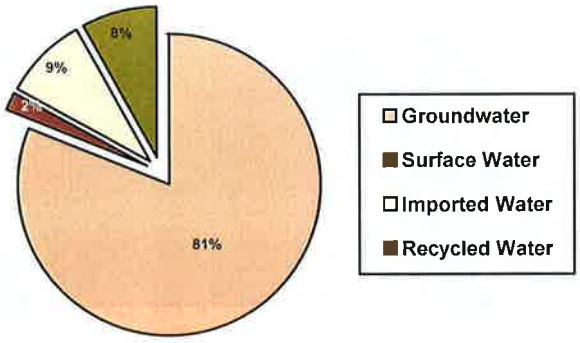


Figure ES.2 Components of Management Area Water Supply

The high-quality groundwater basin also plays an important role in future water availability. Historical declines in groundwater levels are a concern and a major impetus for the development of this Plan. However, even the dewatered portion of the groundwater basin is a significant asset and allows for the full utilization of the available water supplies mentioned above. The new water supplies can be introduced into the system filling the empty portions of the groundwater basin by either substitution for pumping groundwater (in-lieu recharge) or by placing the water in the groundwater system through seepage from specially designed ponds or through injection from wells (direct recharge). Both these methods benefit the Management Area groundwater basin, which is composed of materials that can store large quantities of water and holds high quality groundwater that can be pumped for usage at a later time. A complex system of faults and other geologic features separate the groundwater system into four Management Zones (see Figure ES.1), which require some degree of individual attention in planning and designing recharge and extraction projects, based on each Management Zone's unique attributes.

The numerous water supply opportunities along with water conservation by both the Public Agencies and Private Water Producers will be utilized to meet the current and future water needs of the Management Area. Based on the latest data and information on land and water practices, general plans, urban water management plans, and other specific plans, water demand in the Management Area is projected to increase over the course of next 15-20 years (Figure ES.3). Based on these projections, there will also be a shift from agricultural water use

to urban water use, resulting in more stringent water quality requirements to meet drinking water standards.

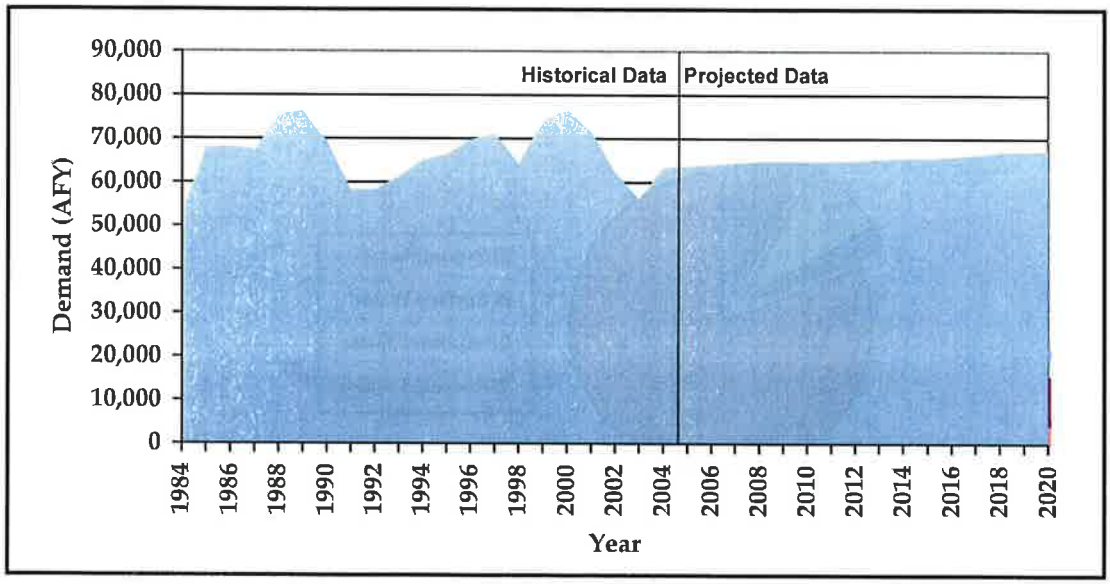


Figure ES.3 Historical and Projected Water Demand

PHYSICAL SOLUTION IS THE BASIS OF WATER SUPPLY PROJECT IN THE MANAGEMENT AREA

As described in the Stipulated Judgment, the Physical Solution is the court decreed method of managing the water supply in the Management Area to maximize the reasonable and beneficial use of the waters, eliminate overdraft, protect the prior rights of the Soboba Tribe, and provide for the substantial enjoyment of all water rights by recognizing their priorities. The Physical Solution consists of numerous water supply and conjunctive use projects, including direct and in-lieu recharge, increased use of recycled water, increased conservation, and improved monitoring. The core project in the Physical Solution is the Hemet/San Jacinto Integrated Recharge and Recovery Program (IRRP). Phase I of the IRRP has been designed, funded, the necessary environmental permits have been acquired, and construction is currently underway. Phase II is in planning stages. The IRRP is a regional recharge and recovery program to meet the following goals:

- Satisfy Prior and Paramount Soboba Tribe water rights;
- Offset the estimated 10,000 AFY overdraft in the Management Area; and
- Provide an additional 15,000 AFY to help meet the projected demand increases.

In addition to IRRP, the Plan identifies other projects that can potentially meet the above goals. These include direct recharge, in-lieu recharge, and recycled water projects.

A FIRM LEGAL AND INSTITUTIONAL ARRANGEMENT

Development of a comprehensive system of water management begins with the legal and institutional framework. To meet the goal of reducing groundwater production to eliminate overdraft, the Public Agencies agreed upon some basic principles as a basis for allocating Base Production rights. Base Production rights establish the initial amount that each Public Agency would be able to pump without the need to replenish the basin. The Base Production rights are calculated on the basis of actual production by Public Agencies during 1995-99 calendar years, and adjusted for specific historical operational activities, such as:

- Recharge Activities;
- MWD San Jacinto Tunnel Seepage;
- Fruitvale Entitlement Water Sold by EMWD to LHMWD, Hemet, and San Jacinto;
- Stream Diversions;
- Conveyance Water Deliveries; and
- Other Considerations.

The Public Agencies have, therefore, agreed to the following Base Production Rights:

Table ES.1 Public Agency Base Production Rights

Public Agency	Base Production Rights (AFY)	Base Production Rights (Percent)
EMWD	10,869	33.7
LHMWD	11,063	34.2
City of Hemet	6,320	19.6
City of San Jacinto	4,031	12.5
Total	**32,283**	**100**

Surface water rights are not impacted and/or changed by the Plan or any other recent agreements. LHMWD diverts water from the San Jacinto River and its tributaries through its pre-1914 water rights to meet their irrigation and municipal water demands, and EMWD has a license to divert water from the San Jacinto River for recharge purposes.

Soboba Tribal water rights are recognized throughout the Plan, and details of the monetary, water quantity, water quality, and property requirements to meet the obligations set forth in the settlement agreement with the Soboba Tribe are discussed in Section 8 of the Plan.

The Institutional Plan, discussed in Section 9 of the document, assigns the administration,

implementation, and monitoring of the Plan to a Watermaster. The Watermaster will consist of one elected official representing each of the Public Agencies and one representative selected by the participating Private Water Producers. The Watermaster will utilize the counsel of legal advisor, as well as provide technical oversight through an Advisor and Technical Advisory Committee. The Watermaster will utilize services of EMWD for recharge operations and administration and monitoring of the projects and the Plan. The relationships and basic responsibilities of these entities are summarized in Figure ES.4. The Watermaster will also review, approve, and adopt the annual budget, which will be funded by administrative assessments and replenishment assessments. The details of Watermaster administration are discussed in Section 9 of the Plan document.

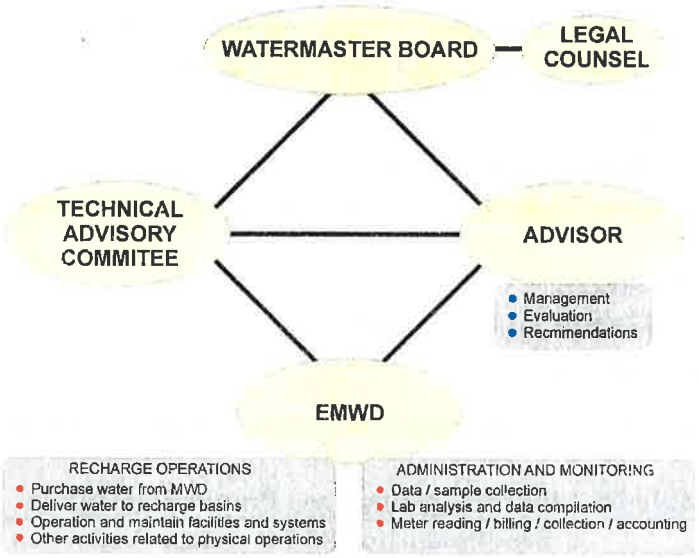


Figure ES.4 Plan Institutional Setup

IMPLEMENTATION AND PLAN EVOLUTION

The implementation of the Plan, along with any additions or modifications as may become appropriate, and all financial matters relating to Plan activities are the responsibility of the Watermaster. The implementation process can be divided into two processes: implementation and ongoing activities. The schedules for these processes are shown in Table ES.2 and Table ES.3.

Table ES.2 Implementation Schedule

Months after Approval of Stipulated Judgment	Implementation Item
Month 1	Determine the method of selection for the Private Pumper representative.
Month 2	Select Public Agency and Private Pumper representatives.
Month 3	Hold first meeting of the Watermaster. Contract with EMWD for Watermaster services.
Month 4	none
Month 5	none
Month 6	Retain legal council and advisor. Prepare and adopt Rules and Regulations for its own operation as well as for the operation of the Water Management Plan and Judgment. Review and reissue agreements and MOUs, as needed.
Upon Settlement Agreement Implementation	Recognize Tribal water rights.

Table ES.3 Ongoing Schedule

Timing	Frequency	Activity	Responsibility
January 1	Annual	Propose Monitoring Program.	EMWD
End of January	Annual	Review Monitoring Program.	Advisor
End of February	Annual	Approve budget for Monitoring Program.	Watermaster
1st Quarter	Annual	Advance payment of Administrative Assessments.	Public Agencies
1st Quarter	Annual	Payment of Replenishment Assessments.	Public Agencies
Four months after completion of calendar year monitoring	Annual	Submit Annual Hemet/San Jacinto Water Management Area Report.	EMWD
As needed	As needed	Revise safe yield.	Advisor
TBD	Annual	Prepare, File, and Distribute Watermaster Annual Report.	Watermaster

(This Page Left Blank Intentionally)

1.1 PROJECT BACKGROUND

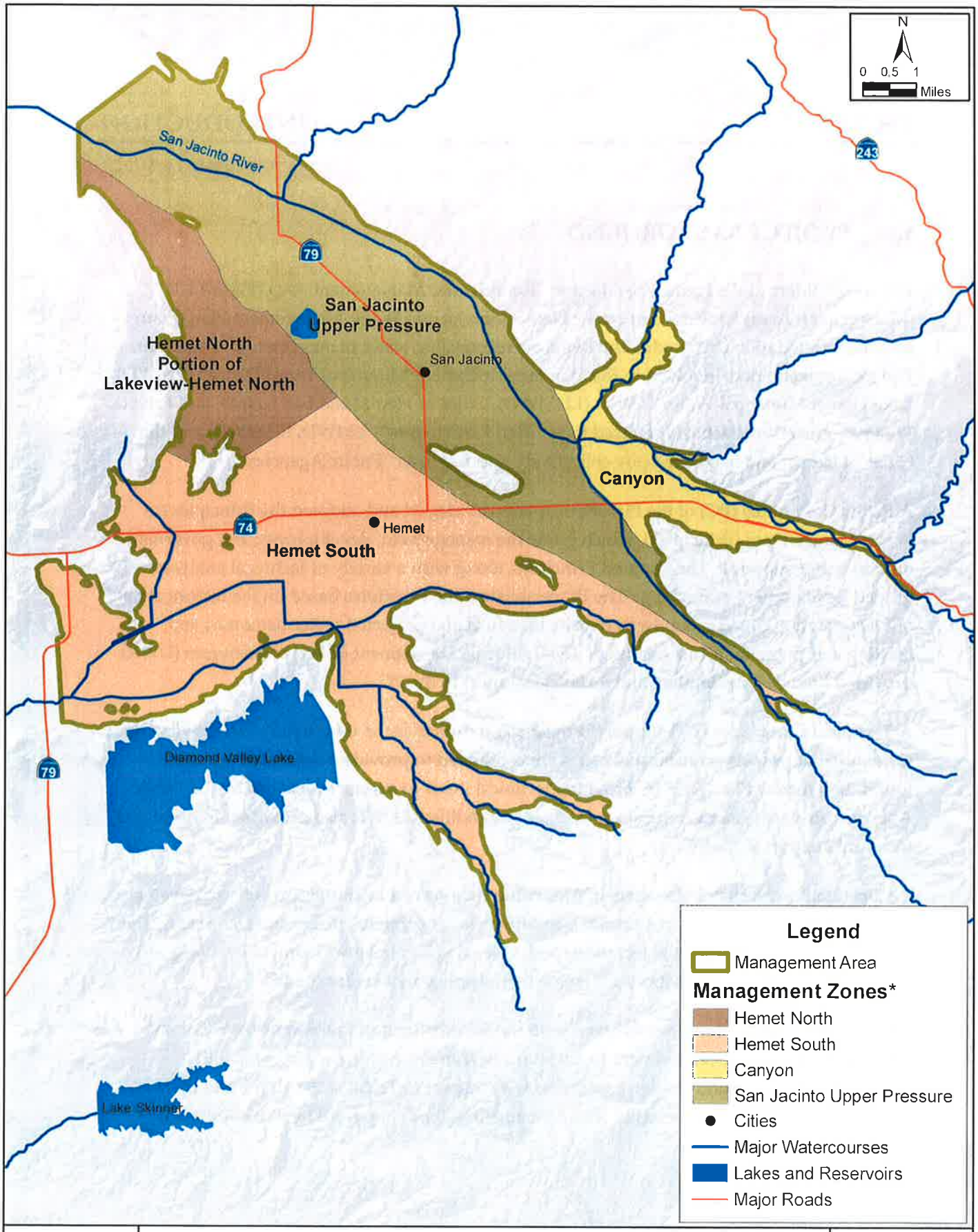
The stakeholders in the Hemet/San Jacinto Groundwater Management Area (Figure 1.1) (Management Area) have developed the Hemet/San Jacinto Water Management Plan (Plan) to provide a foundation that guides and supports responsible water management in the future. The local stakeholders involved in the Plan include Eastern Municipal Water District (EMWD), Lake Hemet Municipal Water District (LHMWD), Cities of Hemet and San Jacinto, and Private Water Producers, collectively referred to as "Plan Participants". EMWD, LHMWD, and the Cities of Hemet and San Jacinto are collectively referred to as "Public Agencies".

A Policy Committee (PC) of the Plan Participants developed and adopted the Principles for Water Management (Principles), which guide the management, development, and governance of local water supplies. The adopted Principles, along with a variety of technical analyses, guided development of the Plan. The PC established the Principles based on the historical data on the operation of the groundwater basin; historical and projected water demands; and existing and potential future facilities. The California Department of Water Resources (DWR) provided financial, facilitation, and technical support to the PC.

A Technical Committee (TC) supported the PC and served as the investigative and review body to ensure that proper technical analyses were conducted to provide a defensible technical foundation for the Plan. The TC provided technical input to support decisions by the Public Agencies, Private Water Producers, and other stakeholders. DWR also provided financial and technical support to the TC.

A Consultants-Attorneys-Managers (CAM) committee served as an interim body to develop and review technical, legal, institutional, and financial documents, plans, and standards. The CAM committee discussed the technical/policy/legal issues in anticipation of evolving documents and recommendations for action by the policy makers for the PC.

EMWD and LHMWD have also worked with the Soboba Band of Luiseño Indians (Soboba Tribe) and the Federal Government to develop a Settlement Agreement (Agreement) (Appendix A) that would resolve past issues with respect to Tribal water rights and the water management practices in the basin. The Agreement will be supported by two stipulated



WRIME

Management Area and Management Zones

Hemet / San Jacinto Water Management Plan

*Source: EMWD

October 2007

Figure 1.1

judgments[1] that will provide the legal and technical basis for future water supplies for the Soboba Tribe.

1.2 WATER MANAGEMENT PLAN

The Plan, adopted by the governing bodies of the Plan Participants, will provide a roadmap for implementation of the Physical Solution, ensure adequate and reliable sources of future water supply for the Management Area, and meet the Prior and Paramount Soboba Tribe water rights requirements. The Plan may be modified and updated in the future based on, among other things, the availability of new data, updated technical analysis, and changes in the institutional/financial structure of the stakeholders.

1.3 PHYSICAL SOLUTION

As described in the Stipulated Judgment (Appendix B), the Physical Solution is the court decreed method of managing the water supply in the Management Area to maximize the reasonable and beneficial use of the waters, eliminate overdraft, protect the prior rights of the Soboba Tribe, and provide for the substantial enjoyment of all water rights by recognizing their priorities. Therefore, the Physical Solution is a group of water supply and conjunctive use projects that would serve this purpose.

The project that is considered to be the core of the Physical Solution is Phase I of the *Hemet/San Jacinto Integrated Recharge and Recovery Program (IRRP)*. Phase I of the IRRP has been designed, funded, and the necessary environmental permits are being acquired. Phase II is in planning stages. The complete project is designed to recharge (replenish) imported water and extract groundwater at a capacity such that the following goals are met:

1. Satisfy Prior and Paramount Soboba Tribe water rights;
2. Offset the estimated 10,000 acre-feet per year (AFY) overdraft in the Management Area; and
3. Provide an additional 15,000 AFY to help meet the projected demand increases.

Major elements of Phase I of the Project are:

- Modifications to Pump Stations (Warren and Commonwealth);
- Construction of Pipelines;

[1] These judgments are in the case of Soboba Tribe v. Metropolitan Water District, et. al.; U.S. District Court in Los Angeles, Case No. 00-04208 GAF, and in a Riverside County Superior Court action, yet to be filed.

- Design and Construction of Recharge Basins;
- Drilling Three Extraction Wells;
- Installation of Pumps and Chlorination Equipment for Three Extraction Wells; and
- Design and Drilling of Three Monitoring Wells.

Additional details on Phase I of the IRRP are presented in Section 3.2.2 of this Plan, and details on Phase II are presented in Section 5.3.1.

In addition to the *San Jacinto River Integrated Recharge and Recovery Project*, there are other projects that the TC has identified as potential projects to be further considered in the future as part of the Physical Solution for the Management Area. These include *direct recharge* and *in-lieu recharge* projects and are described in Section 5.3 of this Plan.

1.4 WATER MANAGEMENT PLAN GOALS

The Principles include eight primary goals for the management of water resources in the Management Area. These are:

- Address pumping overdraft and declining groundwater levels,
- Provide for Soboba Tribe prior and paramount water rights,
- Ensure reliable water supply,
- Provide for planned urban growth,
- Protect and enhance water quality,
- Develop cost-effective water supply,
- Provide adequate monitoring for water supply and water quality, and
- Supersede the Fruitvale judgment and agreement.

SECTION 2 MANAGEMENT PLAN FRAMEWORK

This section briefly describes the geographic boundaries of the four divisions, or Management Zones, that make up the Management Area and provides a brief history and background on each of the primary stakeholder organizations. Past agreements and related activities leading to the Plan are discussed below, including the role of the state and public participation.

2.1 MANAGEMENT AREA

The Management Area is divided into four Management Zones: The Canyon, San Jacinto Upper Pressure (Upper Pressure), Hemet South, and the Hemet North portion of the Lakeview/Hemet North (Hemet North). The locations of the Management Zones are shown in Figure 1.1. The delineation of the Management Zones is based on the recent update by the Santa Ana Regional Water Quality Control Board (RWQCB) in the *Water Quality Control Plan - Santa Ana River Basin (RWQCB, as amended 2004)*. The RWQCB defined these boundaries on the basis of hydrogeologic conditions to support implementation of specific water quality criteria. Additional descriptions of the basin hydrogeology are provided in Section 4.

2.2 MANAGEMENT PLAN PARTICIPANTS

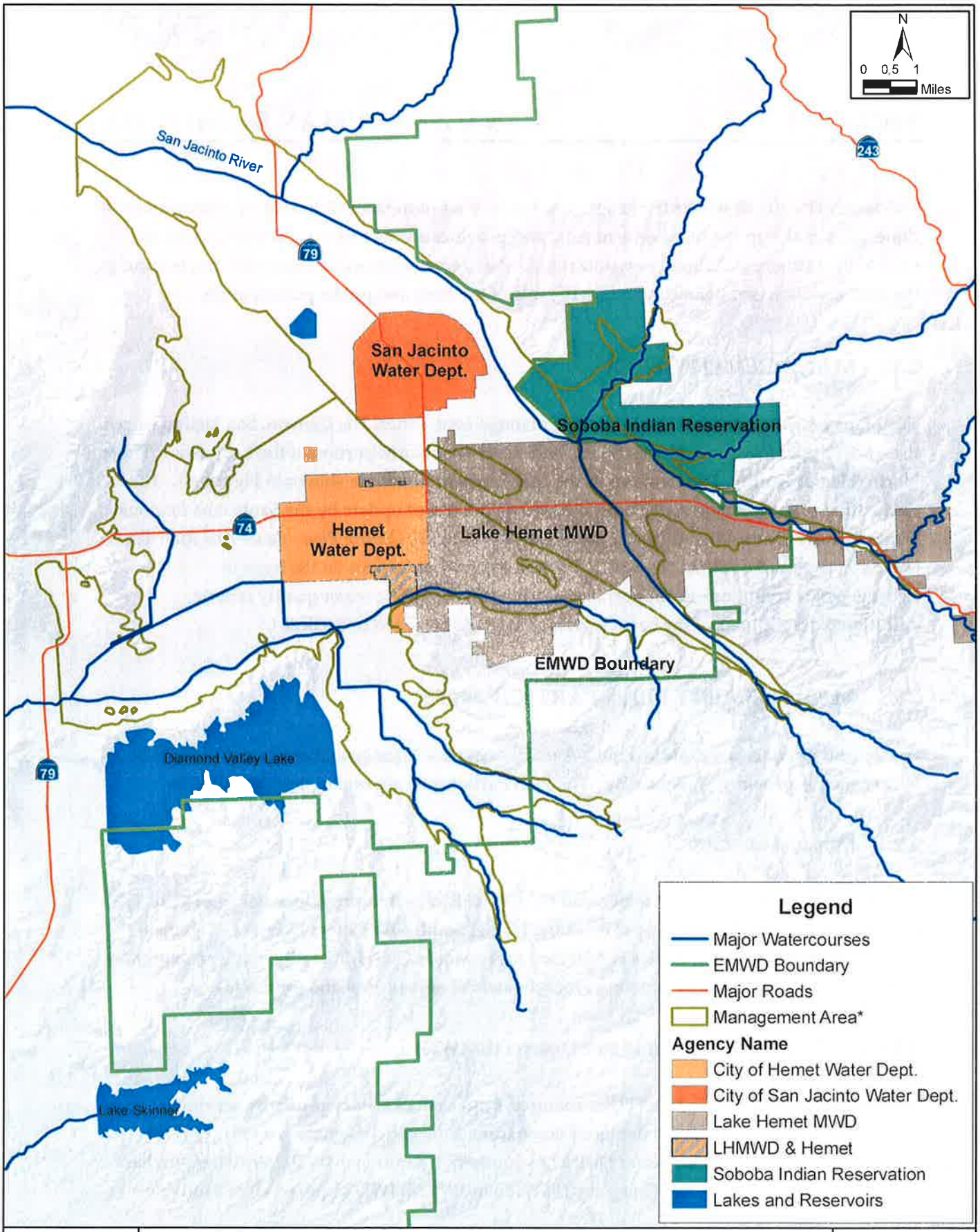
A map of the service areas of the Public Agencies near the Management Area and the Soboba Reservation is provided in Figure 2.1. The Plan Participants are briefly described below.

2.2.1 PUBLIC AGENCIES

EMWD, LHMWD, the City of Hemet, and the City of San Jacinto provide water service in various areas of the Canyon, Upper Pressure, Hemet South, and Hemet North Management Zones. A list of governing bodies is provided in Appendix C. Additionally, there are a number of Private Water Producers extracting groundwater for agricultural and domestic use.

2.2.1.1 Eastern Municipal Water District (EMWD)

Since its formation in 1950, EMWD has matured from a small agency primarily serving agriculture to one whose major demands come from domestic customers. In 1951, EMWD annexed to the Metropolitan Water District of Southern California (MWD). With the purchase of the Fruitvale Mutual Water Company (FMWC) in 1971, EMWD acquired all of Fruitvale's



RIME

Public Agencies and Soboba Reservation

Hemet / San Jacinto Water Management Plan

*Source: EMWD

October 2007

Figure 2.1

assets including appropriative, prescriptive, and riparian water rights; water system, wells, well sites, pumps, and storage; real property, easements, rights, and interests; and franchises, permits, and licenses. Over time, the agency has continued to grow. Today, in addition to providing retail service, EMWD provides wholesale water to the seven local water agencies within its service area, including the three remaining Public Agencies in the Management Area.

As of 2005, EMWD serves approximately 113,000 retail connections, including approximately 200 agricultural connections, in a service area with an estimated population of 567,000 within the 555-square-miles, including many areas outside the Management Area. The population within EMWD's boundaries is expected to grow to 830,000 by 2025 (EMWD, 2005a), not including the population of the Rancho California Water District.

In addition to wholesale and retail potable water supply, EMWD's services include wastewater collection and treatment as well as water recycling. The San Jacinto Valley Regional Water Reclamation Facility is an 11 million gallons per day (MGD) plant that provides most of the treatment and water recycling capability for the Management Area.

The five-member Board of Directors comprise the governing body of EMWD and are responsible for setting the policies guiding the operations of the District. Board members are elected to four-year terms by the registered voters from five geographic divisions, which are apportioned on the basis of population distribution. Terms of service are staggered to ensure continuity; public elections are held in at least two divisions every two years. Directors must reside within the division from which they are elected.

The 2004 water use in the portion of the EMWD service area within the Management Area was 13,900 AFY, and it is projected to increase to 21,000 AFY by the year 2020 (EMWD, 2005b).

2.2.1.2 Lake Hemet Municipal Water District (LHMWD)

LHMWD was created in its present form in 1955, but its origins date back to the late 1880s. The service area covers 16,500 acres in the Hemet/San Jacinto Valley area with an additional 2,200 acres in Garner Valley. LHMWD provides water to residential and agricultural customers in its service area. All wastewater collection and treatment within the LHMWD area is performed by EMWD.

LHMWD operates the Hemet Dam and reservoir. The dam, an engineering marvel at the time of its construction in 1895, is a gravity-type, granite dam. LHMWD historically treated a portion of this surface water for domestic use, however since 1998 the surface water treatment plant has been offline and all surface water usage has been for untreated agricultural uses.

LHMWD usually maintains approximately 11.7 million gallons in storage in the Hemet/San Jacinto Valley.

LHMWD customers are represented by a publicly elected board of five directors from five divisions, representing approximately 13,700 domestic and 52 agricultural connections within a 21-square mile service area with a 2005 population of approximately 39,100. The population within the LHMWD service area is expected to grow to approximately 49,500 by 2025 (LHMWD, 2005).

The 2004 water use within the LHMWD service area was estimated to be 16,900 AFY. Due to the expected benefits of more robust conservation efforts, demand is projected to remain fairly constant over the next several years despite an increasing number of service connections. Demand in 2020 is expected to be 16,300 AFY before increasing above the 2004 demand level in years thereafter (LHMWD, 2005).

2.2.1.3 The City of Hemet

The development of Hemet began in 1887 with the formation of the Lake Hemet Water Company and the Hemet Land Company by W. F. Whittier and E. L. Mayberry. The completion of the Hemet Dam in 1895, the formation of Lake Hemet behind the dam, and a water distribution system to and through the valley made future development of the Hemet area possible.

As of 2005, the city had a population of 78,600 with an area of approximately 26 square miles. City of Hemet anticipates a population growth to 154,000 by 2025 (Hemet, 2006).

The City of Hemet was incorporated on January 20, 1910 with a population of 992. The city government is a Council/Manager form of government with seven elected positions, which includes five Council Members, one City Treasurer, and one City Clerk. The Mayor is elected by the Council Members and serves a one-year term. All Council Members serve a four-year term.

The City of Hemet Water Department treats and distributes water to 9,500 connections, covering 5 square miles of the city area. The 2005 population of the Water Department's service area is 20,200 and is projected to grow to 22,300 by 2025. EMWD and LHMWD serve the remaining 21 square miles of the city, with 7,830 and 3,025 connections, respectively. All wastewater collection and treatment within the City of Hemet area is performed by EMWD.

The 2004 water use within the City of Hemet Water service area was estimated to be 6,000 AFY, and is projected to increase to 6,700 AFY by year 2020 (Hemet, 2006).

2.2.1.4 The City of San Jacinto

Incorporated in 1888, San Jacinto is one of the oldest communities in Riverside County. The city has a Council/Manager form of government with a five member Council that includes a Mayor and Vice Mayor. The City of San Jacinto Water/Wastewater Divisions are responsible for the health and safety of the community through the delivery of the potable water supply and the collection of wastewater. The city wastewater collection system is maintained by this Division while wastewater treatment service is provided by EMWD.

The 2005 population of the city was 34,100; it is anticipated the population of the city will grow to 63,600 by 2025 (San Jacinto, 2005). The City of San Jacinto Water Department serves the central portion of the city with approximately 3,700 residential and commercial service connections. The 2005 population of the Water Department's service area is 13,200 and is projected to grow to 24,000 by 2025. The remaining portions of the city are served by EMWD and LHMWD, which have 4,636 and 475 service connections within the city boundaries, respectively.

The 2004 water use within the City of San Jacinto water service area was estimated to be 3,100 AFY, and is projected to increase to 5,100 AFY by year 2020 (San Jacinto, 2005).

2.2.2 Private Water Producers

Private Water Producers are those property owners who are pumping groundwater pursuant to overlying water rights, typically for agricultural or domestic uses. Historically there was no comprehensive metering program in-place to monitor groundwater production and/or water use by the Private Water Producers. EMWD collected groundwater data through an informal, voluntary monitoring program. In 2004 the Hemet/San Jacinto Groundwater Monitoring Program was initiated by the Public Agencies and the DWR to collect, analyze, and compile groundwater-related data (EMWD, 2005).

It is estimated, on the basis of limited data and land use analysis, that the 2004 water use by Private Water Producers was about 22,200 AFY. This annual level of water use is unusually low, compared to a long-term average of 31,000 for 1984-2004 (WRIME, 2003a). Water use is expected to drop to approximately 16,000 AFY by 2020.

The Public Agencies recognize the overlying water rights of Private Water Producers, and the Principles provide several options for voluntary participation in the Plan by the Private Producers. For more details, please see the Principles provided in Appendix D.

There are two classes of participants, Class A and Class B; both agree to have their wells metered and to have those meters read by EMWD personnel at no cost to the participants. The two types of participants are further explained below.

2.2.2.1 Class A Participants

A Private Water Producer can sign an agreement acknowledging the existence of the Plan, while not being required to participate in Plan implementation. Class A participants are allowed to vote for and/or serve as the Private Water Producer representative on the Watermaster board. The Class A participants may continue to pump from their property without assessments by the Watermaster, so long as the water is put to a reasonable and beneficial use as authorized by California law.

The Class A participants have the right to convert to Class B during a grace period that ends 3 years after the entry of the Stipulated Judgment, and upon payment of the total assessments without interest, as if they were Class B participants to begin with.

2.2.2.2 Class B Participants

A Private Water Producer can become a Class B participant by electing to limit annual pumping to their estimated average annual production during the 1995 – 1999 calendar years and by agreeing to pay replenishment assessments on amounts in excess of that average annual production.

Like Class A Participants, Class B Participants can vote for and/or serve as the Private Water Producer's representative on the Plan's governing board. Additional benefits are given to Class B Participants as well. Under certain conditions, the Class B Participant can convey their Adjusted Production Right to the Plan or to a Public Agency. Also, upon conversion from agricultural to urban uses, Class B Participants would receive credits from the Public Agency toward the satisfaction of any requirements then in effect for water supplies and toward any fees associated with water supply that the Public Agency may then have in effect. For more information on production rights, please see Section 6.

2.2.2.3 Non-Participants

A Private Water Producer can elect not to participate in the Plan and not to formally acknowledge its existence. These non-participants will continue to exercise their water rights unaffected by the Plan.

2.2.3 Role of State of California Department of Water Resources

In June 2001, the DWR executed a Memorandum of Understanding (MOU) with EMWD, LHMWD, and the Cities of Hemet and San Jacinto. Initially, DWR worked to bring the group together to establish a mutual understanding of the issues in the Management Area. The goals of the group were determined and included the following: (i) finalizing an approach to groundwater management; (ii) settling on a mechanism to involve the Plan Participants in the water rights claim by the Soboba Tribe; (iii) agreeing on the basic components of a regional conjunctive use program; and (iv) establishing the necessary institutional structures. Major involvement of the DWR to-date include providing technical support to the TC and PC on resolving various technical and data analysis issues, providing facilitation and mediation support to the PC and the CAM committee, providing financial support on a number of studies and projects, including the Plan document.

2.2.4 Public Participation

There have been numerous opportunities for public input into the development of the Plan. Meetings were held for the public at the beginning of the Plan process to provide information and gather input. While the Plan was being developed, more opportunities were provided for public input, including TC and PC meetings and meetings with the Private Water Producers, all of which were open to the public. The public was also given the opportunity to review the draft of the Plan and submit comments.

2.3 PREVIOUS AGREEMENTS AND INSTITUTIONAL BODIES

During the course of history of water supply in the Management Area, there have been other agreements and institutional bodies that have been formed and operated to facilitate the management of water supplies. Following is a brief description of these agreements and institutional bodies, which are no longer active or are superseded by this Plan.

2.3.1 Fruitvale Judgment and Decree

The Fruitvale Judgment and Decree (The City of San Jacinto, et al., v. Fruitvale Mutual Water Company, et al., No. 51546, Riverside County) was entered into Book 72, Page 164 of Judgments, Riverside County, on June 4, 1954. Under the Judgment and Decree, FMWC could extract groundwater from an area which largely corresponds to the Canyon Management Zone without any restrictions as long as a specified criteria regarding static depth to groundwater and production limits were met. After purchase of FMWC, EMWD was subject to the

provisions of the Judgment and Decree. The Water Management Plan and related Stipulated Judgment will subsume and supersede the 1954 Fruitvale Judgment and Decree, along with any other agreements between EMWD and other agencies related to the FMWC acquisition, provided that none of the service area agreements included in the Fruitvale documents or those related to mutual aid or system interties are affect by this Plan or the Stipulated Judgment.

In 1971, EMWD purchased all of FMWC's assets and water rights, and FMWC was dissolved. EMWD also agreed to continue to provide to the Cities of Hemet and San Jacinto and LHMWD the amounts of water which they had been entitled to receive as shareholders in FMWC. These deliveries were known as "entitlement water" and the water was provided at a fixed rate, subject to annual adjustments. The amounts of water to be provided were:

- City of Hemet: 6.39% of the greater of FMWC pumping or 9,000 AFY;
- City of San Jacinto: 0.38% of FMWC pumping; and
- LHMWD: 3.74% of FMWC pumping.

The reporting by EMWD since the purchase of FMWC shows that an average of approximately 10,000 AFY was pumped from FMWC wells. Of this total, an average of 61% was from Upper Pressure, 33% was from Canyon, and 6% AFY was from Hemet South.

2.3.2 Hemet/San Jacinto Groundwater Association

The Hemet/San Jacinto Groundwater Association (Association) was formed in 1991 to provide an over-arching organization to proactively address groundwater issues in the Management Area. The Association Board of Directors included representatives from the Private Water Producers, EMWD, LHMWD, and the Cities of Hemet and San Jacinto.

The Mission Statement and Articles of Association were approved on September 9, 1991. The Mission Statement read: *The Hemet/San Jacinto Groundwater Association serves as the regional groundwater management entity for portions of the San Jacinto Valley groundwater basins. The Mission of the Association is to maintain a secure reliable and reasonably priced supply of high quality water for groundwater producers in the basin. The Association will implement its Mission by developing and applying sound groundwater basin management concepts.*

With regard to the area covered by the Association, the Articles of Association state: *The portions of the San Jacinto Valley Groundwater Basins shall include the Canyon area, the Intake area, and the upper pressure area, of the San Jacinto Hydrologic Subarea; the Hemet Hydrologic Subarea; and a portion of the Winchester Hydrologic Subarea. Such also being that portion of the San Jacinto Valley southeasterly of Bridge Street and northeast of one-quarter mile west of California Avenue in the area of Simpson Road, together with tributary basins, streams, and watersheds.*

In May 1994, following receipt of the Soboba Band of Mission Indians water rights settlement claim, requests were submitted to the U.S. Department of the Interior by EMWD, the Association, and the Soboba Tribe, to appoint an Indian Water Rights Settlement team to participate in settlement negotiations. The activities of the Association stopped when the current negotiations took precedence.

2.4 ACTIVE INSTITUTIONAL BODIES

As part of the on-going activities leading to the development and adoption of the Principles, the Stipulated Judgment, and agreement with the Soboba Tribe, the following institutional bodies are formed:

- Hemet/San Jacinto Policy Committee (PC),
- Hemet/San Jacinto Technical Committee (TC), and
- Hemet/San Jacinto Consultant-Attorney-Managers Committee (CAM).

Following is a brief description of each body, their role, and participants.

2.4.1 HEMET/SAN JACINTO POLICY COMMITTEE

The PC is comprised of elected officials representing EMWD, LHMWD, the Cities of Hemet and San Jacinto, and representatives of the Private Water Producers. Each entity, including the Private Water Producers, has three representatives on this committee. In the case of the Public Agencies, the PC representatives are two members of the Board of Directors or City Council and the agency or city manager. Three representatives reflecting the Private Water Producers interests (agricultural, dairy, golf course, etc.) are selected by the Private Water Producers. Each entity participates and votes as a unit in the PC. The decision making process is based on consensus. DWR provides a facilitator, a project manager, and technical experts to support and facilitate the decisions of the PC and TC members. Observers to the PC include other Private Water Producers, attorneys, and/or consultants representing various members, and representatives of the Soboba Tribe.

The list of participants in the PC at the time of adoption of this Plan is presented in Appendix E.

2.4.2 HEMET/SAN JACINTO TECHNICAL COMMITTEE

The PC formed a TC to compile, share, interpret, evaluate, and reach agreement on data; to define problems; and to address the PC's technical issues and make recommendations to the PC. Committee membership consists of representatives assigned by the Public Agencies, the Private

Water Producers, and DWR and an engineering consultant provided by DWR as a neutral third-party participant. The representative from LHMWD served as the TC chairman. Through a collaborative effort, the TC developed the data set (WRIME, 2003a) that provides the basis for understanding the area's hydrology, and has identified potentially feasible initiatives, programs, and projects to enhance the safe yield of the Management Zones.

The list of participants in the TC at the time of adoption of this Plan is presented in Appendix E.

2.4.3 Hemet/San Jacinto Consultant-Attorney-Managers Committee

The PC formed the CAM Committee, consisting of technical, legal, and management representatives of each Public Agency, assisted by the DWR project manager and facilitator. The role of the CAM Committee is to facilitate the preparation of technical and legal documents in support of the Stipulated Judgment, the Agreement, and the Plan. Tasks assigned to the CAM Committee include: the development of contractual agreements and MOUs, and the evaluation of the financial impacts to the community for consideration and action by the PC. The CAM Committee provides administrative or policy recommendations to the PC.

The list of participants in the CAM Committee at the time of adoption of this Plan is presented in Appendix E.

2.5 RELATED GROUNDWATER MANAGEMENT ACTIVITIES

There have been numerous investigations and technical analyses conducted in the Management Area. This section highlights more recent reports that were produced to support the Plan, reviewed by the TC, and used by the PC to make decisions. There has been a significant amount of work completed by the local agencies documented in the form of presentations to the PC and the TC. These include:

- Analysis of EMWD Fruitvale water transfer and use by other agencies;
- Analysis of Conveyance (export) water from the Management Area;
- Reconciliation of the Groundwater Production records amongst the participants;
- Estimation of basin overdraft;
- Review and assessment of the San Jacinto Watershed Groundwater Model; and
- Recycled water use and activities.

A Basin Assessment Study was undertaken in 2003 by the local stakeholders with the support of DWR in order to evaluate the existing conditions of the Management Area, evaluate likely future conditions, and develop and evaluate potential conjunctive use opportunities in the

Management Area. To support the Basin Assessment Study, the following Technical Memoranda (TM) and reports were produced:

- *Operational Yield Study, Hemet/San Jacinto Groundwater Management Area (WRIME, 2003d);*
- *Technical Memorandum No. 1 (TM1), Assessment of Historical and Projected Land and Water Use Data (WRIME, 2003a);*
- *Technical Memorandum No. 2 (TM2) - Description of Preferred Potential Conjunctive Use Projects (WRIME, 2003c);*
- *Basin Assessment Study Executive Summary (ES) (WRIME, 2003b); and*
- *Draft Technical Memorandum No. 3 (TM3) - Analysis of Impacts of Conjunctive Use Projects (January 2004).*

The *Operational Yield Study, Hemet/San Jacinto Groundwater Management Area* presents estimates of the operational yield of the Management Area. Several time periods were used to examine the water budgets of each Management Zone and the Management Area as a whole under various hydrologic conditions. The purpose of the report was to review the previous estimates of hydrologic water budget and reconcile differences in the previously prepared water budgets, and to achieve a consensus on the assumptions, data, methods, and yield of the basin. The long-term period of 1958-2001 was used since it had the best available data at the time and represented a balanced hydrologic period, with wet, dry, and normal periods similar in frequency to the overall historical record.

Hemet/San Jacinto Basin Assessment Study – Basin Assessment Report/Integrated Water Management Plan, Technical Memorandum No. 1 (TM 1), Assessment of Historical and Projected Land and Water Use Data presents background and available data, and analyzes the quality and utility of the data for evaluating basin conditions. The data presented in TM 1 include historical groundwater production, water diversions, water sales, and imported water. The purpose of the report was to obtain agreement on existing conditions, document assumptions, and provide a baseline for purposes of future comparison.

Hemet/San Jacinto Basin Assessment Study – Basin Assessment Report/Integrated Water Management Plan, Technical Memorandum No. 2 (TM 2), Identification and Description of Potential Conjunctive Use Projects presents the process and basis of selection of sites for further evaluation for potential conjunctive use projects. Seven sites were selected from an initial group of 15. The sites were ranked based on screening criteria that included: general site characteristics (size, recharge needs, ownership, etc.), recharge water sources, hydrogeologic suitability, sub-basin interactions, engineering suitability, land use suitability, and environmental impacts. An initial screening was also performed for two potential in-lieu projects.

Hemet/San Jacinto Basin Assessment Study – Executive Summary provides a summary of TM 1 and TM 2.

Draft Hemet/San Jacinto Basin Assessment Study – Basin Assessment Report/Integrated Water Management Plan, Technical Memorandum No. 3 (TM 3), Analysis of Impacts of Conjunctive Use Projects (January 2004) presents a summary of available information on seven potential recharge sites and two potential in-lieu sites for conjunctive use. Draft TM 3 synthesizes information from multiple sources to compare potential recharge sites and proposes preferred sites and documents any additional study or data needs. The TM 3 was presented to the TC in draft form, and comments were received. Due to initiation of the development of the Water Management Plan, the work to finalize TM 3 was re-scoped, which obviated the need to prepare a final TM 3.

Significant other work has been performed and documented by EMWD. These reports include planning documents and feasibility studies with modeling efforts:

- *West San Jacinto Groundwater Basin Management Plan;*
- *Hemet/San Jacinto Water Management Area 2004 Annual Report;*
- *Hemet-San Jacinto Recharge and Recovery Program- Feasibility Study;*
- *Regional Groundwater Model for the San Jacinto Watershed;*
- *Hemet-San Jacinto Integrated Recharge and Recovery Program- Feasibility Study Groundwater Flow Model;*
- *Lake Elsinore and Canyon Lake Nutrient Source Assessment;*
- *Groundwater Infiltration Predictions Using Surface Water Model Output for the San Jacinto Watershed;*
- *Development of the Regional Water Resources Database (RWRD); and*
- *Preliminary Design Report for the San Jacinto Agricultural In-Lieu Water Supply Project.*

West San Jacinto Groundwater Basin Management Plan (EMWD, 1995). This plan was prepared in accordance with Assembly Bill 3030. This groundwater management plan covers the western portion of the EMWD service area in the San Jacinto Watershed. Since the groundwater management in the eastern San Jacinto watershed was being developed under Association in the early 1990s, the Management Area was excluded from the AB3030 planning process. The goal of the West San Jacinto Groundwater Basin Management Plan is "to maximize the use of groundwater for all beneficial uses in such a way as to lower the cost of water supply and to improve the reliability of the total water supply for all water users in the West San Jacinto Groundwater Basin Management Area" (EMWD, 2004). Implementation of the plan included the establishment of an Advisory Committee; Management Zone prioritization; and

groundwater resources evaluation including groundwater quality and level monitoring, extraction monitoring, and hydrogeophysical investigations.

Hemet/San Jacinto Water Management Area 2004 Annual Report (EMWD, 2005b). As part of the reporting process to the Management Area stakeholder group, EMWD produces annual reports that summarize groundwater quality, level, and extraction monitoring results, and provide an update on activities and progress toward meeting the previous year's recommendations and goals of the groundwater management plan. The first annual report for the Hemet/San Jacinto Area was produced in June 2005.

Hemet-San Jacinto Recharge and Recovery Program- Feasibility Study (Psomas, 2003). This report documents the feasibility of a proposed recharge project. The proposed Hemet/San Jacinto Integrated Recharge and Recovery Program consists of average annual recharge of 43,750 acre-feet (AF) based on long-term hydrology at a site within the City of Hemet and near the San Jacinto River's confluences with Poppet and Bautista Creeks. This program involves the construction of approximately 15 recharge ponds on a 100-acre site in the San Jacinto River channel, construction of new pipeline facilities, upgrade of existing pump stations, and construction of new extraction wells at various locations within the Management Area. In order to assess the feasibility of the proposed program, a comparative analysis was completed to evaluate potential alternatives to the preferred option of recharging imported water.

Regional Groundwater Model for the San Jacinto Watershed (TechLink Environmental, 2002a). This report documents the development of a regional groundwater flow and transport model for the San Jacinto watershed basin within EMWD's service area, an area that includes the Management Area as well as the areas to the west included in the *West San Jacinto Groundwater Basin Management Plan*. *Regional Groundwater Model for the San Jacinto Watershed* includes review of available data, development of a conceptual model, setup of a flow and transport model, calibration of the model, and simulation of management scenarios.

Hemet-San Jacinto Integrated Recharge and Recovery Program - Feasibility Study Groundwater Flow Model (TechLink, 2002b). This report documents the application of the regional groundwater model to evaluate the various recharge and recovery activities and alternative water supplies. These model simulations are intended to compare project and no-project alternatives, evaluate the aquifer capability to store large volumes of water, and evaluate the availability of recharged water for extraction.

Lake Elsinore and Canyon Lake Nutrient Source Assessment (TetraTech, 2003). TetraTech developed a watershed model of the San Jacinto watershed for the Lake Elsinore and San Jacinto Watershed Authority and the RWQCB as part of the Lake Elsinore and Canyon Lake Nutrient Source Assessment. The model provided a framework for nutrient source assessment through representation of contributing land uses in a subwatershed network and subsequent

determination of required nutrient load reductions and allocations to Total Maximum Daily Load (TMDL) objectives. Relating to the Management Area, the report showed that nutrients from the Management Area only reach the lakes when Mystic Lake overflows.

Groundwater Infiltration Predictions Using Surface Water Model Output for the San Jacinto Watershed (TetraTech, 2004). This report documents the update and modification of the watershed model by TetraTech to support EMWD's development of a groundwater model of the San Jacinto River basin to simulate aquifer storage in the region. The update and modification included extension of the modeling period from January 1984 to March 2003, division of one subwatershed into 4 subwatersheds, and modification of model output. The model was validated and scenarios were run.

Regional Water Resources Database (EMWD, 2005c). A RWRD was developed for EMWD in 2004 to house the existing and future groundwater-related records and to interface Geographic Information System (GIS) maps and aerial photographs. The RWRD contains information for groundwater levels and extraction; streamflow and diversions; well information, construction data, downhole logs, and well/aquifer pump tests; precipitation; temperature; evaporation; imported water usage and quality; conjunctive use; and water quality data from other laboratories and published reports. While no formal document is available to-date describing the full development and implementation of this project, *Regional Water Resources Database* presents a concise summary of the capabilities of this important component of data management in the region.

Preliminary Design Report for the San Jacinto Agricultural In-Lieu Water Supply Project (Engineering Resources of Southern California, 2005). This report details how recycled water could be incorporated into existing irrigation infrastructure and how to be consistent with the regulatory constraints associated with recycled water use. This included study of water demands, pipeline alignment and size, and environmental issues and resulted in the development of a preliminary plan and cost estimate. The preliminary plan included 13,200 feet of 24-inch pipeline serving Rancho Casa Loma and Scott Brothers Dairy Farms. Total irrigation demand from these farms is estimated at 8,640 AFY. Of this amount, the project could deliver 3,215 AFY due to limited availability of recycled water during the summer months. The project is estimated to take 13 months to complete.

SECTION 3 WATER MANAGEMENT PLAN ELEMENTS

The elements of this Plan include water management goals and a set of management strategies that discuss and identify the actions necessary for meeting the goals.

3.1 MANAGEMENT PLAN GOALS

The Plan has eight primary goals derived from the Principles and the Agreement. Each of the goals, listed below, is briefly discussed in subsequent sections:

- Address pumping overdraft and declining groundwater levels,
- Provide for Soboba Tribe prior and paramount water rights,
- Ensure reliable water supply,
- Provide for planned urban growth,
- Protect and enhance water quality,
- Develop cost-effective water supply,
- Provide adequate monitoring for water supply and water quality, and
- Supersede the Fruitvale Judgment and Decree.

3.1.1 ADDRESS PUMPING OVERDRAFT AND DECLINING GROUNDWATER LEVELS

The Principles and the Stipulated Judgment recognize that groundwater levels within the Management Area have generally been declining for a number of years, and that the Management Area is presently in a condition of groundwater overdraft. The amount of groundwater overdraft is estimated to range from 10,000 to 15,000 AFY. This Plan has a goal of reducing the overdraft in the short-term, and completely eliminating the annual overdraft in the long-term. The timeframe will depend on the extent of overdraft, as more knowledge is gained through the years. For example, a six-year period would be needed to eliminate overdraft if there is an annual overdraft of 10,000 AF.

The Principles identify management strategies to be included in the Plan to reduce overdraft and ensure a long-term supply of reliable water for current and future uses. The Plan contains both management (non-structural) and capital facility (structural) elements to reduce demand and/or increase the available supply. The management elements include: reduction in native groundwater production; enhanced recharge with local runoff, imported, and/or recycled water; and water conservation programs. Short-term planned reductions in pumping are part

of the Plan while further supplies are obtained through the identified management elements. The management strategies are described in more detail in Section 3.2.

3.1.2 Provide for Soboba Prior and Paramount Water Rights

The Agreement with the Soboba Tribe provides for financial obligations, settlement of all water rights claims, and water purchases from MWD, including infrastructure and groundwater storage. The Plan requires that all parts of the Agreement with the Soboba Tribe be met. The management elements to ensure this include: recognition of 9,000 AFY of Soboba Tribe water rights and up to 4,100 AFY of water use in Canyon and Upper Pressure Management Zones for the first 50 years from the date of Settlement, purchase of replenishment water, and MWD's long-term average delivery of 7,500 AFY of imported water.

3.1.3 Ensure Reliable Water Supply

Reliability is a key component of any water supply system. This goal of the Plan is to ensure that the Public Agencies have a consensus and commitment to develop a comprehensive water supply portfolio that realizes all potential opportunities, and that plans are in place to adapt to changing demands, natural disasters, and drought conditions. Such a portfolio should rely on a range of sources of water supply and include a large component of local supply and storage. These objectives minimize, to the extent possible, reliance on weather patterns, over-stressed aquifers, and over-allocated imported water. The Plan elements that address these goals include imported and recycled water use.

3.1.4 Provide for Planned Urban Growth

The Management Area, like much of the Inland Empire area of Southern California, is experiencing dramatic urbanization. The Principles and the Plan recognize and acknowledge that the Management Area will continue to experience residential, commercial, and industrial growth and development, and that the existing water production and service systems will need to be expanded to meet this growth. This urbanization will affect water supplies in several ways. Urban development on non-irrigated lands will increase water use. Urban development and conversion of irrigated lands may not significantly increase water use, but the urban water use requires a more dependable, higher quality water supply. It is estimated that at least 15,000 AFY incremental water supply capacities over the existing Base Production Rights of Public Agencies must be dedicated to adequately serve this growth. The Plan will help local communities comply with recent changes in state law effective January 2002 (SB 221 and SB 610) requiring municipal suppliers, water districts, and cities or counties to document water availability from all sources in normal, dry, and multiple dry years whenever land use decisions

are made. Planned urban growth, as identified in prevailing land use and general plans, or in approved Urban Water Management Plans (UWMP), provided the basis for all demand forecasts and assumptions in the Plan.

3.1.5 Protect and Enhance Water Quality

The Management Area has some of the highest quality groundwater in the San Jacinto Watershed, but it has its own problems and issues. Nitrates and Total Dissolved Solids (TDS) concentrations have historically increased as the area experienced urban and agricultural growth. As noted above, urban uses will replace agricultural uses, resulting in more stringent water quality standards for most constituents, including nitrates. The Plan seeks to meet goals for water quality through preventing degradation of the groundwater due to activities in the Management Area, and as a result of implementation of the Plan. Each of the Public Agencies also seeks to prevent degradation or to improve groundwater quality to avoid high costs for drinking water treatment.

3.1.6 Develop Cost-Effective Water Supply

Equitable distribution of costs and benefits are part of the Plan. It is important that the Plan elements are selected and implemented in a way that keeps costs to a minimum so as to keep water bills as low as possible for customers. Cost management includes purchasing imported water at low rates; utilizing groundwater storage space; fully utilizing existing infrastructure; promoting conservation; efficiently implementing new infrastructure; and maintaining good quality groundwater and surface water to keep treatment costs low. The Public Agencies also seek to cost-effectively reclaim municipal wastewater for beneficial reuse whenever possible.

3.1.7 Provide Adequate Monitoring for Water Supply and Water Quality

Monitoring programs will be implemented to determine if the Plan's goals are being met; to document that anticipated benefits are being achieved; and to predict future needs. Included in the monitoring should be water quality, sampled at sufficient locations to be representative, with analysis for all constituents of concern. In addition, the monitoring program should include monitoring of water levels, well metering, and tracking of imported water and recycled water availability and deliveries. Monitoring can also be used to improve yield estimates and groundwater model performance through the development of better estimates of stream recharge and other components. The results of monitoring will be used to strengthen or relax actions needed to meet Plan goals.

3.1.8 SUPERSEDE THE FRUITVALE JUDGMENT AND DECREE

The Fruitvale Judgment and Decree (The City of San Jacinto, et al., v. Fruitvale Mutual Water Company, et al., No. 51546, Riverside County) was entered into Book 72, Page 164 of Judgments, Riverside County, on June 4, 1954. EMWD, as successor in interest to FMWC, is subject to the provisions of the Judgment and Decree. Provisions in the document are discussed and summarized in Section 2 of this Plan. The Stipulated Judgment and its Water Management Plan are to supersede the Fruitvale Judgment and Agreement subject to certain exceptions in Section 3.5 of the Stipulated Judgment.

3.2 WATER MANAGEMENT PLAN STRATEGIES

To meet the stated goals of the Plan, the stakeholders have adopted the following specific strategies.

3.2.1 REDUCE PUBLIC AGENCY NATIVE GROUNDWATER PRODUCTION

The Public Agencies have agreed to reduce native groundwater production so that total production is within the Safe Yield of the Management Area. The average annual groundwater production in the Management Area for the hydrologic period 1958-2004 is estimated to be 54,800 AFY. The initial estimate of Safe Yield is 45,000 AF. The Public Agencies have also agreed to a 10% reduction from each Base Production Right in the first full year after entry of the Stipulated Judgment. The Public Agencies' share of Safe Yield is calculated based on their Adjusted Production Right, and is discussed further in Section 11. Within the first six years, the Watermaster will make a determination of the Safe Yield of the Management Area. Thereafter, the Safe Yield shall be reviewed and modified, if necessary, upon the recommendation of the TC or as the Watermaster may determine. Until Adjusted Production Rights are consistent with the Public Agencies' share of Safe Yield, the Watermaster will determine the required reductions in Adjusted Production Rights in each subsequent year to achieve Safe Yield within a reasonable period of time as determined by the Watermaster. The Watermaster is to consider the extent of the overdraft, the economic impact on the parties bound by this Judgment, and other relevant factors in determining the total and pro-rata shares of Adjusted Production Rights. The goal is to achieve production at the same level as Safe Yield over a six-year period assuming an annual overdraft of 10,000 acre-feet. In the event the extent of the overdraft is different than assumed, then the period of time reasonably required to reach Safe Yield may be extended or reduced accordingly. However, in no event shall any reduction for any Public Agency be more than 10% of the Adjusted Production Rights of the prior year.

3.2.2 IMPLEMENT THE SAN JACINTO RIVER RECHARGE AND RECOVERY PROJECT

The stakeholders have agreed that Phase I of the IRRP is the primary project considered to be the core of the Physical Solution. The stakeholders are working towards an agreement for Phase I of the IRRP project which documents their agreement on the ownership, financing, and operation of the facilities.

The information presented here is based on previously published documents adjusted when appropriate based on the latest knowledge at the time of publication of the Plan.

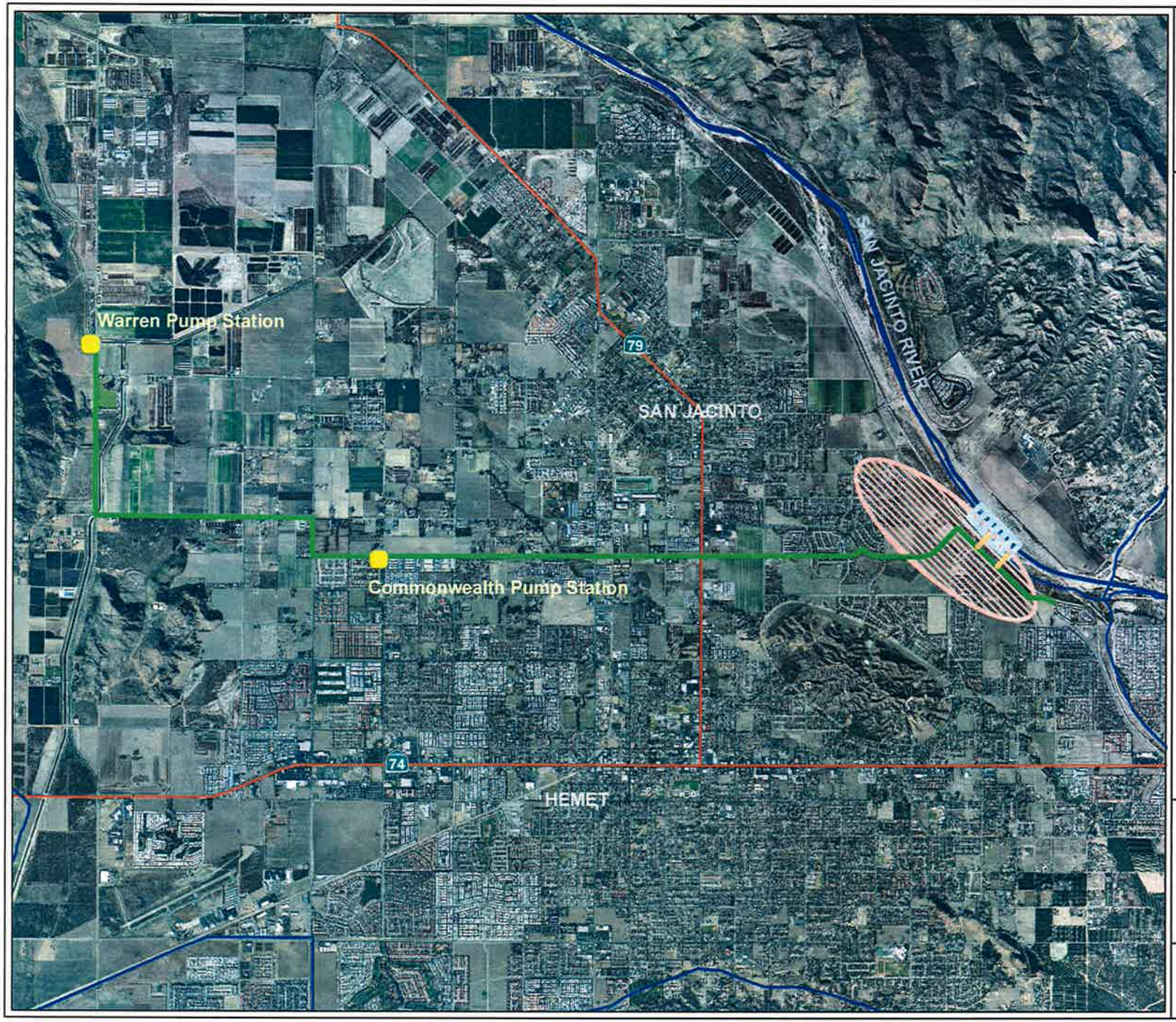
Phases I and II of the IRRP are designed to recharge (replenish) imported water and extract groundwater at a capacity such that the following goals are met:

- Satisfy the Tribe's prior and paramount rights as set forth in the Agreement with the Tribe by providing an average annual supply of 7,500 acre-feet pursuant to the terms of such agreement. The proposed Program would provide the MWD with the right to store up to 40,000 acre-feet of imported water in the Upper Pressure Sub-basin as advance deliveries under its agreement to provide an average annual supply of 7,500 acre-feet.
- Offset the existing overdraft of the Management Area, estimated at approximately 10,000 AFY.
- Provide approximately an additional 15,000 AFY of water storage to help meet projected demand increases.

Major elements of Phase I of the Project are (Figure 3.1):

- Modifications to Pump Stations (Warren and Commonwealth);
- Construction of Pipelines;
- Design and Construction of Recharge Basins;
- Drilling Three (3) Extraction Wells;
- Installation of Pumps and Chlorination Equipment for Three (3) Extraction Well; and
- Design and Installation of Three (3) Monitoring Wells.

The project is designed and implemented in two Phases. While project Phase I activities are defined in detail, Phase II of the project is defined at conceptual level and the detailed design will be developed in the future.



Hemet / San Jacinto Water Management Plan

Schematic of Integrated Recharge Recovery Program - Phase I

Figure 3.1

Legend

- Pump Station
- Phase I Pipeline
- Phase I Ponds
- Existing Pipeline
- Phase I Well Field

Source: EMWD

N

0 0.5 1 Miles

October 2007

IRIME

3.2.2.1 Phase I

This phase of the project consists of the construction of the San Jacinto Integrated Recharge and Recovery Project, which will provide up to 42 cubic feet per second (cfs)* of recharge water capacity. Phase I is scheduled to be completed by December 2008*, and will cost approximately $16.2* million. Major activities during Phase I are:

1. **Completion of Environmental Process** - The Environmental Impact Report (EIR) was prepared and adopted in August of 2004. Additional permitting requirements include Section 7 consultation with USFWS and issuance of Biological Opinion by the appropriate federal agency.
2. **Acquisition of Land** - A 100 acre parcel has been purchased by EMWD for required habitat mitigation measures for a 35 acre* parcel that is dedicated to recharge basins. In addition, EMWD is in the process of acquiring approximately one acre of land (in several parcels) for monitoring wells.
3. **Approval, Advertising, and Award of Construction Contract** - The EMWD Board of Directors has approved the bidding process.
4. **Drilling of Extraction Wells No. 1, 2, and 3** - This includes construction and testing of three 18-inch diameter extraction wells, each to a depth of approximately 1,000 feet.
5. **Installation of Pump and Chlorination Equipment for Wells No. 1, 2, and 3** - This includes installation of pump and chlorination equipment, appurtenances and site improvements required to complete and operate the new extraction wells.
6. **Modifications to the Pump Station** - This includes modifications to the Warren and Commonwealth Pump Stations. The modifications include upgrades to increase pump station capacity to provide a seasonal maximum of 42 cfs* to the recharge basins.
7. **Construction of Recharge Basins** - This activity includes construction of six recharge ponds within the San Jacinto river bed in two clusters of three ponds each. The footprint of the recharge area will be approximately 35 acres*, along the west side of the San Jacinto River, immediately upstream of the river confluence with the Meridian Channel.
8. **Construction of Pipelines** - This includes design and construction of pipelines and appurtenances to convey, regulate, and meter raw imported water flows into the recharge basins. Pipelines include two (2) 24-inch diameter laterals to convey water from an existing 33-inch diameter transmission main along the proposed Ramona Expressway alignment to the first basin in each of the two basin clusters. There will be appurtenances including regulation valves, meters to record water

* Number has been updated since the publication of the IRRP Feasibility Report.

flow, telemetry-based flow control systems, and discharge piping into the recharge basins.

9. **Design and Construction of Monitoring Wells -** Three monitoring wells will be constructed outside the river bed along the west berm. The wells are designed to monitor the vertical and lateral migration of recharge water into the underlying aquifer zones. These clustered wells will be multi-cased and perforated to monitor the groundwater levels at various depths.

The overall project size may change as a result of negotiations with regulatory agencies.

3.2.3 IMPLEMENT GROUNDWATER REPLENISHMENT PROGRAM

The groundwater aquifers in the Management Area are a valuable resource and provide many advantages to operating a reliable water supply system. For many Private Water Producers, groundwater is their sole source of water. Declining water levels increase costs for pumping water and can also cause wells to go dry, requiring deeper drilling, or can result in the intrusion of poor quality groundwater from neighboring Management Zones, rendering the groundwater unsuitable for many beneficial uses. Also, the replenishment of high quality imported water from the State Water Project or high quality runoff from the surrounding mountains can maintain or improve the quality of the groundwater in the Management Area.

Groundwater replenishment, therefore, is a major part of the water management strategies considered by the stakeholders. Replenishment efforts to increase water supply in the Management Area can be grouped into two categories:

1. Direct replenishment of groundwater to store water for future use; and
2. Augmentation of imported or recycled water supplies to provide immediate increases in water supply and the associated decrease in groundwater pumping. Often, these categories are combined, with increases in imported or recycled water being used to replenish groundwater for future use.

3.2.3.1 Enhancing Natural Replenishment

The Management Area already receives a significant amount of natural recharge, from sources such as direct recharge from precipitation and infiltration from the San Jacinto River and its tributaries. While much of this water is able to infiltrate naturally, natural recharge could be increased by capturing surface flows during storm events, allowing the water to infiltrate over time rather than be swept out of the Management Area. As part of the Basin Assessment Study, the TC has identified and considered several conjunctive use and natural replenishment projects that have the potential to address such a water supply management strategy. These are described in Section 5.3 of the Plan.

3.2.3.2 Additional MWD Replenishment Water

Utilizing replenishment allows for significant cost savings when purchasing imported water from MWD. MWD provides special rates for water used for replenishment purposes. This water is available during the low-demand winter period and currently costs $238/AF for untreated water, while full-service Tier 1 & 2 untreated water currently costs $331/AF and $427/AF, respectively.

3.2.4 Expand the Use of Recycled Water

Recycled water is available from EMWD's San Jacinto Valley Regional Water Reclamation Facility. Currently, recycled water is used by agricultural users and other large-scale outdoor irrigators such as golf courses and municipal facilities in place of groundwater. The Watermaster will use recycled water as a significant part of its water supply strategy for replenishment of the groundwater basin. The Watermaster will work with EMWD to determine the operational constraints currently facing the availability of recycled water for replenishment of the basin. The recycled water is to follow the State and Federal guidelines. Future phases of the Plan include upgrade of the San Jacinto Valley Regional Water Reclamation Facility to tertiary treatment.

3.2.4.1 Continue and Expand the In-Lieu Replenishment with Recycled and/or Imported Water

In-lieu replenishment with recycled and/or imported water provides many benefits over direct replenishment of the groundwater. In-lieu involves utilizing an alternate source, in this case imported or recycled water, instead of pumping groundwater. Using in-lieu recharge means that there is no cost to pump groundwater, no land is needed for a spreading basin, and there is no constant recharge through a basin to push salts out of the unsaturated zone. Disadvantages include timing of the supplies with demand; that is, most in-lieu customers cannot use the quantity of water available during the off-peak time. To maximize use of water available for in-lieu replenishment, significant infrastructure will be needed to serve the maximum number of customers. This strategy would require the Watermaster to work with EMWD, other agencies, and Private Water Producers to develop specific plans for expanding the use of recycled water for in-lieu replenishment of the basin.

3.2.4.2 Expand and Upgrade the San Jacinto Valley Regional Water Reclamation Facility

The San Jacinto Valley Regional Water Reclamation Facility is currently an 11 MGD plant with capability to treat wastewater to a secondary level of treatment. While this plant is scheduled for upgrade to tertiary treatment, the recycled water discharge beyond the sale to the agricultural customers is currently being disposed of in the basin. The plant is scheduled for expansion in size and upgrade of the treatment level, and the upgraded plant will have the capacity to treat 14 MGD by 2011 and 18 MGD by 2024. The Watermaster shall have the right of first refusal to purchase all recycled water produced from the treatment facilities serving the Management Area that is not subject to then existing contracts. The Watermaster will analyze the need and decide on the amount of recycled water for direct recharge and/or direct delivery.

3.2.5 Provide for Reliable Water Supply to Meet the Future Demand

The Plan is to provide sufficient water supplies to meet future water demands in the Management Area. This strategy is tied directly to the IRRP that is designed to provide 15,000 AFY of additional supplies to meet the projected water demands. As part of this strategy, additional conjunctive use projects, identified in Section 5.3 of this Plan, will augment Phase II of the IRRP. These projects are mostly designed to capture winter run-off for recharge, unlike the IRRP that is designed to recharge imported water.

3.2.6 Implement Additional Water Conservation Measures

The current level of water conservation has significantly helped to reduce the water demand in the Management Area. In addition to the conservation measures implemented by the Public Agencies, additional conservation measures can be designed and implemented by the agricultural and dairy water users. The Watermaster, in coordination with the Agencies, should develop specific strategies for additional water conservation. In addition, they should identify practical steps and means for voluntary implementation by the agricultural and dairy water users that would help water management of the basin.

3.2.7 Implement and Expand Monitoring Program

At the heart of any water management plan is a robust monitoring program capable of assessing the status of the basin and monitoring the responses to future management actions.

EMWD, on a voluntary basis, has compiled historical groundwater elevation and quality data from mid-1950s through the present. In the early data collection efforts, the location and

frequency of monitoring were not as consistent as the more recent measurements. This was mostly due to the voluntary nature of participation in the monitoring program, as well as funding availability. This lack of consistency in data collection hampers rigorous and thorough analysis. However, long-term hydrographs as well as contours of groundwater levels have been produced by EMWD to present long-term trends in groundwater conditions over time, and with appropriate geographic extent.

In 2004, the Hemet/San Jacinto Groundwater Monitoring Program was initiated to collect, compile, and analyze groundwater-related data. This program was undertaken by the Public Agencies and DWR. The monitoring program provides the information necessary for a comprehensive view of the Management Area, and contains the following elements:

- Groundwater Level Monitoring;
- Groundwater Quality Monitoring;
- Groundwater Extraction Monitoring; and
- Inactive Well Capping and Sealing.

Finally, the monitoring program utilizes EMWD's RWRD, for assembling and assessing groundwater-related data in the Management Area. All Public Agencies provide data on their wells and assist in communicating with private well owners in their respective jurisdictions to collect their data and information.

This strategy reconfirms that the monitoring program, as established in 2004, should continue and be expanded to new areas. The Stipulated Judgment requires that the Watermaster implement a monitoring program to ensure that Plan activities follow best management and engineering principles to protect Management Area water resources, and to compile and analyze data on groundwater production, water levels, water quality, and groundwater in storage. The Watermaster, in coordination with EMWD and other Public Agencies, will develop plans for expansion of the monitoring program, as well as, specific actions for implementation of the monitoring program in the Management Area. Funding for the monitoring program will come from the Administrative Assessment, as detailed in Section 10.3.1.

3.2.7.1 Groundwater Monitoring

Groundwater level and quality monitoring are valuable, but can be costly and time consuming. A robust network of monitoring wells can be established to develop the optimum amount of data on groundwater. Some criteria to be used in the development or modification of the network may include:

- Monitor the same well for selected seasons over many years to understand trends and variability;
- Develop an unbiased distribution of monitoring wells, aerially and vertically, that account for differences in:
  - Topography,
  - Geology and soils,
  - Climate, and
  - Land Use;
- Maintain supporting data to aid in analysis, including:
  - Meteorological data,
  - Hydrologic data, and
  - Land use data, including pumping and irrigation;
- Monitor at a frequency that captures variability of water level and water quality fluctuations;
- Utilize wells, to the extent possible, intended solely for groundwater monitoring, not production; and
- Maintain high levels of data quality.

The Watermaster is to work cooperatively with the Public Agencies and Private Water Producers to establish an optimum network of monitoring wells for collection and analysis of groundwater trends and variability.

3.2.7.2 Surface Water Monitoring

Surface water monitoring would build on the existing cooperative program between EMWD and the United States Geological Survey (USGS). This program monitors streamflow on the San Jacinto River just upstream of State Street and on Lamb Canyon Creek near Victory Ranch. The USGS also monitors a gage on the San Jacinto River at the Cranston Ranger Station. Continued and additional surface water flow and quality monitoring would include the following criteria:

- Monitor the same location for many years to understand trends and variability;
- Maintain supporting data to aid in analysis, including:
  - Meteorological data,
  - Groundwater data, and
  - Land use data, including pumping and irrigation; and
- Maintain high levels of data quality.

Gaging station should be installed on reaches not currently being monitored, such as:

- San Jacinto River near Main Street;
- San Jacinto River near Highway 74 bridge crossing;
- Bautista Creek near Highway 74 bridge crossing; and
- Salt Creek near State Street.

The Watermaster is to work cooperatively with the Public Agencies to establish specific monitoring locations for collection and analysis of surface water trends and variability.

(This Page Left Blank Intentionally)

SECTION 4 STATE OF THE MANAGEMENT AREA

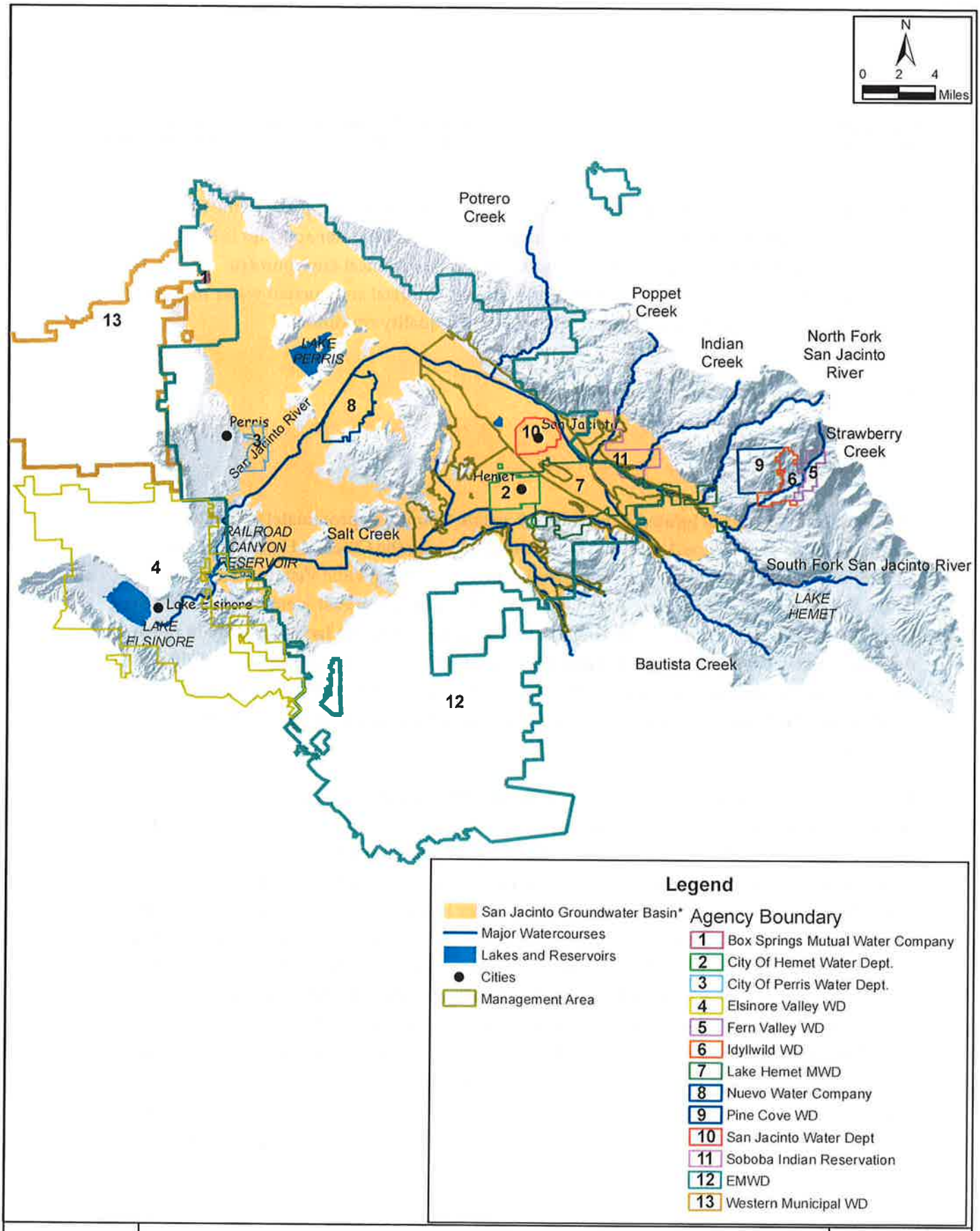
This section discusses the local geologic and hydrologic conditions that provide the foundation for the development of the Plan. The ability to manage available water supplies is to a large degree governed by naturally occurring conditions and the physical environment. This section further describes water supply conditions and sources; historical and current water demands; status of the groundwater basin; and summarizes water quality conditions.

4.1 GEOGRAPHY AND CLIMATE

4.1.1 GEOGRAPHY

The Management Area is located in western Riverside County, approximately 70 miles southeast of the City of Los Angeles. The area encompasses the Cities of Hemet and San Jacinto; unincorporated residential/commercial areas, including Valle Vista; and agricultural lands. State Highway 74 (Florida Avenue) crosses the valley in an east-west direction and State Highway 79 provides a north-south corridor for the region. The San Jacinto mountain range, to the east of the valley, is the dominant geographic feature of the region, rising to a height of 10,805 feet at Mount San Jacinto. Elevations on the valley floor range from approximately 1,400 to 1,800 feet. There are various bedrock outcrops in the area, none of which exceed 2,700 feet.

The San Jacinto Watershed (Figure 4.1) includes the Management Area and surrounding mountains and covers an area of approximately 728 square miles, measured above a point just downstream from Railroad Canyon Dam. All of the streams and rivers in the watershed are ephemeral, flowing only when precipitation occurs and losing much of this flow to groundwater infiltration. The San Jacinto River arises in and drains the western slopes of the San Jacinto Mountains. Waterways tributary to the river include the North and South Forks and Strawberry, Indian, Poppet, and Bautista Creeks. Lake Hemet, located in the mountains on the South Fork of the San Jacinto River, is a 12,775 AF capacity LHMWD-operated reservoir completed in 1895. The San Jacinto River recharges the groundwater basin, primarily in the area southeast of the City of San Jacinto. It then occasionally flows northwest past the Lakeview Mountains, filling Mystic Lake, before turning southwest to flow across the Perris Valley floor. The San Jacinto River ultimately flows into Lake Elsinore via Railroad Canyon and Canyon Lake. Lake Elsinore, when full, overflows into Temescal Wash, which joins the Santa Ana River near Prado Dam.



RIME

San Jacinto Watershed

Hemet / San Jacinto Water Management Plan

*Source: DWR, 2003

October 2007

Figure 4.1

4.1.2 CLIMATE

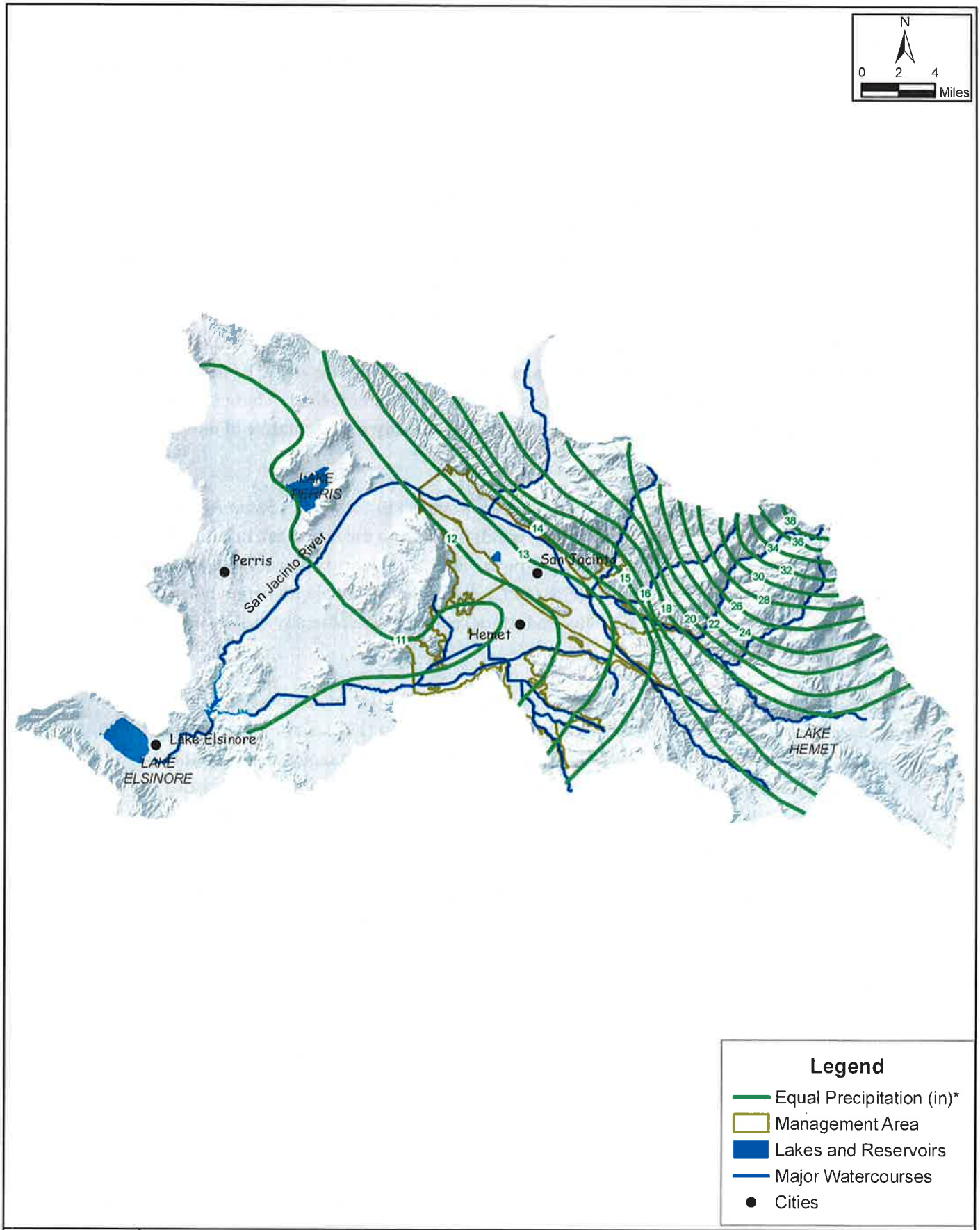
The climate of the area is that of a dry, semi-arid, near-Mediterranean zone, typical of the moderately elevated inland valleys of southern California. The climate is characterized by wet and dry seasons, generally low precipitation, and a large proportion of clear days, moderately high summer temperatures, and mild winter temperatures. The yearly average temperature at the City of San Jacinto is 62°F (25°C). Summer temperatures are often more than 100°F (38°C), and the recorded maximum at San Jacinto is 120°F (49°C). Frost occasionally occurs during the December through February period. The lowest recorded temperature was 7°F (-14°C). The average frost-free period is 247 days long, from March 15 to November 19. These temperatures for the San Jacinto climate station are considered to be generally representative of temperatures throughout the valley area.

Along with the rest of Southern California, the area is subject to the annual Santa Ana winds. Usually occurring in the fall of the year, these winds blow from the northeast, bringing hot, dry desert air with velocities of up to 50 miles per hour. Relative humidity has at times dropped below 5 percent with temperatures of 105°F (40°C) and higher. This phenomenon normally lasts only a few days, but has been known to last for several weeks, thereby greatly increasing the evaporation rate.

As a result of the hot, dry climate, the area has a high rate of evapotranspiration. Evapotranspiration is recorded as reference evapotranspiration (ETo; evapotranspiration from a standardized grass surface) by the DWR's California Irrigation Management Information System. Reference evapotranspiration averages 57 inches per year and is highly seasonal, with an average monthly maximum of 7.9 inches in July and average monthly minimum of 2.0 inches in December (DWR CIMIS, 2006).

Virtually all precipitation falls in the winter months, with some summer thunderstorms. Topography generally controls the relative amounts of precipitation from one location to the next. The average precipitation on the valley floor is about 13 inches, but near Mt. San Jacinto, the average precipitation is approximately 40 inches. Figure 4.2 shows the distribution of precipitation in the watershed.

The Riverside County Flood Control and Water Conservation District (RCFC&WCD) currently maintains precipitation records from the National Weather Service precipitation gauge at the California Division of Forestry Station at 1st Street and San Jacinto Avenue in San Jacinto (Site #186). Annual San Jacinto precipitation totals for the 1850/51 through 2004/05 rain years (July – June) are shown in Figure 4.3. For the 155 years from July 1850 through June 2005, average precipitation equaled 13.12 inches; median precipitation was 12.13 inches; the year with



RIME

Average Annual Precipitation

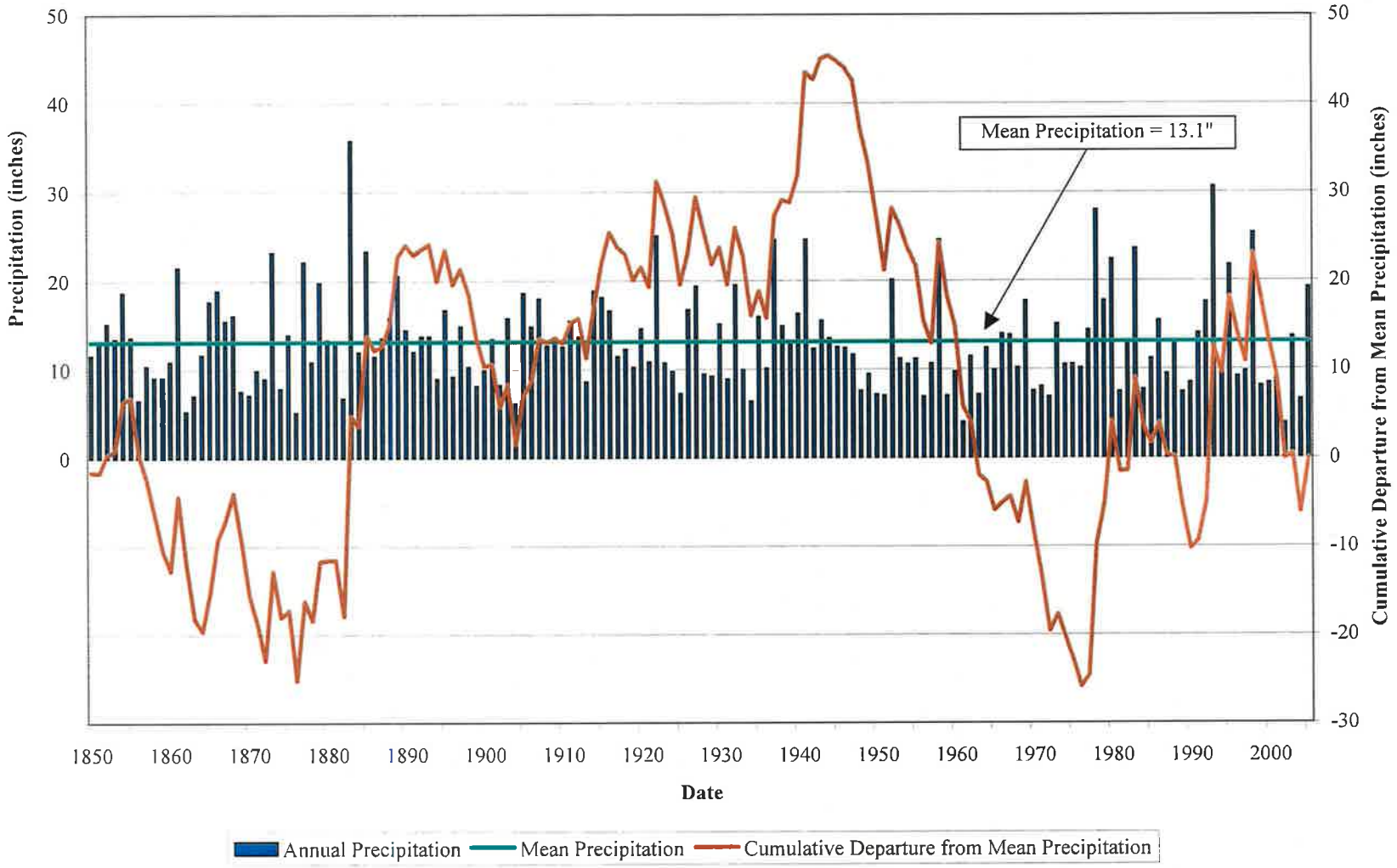
Hemet / San Jacinto Water Management Plan

*Source DWR, 1978 (1932 - 1964 data)

October 2007

Figure 4.2

Figure 4.3 Annual Precipitation and Cumulative Departure from Mean Precipitation



the highest precipitation was 1883/84 with 35.77 inches of rain; and the driest year was 2001/02 with 3.85 inches. Figure 4.3 also shows the cumulative departure from mean precipitation. This chart represents wet periods with increasing values, such as 1882-1890 and 1990-1998; normal periods with near-constant values, such as 1859-1881 and 1980-1988; and dry periods as decreasing values, such as 1944-1976 and 1999-2004.

4.2 SURFACE WATER CONDITIONS

The San Jacinto River and its tributaries are the primary surface water elements in the Management Area. This river and its tributaries provide water for direct use, artificial recharge, as well as for significant natural recharge to the groundwater system through the riverbeds. The San Jacinto River contains high quality water that flows from the mountain watershed and recharges groundwater. The river is a losing stream throughout the Management Area. Artificial and natural recharge of San Jacinto River water improves the overall quality and quantity of groundwater. Groundwater levels have been lowered over the years to the point where additional changes in groundwater levels has little or no impact on surface flows or vice versa, although in predevelopment conditions groundwater contributed to surface flows in swampy areas of the basin floor, particularly upgradient of faults.

EMWD and RCFC&WCD have partnered with USGS to monitor stream flows. USGS gaging stations along the San Jacinto River and its tributaries in the Hemet/San Jacinto and surrounding area are listed in Table 4.1, below.

In 1996, EMWD entered into a Cooperative Water Program Joint Funding Agreement with the USGS for a long-term water budget study in the San Jacinto area. As part of this project, the USGS installed two stream flow gages and three stage gages in the San Jacinto Watershed.

The USGS applied a rainfall-runoff model to estimate the water budgets for groundwater and surface water flows and to determine the hydrological effects of urbanization. The study used historical precipitation data with the model to produce a simulated long-term record of groundwater recharge and surface water runoff for a variety of potential urbanized conditions. The major objectives of the study were to:

1. Estimate groundwater recharge and surface water flows in the Canyon and Upper Pressure Management Zones;
2. Summarize the long-term water budget of the study area upstream of Mystic Lake; and
3. Determine the effects of urbanization in the study area.

Table 4.1 USGS Surface Water Gaging Stations

Station No.	Description:	Lat.; Long.*	Data Type	Time Frame
11069200	Lake Hemet WC up Canyon near San Jacinto	33°44'20"; 116°49'30"	Daily flows	1961-1991
11069300	WF San Jacinto Tributary near Valle Vista	33°43'20"; 116°48'00"	Peak flows Daily flows	1962-1973 1961-1967
11069500	San Jacinto River near San Jacinto (Cranston Ranger Station)	33°44'17"; 11649'59"	Real time Peak flows Daily flows Water Qual.	1921-present 1920-present 1998
11069501	San Jacinto River near San Jacinto plus Canals	33°44'17"; 116°49'59"	Daily flows	1948-1990
11070000	Bautista Creek Near Hemet	33°41'40"; 116°51'00"	Peak flows Daily flows	1947-1969 1947-1969
11070020	Bautista Creek at head of Flood Channel in Hemet	33°42'42"; 116°52'04"	Peak flows Daily flows	1988-2003 1987-present
11070050	Bautista Creek at Valle Vista	33°44'04"; 116°53'33"	Peak flows Daily flows	1970-1987 1969-1987
11070150	San Jacinto River above State Street near San Jacinto	33°49'17"; 116°58'21"	Peak flows Daily flows	1997-present 1996-present
11070158	Line D Storm Drain at Santa Fe St. near San Jacinto	33°46'44"; 116°57'46"	Peak flows	1997-1999
11070160	Line E Storm Drain at Santa Fe St. near San Jacinto	33°46'41': 116°58'18"	Peak flows	1997-1999
11070185	Lamb Canyon at Victory Ranch near San Jacinto	33°51'31"; 117°00'53"	Peak flows	1997-2004
11070190	Laborde Canyon near San Jacinto	33°51'44"; 117°01'29"	Peak flows	1962-1973
11070210	San Jacinto River at Ramona Expressway near Lakeview	33°50'23"; 117°08'06"	Real time Peak flows Daily flows	2001-present 2000-present

* The longitude and latitude measurements are published figures, but were estimated by the USGS from maps and, therefore, only have an accuracy of +/- 500 feet.

Five gages were installed upstream of Bridge Street in the San Jacinto basin area. Two stream flow gages were installed in the San Jacinto River, one at the State Street (Highway 79) crossing and the other at the Cranston Ranger Station. Three crest stage gages were installed in Potrero Canyon near San Jacinto, Lamb Canyon near San Jacinto, and at an urban runoff site.

Groundwater recharge in the Canyon and Upper Pressure Management Zones was calculated in addition to the surface runoff leaving the Management Area (including urban runoff) that reaches the Mystic Lake area. The study results are summarized in the USGS Water Resources Investigations Report 02-4090, *Rainfall-Runoff Characteristics and Effects of Increased Urban Density on Streamflow and Infiltration in the Eastern Part of the San Jacinto River Basin, Riverside County,*

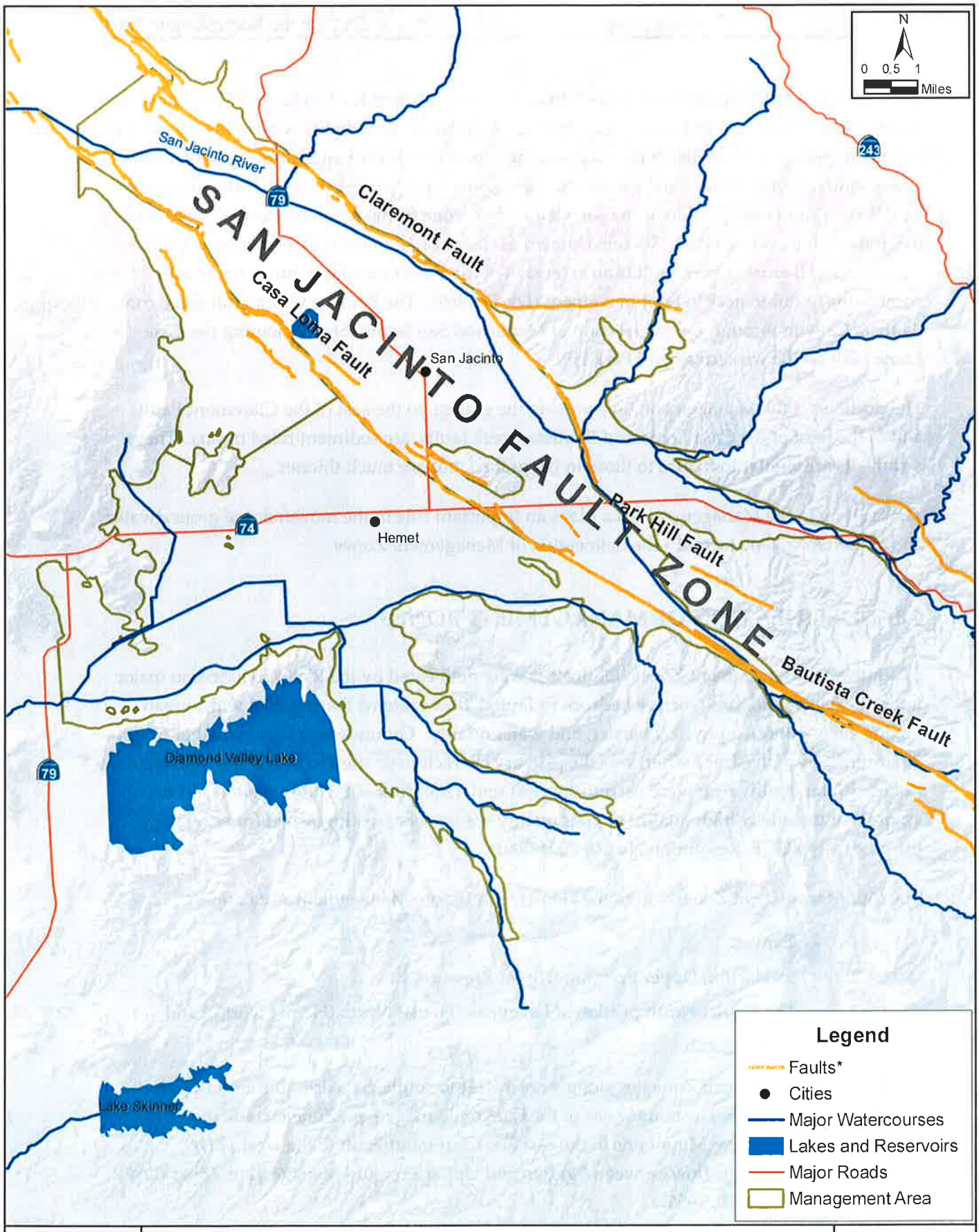
California. The report includes all measured, simulated, and statistical data used to support the conclusions of the study.

After the end of the study, some of the crest stage gages were no longer monitored and fell into disrepair. However, EMWD continues to fund, and USGS continues to operate, the stream gage on the San Jacinto River at State Street. The crest stage gage at Lamb Canyon Creek at Victory Ranch is still jointly funded by EMWD and USGS. For the 2005/2006 monitoring, the effort was funded as part of the Hemet/San Jacinto Monitoring Program by EMWD, LHMWD, and the Cities of Hemet and San Jacinto. The stream gage on the San Jacinto River at Cranston Ranger Station is currently funded and maintained by USGS and Riverside County Flood Control District with real-time data available on the USGS website.

4.3 GEOLOGY

The geology of the Hemet/San Jacinto area, relevant to groundwater supplies, has two primary features: a sediment filled graben, and the San Jacinto fault zone. The sediments in the graben provide for the majority of storage and movement of groundwater in the area and the movement of water is altered by the presence of the faults, which provide most of the internal boundaries for the area's Management Zones.

The Management Area partially contains a geomorphic feature known as a graben or fault-graben, along with additional permeable materials in alluvium-filled valleys. A graben is a depressed, trough-like structure in the Earth's crust, filled or partially filled with sediments, and usually formed by faulting and the relative downward movement of block-like geologic structures. The San Jacinto graben is a deep, sediment-filled structure approximately 2.5 miles wide and more than 20 miles long and forms the Upper Pressure Management Zone's boundaries in the Management Area. The Management Area, including the graben, is nearly surrounded by impermeable bedrock mountains and hills. Internally, island-like masses of granite and metamorphic bedrock or older alluvium rise above the valley floor. Surface and near-surface sediments in the graben and alluvium filled valleys are primarily sand and sandy silt with some silt and silty clay. The San Jacinto graben consists of a forebay area in the southeast where surface water recharge primarily occurs and a pressure area in the northwest where deep aquifers exist under confined conditions. The northwest-southeast oriented graben is formed by the right-slipping San Jacinto fault zone, believed to be the most seismically active in southern California. Between 1899 and the present, seven earthquakes of Richter magnitude 6.0 or greater have occurred along the San Jacinto fault between the San Gabriel Mountains and Mexico. This complex zone of faulting and cross faulting has two main branches, the Claremont and the Casa Loma, which form the northeast and southwest borders of the graben, respectively (see Figure 4.4).



RIME

Fault Locations

Hemet / San Jacinto Water Management Plan

*Source: Riverside County

October 2007

Figure 4.4

The Claremont fault separates the graben from the Badlands and the San Jacinto Mountains on the northeast. This fault follows Gilman Springs Road from State Highway 60 to the City of San Jacinto, hugging the foothills. It then follows the San Jacinto River before shifting to Bautista Creek south of Valle Vista. To the west, the Casa Loma fault generally parallels the Claremont Fault. The Casa Loma portion of the San Jacinto fault zone forms the southwesterly border of the graben. It runs from Park Hill (also known as Casa Loma) to the northwest toward Reche Canyon. The Bautista Creek fault is an extension of the Casa Loma fault, but is separately named due to differences in fault movement (DWR, 1969). The Bautista Creek fault runs from Bautista Canyon through the intersection of Menlo and San Jacinto Streets, joining the Casa Loma fault on the western side of Park Hill.

The portions of the Management Area outside the graben, to the east of the Claremont Fault and to the west of the Casa Loma and Bautista Creek faults, are sediment filled basins. These sediments are similar in nature to those in the graben, but are much thinner.

The faulting in the Management Area plays an important role in the movement of groundwater and is therefore a key factor in the delineation of Management Zones.

4.4 DELINEATION OF MANAGEMENT ZONES

Groundwater Management Zones (Figure 2.1) were delineated by the RWQCB based on major impermeable boundaries (such as bedrock or faults), flow systems that prevent widespread mixing even without a physical barrier, and water quality. Groundwater flow, whether or not determined by a physical barrier, was the primary characteristic used to define the Management Zones. Water quality data were used to support understanding of the flow regime and to assure that unusually high quality or poor quality waters were distinguished for regulatory purposes. (RWQCB, Resolution No. R8-2004-0001).

The four Management Zones within the Hemet/San Jacinto Management Area are:

1. Canyon;
2. San Jacinto Upper Pressure (Upper Pressure);
3. The Hemet North portion of Lakeview/Hemet North (Hemet North); and
4. Hemet South.

The Canyon Management Zone lies along a northwest to southeast axis in the eastern part of the Management Area. The boundaries of the Canyon Management Zone include the virtually impermeable San Jacinto Mountains to the east and Claremont Fault to the west. The Claremont Fault inhibits flow between Canyon and Upper Pressure Management Zones (DWR, 1969; DWR, 1978; SWRB, 1955).

Like the Canyon Management Zone, the Upper Pressure Management Zone lies along a northwest to southeast axis in the eastern part of the Management Area. The Upper Pressure Management Zone is bounded by the Claremont Fault to the northeast, the Casa Loma and Bautista Creek Faults to the southwest, and the flow system boundary with the San Jacinto Lower Pressure Management Zone to the northwest.

Boundaries of the Hemet North Management Zone include the Casa Loma Fault to the east; the groundwater divide near Esplanade Avenue to the south; the impermeable bedrock of the Lakeview Mountains to the west; and a constricted area of permeable materials between the Lakeview Mountains and the Casa Loma Fault to the northwest. The Casa Loma fault zone is a known barrier to groundwater flow (DWR, 1969; DWR, 1978; SWRB, 1955).

The Hemet South Management Zone boundaries include the Casa Loma and Bautista Creek faults to the east; the groundwater divide near Esplanade Avenue to the north; the groundwater divide in the Winchester area and various crystalline bedrock outcrops to the west. Diamond Valley Lake, a water supply reservoir for the MWD completed in 1999 and filled by 2002, is located southwest of the Hemet South Management Zone. MWD (1991) states that seepage through the permeable materials in the upper 200 feet may take place. The Casa Loma and Bautista Creek faults are known barriers to groundwater (DWR, 1969; DWR, 1978; SWRB, 1955).

For the Management Area as a whole, the mountains (Figure 4.1) form a nearly impermeable boundary such that there are only three pathways for groundwater to migrate to or from other Management Zones outside the Management Area. These locations are:

- Between the Hemet South and Perris South Management Zones, in the southwest;
- Between the Hemet North portion and Lakeview portion of Lakeview/Hemet North Management Zones, in the northwest; and
- Between the Upper Pressure and Lower Pressure Management Zones, in the northwest.

Groundwater flow in and out of the Management Area is important, as water quality is typically better in the Management Area than in the surrounding areas.

4.5 SOILS

The influence of soils on water use and hydrologic processes makes it an important component to consider when estimating changes in water use due to land use change as well as for siting spreading basins for artificial recharge projects.

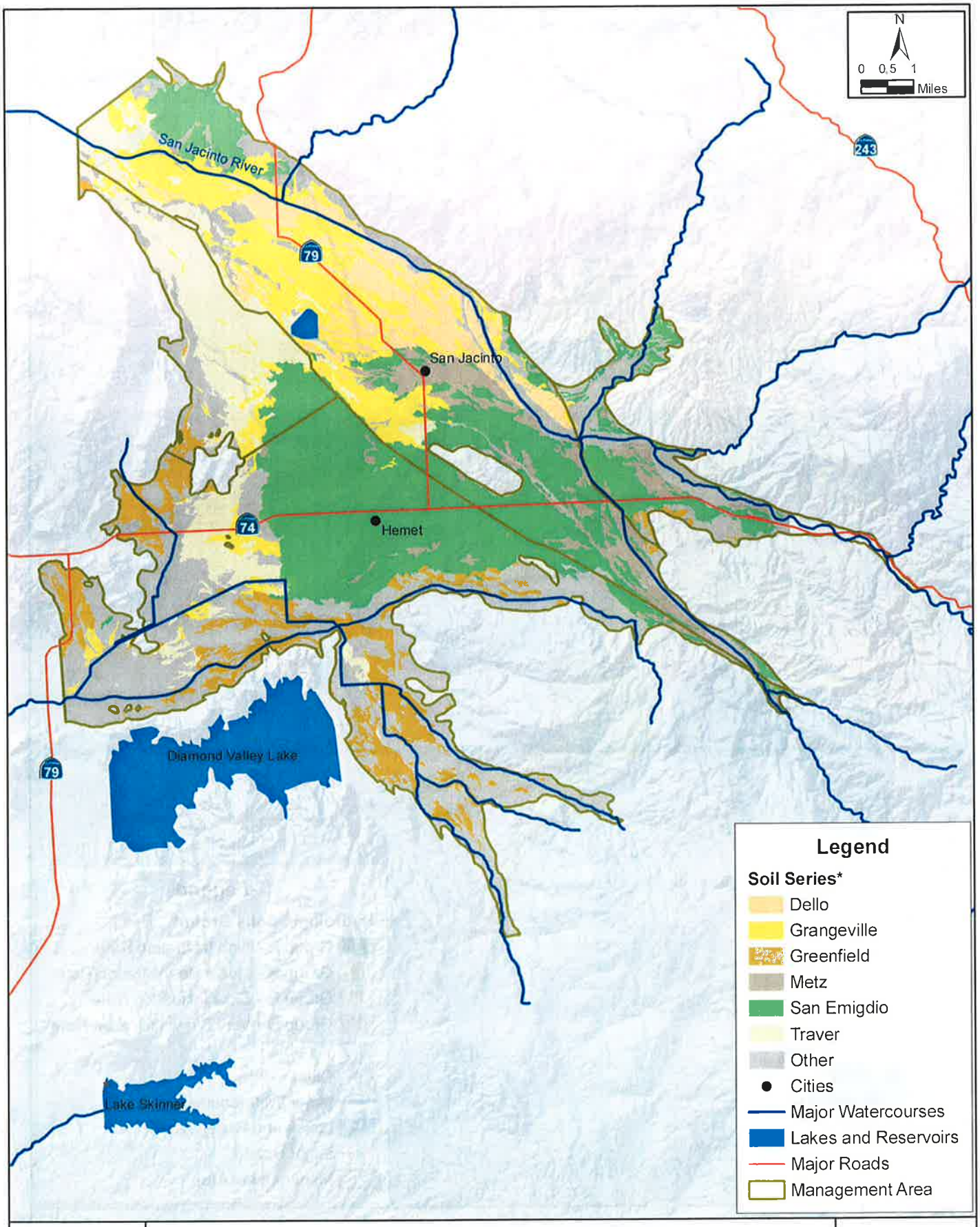
The predominant soils, as defined in the USDA's soil survey (USDA, 1971) at the series level, in the Management Area are shown in Figure 4.5 and are listed below:

- Dello,
- Grangeville,
- Greenfield,
- Metz,
- San Emigdio, and
- Traver.

The remaining soils are classified as "Other" in Figure 4.5 and consist of Chino, Domino, Exeter, Hanford, Pachappa, Ramona, Riverwash, as well as other soil series occurring in less than one square mile of the Management Area.

An important soil classification used by the USDA for hydrology is the hydrologic soils group. The hydrologic soils group can be used to estimate the amount of infiltration that can be expected from a certain soil. This grouping is based on estimates of the intake of water during the latter part of a storm of long duration, after the soil profile is wet and has an opportunity to swell, without the protective effect of any vegetation. Also considered are depths to the seasonal high water table and to a low permeability layer. The classification is useful at a planning level, but detailed studies are required for a thorough understanding of the infiltration capacity of soils. Features such as slope, ground cover, or low permeability materials away from the upper soil profile may impact the soil's capability to infiltrate water.

Under the hydrologic soils group classification system, soils are grouped A to D with "A" having the lowest runoff potential (highest infiltration rates) and "D" having the highest runoff potential (lowest infiltration rates). A map of hydrologic soils groups is provided as Figure 4.6 (USDA-SCS, 1971) and a corresponding table of hydrologic soil groups and soil series is provided in Table 4.2. As can be seen on Figure 4.6, most of the Management Area is classified as "B", soils with a moderate infiltration rate. Of the Management area, nearly 80% are "B" soils, 10% are "A" soils, and the remainder are either "C", "D", or are deemed too variable to be classified. The "A" soils are generally located along the San Jacinto River and Bautista Creek; much of the "variable" soils along these watercourses also have the potential for very high infiltration rates.



RIME

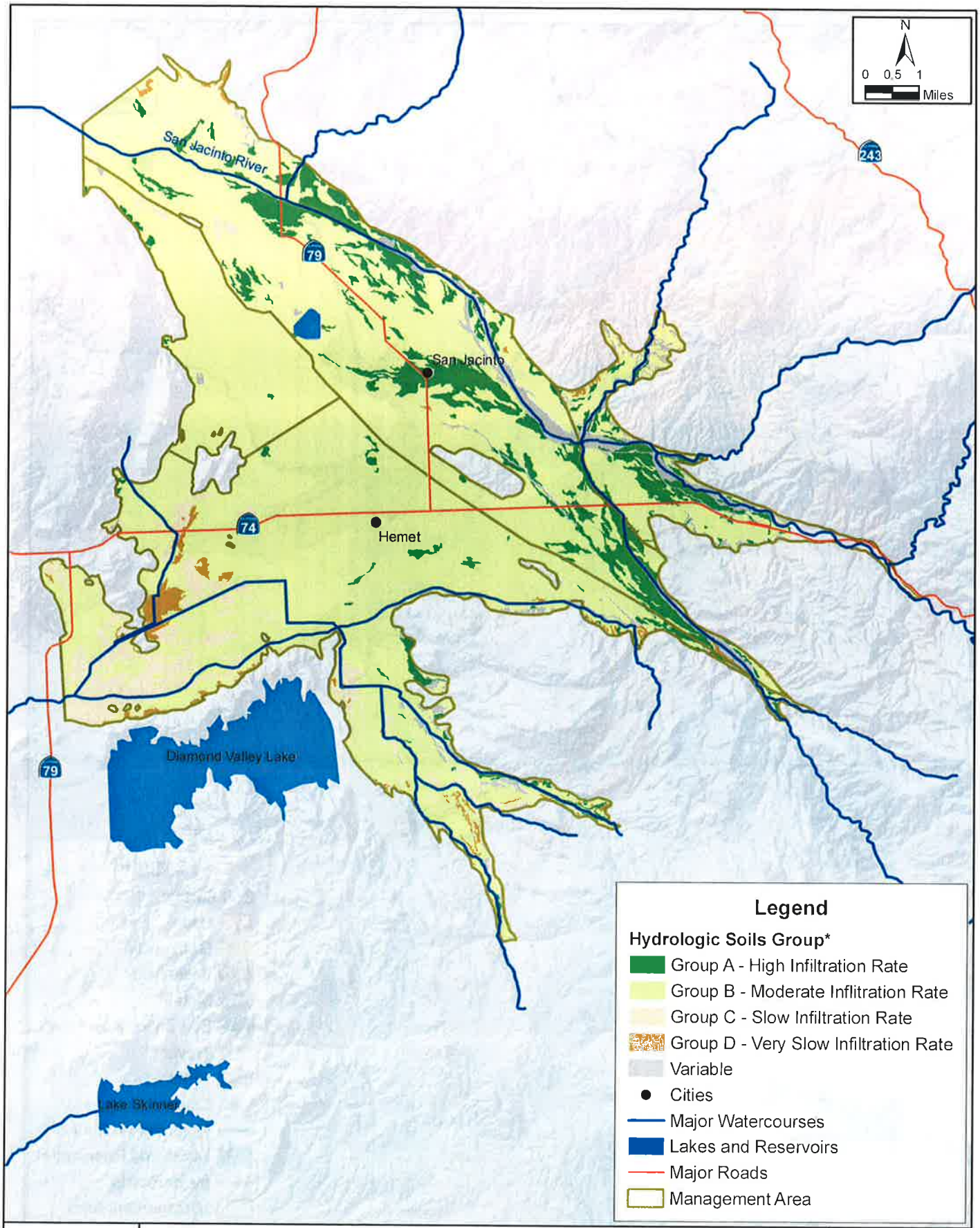
Soil Series

Hemet / San Jacinto Water Management Plan

*Source: USDA, 1971

October 2007

Figure 4.5



WRIME

Hydrologic Soils Groups

Hemet / San Jacinto Water Management Plan

*Source: USDA, 1971

October 2007

Figure 4.6

Table 4.2 Hydrologic Soils Groups

Common Soil Series	Hydrologic Soils Group	Minor Soil Series	Hydrologic Soils Group
Dello	A-C	Chino	B-C
Grangeville	B-C	Domino	C
Greenfield	B	Exeter	C
Metz	A	Hanford	B
San Emigdio	B	Pachappa	B
Traver	B-C	Ramona	B-C
		Riverwash	variable
		Other	variable

4.6 GROUNDWATER CONDITIONS

As previously stated, groundwater flow between Management Zones is inhibited by geologic faults, (Figure 4.4) notably the Casa Loma Fault, Bautista Creek Fault and Claremont Fault, all strands of the San Jacinto fault zone. The Claremont Fault acts as a barrier to flow between Canyon and Upper Pressure Management Zones, while the Casa Loma Fault is a barrier to flow between the Upper Pressure Management Zone and both the Hemet North and Hemet South Management Zones.

The San Jacinto River enters the basin in the southeast part of the Management Area and flows north and west across the Upper Pressure Management Zone. In most years, all river flow is lost to percolation and limited evapotranspiration in the Canyon and Upper Pressure Management Zones. Recharge from the San Jacinto River and its tributaries forms a large portion of total inflow for the Canyon and Upper Pressure Management Zones.

Groundwater pumping for irrigation and domestic purposes is the principal source of groundwater outflow. Major pumping depressions occur in the Hemet South and Upper Pressure Management Zones.

Historically, extraction in excess of recharge has resulted in lowered groundwater levels and altered directions of groundwater flow.

4.6.1 ARTIFICIAL RECHARGE OPERATIONS

In addition to natural inflows and return flows from agricultural and municipal uses, there has been and continues to be artificial recharge operations in the Management Area. These

operations use imported water, when available, typically at lower winter rates, to artificially recharge groundwater through spreading basins. The annual volume of imported water recharged is presented in Figure 4.7. Recharge operations did not begin until 1990. More recently, the Public Agencies have signed memoranda of understanding in 2004 and 2005 to plan for the recharge at two existing recharge facilities in the San Jacinto riverbed.

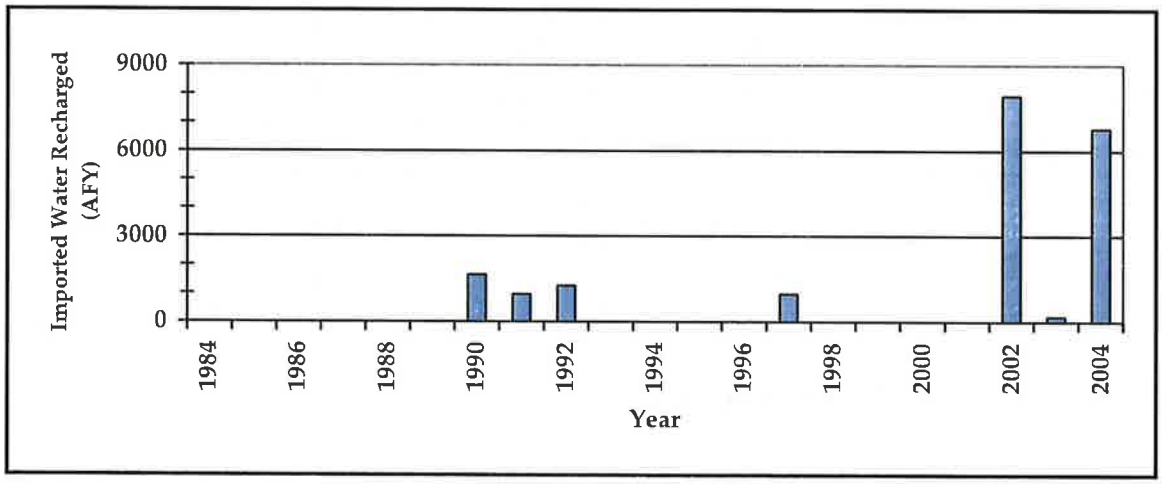
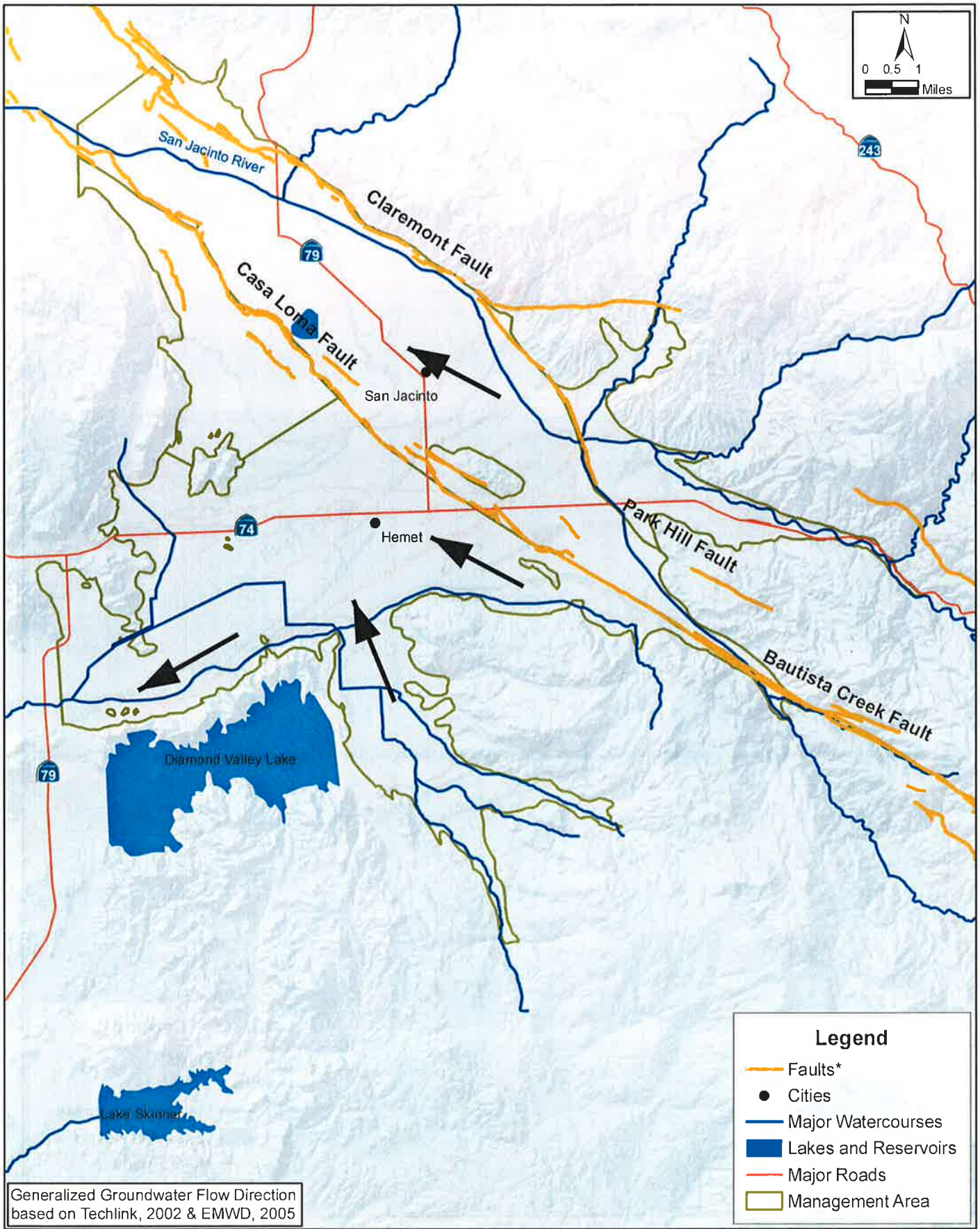


Figure 4.7 Annual Imported Water Recharged

The artificial recharge operations help address the impact of overdraft caused by past groundwater production.

4.6.2 Groundwater Levels and Flow

Historical groundwater extraction from the Management Area has resulted in a significant drop in groundwater levels. The lowered groundwater levels also changed the direction of flow in parts of the Management Area. Figure 4.8 shows the flow directions in the early 20th Century. Figure 4.9 shows current flow directions. Notable changes over time include the development of a groundwater divide between the Hemet South and Perris South Management Zones (previously flow was out of the Hemet South Management Zone into the Perris South Management Zone and flow from the Hemet North portion to the Lakeview portion of the Lakeview/Hemet North Management Zone due to lower water levels in the Lakeview portion. (TechLink, 2002a)



RIME

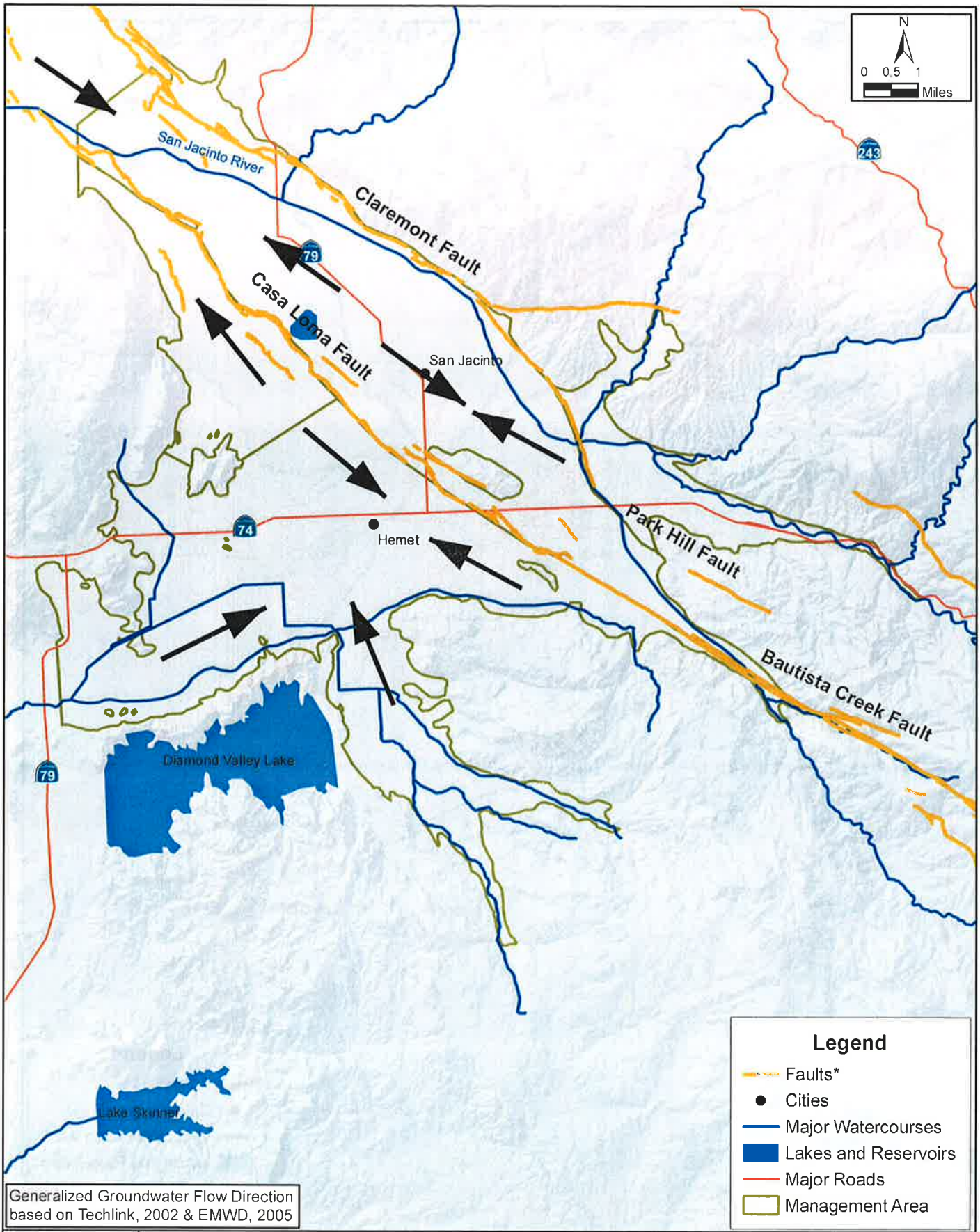
Early 20th Century Groundwater Flow Direction

Hemet / San Jacinto Water Management Plan

*Source: Riverside County

October 2007

Figure 4.8



RIME

Current Groundwater Flow Direction

Hemet / San Jacinto Water Management Plan

*Source: Riverside County

October 2007

Figure 4.9

Figure 4.10 shows Spring 2004 groundwater levels. The groundwater level contours show pumping depressions in the northeastern part of the Hemet South Management Zone and in the northwestern part of the Upper Pressure Management Zone. These pumping depressions are due to concentrated pumping in those areas in excess of the local recharge capacity.

Historical groundwater levels are affected by both climatic conditions, which impact the amount of recharge, and pumping. Historical conditions in the four Management Zones can be studied in relation to their unique setting by analyzing observed water levels at representative wells with long periods of record. Hydrographs for four selected wells are presented in the following sections. The locations of the wells can be found on Figure 4.11.

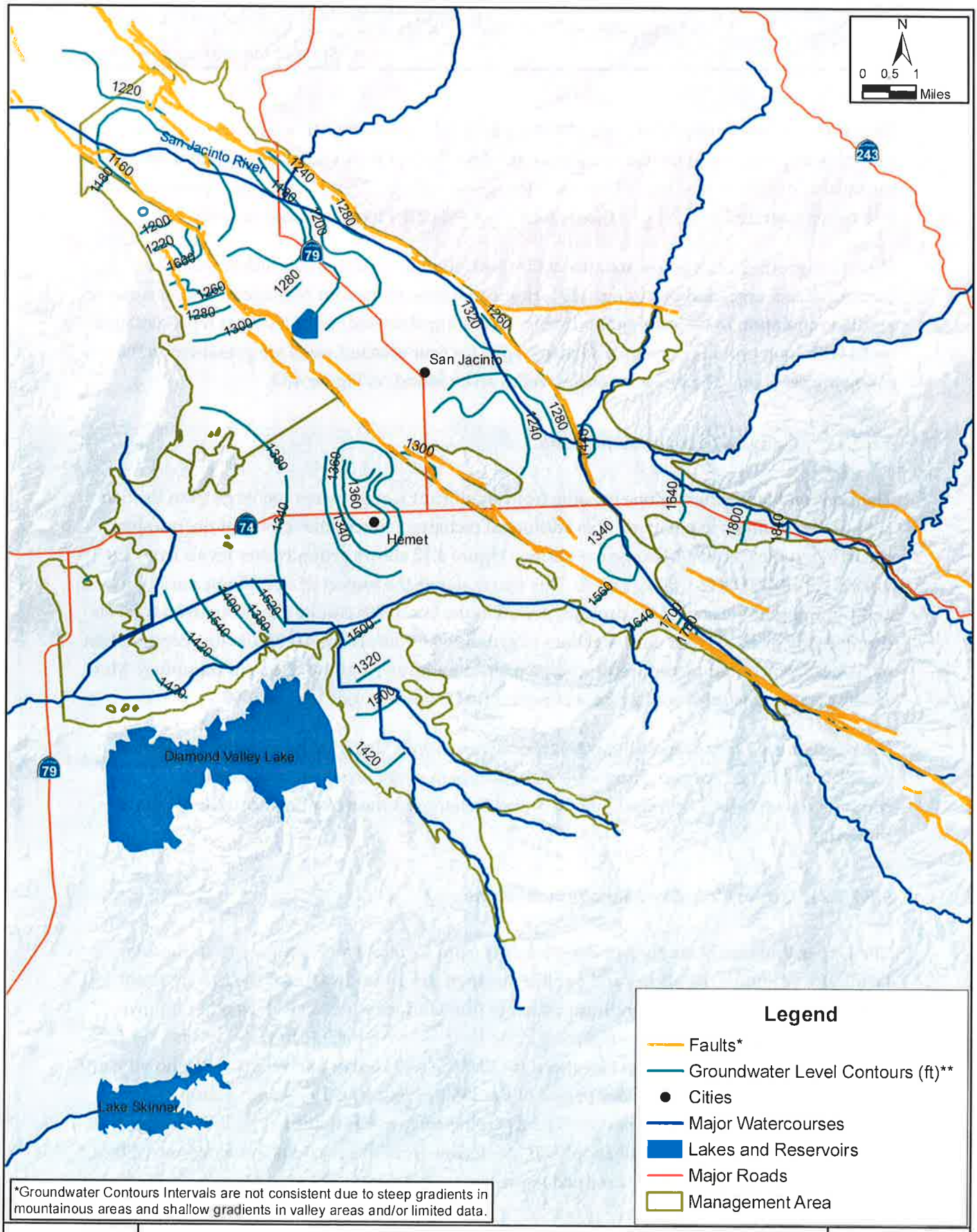
4.6.2.1 Canyon Management Zone

The Canyon Management Zone benefits from significant surface water recharge from the San Jacinto River and its tributaries. This additional recharge reduces the impact of the pumping occurring in the Canyon Management Zone. Figure 4.12 shows groundwater levels from 1948 to 2005 for EMWD's #6 Cienega well. This figure shows the impact of hydrologic variability and pumping in the area. One drought period in the late 1980s resulted in groundwater levels dropping by over 100 feet. Such declines in groundwater levels are likely due to a combination of reduced precipitation, reduced recharge from streamflow, and the effects of pumping. Most of this decline was recovered in the wet period that followed from 1991 to 1993.

Changes are also seen seasonally, with groundwater levels changing by as much as 100 feet from late fall to late spring. These seasonal changes in water levels are also due to a combination of reduced precipitation, reduced recharge from streamflow, and the effects of pumping.

4.6.2.2 Upper Pressure Management Zone

The Upper Pressure Management Zone benefits from surface water recharge from the San Jacinto River and its tributaries and supplies most of the groundwater for the Management Area. However, even with significant recharge from surface water as well as other inflows, wells in the Upper Pressure Management Zone have shown a decline in water levels over time. Figure 4.13 presents water level elevations for EMWD's #9 Hewitt and Evans well, showing a consistent decline through the dry period of the 1950s, 1960s, and 1970s with a drop of more than 200 feet over the 30-year period. The hydrologically wet and normal periods during 1978 to 1986 resulted in a recovery of about half the decline from the previous three decades. Since 1986, groundwater levels have dropped approximately 200 feet. The changes seen in the well



RIME

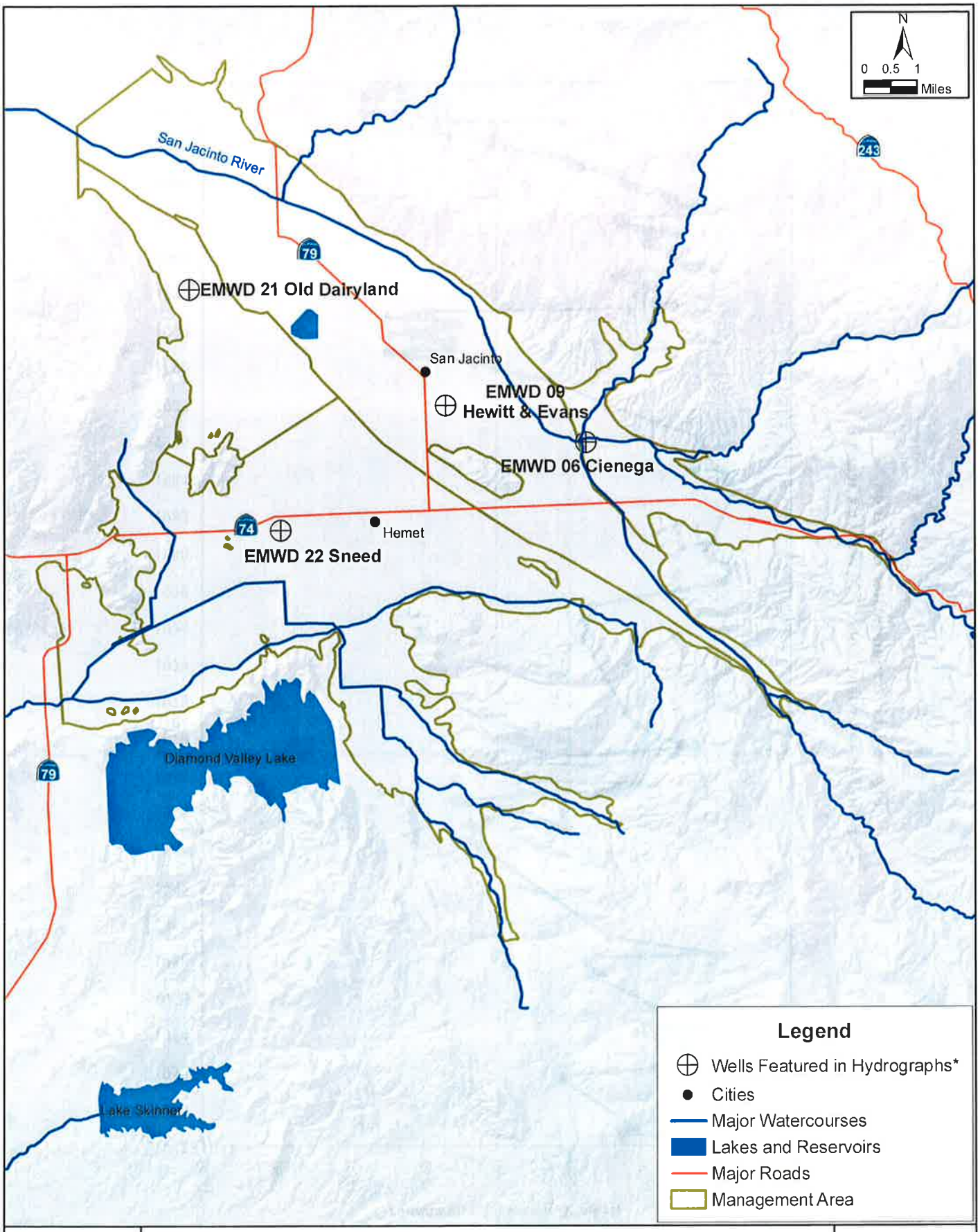
Spring 2004 Groundwater Elevation

Hemet / San Jacinto Water Management Plan

*Source: Riverside County
**Source: EMWD, 2005

October 2007

Figure 4.10



RIME

Location of Representative Well Hydrographs

Hemet / San Jacinto Water Management Plan

*Source: EMWD

October 2007

Figure 4.11

Figure 4.12 Groundwater Elevation
Canyon Management Zone, EMWD #6 Cienega

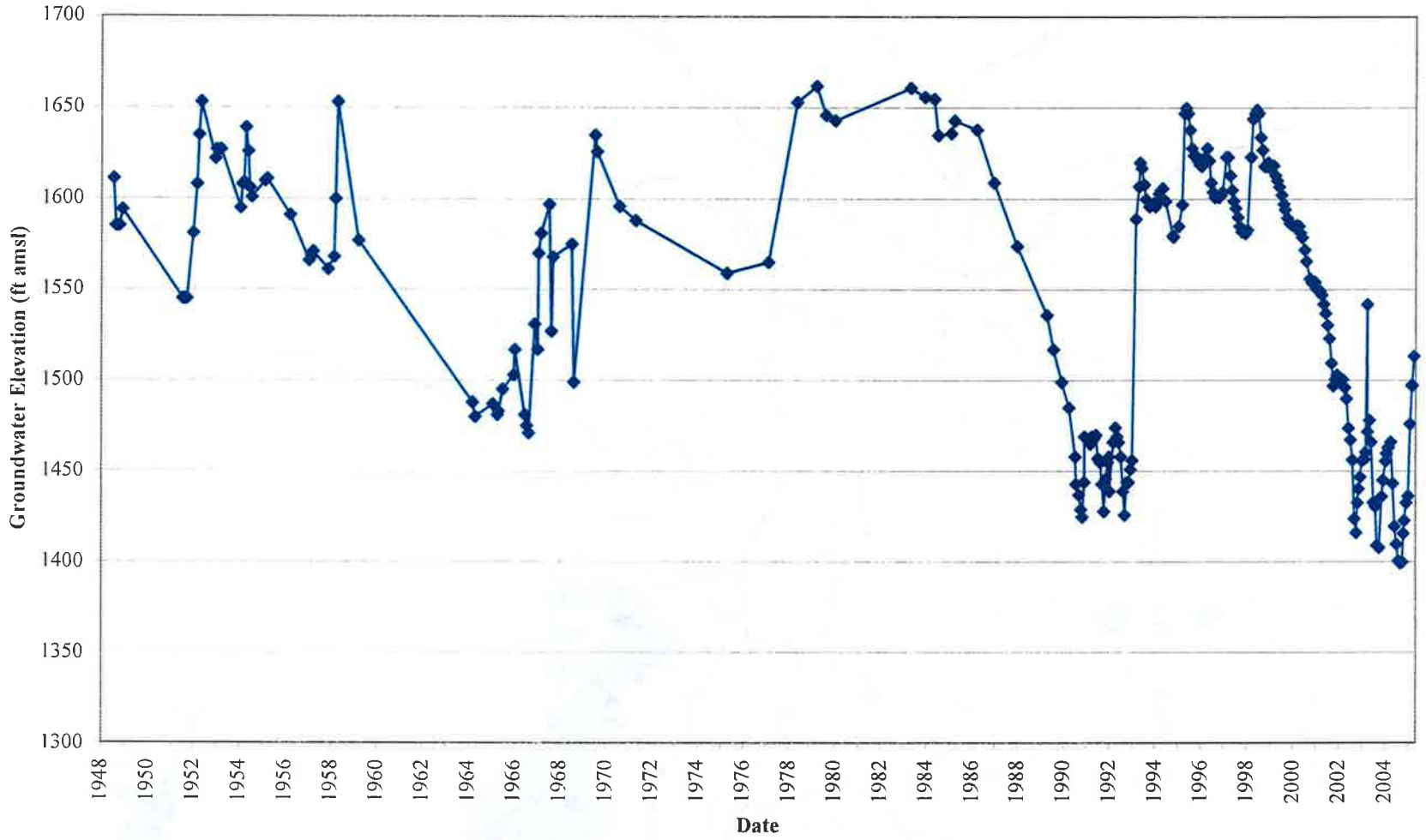
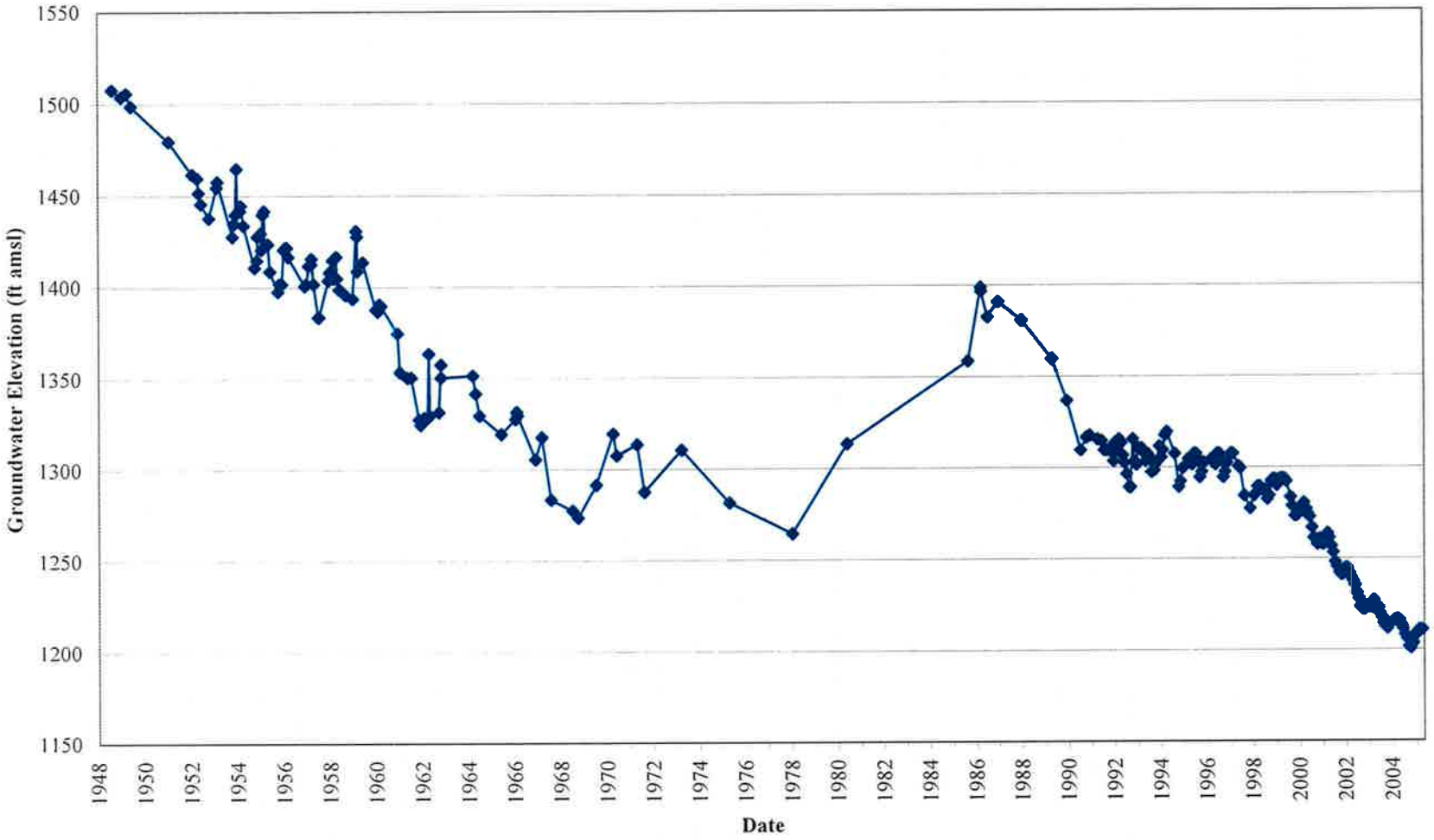


Figure 4.13 Groundwater Elevation
Upper Pressure Management Zone, EMWD #9 Hewitt and Evans



are likely due to a combination of reduced precipitation, reduced recharge from streamflow, and effects of pumping.

4.6.2.3 Hemet North Portion of the Lakeview/Hemet North Management Zone

Groundwater levels in Hemet North portion of the Lakeview/Hemet North Management Zone have shown a steady decline followed by recent stabilization. These declines occur even though significantly less water was pumped from the Hemet North portion than from other Management Zones. The Hemet North portion does not receive as much surface water recharge as Upper Pressure and Canyon Management Zones, thus impacts of pumping are more pronounced than they might be in those Management Zones. Figure 4.14 shows groundwater levels at EMWD's #21 Old Dairyland well. Since the beginning of the record in 1966, groundwater levels have steadily declined, with little variability. After dropping more than 100 feet from the mid-1960s to the mid-1990s, groundwater levels have stabilized at an average of 1,250 feet above mean sea level.

4.6.2.4 Hemet South Management Zone

Groundwater levels in the Hemet South Management Zone have shown a steady decline, although the recent rate of decline has slowed. Figure 4.15 shows groundwater levels at EMWD's #22 Sneed well since the beginning of the record in 1952. While data is limited for the 1952 to 1990 period, groundwater levels declined through the 1952-1990 period, and the increased data available from 1990 to 2005 shows little variability. Groundwater level declines have slowed but have still dropped approximately 20 feet in the past 10 years.

4.6.3 Groundwater Budget

The changes in groundwater levels and flow directions are the result of changes in the balance of inflows and outflows from the Management Area. A groundwater budget can identify potential causes of an imbalance. The groundwater budget presented in Table 4.3 shows average annual values for the components of total inflow and total outflow. The values are based on a water balance spreadsheet tool developed for use by the TC. This Excel-based tool allowed the TC members to investigate the impact of inclusion and exclusion of specific water budget components, such as artificial recharge, imported water, and others, as well as the implications of different data sources, such as the calibrated groundwater model and the database or reported values with underflow estimates. This allowed for a more thorough understanding of the potential impacts of definitions of water budget components on the calculated yield and overdraft. The values presented in Table 4.3, as agreed upon by the TC, are the results of the calibrated groundwater model except for groundwater extraction, which is

Figure 4.14 Groundwater Elevation
Hemet North Management Zone, EMWD #21 Old Dairyland

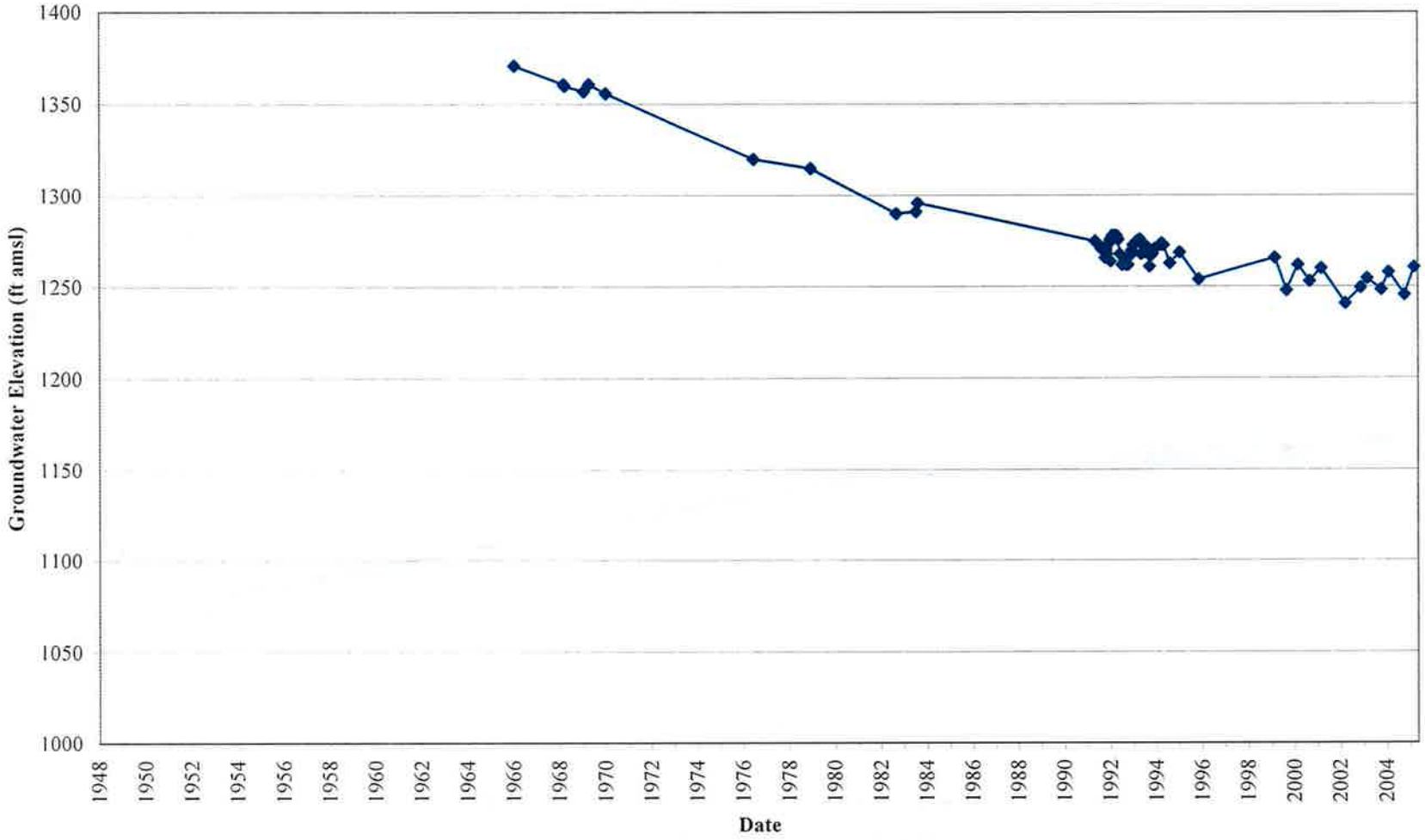
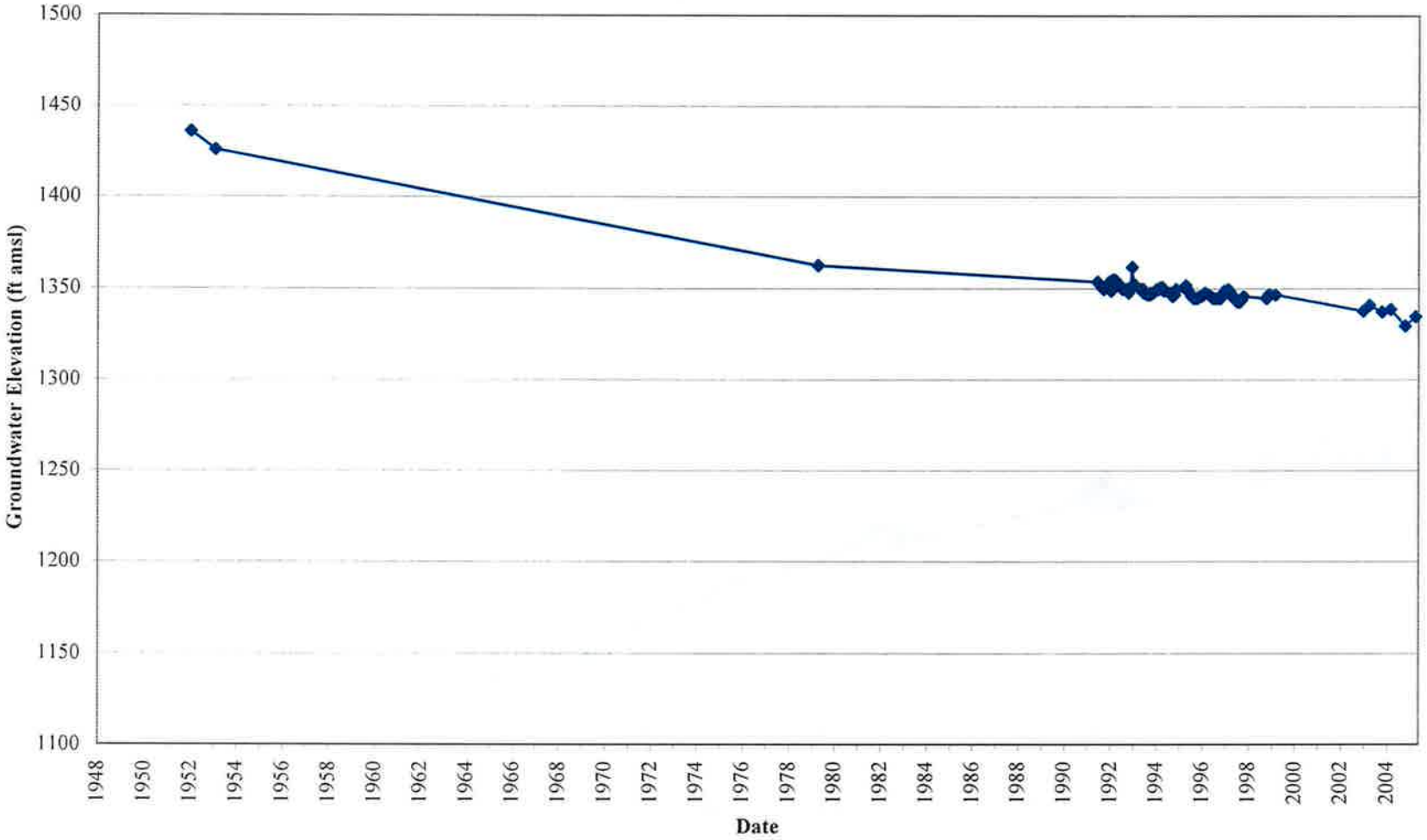


Figure 4.15 Groundwater Elevation
Hemet South Management Zone, EMWD #22 Sneed



obtained from the data tabulated in *Assessment of Historical and Projected Land and Water Use Data* (WRIME, 2003a).

Table 4.3 Groundwater Budget for the Management Area
(Average Annual Volume for Water Years 1984-2004*)

Inflow Component	Volume (AFY)	Outflow Component	Volume (AFY)
Recharge from Rainfall	8,900	Groundwater Production	57,800
San Jacinto River and Bautista Creek Recharge	9,900	Subsurface Outflow from Hemet South to Perris South	300
Recharge from Public Agency Sales	2,900	Subsurface Outflow from Hemet North to Lakeview	1,500
Recharge from Irrigation	9,600		
Conjunctive Use Recharge	800		
Reclaimed Water Recharge	1,500		
Subsurface Inflow from Mountain Fronts	8,000		
Subsurface Inflow from Lower Pressure to Upper Pressure	1,700		
Total	43,300	**Total**	59,600

* Values for Groundwater Production represent 1984-2004 averages, an update from the 1984-2003 values presented in WRIME, 2003a. All other data is taken from the 1984-1999 modeling results (TechLink, 2002a).

The total average annual inflow is 43,300 AFY and the total average annual outflow is 59,600 AFY, resulting in an average annual deficit of 16,300 AFY for the 20-year hydrologic period of 1984 to 2004. Nearly all (97%) outflow is from groundwater extraction while inflow is primarily natural recharge, representing 66% of inflow and the remainder a direct result of recharge from applied water or other human activities. The 1984-2004 hydrologic period presented in Table 4.3 represents the period during which the most consistent and continuous data for the Management Area is available. It should be noted, however, that this period does not necessarily represent the long-term groundwater basin conditions, and as described in Section 4.9 of this document, long-term overdraft is estimated based on longer periods, as well as other methods and criteria.

4.6.4 Land Subsidence

In additional to water quantity and quality concerns, there is the potential for further land subsidence in the Management Area, although not at rates to cause significant damage.

Widespread land subsidence has been observed in the San Jacinto basin as the area and its groundwater resources have been developed. Three forms of subsidence have been reported by the U.S. Environmental Protection Agency (Boen, et al., 1971): local or regional tectonic adjustments along the faults in the area; groundwater withdrawals and subsequent artesian head decline; and soil collapse or compaction due to causes other than tectonic or artesian head decline. In the graben, tectonic subsidence has averaged 0.2 in/yr (4.5 mm/year) over the past 40,000 years and subsidence due to groundwater withdrawal and aquifer compaction is 1 - 1.2 in/yr (2.5 - 3 cm/yr) (Morton, 1995). Lofgren (1975, 1976) reported in studies that, through the years, the periods of subsidence tend to correspond to the periods of groundwater production; land surface elevation at the well tends to be lower each year; and subsidence has been greater within the graben than on either side.

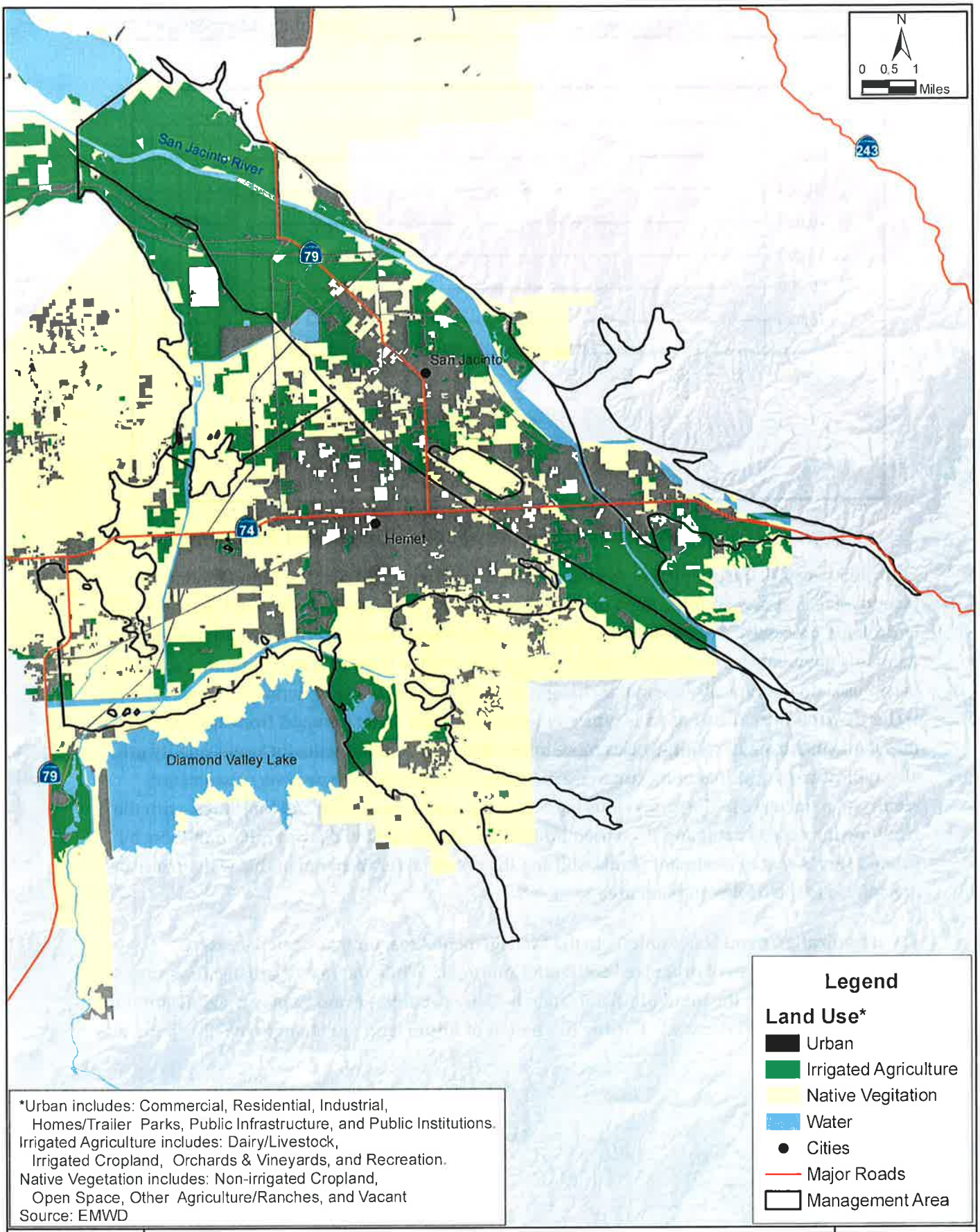
4.7 LAND USE

Land use in the Management Area has experienced changes over the past half-century. The conversion from agricultural or undeveloped lands to urban uses has an impact on basin hydrogeology as well as on water demand. Figure 4.16 and Table 4.4 show land uses in 1998 for most of the project area.

Table 4.4 Land Use Distribution Based on the 1998 Survey

Land Use	Canyon	Upper Pressure	Hemet South	Hemet North	Total
Total Area (acres)	4,400	21,200	25,300	5,600	56,500
% Urban and Suburban	24%	24%	36%	11%	28%
% Irrigated Crops and Recreational	12%	49%	15%	47%	31%
% Non-Irrigated Crops and Native Vegetation	16%	24%	45%	42%	35%
% Unmapped	48%	3%	4%	0%	7%

Much of the urban uses in the area are recent. This is shown by the significant population growth in the area, as highlighted Figure 4.17, which displays population data from the decennial US Census reports and a 2004 US Census estimate for the incorporated areas of Hemet and San Jacinto.



*Urban includes: Commercial, Residential, Industrial, Homes/Trailer Parks, Public Infrastructure, and Public Institutions.
Irrigated Agriculture includes: Dairy/Livestock, Irrigated Cropland, Orchards & Vineyards, and Recreation.
Native Vegetation includes: Non-irrigated Cropland, Open Space, Other Agriculture/Ranches, and Vacant
Source: EMWD

RIME

1998 Land Use

Hemet / San Jacinto Water Management Plan

October 2007

Figure 4.16

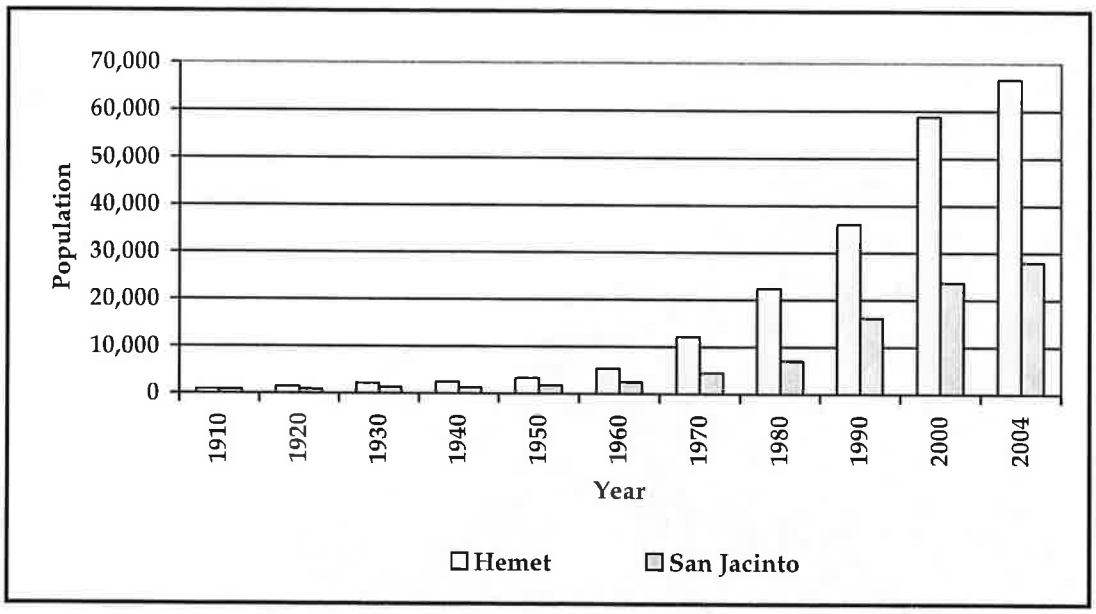


Figure 4.17 Population Growth in Incorporated Hemet and San Jacinto

From 1950 to 2004, the population in Hemet increased twenty-fold and the population in San Jacinto increased sixteen-fold. Such urbanization results in changes in both water demand and hydrologic processes. For newly urbanized areas that were previously non-irrigated, water demands obviously increase significantly. Areas that change from irrigated agricultural uses to urban uses do not typically see major changes in the total annual water demand. However, water demand from urban users is typically less elastic than water demand from agricultural users, making drought contingencies more important. The requirements for water quality are also typically more stringent for urban users. From a hydrologic perspective, urbanization results in an increase in the impervious land area, e.g., more pavement and buildings, with the resulting increased runoff and decreased infiltration. Additionally, the water used indoors by urban users is sent to treatment plants, shifting the potential for recharge of this water from the area of use to the treatment plant area.

The urbanization trend is not unique to the Management Area, but has been pervasive throughout the fringes of urbanized Southern California. While the rate of urbanization may change in the future, the trend of urbanization is likely to continue and to play a significant role in land use and water demand. Further discussion of future land use changes may be found in Section 5.

4.8 CURRENT WATER SUPPLIES

There are four Public Agencies primarily responsible for water supply in the Management Area: EMWD, LHMWD, and Cities of Hemet and San Jacinto. In addition, Private Water Producers produce groundwater and purchase water from the Public Agencies, and the Soboba Tribe pumps groundwater for its respective uses. Each entity pumps groundwater, and some entities also utilize a mix of some of the following sources: surface water diversions, surface water and/or groundwater purchases, surface water imports, and recycled water. The water supply conditions in the Management Area and the interrelationships among the various agencies is a primary factor for future water management in the area. Figure 4.18 shows these interrelationships in a diagram form.

Figure 4.19 shows the makeup of the water supply and how this mix has changed from 1985 to 2004 for the Management Area. Groundwater is the predominant source of water supplies for the Management Area. The remaining sources are smaller, but still important, sources of water. Supplies listed by entity are provided in Appendix F. Note that items such as sales to other agencies are not subtracted in these supply values, resulting in a supply that represents both wholesale and retail supplies. As a result of this definition, supplies will not equal the historical demand. Historical demand for the individual entities is shown in Figures 4.20 – 4.25.

4.8.1 GROUNDWATER

All entities pump groundwater for all or a portion of their water supply. The quantity of groundwater extraction for each Management Zone is shown in Figures 4.26a, 26b, and 4.27.

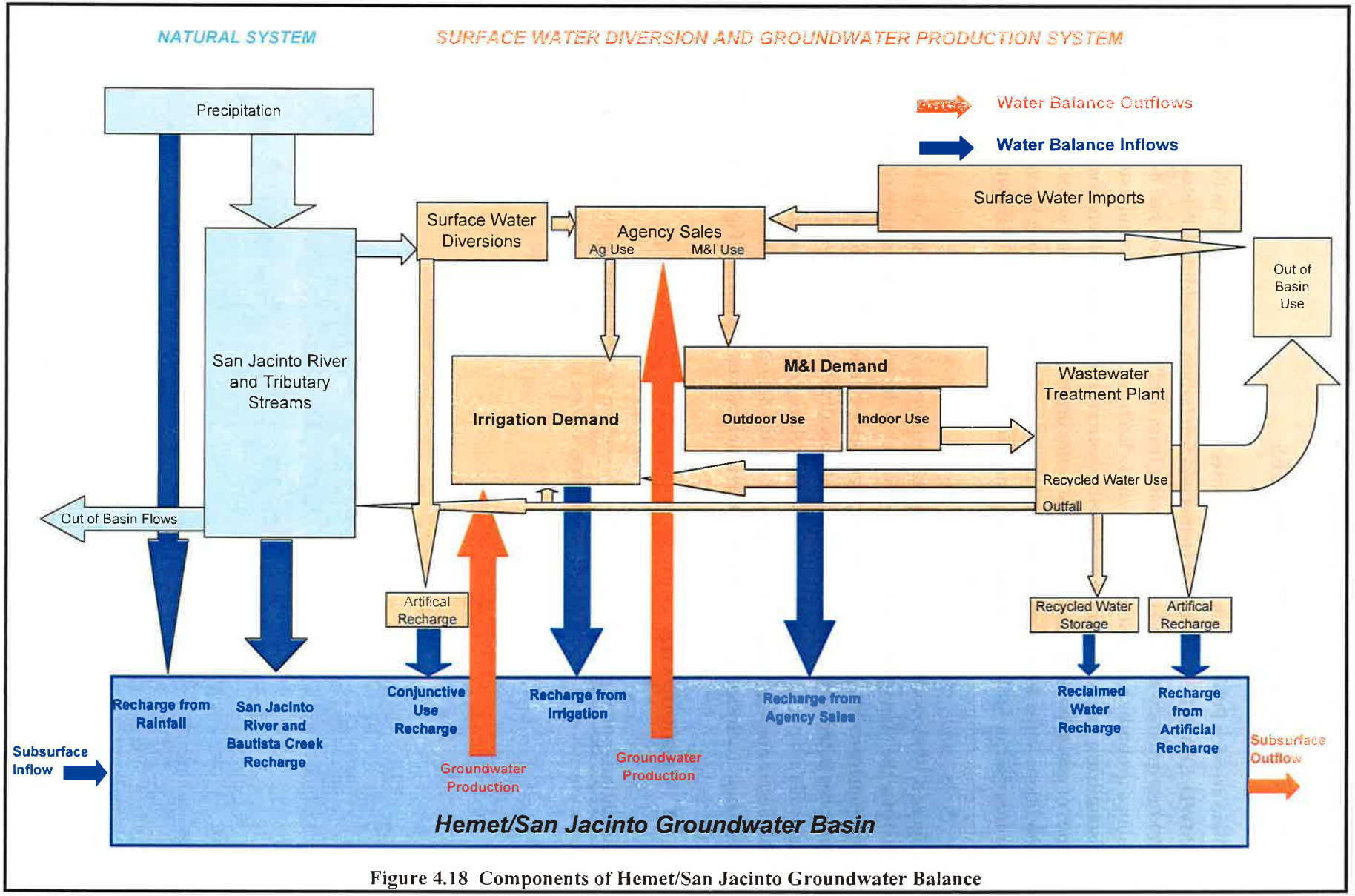


Figure 4.18 Components of Hemet/San Jacinto Groundwater Balance

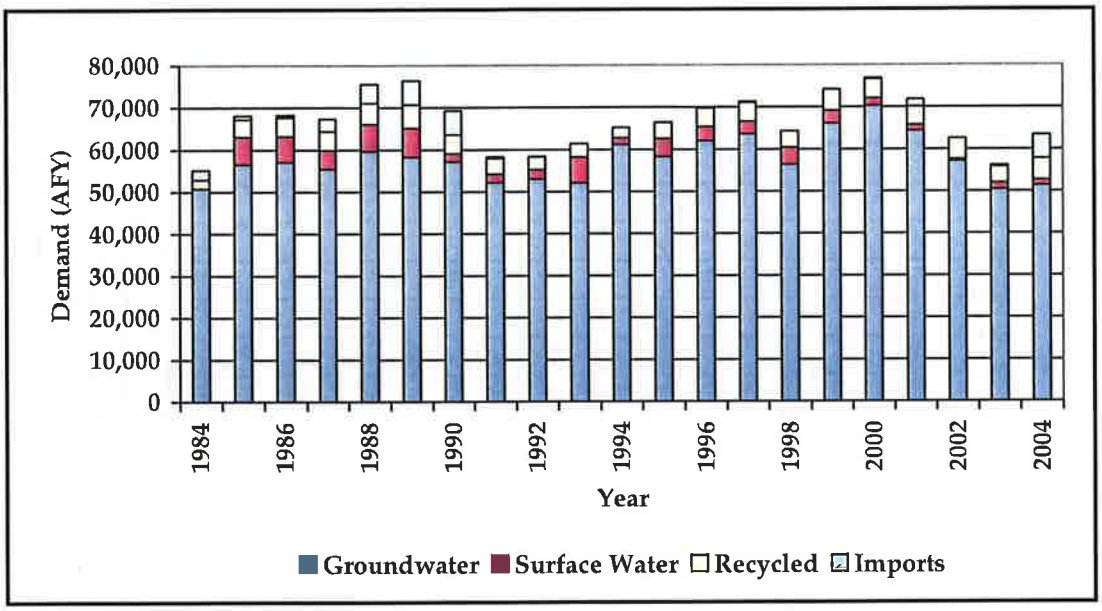


Figure 4.19 Annual Management Area Water Supplies

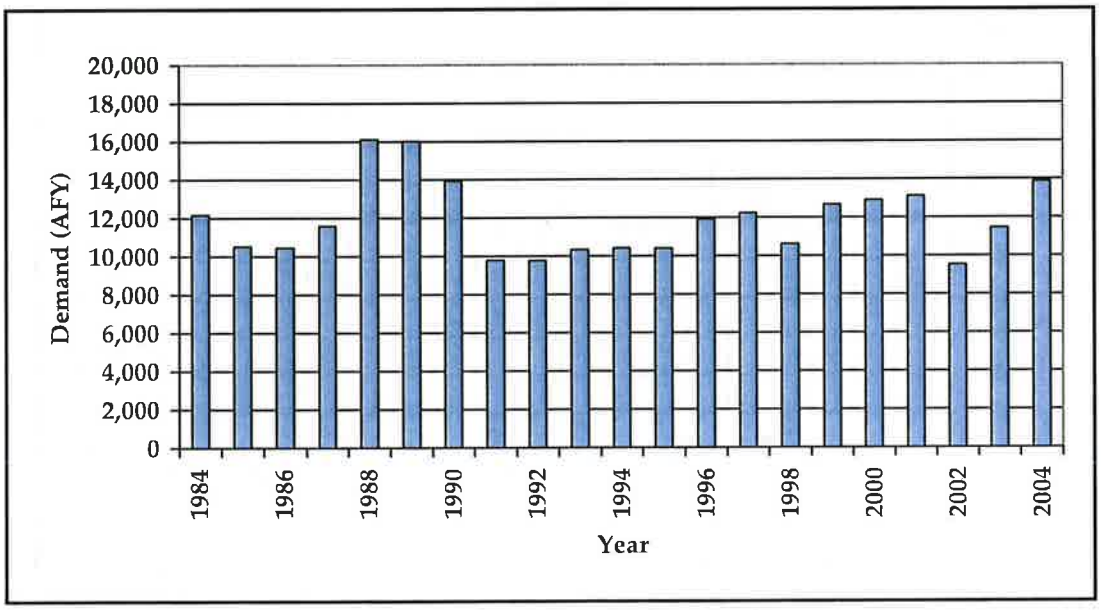


Figure 4.20 EMWD Historical Annual Demand

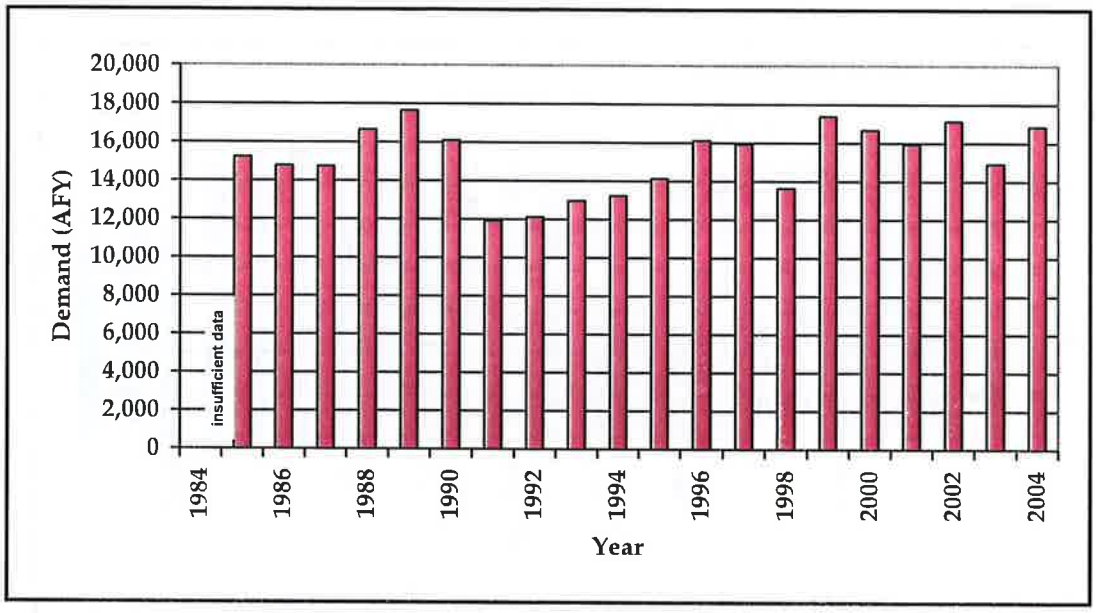


Figure 4.21 LHMWD Historical Annual Demand

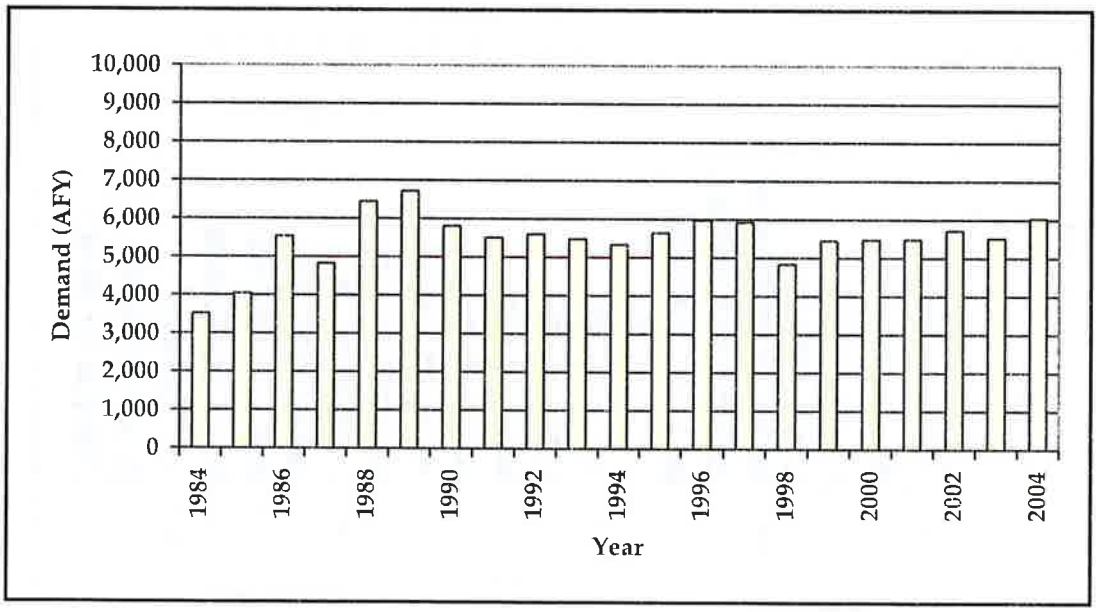


Figure 4.22 City of Hemet Water Service Area Historical Annual Demand

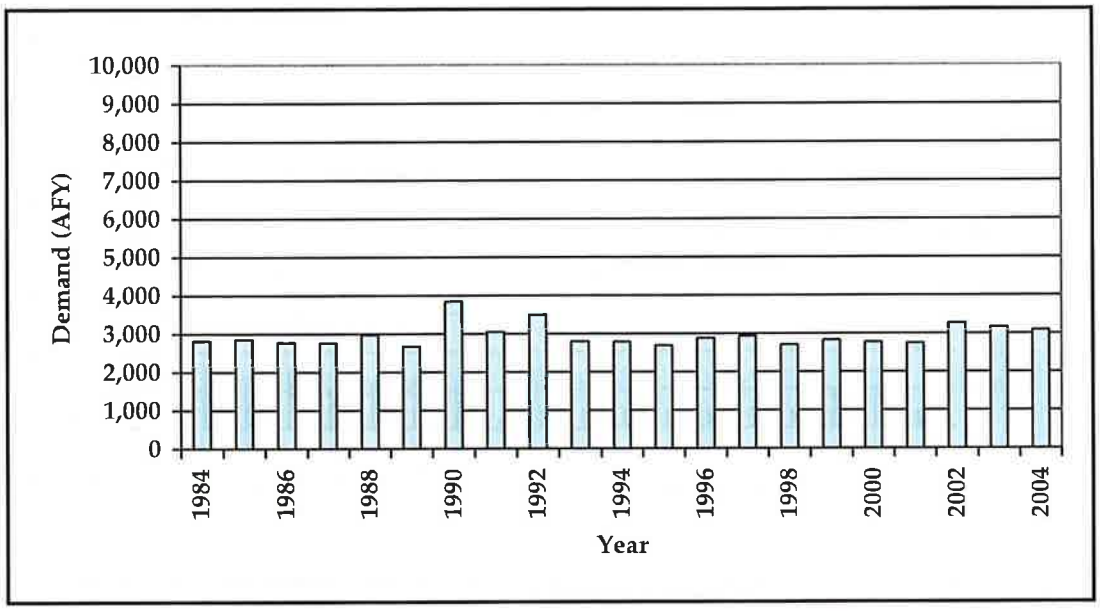


Figure 4.23 City of San Jacinto Water Service Area Historical Annual Demand

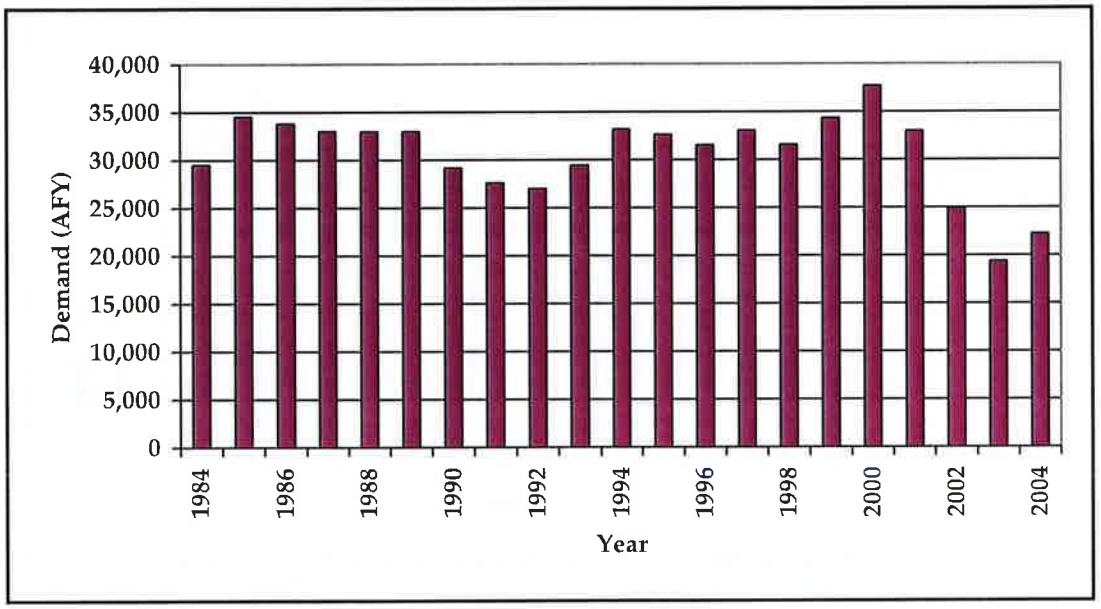


Figure 4.24 Private Water Producers Historical Annual Demand

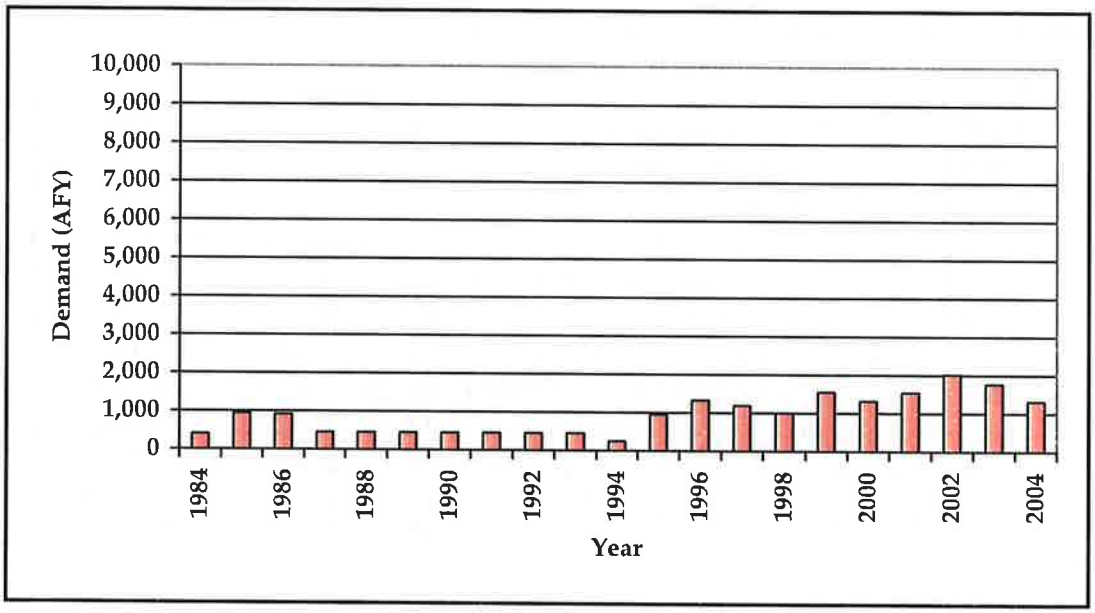


Figure 4.25 Soboba Historical Annual Demand

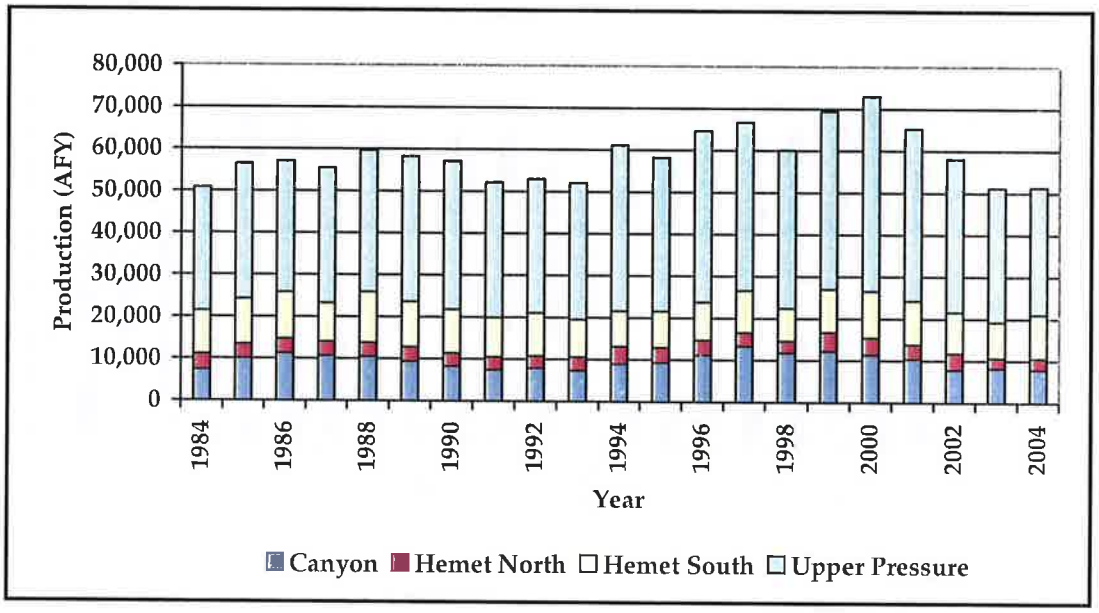


Figure 4.26a Annual Groundwater Production, by Management Zone

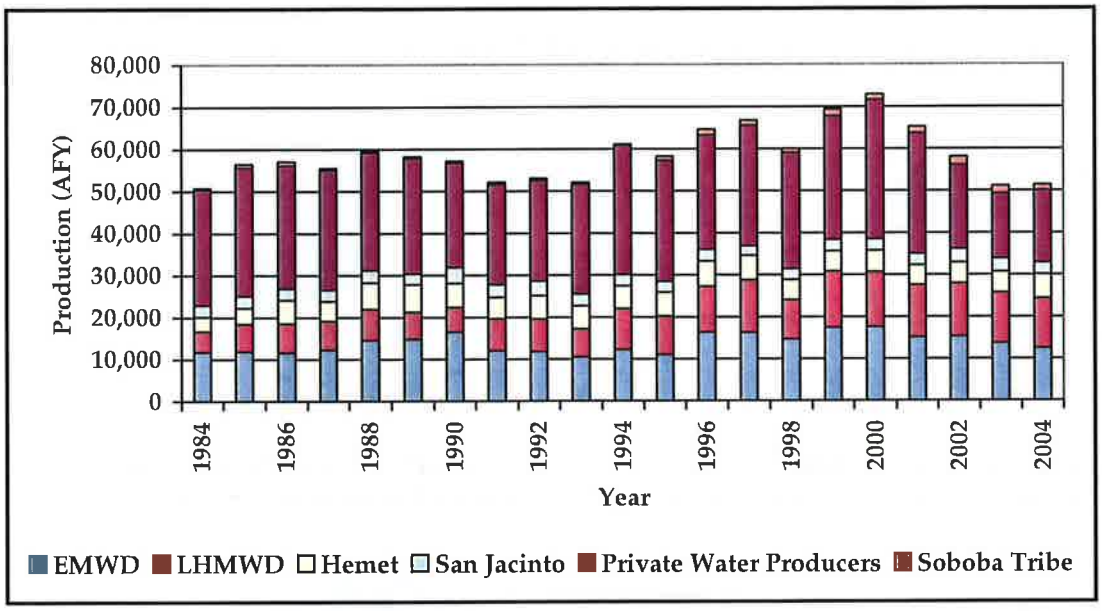


Figure 4.26b Annual Groundwater Production, by Entity

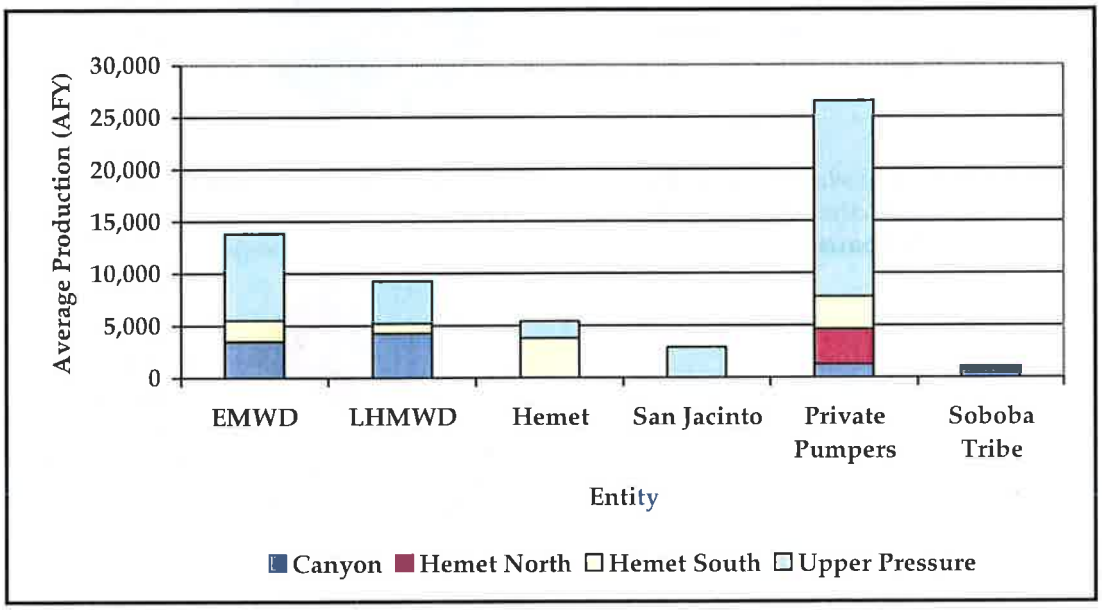


Figure 4.27 Average Annual Entity Groundwater Production, by Management Zone, 1984-2004

Since 1984, each entity except for the City of San Jacinto has pumped groundwater from multiple Management Zones. San Jacinto's pumping during that time period has always been from the Upper Pressure Management Zones. The percentage of the water supply from groundwater for each remaining entity, compared to other components of the water supply, is shown in Figures 4.28a-e as a pie chart breaking down the entity's 2004 groundwater supply by

Management Zone. Additionally, Figure 4.29a-e presents stacked area charts showing the historical annual percentage of groundwater supply from each Management Zone.

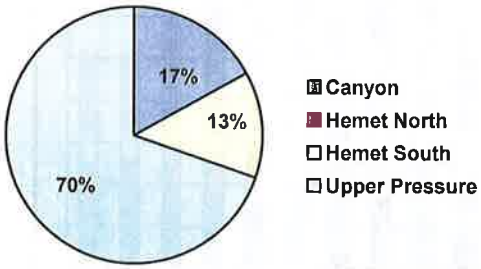


Figure 4.28a EMWD 2004 Groundwater Production, Percentage by Supply Source

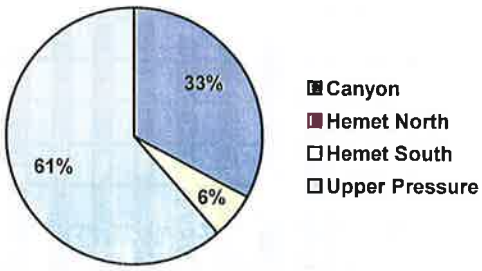


Figure 4.28b LHMWD 2004 Groundwater Production, Percentage by Supply Source

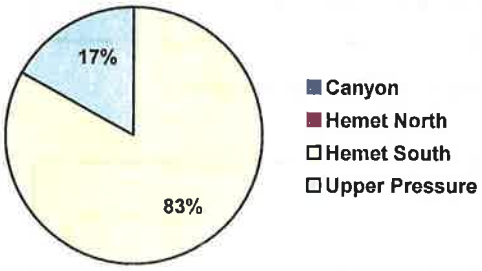


Figure 4.28c City of Hemet Water Service Area 2004 Groundwater Production, Percentage by Supply Source

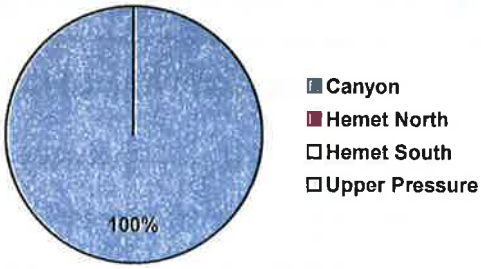


Figure 4.28d Soboba 2004 Groundwater Production, Percentage by Supply Source

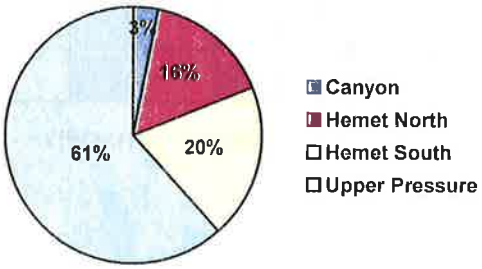


Figure 4.28e Private Water Producers 2004 Groundwater Production, Percentage by Supply Source

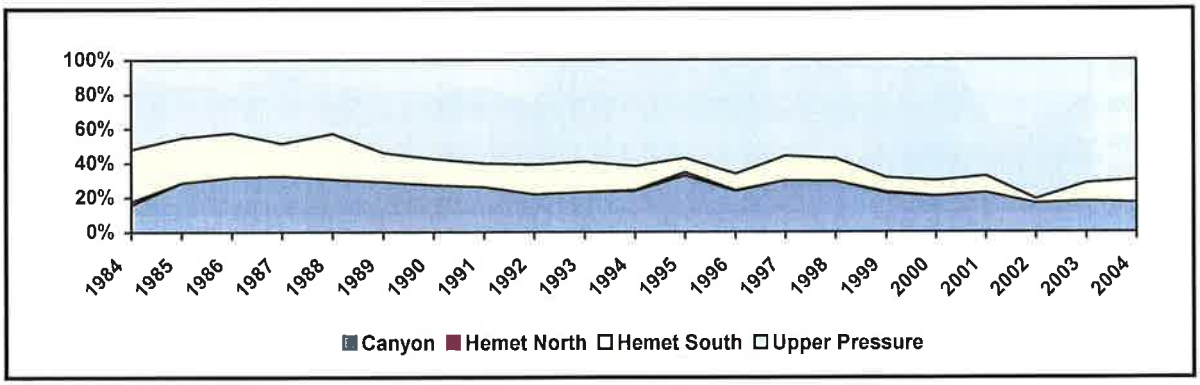


Figure 4.29a EMWD Historical Groundwater Production, Percentage by Supply Source

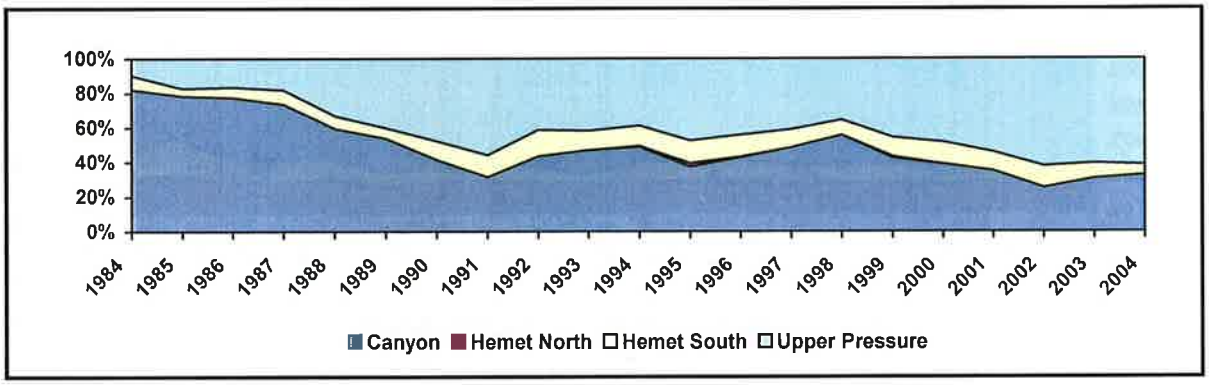


Figure 4.29b LHMWD Historical Groundwater Production, Percentage by Supply Source

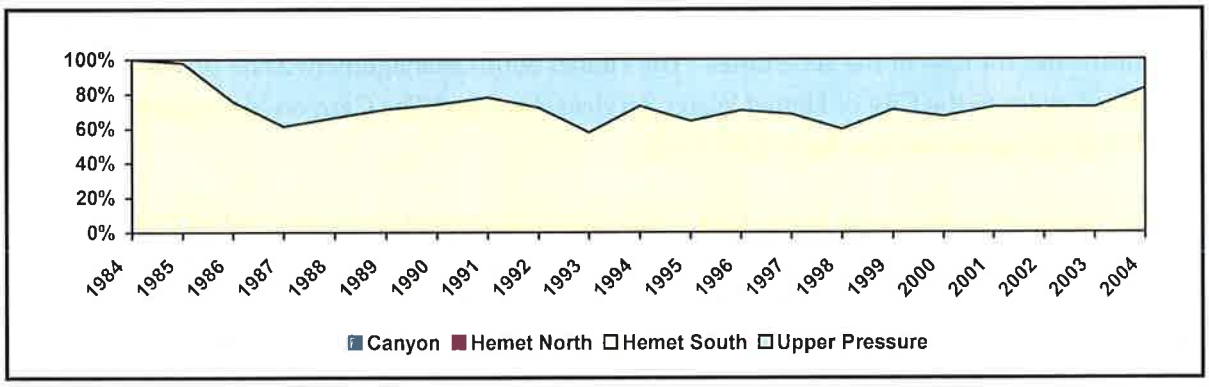


Figure 4.29c City of Hemet Water Service Area Historical Groundwater Production, Percentage by Supply Source

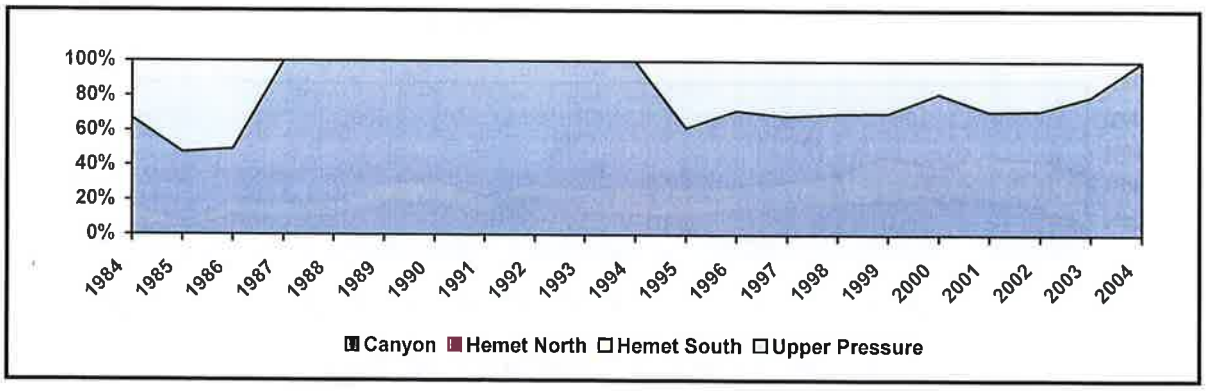


Figure 4.29d Soboba Historical Groundwater Production, Percentage by Supply Source

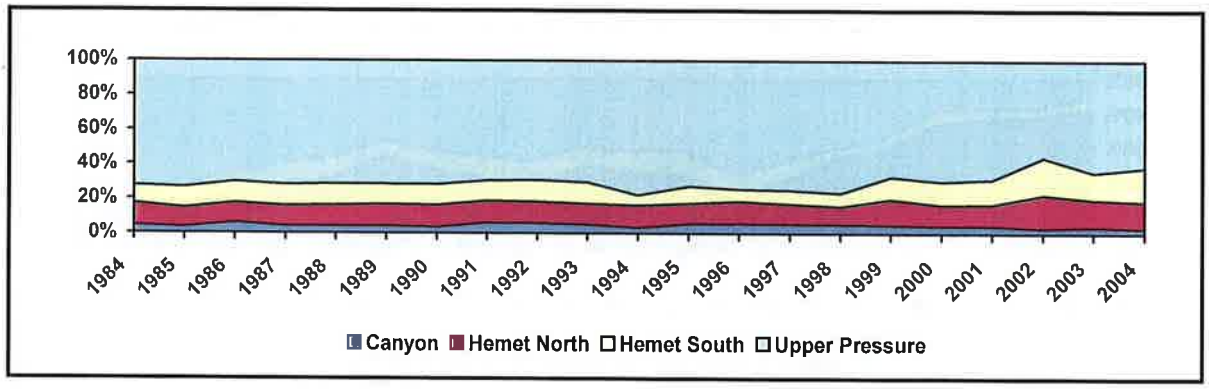


Figure 4.29e Private Water Producers Historical Groundwater Production, Percentage by Supply Source

The pie charts show that in 2004 the Upper Pressure Management Zone provided the majority of groundwater for four of the six entities. The Hemet South Management Zone provided the majority of water to the City of Hemet Water Services Area and The Canyon Management Zone provided all groundwater for the Soboba Tribe.

The only significant trend seen in the 1984 - 2004 historical annual charts is LHMWD's shift in groundwater sources from majority Canyon Management Zone water in the mid-1980s to mostly Upper Pressure Management Zone water recently. These charts also emphasis the importance of the Upper Pressure Management Zone, as it was a component of the groundwater supply for all entities over the 1984 – 2004 time period.

4.8.2 Imported Water

EMWD is a member agency of the MWD, and, as such, is able to import water from Northern California via the State Water Project and from the Colorado River Aqueduct. Imported water is used for supply as well as for groundwater recharge; this section only discusses imported

water for supply, imported water for recharge is discussed in Section 4.6.1. District-wide, imported water comprises 80% of EMWD's total potable water supply. However, imported water is a small portion of EMWD's water supply in the Management Area due to the availability of high quality groundwater, which is less common in the rest of the EMWD service area. Over the 1984-2004 period, imported water represented 13% of EMWD's supply and 2% of the total Management Area supply (WRIME, 2003a). In 2004, imported water represented 41% of EMWD's supply and 9% of the total supply for the Management Area (EMWD, 2005a,b).

The usage of imported water for direct use has been variable over the past decades, as shown in Figure 4.30. The volume of water imported was reduced in 1991 as the importation of unfiltered Colorado River water to the Management Area was curtailed to meet the requirements of the Surface Water Treatment Rule, part of the Safe Drinking Water Act.

Imported water usage in recent years has increased, which in turn reduced the stress on groundwater resources in the Management Area.

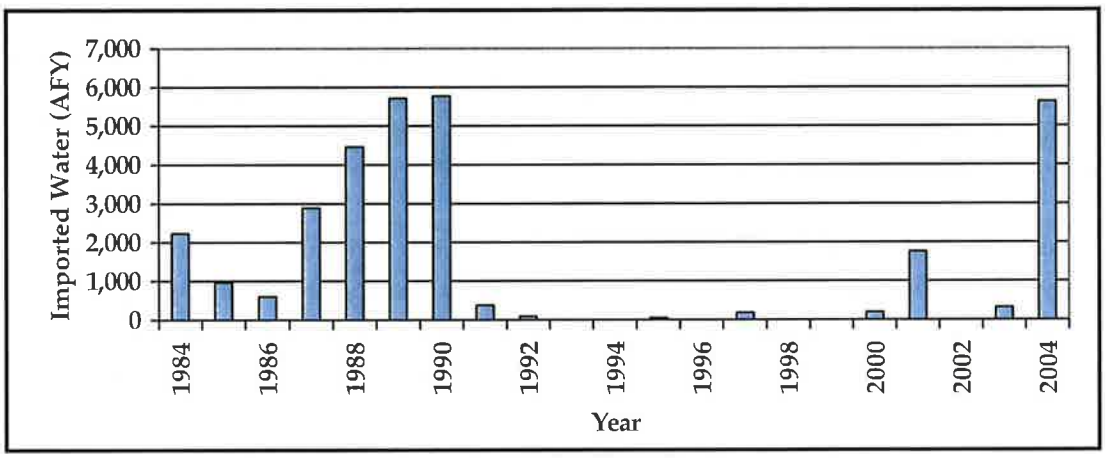


Figure 4.30 Annual Imported Water Supply

4.8.3 Recycled Water

Recycled water is treated at EMWD's San Jacinto Valley Regional Water Reclamation Facility and is currently used primarily for irrigation in the public municipal areas, industrial uses, and agricultural irrigation purposes in the Management Area and for habitat creation at the California Fish and Game San Jacinto Wildlife Area outside the Management Area. Recycled water is a highly reliable source of supply and will increase in availability as the population of the Management Area increases. Most of the recycled water is sold by EMWD to private land owners for agricultural irrigation. Recycled water usage in the Management Area has been fairly stable over the past decades, with approximately 5,000 AF supplied in 2004. Annual amounts of recycled water use are presented in Figure 4.31.

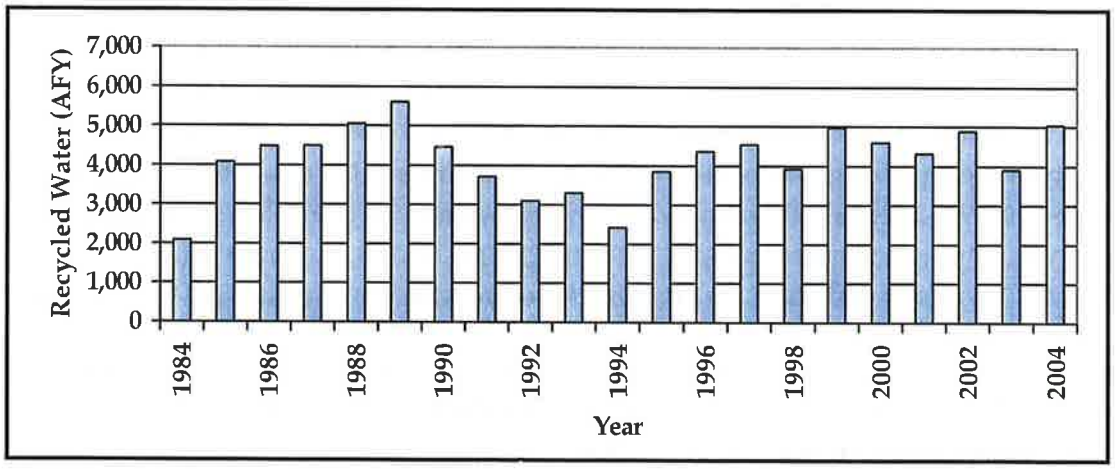


Figure 4.31 Annual Recycled Water Supply

4.8.4 SURFACE WATER

LHMWD has pre-1914 rights for the diversion and storage of surface water from the San Jacinto River and its tributaries. These rights date back to the late 1800s, and the diversion amounts are filed each year with the Division of Water Rights, State Water Resources Control Board on Annual Notices of Groundwater Extraction or Diversion, numbers G330016, G330017, and G330018.

When available, LHMWD diverts surface water for direct use. It should be noted that the San Jacinto River is an ephemeral river. The river may not flow every year and, therefore, there may be occasional years where diversion is not possible. Annual surface water diversions for 1985-2004 are shown in Figure 4.32. Details of the surface water rights are discussed in Section 7.1.

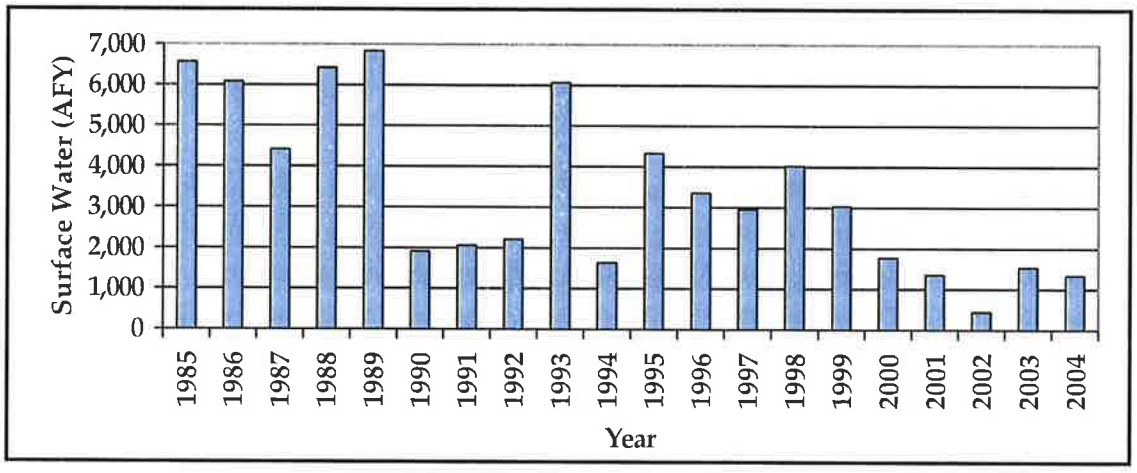


Figure 4.32 Annual Surface Water Supply

EMWD's surface water diversions are not utilized for direct use and are therefore not considered part of the water supply. More information on EMWD's surface water diversions is included in Section 7, Surface Water Rights.

4.8.5 PURCHASES FROM EMWD

LHMWD, City of Hemet, and City of San Jacinto purchase water from EMWD to supplement their water supplies. The annual volume of water sold to the other agencies by EMWD is shown in Figure 4.33. In addition to these sales, EMWD sells recycled water to private land owners for agricultural irrigation.

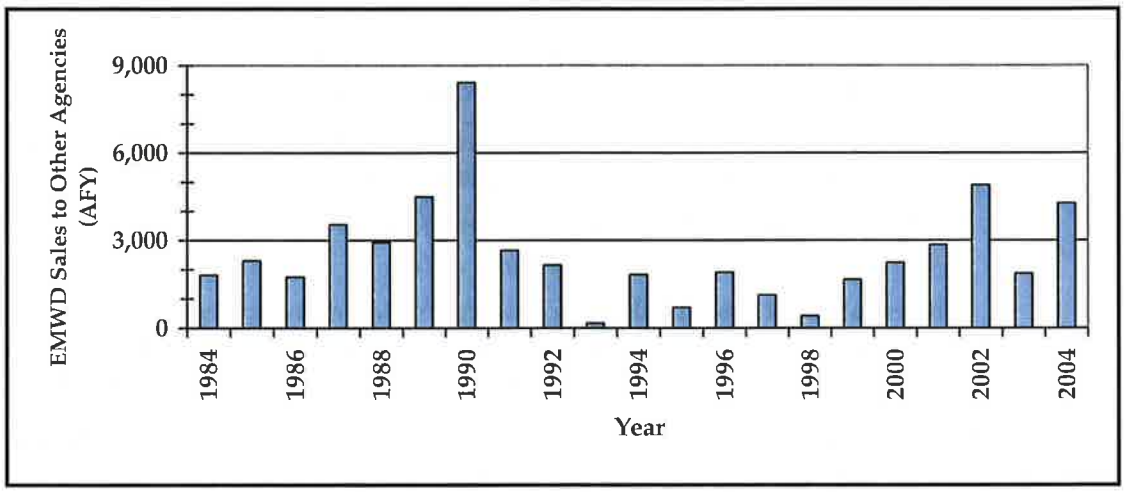


Figure 4.33 Annual Sales by EMWD to Other Agencies within Management Area

4.9 ESTIMATES OF SAFE YIELD AND OVERDRAFT

4.9.1 SAFE YIELD

The Safe Yield of the Management Area is defined in the Stipulated Judgment as the long term, average quantity of water supply in the Management Area that can be pumped without causing undesirable results, including the gradual reduction of natural groundwater in storage over long-term hydrologic cycles.

The following clarifying notes are presented to better define the Safe Yield definition:

- **Period of Record:** Safe Yield is a function of annual variability of the hydrology, but should reflect long-term average conditions, including wet and dry replenishment conditions. Identification of "long term, average" is important, but difficult to determine, as precipitation is highly variable from year to year and subject to long-term climatic changes. As hydrologic data will continue to be

collected and a greater understanding of the hydrology will be gained, the period of record for determining the Safe Yield will be subject to change over time.

- **Water Supply Components:** The following components of water supply are considered in the definition of Safe Yield:
  a. Natural recharge from infiltration of precipitation,
  b. Recharge from infiltration of streamflow and other surface water runoff,
  c. Recharge from infiltration of irrigation applied water on agricultural lands,
  d. Recharge from infiltration of outdoor irrigation in the urbanized areas,
  e. Artificial recharge, such as replenishment programs, historically operated, using imported, recycled, and surface water diversions,
  f. Subsurface groundwater inflows, such as from the Lower Pressure Management Zone and the boundaries of the basin, and
  g. Subsurface groundwater outflows, such as to the Lakeview portion of the Lakeview/Hemet North Management Zone.
- **Study Area:** Safe Yield is calculated for the Management Area as one unit, and not by the smaller units of Management Zones.
- **Undesirable Effects:** The definition of Safe Yield emphasizes protection of groundwater in storage. It is assumed that potential undesirable effects on water quality are indirectly addressed, and therefore are not included in the analysis.

The Safe Yield of the Management Area has been estimated in a number of studies in the past. A summary of methods, hydrologic periods, and results from each study is presented in Table 4.5.

Two major methodologies have traditionally been used to estimate the Safe Yield: (1) Water Balance methodology, and (2) Change in storage methodology. These methods are briefly described below.

Table 4.5 Published Estimates of Safe Yield for the Management Area

Yield Study	Method	Time Period	Safe Yield (AFY)	Pumping (AFY)	Overdraft (AFY)
Fritz and Rosell*, 1947	Water Balance (Conventional)	1920-1945	27,400 (35,100 w/o trees/brush)	32,400	4,800
Schwartz*, 1967	Water Balance (Conventional)	1923-1960	26,100	n/a	12,100
EMWD White Paper, 2000	Water Level Recovery Analysis	Variable	50,000	60,600	10,600
GIS Recharge Estimates	Change in Storage (GIS)	1998-2003	39,700	n/a	n/a
WRIME, 2003d	Water Balance (Conventional)	1984-2001	44,700	59,000	14,300
Based on TechLink, 2002a	Water Balance (Model-based)	1984-1999	41,300	58,000	16,700

* Fritz and Rosell (1947) and Schwartz (1967) both used a larger geographic area that roughly included what is today called the San Jacinto-Lower Pressure Management Zone. This additional area is the area northwest of Bridge Street to Redlands Boulevard in Moreno Valley.

4.9.1.1 Method 1 - Water Balance Method

The water balance method utilizes inflows and outflows from the basin to estimate change in storage and the Safe Yield of the basin. The amount of pumping that can be sustained with little or no long-term change in storage is the Safe Yield of the basin. The Safe Yield estimate may be calculated by

Safe Yield = Change in Groundwater Storage + Groundwater Production,

where Change in Groundwater Storage is Inflows less Outflows. The estimate must be over a long-term base period which reflects a number of wet, normal, and dry periods. Groundwater production values are based on historical data as reported by the Public Agencies and estimated for the Private Water Producers. The TC has reviewed and agreed to the data for use in the Water Balance Method. The following inflow and outflow components are used to calculate Change in Groundwater Storage for the Management Area:

Inflows

- Recharge from Retail Water Sales,
- Recharge from Irrigation Return Flow,
- Recharge from Precipitation,

- Grant Avenue Ponds Diversion Recharge,
- Reclaimed Ponds Recharge,
- Recharge from Recycled Water Sales,
- Subsurface Inflow from Other Management Zones,
- Bautista Creek Recharge,
- San Jacinto River Recharge, and
- Boundary Inflow.

Outflows

- Subsurface Outflow to Other Management Zones,
- Boundary Outflow, and
- Groundwater Production.

4.9.1.2 Method 2 - Change in Storage Methodology

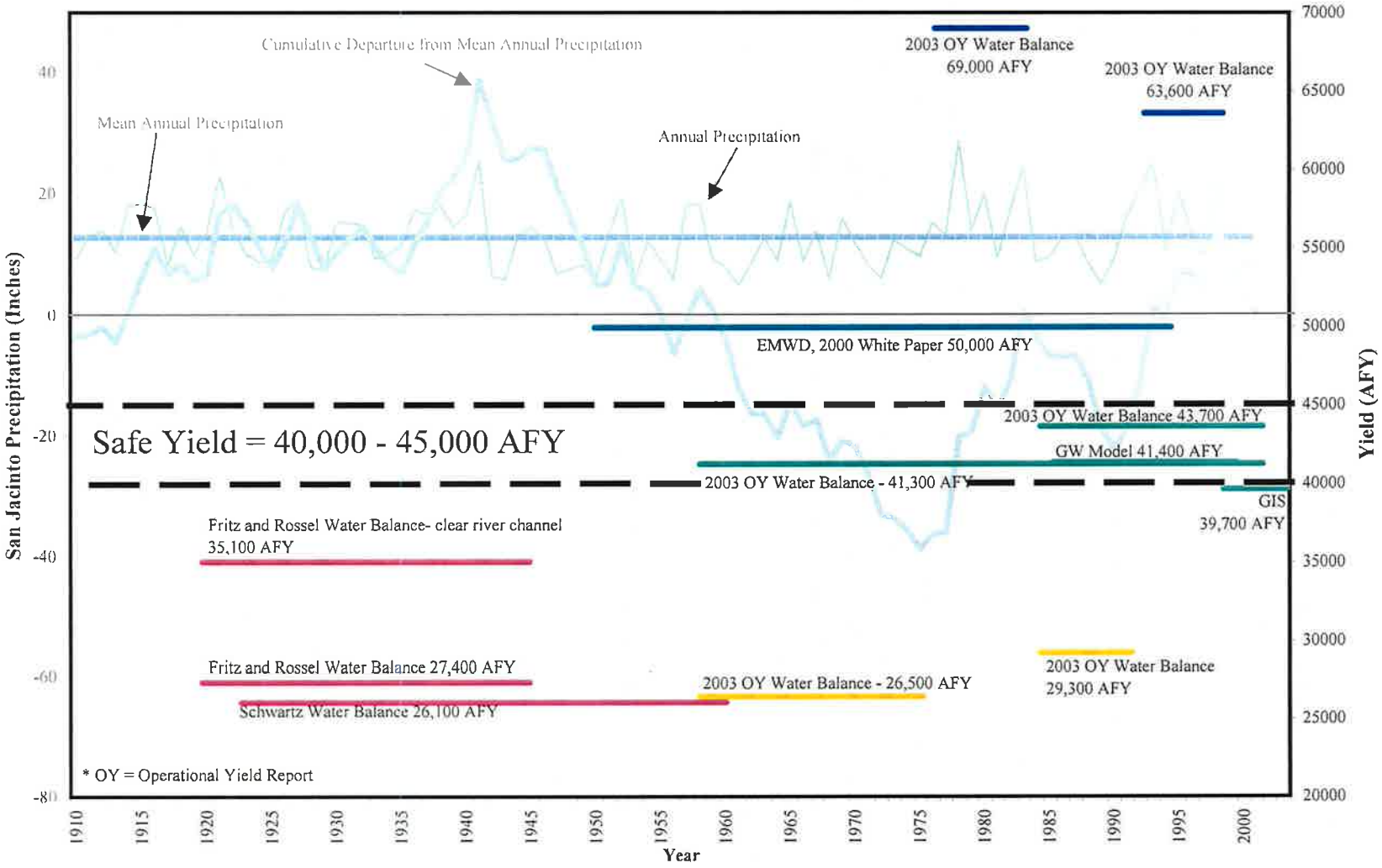
This method uses a GIS database to develop surfaces of groundwater elevations based on observed groundwater levels at multiple control points (i.e., wells) throughout the Management Area for two different time periods. The product of change in volume between the two surfaces at two different times and the specific yield of the aquifer determines the change in storage between those two time points. The Safe Yield is then calculated as the sum of the calculated change in storage and the groundwater production during the same time period. Variations of this method are used based on the spatial distribution, including vertical distribution, of the specific yield in the aquifer system.

4.9.1.3 Summary of Previous Yield Estimates

Calculation of Safe Yield is a function of the hydrologic period used in the analysis. Figure 4.34 presents the long-term hydrologic conditions as precipitation at San Jacinto gaging station (RCFC&WCD Site #186), along with estimates of the Safe Yield. As indicated in the figure, the Safe Yield estimates range from 26,400 to 44,700 AFY. Since the two estimates made by Fritz & Rosell (1947) and Schwartz (1967) are based on much older data sets and short-term hydrologic records, and the geographic area may not be consistent with some of the more recent estimates, the TC decided in its August 25, 2005 meeting not to use these estimates. Instead, the TC concluded that the Safe Yield of the Management Area ranges from approximately 40,000 to 45,000 AFY based on the most recent analyses.

The TC also concluded that the following guidelines for estimation of Safe Yield of the Management Area be considered by the Watermaster when calculating Safe Yield in the future:

Figure 4.34 Safe Yield Estimates



- Review and modify Safe Yield, if necessary, upon the recommendation of the TC or as the Watermaster may determine.
- Use latest available data with consideration for proper spatial, temporal, and vertical characteristics of the aquifer system.
- Consider a long period of record that includes above average, below average, and normal conditions.
- Consider latest methodologies that can provide more flexibility based on the available data and information, as necessary.
- Consider using the San Jacinto Watershed Groundwater Model, with appropriate updates and calibration, for re-estimation of groundwater conditions, as needed.

4.9.2 OVERDRAFT

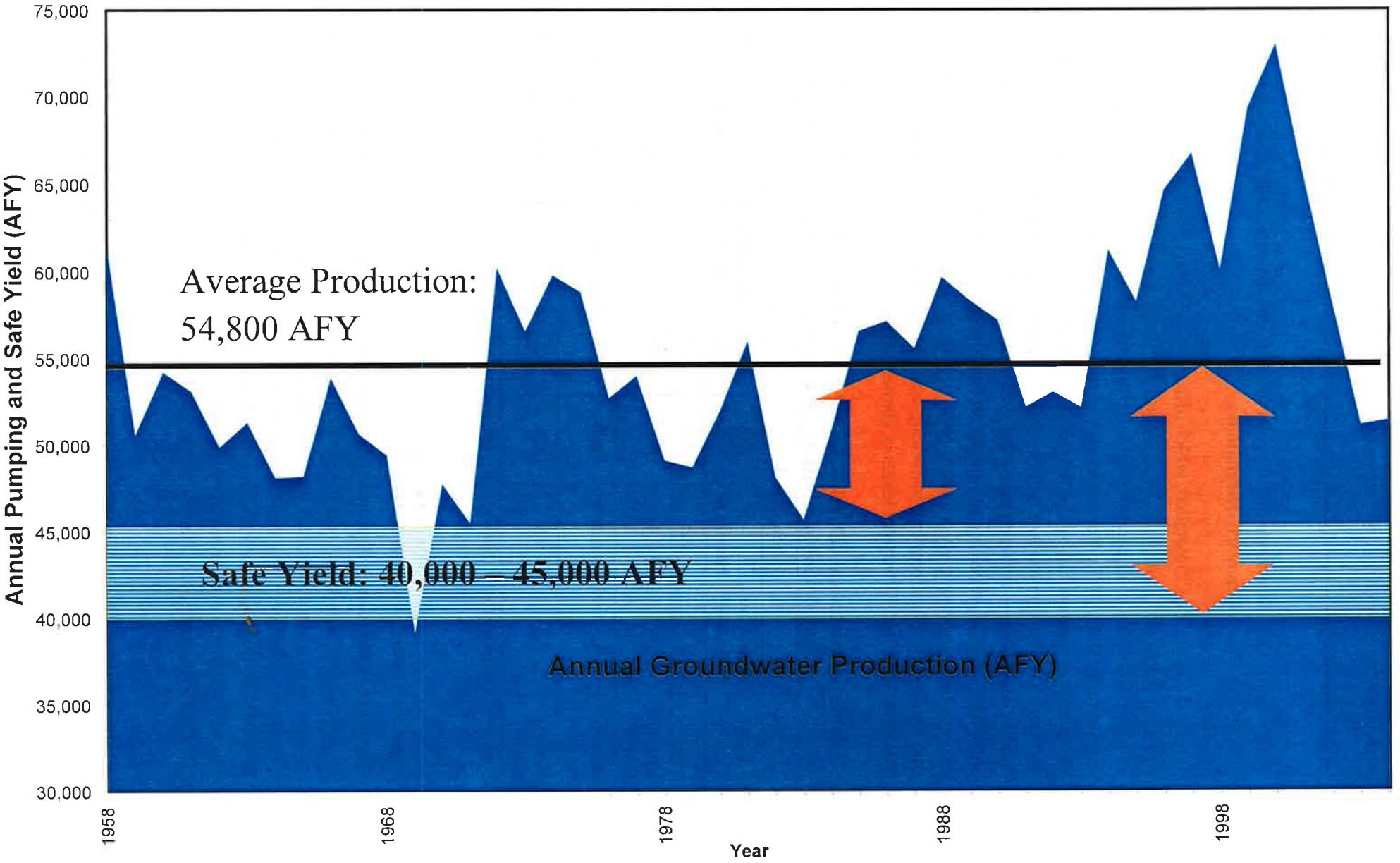
Overdraft is defined in the Stipulated Judgment as the condition whereby groundwater production in the Management Area exceeds the Safe Yield, creating undesirable conditions in the basin. The amount of overdraft is calculated as the difference between long-term average annual groundwater production in the Management Area and Safe Yield. Figure 4.35 shows the estimated annual groundwater production in the Management Area, along with the range of Safe Yield. Based on this figure, the overdraft in the Management Area is estimated to be 10,000 to 15,000 AFY. For planning purposes and to evaluate options to reduce the overdraft, this Plan assumes that the overdraft is at least 10,000 AFY.

4.10 WATER QUALITY CONDITIONS

This section presents a summary of the groundwater quality conditions in the Management Area. This description will assist in establishing a baseline condition for future water management efforts to maintain or improve groundwater quality in the Management Area. The TC has decided that the water quality conditions in the Management Area would be evaluated based on TDS and nitrate levels. This is consistent with the TIN/TDS studies (Wildermuth, 2000) and the emphasis on TDS and nitrate in the Basin Plan as amended (RWQCB, 2004).

The Management Area lies within the jurisdiction of the RWQCB, Santa Ana Region 8. The RWQCB implements state and federal laws through adoption of Water Quality Control Plans or Basin Plans (RWQCB, 1995). The Basin Plan establishes both the legal beneficial use designations and sets the standards to protect these uses. The Basin Plan was recently amended (RWQCB, 2004) to incorporate an updated TDS and Nitrogen Management Plan for the Santa Ana Region, including revised groundwater Management Zones (combining Hemet North and Lakeview into one Management Zone; Hemet North remains treated separately from Lakeview

Figure 4.35 Groundwater Production and Range of Safe Yield Estimates



in this Plan), TDS and nitrate quality objectives for groundwater, TDS and Nitrogen waste load allocations, and stream reach designations.

Within the Santa Ana Watershed, which includes the Management Area, a statistical method has been developed to use nitrate (as N) and TDS to evaluate the status of water quality; to compare sub-basin concentrations; and to trigger management actions (RWQCB, 2004; Wildermuth, 2000, 2005). Point statistics were used to show (i) historical ambient water quality conditions as represented by the 1954-1973 time period, (ii) 1997 Current ambient water quality conditions as represented by the 1978-1997 time period, and (iii) 2003 Current ambient water quality conditions as represented by the 1984-2003 time period. A summary of the data is shown in Table 4.6, revealing nitrate (as N) levels below the MCL of 10 mg/L for all cases. TDS exceeds the recommended secondary MCL of 500 mg/L in Hemet South (current and historical) and Hemet North (current and historical), and TDS exceeds the maximum secondary MCL of 1000 mg/L in the 1997 current levels in Hemet South.

Table 4.6 Historical (1954-1973), 1997 Current (1978-1997), and 2003 Current (1984-2003) Ambient Nitrate as N and TDS Concentrations (mg/L)

Sub-basin	Nitrate as N [1]				TDS[2]			
	Basin Plan Objective[3]	Historical	1997 Current	2003 Current	Basin Plan Objective[4]	Historical	1997 Current	2003 Current
Canyon	2.5	2.5	1.6	2.1	230	**234**	220	**420**
Upper Pressure	1.4	1.4	**1.9**	**1.7**	320	**321**	**370**	**370**
Hemet South	4.1	4.1	**5.2**	**5.4**	**730**	**732**	**1030**	**850**
Hemet North	1.8	1.8	**2.7**	**3.4**	520	519	**830**	**840**

Source: Wildermuth, 2005. 2003 update 1984-2003)
[1] Table 3-2
[2] Table 3-1
[3] Basin Plan Amendment, 2004 (Table 5-4)
[4] Basin Plan Amendment, 2004 (Table 5-3)

The point statistics and water quality objectives were used by the RWQCB to develop estimates of assimilative capacity. Areas with assimilative capacity are able to accept waters with higher concentrations of a constituent than the concentration in the receiving waters because natural processes such as recharge and dilution will allow for the water quality objectives to continue to be met. The most recent computations indicate that Hemet South, Hemet North, Canyon, and Upper Pressure Management Zones do not currently have assimilative capacity for TDS. For nitrate, the Hemet South, Hemet North, and Upper Pressure Management Zones do not have

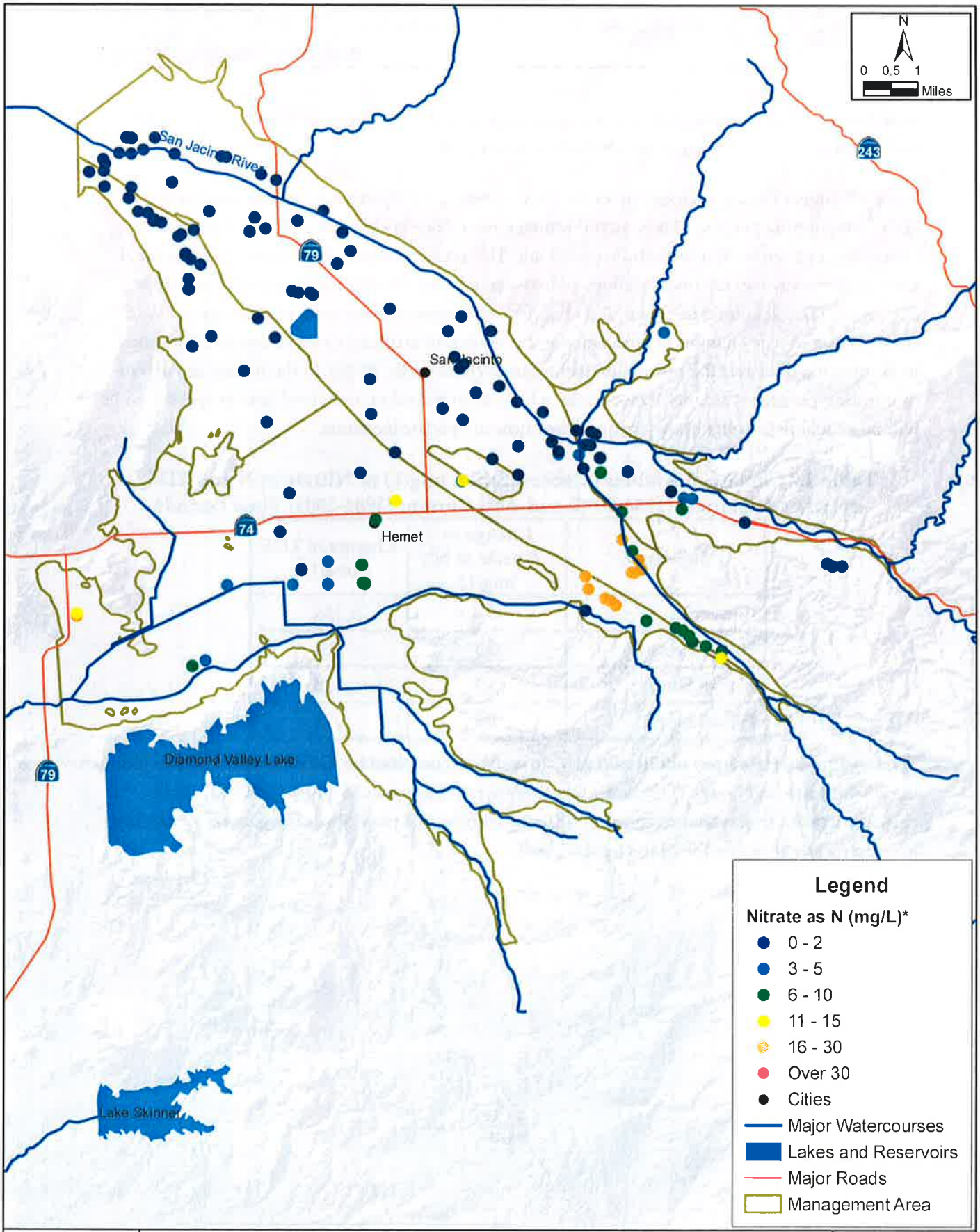
assimilative capacity remaining, and the Canyon area has only a very small amount of nitrate that it can assimilate (0.4 mg/l nitrate as N; Wildermuth, 2005).

Table 4.7 shows the changes seen over the 30-year time period between the historical and 2003 Current time periods. The Canyon Management Zone shows a decrease in nitrate as N concentrations while all other nitrate (as N) and TDS concentrations for all other Management Zones show increases in concentrations of between 0.3 and 1.6 mg/L nitrate (as N) and 49 to 321 mg/L TDS. It should be noted that changes seen between these time periods are a combination of true changes in ambient water quality and artificial changes due to limitations in monitoring data and the estimation technique (Wildermuth, 2005). In the future, as current monitoring programs assemble more data, a long-term record of analytical data at specific wells will be available to better show changes over time at specific locations.

Table 4.7 Change in Ambient Concentration (mg/L) of Nitrate as N and TDS, Between Historical (1954-1973) and 2003 Current (1984-2003) Time Periods

Sub-basin	Change in Nitrate as N (mg/L)	Change in TDS (mg/L)
Canyon	-0.4	186
Upper Pressure	0.3	49
Hemet South	1.3	118
Hemet North	1.6	321

The most recent data from public and private wells, as complied by EMWD, were used to plot the 2004 nitrate (as N) and TDS conditions as shown in Figures 4.36 and 4.37. While these values are taken from wells screened at different depths, the plots show the general variability in concentrations across the Management Area.



RIME

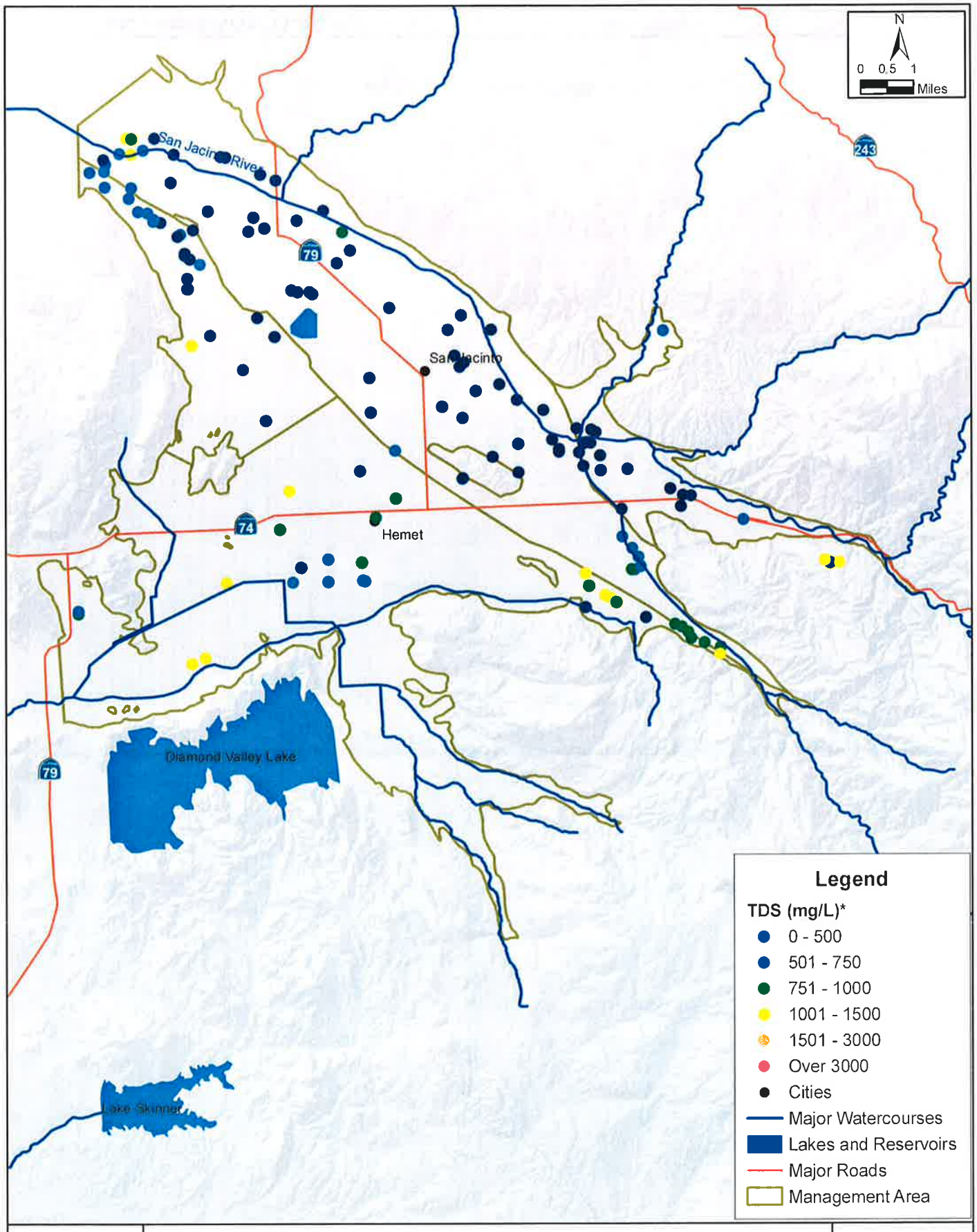
2004 Nitrate as N Concentrations in Groundwater (mg/L)

Hemet / San Jacinto Water Management Plan

*Source: EMWD

October 2007

Figure 4.36



RIME

2004 TDS Concentrations in Groundwater (mg/L)

Hemet / San Jacinto Water Management Plan

*Source: EMWD

October 2007

Figure 4.37

(This Page Left Blank Intentionally)

SECTION 5 PROJECTED WATER DEMANDS AND FUTURE PLAN PHASES

5.1 PROJECTED LAND USE CONDITIONS

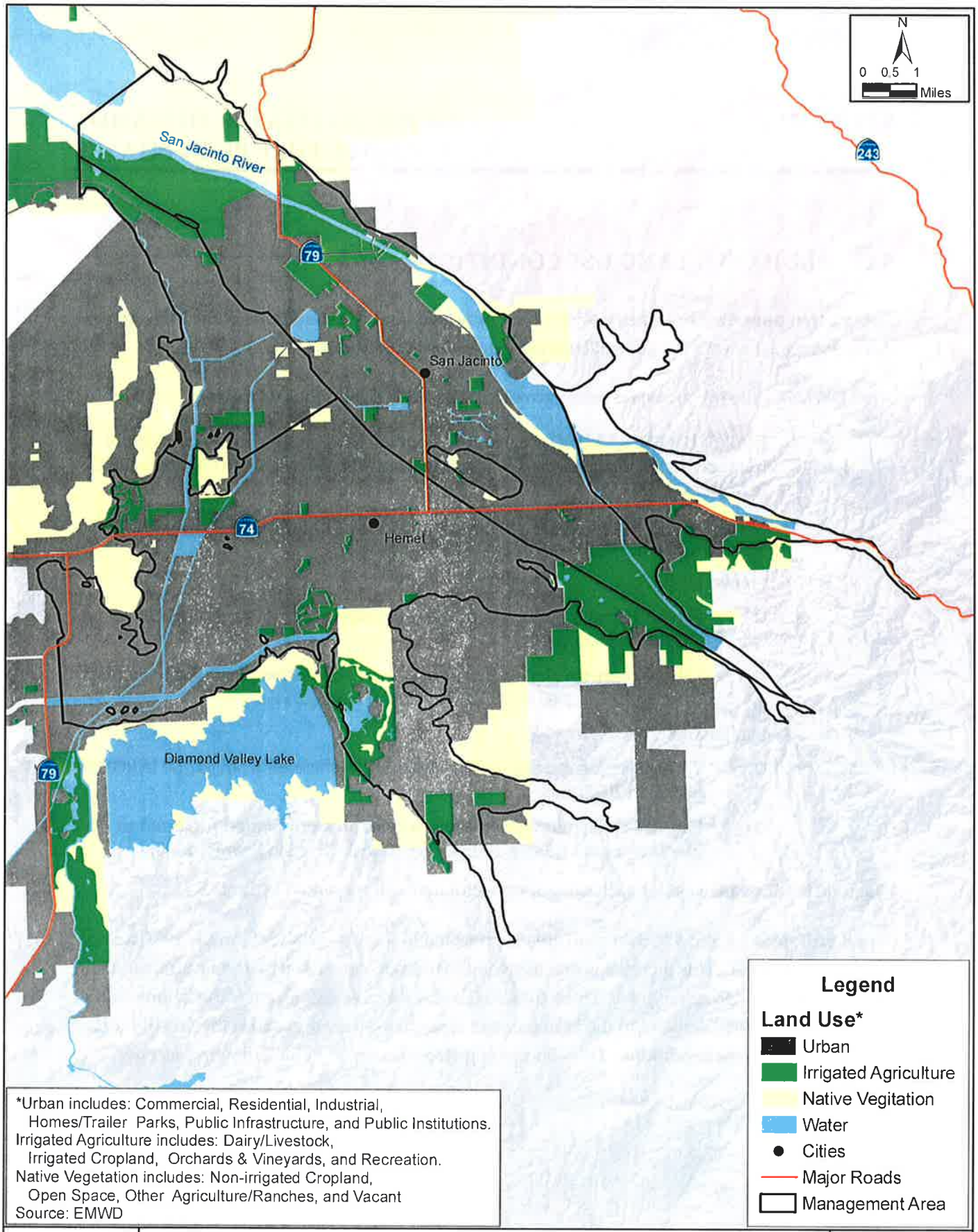
This Section presents a brief description of the projected land use conditions in the Management Area. Figure 5.1 shows the general land use categories at build-out.

Area UWMPs echo the projected urban growth indicated in the build-out land use:

- EMWD UWMP – EMWD service area population, including areas outside the Management Area, projected to increase from 494,000 in 2005 to 830,000 in 2025. (EMWD, 2005a)
- LHMWD UWMP – LHMWD service area population projected to increase from 39,100 in 2005 to 49,500 in 2025. (LHMWD, 2005)
- Hemet UWMP:
  - City of Hemet population projected to increase from 78,600 in 2005 to 154,000 in 2025; and
  - City of Hemet water system service area population projected to increase from 20,200 in 2005 to 22,300 in 2025. (Hemet, 2006)
- San Jacinto UWMP:
  - City of San Jacinto population projected to increase from 34,100 in 2005 to 63,600 in 2025; and
  - City of San Jacinto water system service area population projected to increase from 13,200 in 2005 to 24,000 in 2025. (San Jacinto, 2005)

The total land use acreage for each category is estimated and presented in Table 5.1.

Based on Tables 5.1 and 4.3, the urban area is projected to increase from 28% in the 1998 survey to 65% at build out. This increase is due to a combination of conversion of agricultural land and undeveloped land to urban uses. These future conversions have significant implications on the total projected water demand in the Management Area, as well as impacts on the precipitation, runoff, and recharge conditions. This concept is further discussed in the following sections.



*Urban includes: Commercial, Residential, Industrial, Homes/Trailer Parks, Public Infrastructure, and Public Institutions.
Irrigated Agriculture includes: Dairy/Livestock, Irrigated Cropland, Orchards & Vineyards, and Recreation.
Native Vegetation includes: Non-irrigated Cropland, Open Space, Other Agriculture/Ranches, and Vacant
Source: EMWD

RIME

2025 Projected Ultimate Land Use

Hemet / San Jacinto Water Management Plan

October 2007

Figure 5.1

Table 5.1 Generalized Projected Acreage in the Management Area

Land Use	Total Acreage	Percent
Urban	37,100	65%
Irrigated Cropland	8,100	14%
Non-Irrigated Cropland	4,500	8%
Water	3,600	6%
Unmapped*	4,000	7%
Total	57,300	100%

*Unmapped areas are outside EMWD's service area and were not included in the EMWD ultimate land use dataset.
Source: EMWD ultimate land use (1998), based on city general plans

5.2 PROJECTED WATER DEMANDS

Projected water demands are based on information contained in 2005 UWMP, the *Hemet/San Jacinto Water Management Area 2004 Annual Report* (EMWD, 2005b), and *Basin Assessment Report Technical Memorandum No. 1* (WRIME, 2003a). The projected water demands of each of the stakeholders and of the Management Area as a whole are described below.

5.2.1 EMWD

Projected retail water demand for the portion of EMWD's service area within the Management Area is based on the *Hemet/San Jacinto Water Management Area 2004 Annual Report*. Projected total demand is shown together with recent historical demand in Figure 5.2. Estimates of projected demand are also presented in the EMWD's 2005 UWMP, but these values are for the entire EMWD service area; the UWMP system-wide projections show a similar rate of increase in water demand of approximately 50% from 2005 to 2020.

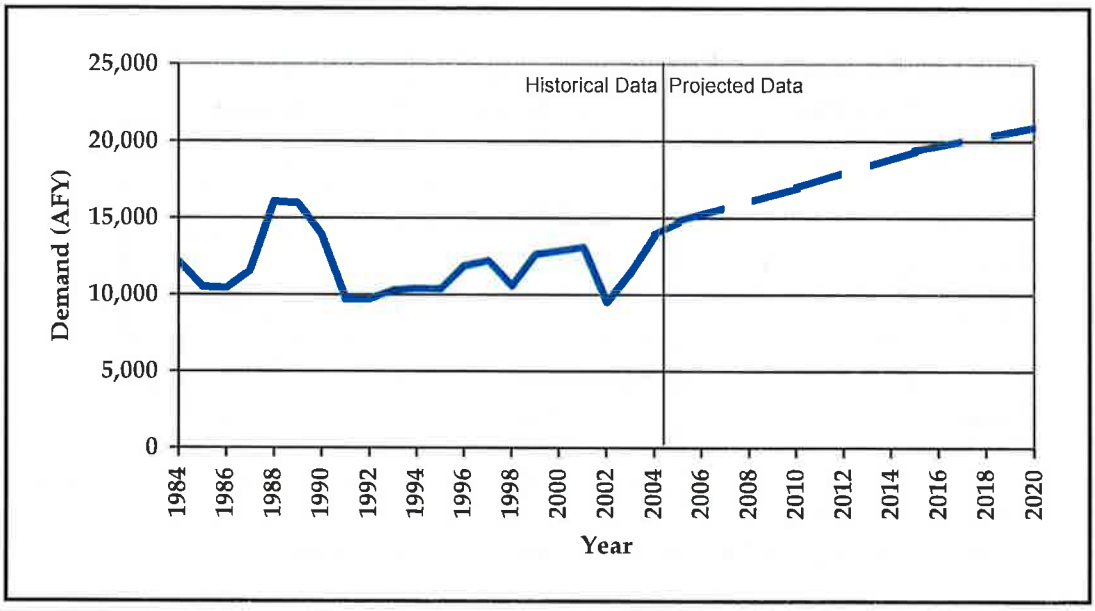


Figure 5.2 EMWD Historical and Projected Demand

5.2.2 LHMWD

Projected water demand is based on *Lake Hemet Municipal Water District 2005 Urban Water Management Plan* (LHMWD, 2005). Projected total demand is shown together with recent historical demand on Figure 5.3.

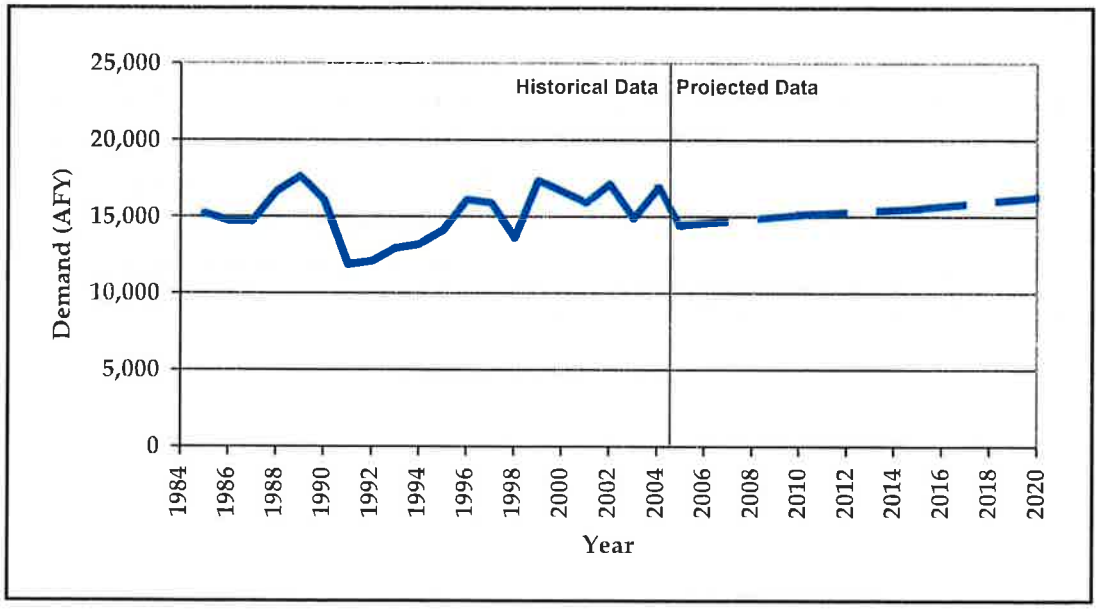


Figure 5.3 LHMWD Historical and Projected Demand

5.2.3 City of Hemet Water Service Area

Projected water demand in the City of Hemet's water service area is based on *City of Hemet 2005 Urban Water Management Plan* (Hemet, 2006). Projected demand is shown together with recent historical demand on Figure 5.4.

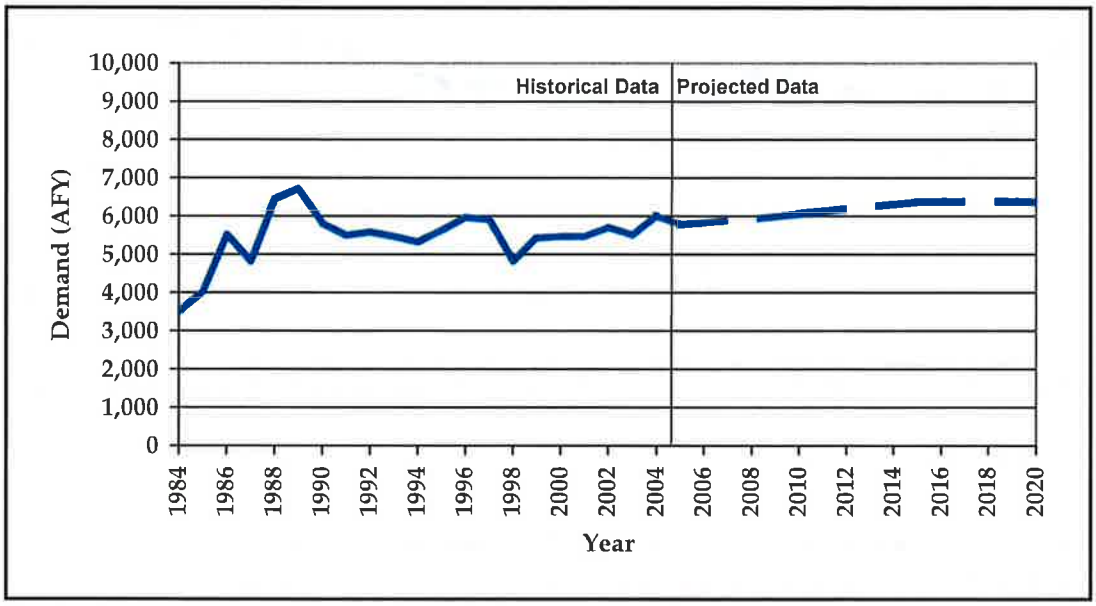


Figure 5.4 City of Hemet Water Service Area Historical and Projected Demand

5.2.4 City of San Jacinto

Projected water demand in the City of San Jacinto's water service area is based on *City of San Jacinto 2005 Urban Water Management Plan* (San Jacinto, 2005). Projected demand is shown together with recent historical demand on Figure 5.5.

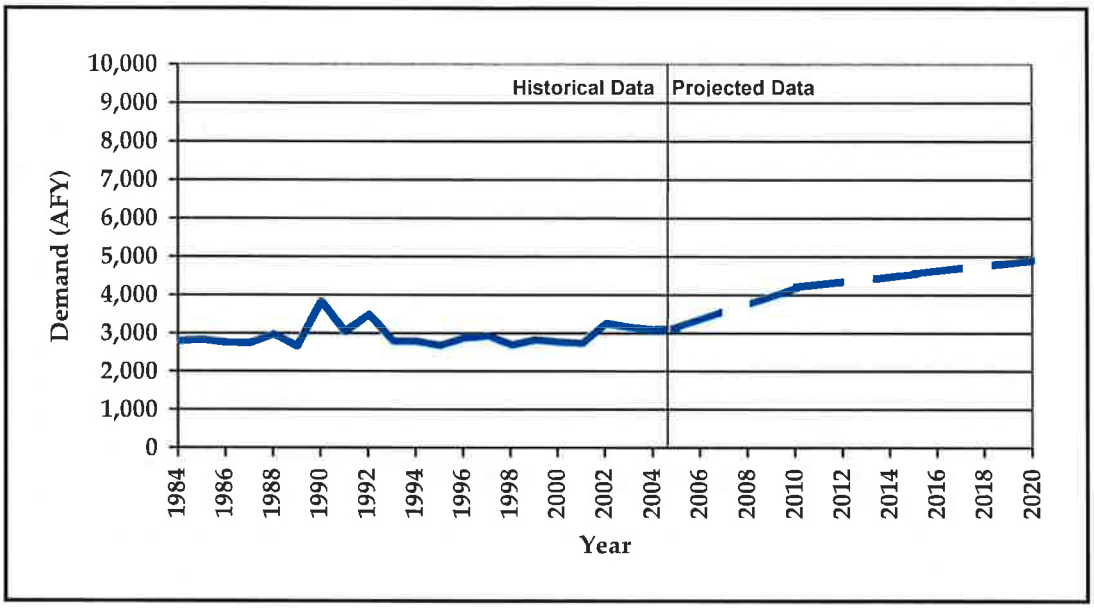


Figure 5.5 City of San Jacinto Water Service Area Historical and Projected Demand

5.2.5 SOBOBA TRIBE

Projected water demand for the Soboba Tribe is taken from the Settlement Agreement, assuming that the Settlement Agreement is implemented in 2008. Projected total demand is shown together with recent historical demand on Figure 5.6.

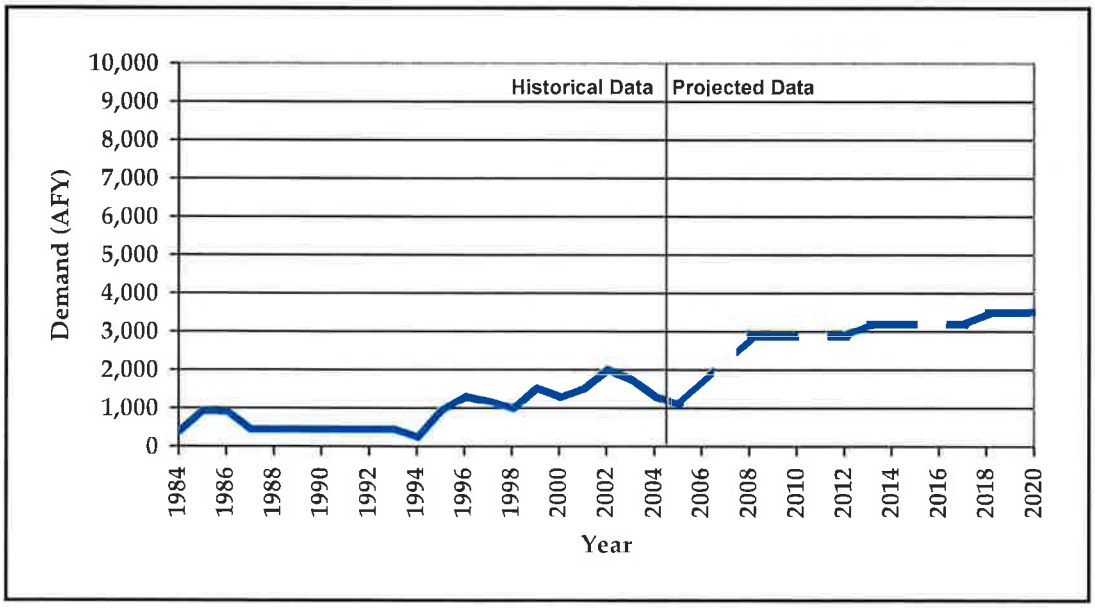


Figure 5.6 Soboba Tribe Historical and Projected Demand

5.2.6 PRIVATE WATER PRODUCERS

Projected water demand for the Private Water Producers is a refinement of estimates presented in the Operational Yield Study (WRIME, 2003d) based on updated information on current and future development and their impact on water demand. Figure 5.7 shows the assumed future agricultural water use by local producers together with recent historical demand.

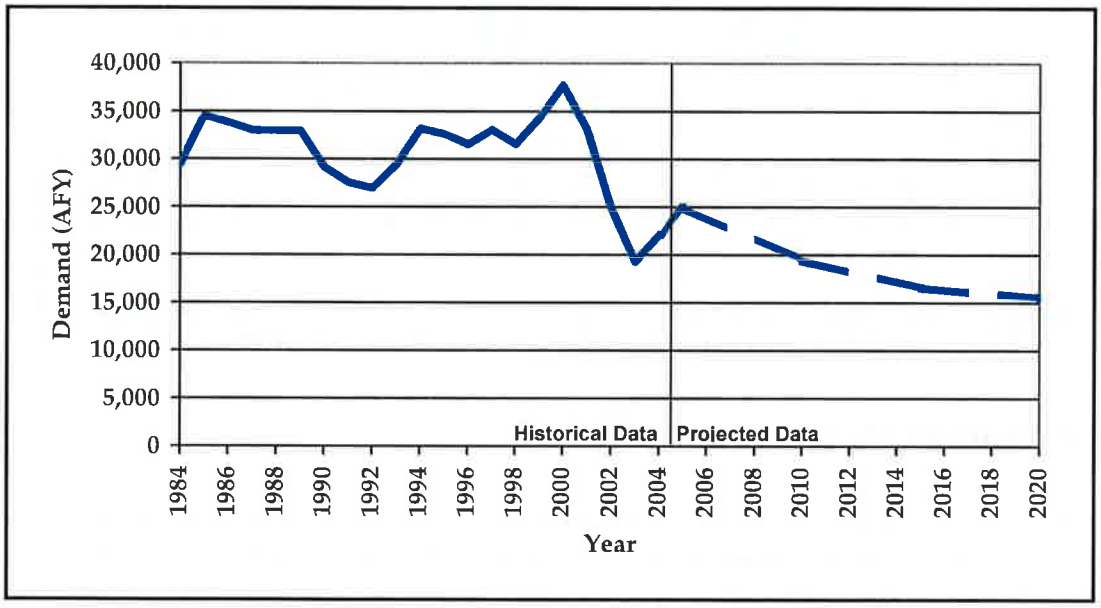


Figure 5.7 Private Water Producers Historical and Projected Demand

5.2.7 MANAGEMENT AREA

Projected and historical water demand for the Management Area as a whole presented in Figure 5.8 as the sum of the demand for the individual entities presented in the previous subsections.

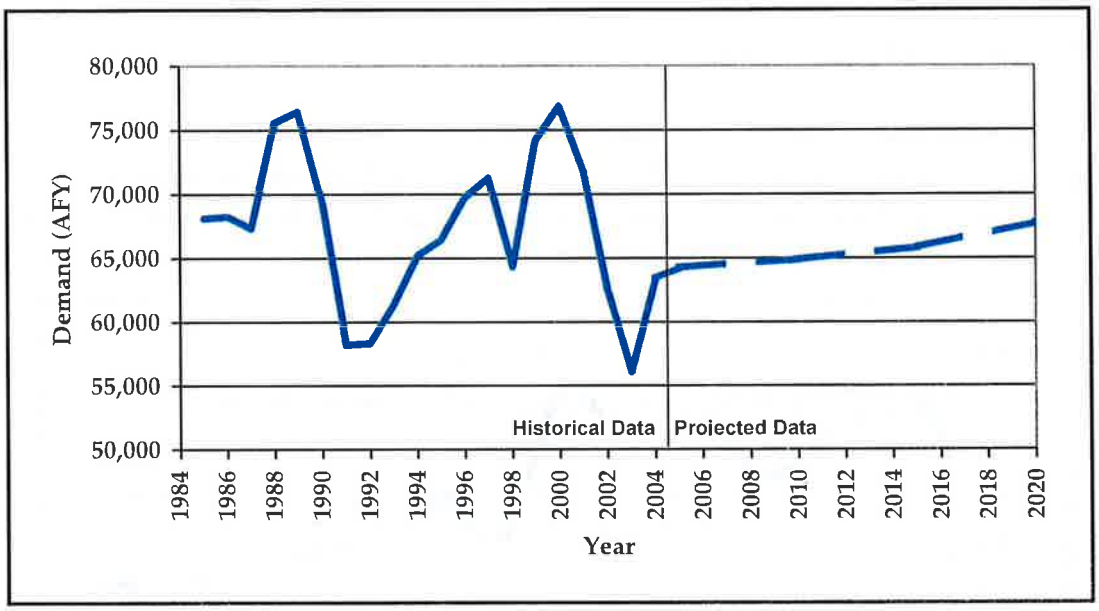


Figure 5.8 Management Area Historical and Projected Demand

5.3 FUTURE PLAN PHASES

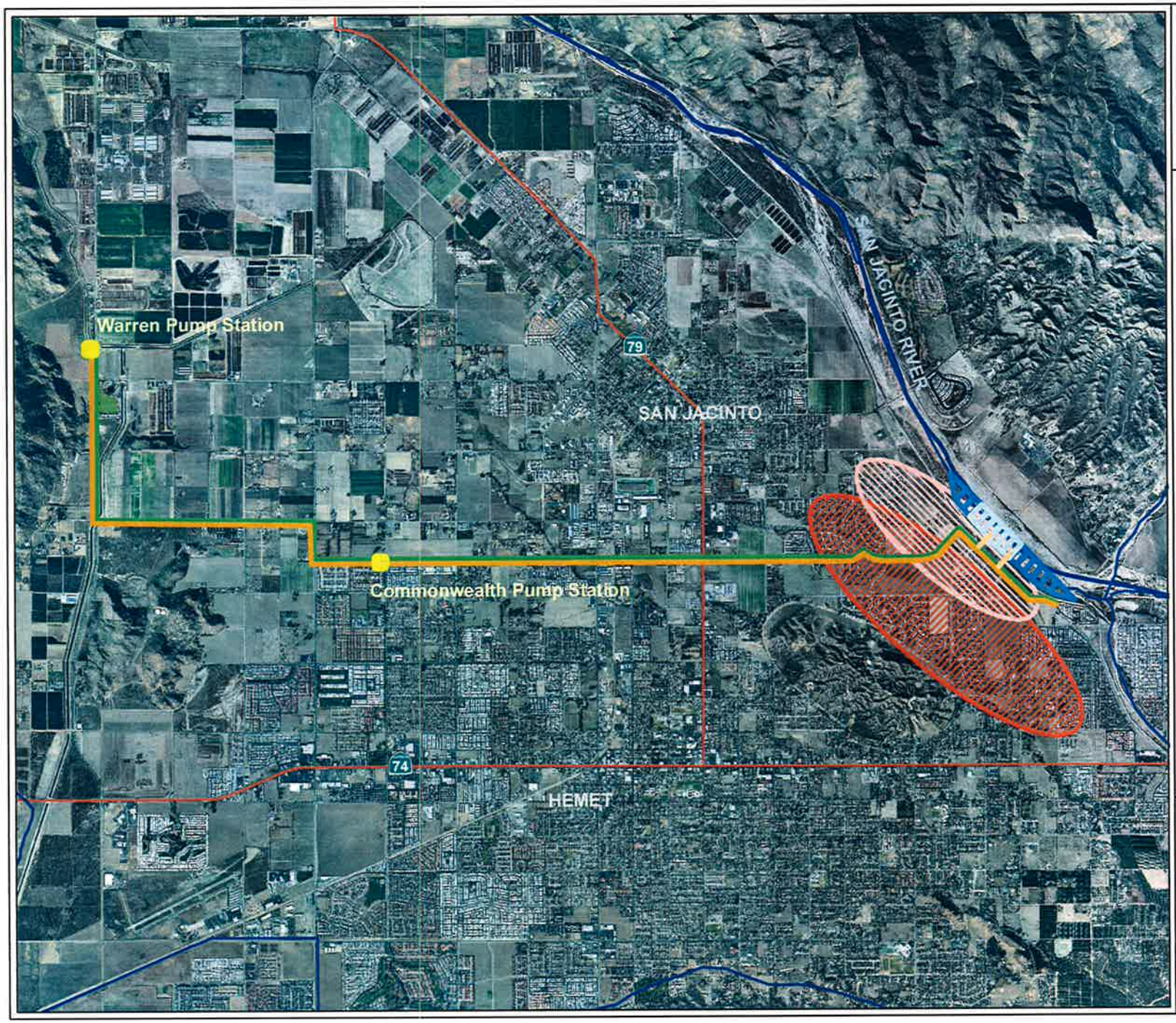
The Integrated Recharge and Recovery Project is considered to be the core of the Physical Solution. The project is designed and implemented in two Phases. Phase I is described in Section 3 of this Plan. While Phase II facilities are described at the conceptual level, and the EIR is certified, there are additional projects that have been considered by the TC and will need to be evaluated for possible design and implementation. Following is a discussion of Phase II of the IRRP, along with other potential projects.

5.3.1 SAN JACINTO RIVER INTEGRATED RECHARGE AND RECOVERY PROJECT, PHASE II

Phase II of the project consists of construction of the remaining portions of the San Jacinto Integrated Recharge and Recovery Project. The information presented here is based on previously published documents adjusted based on the latest knowledge at the time of publication from ongoing negotiations with regulators. Phase II will provide up to 110 cfs of recharge water capacity and will cost approximately $50 million*. A schematic of Phase II is shown in Figure 5.9. Major activities during Phase II are:

1. **Construction of Recharge Basins** - This activity includes construction of nine additional recharge ponds within the San Jacinto River bed in three clusters of

* Number has been updated since the publication of the IRRP Feasibility Report.



Hemet / San Jacinto Water Management Plan

Schematic of Integrated Recharge Recovery Program - Phases I and II

Figure 5.9

Legend

- Pump Station
- Phase I Pipeline
- Phase II Pipeline
- Phase I Ponds
- Phase II Ponds
- Existing Pipeline
- Phase I Well Field
- Phase II Well Field

Source: EMWD

N

0 0.5 1 Miles

October 2007

WRIME

three basins each, covering approximately 35 acres. Combined Phases I and II will have 15 basins covering approximately 70 acres*.

2. **Construction of Pipelines -** This includes design and construction of a 7.7 mile water supply pipeline from the EM-14 turnout to the proposed recharge basins. Included is increasing the capacity of the EM-14 turnout structure from 40 cfs to 110 cfs; replacing 200 feet of 48-inch-diamater pipeline with 63-inch-diamater pipeline; constructing 15,800 feet of new 54-inch-diamater pipeline paralleling the existing 39-inch-diamater pipeline; and constructing 24,800 feet of new 57-inch-diameter pipeline paralleling the existing 33-inch-diamater pipeline.

3. **Pump Station Upgrades** – Upgraded or new pump stations would be built to increase capacity at the Warren Road and Commonwealth pump stations.

4. **Drilling of Extraction Wells -** This includes construction and testing of up to five additional extraction wells designed and operated identically to those constructed in Phase I. The construction of these new wells will result in a total of up to eight Phase I and II extraction wells.

5. **Design and Construction of Monitoring Wells –** Up to three additional monitoring wells will be constructed, bringing the total number of Phase I and II monitoring wells to up to six wells.

Only Phase I has been designed in detail and funding sources are being secured.

5.3.2 Potential Conjunctive Use Projects

Conjunctive use is the coordinated operation of surface water storage and use, groundwater storage and use, and conveyance facilities to meet water management needs. This recognizes that there is a hydrologic connection between the surface water resource and the groundwater resource (DWR, 2006). In the Management Area, conjunctive use helps utilize available subsurface storage along with seasonally available water (imports and local surface water) or recycled water. Methods currently being considered include direct recharge and in-lieu recharge.

As part of the basin planning process, the TC identified and selected seven potential direct recharge sites and two potential in-lieu recharge projects for further evaluation and prioritization out of a pool of 15 direct recharge sites and two in-lieu projects initially considered. Further information is provided in *Hemet/San Jacinto Basin Assessment – Basin Assessment Report/Integrated Water Management Plan, Technical Memorandum No. 2, Analysis of Impacts of Conjunctive Use Projects* (WRIME, 2003c).

The recharge sites were selected based on screening criteria that included:

* Number has been updated since the publication of the IRRP Feasibility Report.

- General site characteristics (size, recharge needs, ownership, etc.),
- Hydrogeologic suitability,
- Sub-basin interaction,
- Engineering suitability,
- Land use suitability, and
- Environmental impacts.

The seven potential direct-recharge sites and two in-lieu projects are shown on Figure 5.10. In general, the direct recharge sites would utilize imported water, surface water, or recycled water to recharge the groundwater through surface spreading; the in-lieu projects (Upper Pressure In-Lieu Project and Hemet-Simpson CU Area) were designed to reduce the amount of groundwater production by delivering imported water, from either the Colorado River or the State Water Project, to be used in conjunction and coordination with local groundwater.

A preliminary description of the recharge sites is presented based on information from City of Hemet, City of San Jacinto, LHMWD, and EMWD, along with a brief review of available reports. Table 5.2 summarizes the findings for the nine potential projects. All findings are tentative planning-level data and should not be used in any intensive analysis without further research.

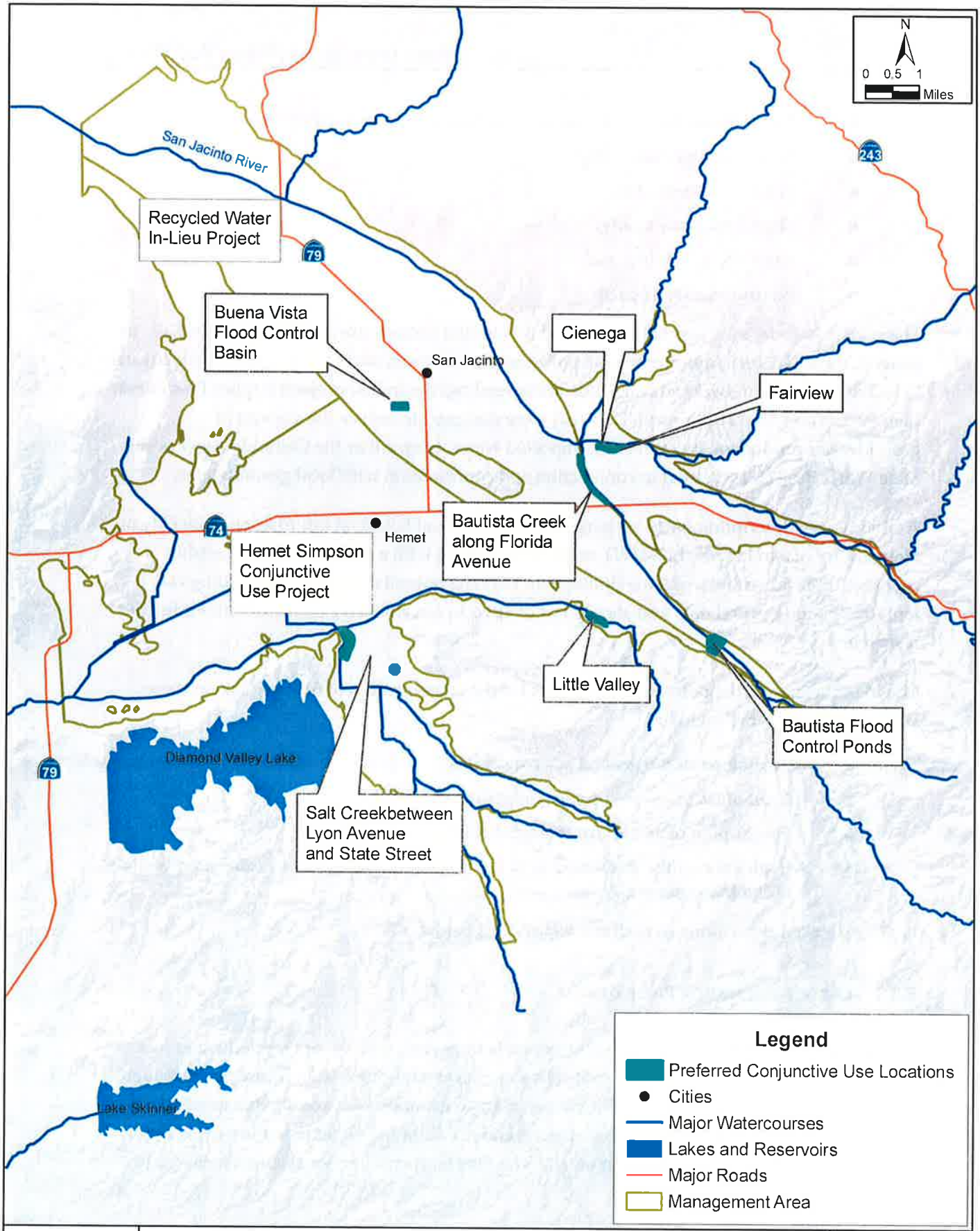
The identification of the potential sites allows for the concentration of future work on these sites. The future work includes:

- Evaluation of the general site conditions;
- Evaluation of water supply availability and reliability;
- Preparation of an environmental checklist; and
- Evaluation of the effectiveness of the projects in meeting the goals and objectives of the Management Area.

A more detailed description of each site is provided below.

5.3.3 Direct Recharge Projects

Direct recharge projects involve utilizing available imported, surface, or recycled water in a constructed basin for percolation to groundwater. Successful projects require a site with high permeability to allow for water to quickly percolate to groundwater; compatible nearby land uses; an available and accessible water supply; and the ability to either recapture the water or allow the water to raise groundwater levels. The Plan supports the use of direct recharge of water of suitable quality.



RIME

Location of Nine Preferred Projects

Hemet / San Jacinto Water Management Plan

October 2007

Figure 5.10

Table 5.2 Summary of Selected Conjunctive Use Site Conditions

Site	Project Type	Water Source	Annual Water Availability	Soils Infiltration Rate	Approximate Depth to Water (ft)	Potential Constraints
Buena Vista Flood Control Basin	Recharge	Runoff, recycled, or imported	600 AF	n/a	200 – 250	Groundwater quality
Cienega	Recharge	River diversion	n/a	High	210 - 240	Kangaroo Rat, water rights
Fairview	Recharge	River diversion	n/a	High	210 - 240	Kangaroo Rat, water rights
Bautista Creek along Florida Avenue	Recharge	Irrigation water, Bautista Creek, imported	n/a	Moderate	n/a	n/a
Salt Creek between Lyon Avenue and State Street	Recharge	Salt Creek diversion/runoff	1,000 AF	Moderate	200 - 250	n/a
Little Valley	Recharge	Runoff, LHMWD flume, imported	n/a	High and variable	85	Potential archeological sites, shallow bedrock
Bautista Flood Control Ponds	Recharge	Surface runoff/ river diversion	n/a	n/a	180 - 210	No proponent
Upper Pressure In-lieu Project	In-lieu	Imported (Colorado River)	n/a		n/a	Must gain agreements between many parties
Hemet-Simpson Conjunctive Use Project	In-lieu	Imported (Colorado River and State Water Project)	n/a		n/a	Must gain agreements between many parties

5.3.3.1 Buena Vista Flood Control Basin

The existing Buena Vista flood control basin has been identified as a potential recharge project site. Buena Vista basin, located at the end of Buena Vista Street north of Esplanade Avenue, is located in the Upper Pressure Management Zone and is owned and operated by RCFC&WCD.

The site would initially use storm water for recharge purposes. Recharge water would be conveyed to the site from the 2,700-acre drainage area by existing drainage facilities that are owned by RCFC&WCD. It is estimated that approximately 600 AF of water could be delivered to the basin via runoff, with a first flush volume of approximately 20 AF. Surface water quality is good, with some elevated levels of oil and grease, suspended residues, and iron, based on sampling on March 6, 1992 (Singh, 1992). The basin can be enlarged through excavation to provide an additional 36 AF of storage volume, approximately equal to the average storm event runoff.

There is an existing EMWD raw water pipeline that runs nearby along Oakwood Street. This pipeline could potentially be used to supply the project with recycled or imported water (if supplies were to be available) in the future, although it would require the construction of an approximately 4,000-foot pipeline to connect to the basin.

The following items should be considered before moving forward with this project:

- Availability of the site for use and coordination with flood control needs;
- Surface water quality;
- Water infiltration potential;
- Deep percolation potential;
- Availability of imported water to augment surface runoff;
- Subsurface conditions; and
- The clogging potential of surface soils with local runoff.

5.3.3.2 Cienega and Fairview

The Cienega and Fairview sites are adjacent, thus conditions are essentially the same and described together. Preference between the two sites would be based on political, engineering, environmental, and operational factors.

The Cienega and Fairview sites are located in the Canyon Management Zone. Fairview was first used in the early 1990s by LHMWD. LHMWD cut basins near the riverbed and placed a diversion dam in the river. Water was diverted into the basins during the rainy season, typically the 1st quarter of the year. Future use of Fairview, potentially by LHMWD and/or EMWD, would likely involve an expansion of the basin area. Water would be supplied from the river during periods of increased flow, typically January through March. Imported water could also be used if water becomes available and the infrastructure could be built. Infiltration rates are considered high based on monitoring well responses during LHMWD's use, a study by EMWD at the Cienega blowoff pond, and the prevalence of coarse-sand riverbed deposits.

Potential problems for development of the project include San Bernardino Kangaroo Rat habitat, water rights, and limited available underground storage.

5.3.3.3 Bautista Creek along Florida Avenue

Bautista along Florida is located along the boundary between Upper Pressure and Canyon Management Zones. There is an existing recharge site located along the west side of Bautista Creek. The creek was placed in a concrete channel in the 1970s and 1980s, reducing recharge to the aquifer system. The current recharge facility was installed in the 1960s and consists of 3 ponds located along the creek. The three ponds cover approximately 15–20 acres. Future use of the site could include increasing the pond area through expansion to the north and increasing the supply of water to the ponds. Water for the existing project is provided by a turnout that captures agricultural runoff of acceptable quality from Bautista Creek. In general, creek water is not diverted into the ponds. Currently, approximately 200-300 AFY is recharged. Future recharge activities could take advantage of the nearby imported (State Project Water) raw water line on Cedar Avenue. Percolation rates at the site are considered reasonable based on field observations of surface sediments.

5.3.3.4 Salt Creek between Lyon Avenue and State Street

Two potential sites are identified along Salt Creek for a recharge project. One site, State Street Basin, is at the State Street crossing of Salt Creek; a second site, Lyon Basin, is downstream of State Street, near Lyon Avenue. Both sites are located in Hemet South Management Zone. Lyon Basin is the preferred location and is planned to be approximately 40 acres in size and approximately 5 feet deep, resulting in a maximum storage volume of 200 AF. The volume of the State Street Basin would likely be similar to that of the Lyon Basin. Both sites would initially use storm runoff for recharge purposes. Recharge water to both sites would be conveyed to the site via Salt Creek. It is estimated that five storm events per year could each fill the Lyon Basin, resulting in delivery of approximately 1000 AF/year for recharge. Anticipated future development of the watershed will likely increase the amount of available runoff. The State Street site would likely have slightly lower volumes due to its upstream location. Due to limited upstream development, water quality is anticipated to be good.

Potential problems for development of the project include water rights, relatively shallow depth to water and relatively shallow depth to bedrock that may limit the amount and rates of recharge at the sites.

5.3.3.5 Little Valley

Little Valley is located in Hemet South Management Zone. Previously in a pilot project, water was supplied over 2 or 3 years via a LHMWD flume to the area. Water for the recharge basin would be provided by local surface runoff, the LHMWD flume, or from imported water. Infiltration testing in the past has shown rates between 0.6 and 1.4 ft/day in the central part of the valley and 2.0 and 4.6 ft/day in the eastern part of the valley (Rees, 1994).

The following items should be considered before moving forward with this project:

- Potential environmental constraints including possible archeological sites; and
- Shallow depth to bedrock may limit the amount and rate of recharge at the site.

5.3.3.6 Bautista Flood Control Ponds

The Bautista Flood Control Ponds are located in the Upper Pressure Management Zone, very close to the boundary with the Hemet South Management Zone.

The existing ponds are owned and operated by RCFC&WCD and are comprised of a debris dam that creates the 49-acre pond. Future use of the site, apart from continued flood control, would likely be for water harvesting.

5.3.4 IN-LIEU PROJECTS

In-lieu recharge projects involve reducing the usage of groundwater and substituting it with available imported, surface, or recycled water. Successful projects require water users whose needs coincide with the availability and quality of the alternate water supply. The Plan supports the use of quality direct recharge projects.

5.3.4.1 Raw Water In-Lieu Projects

Imported raw water is available from MWD and provides opportunities for in-lieu recharge projects for agricultural users or landscape irrigation. Raw water is available from the State Water Project via EM-14 and from the Colorado River Aqueduct via EM-1. Proximity to these connections is an important factor for keeping costs low for in-lieu projects. One hurdle for such projects is that the period when there is the most availability of raw water, winter, coincides with the period of lowest demand for most agricultural users. Another hurdle is the need for blending the raw water with higher quality groundwater supplies to meet the needs of some of the more sensitive users, such as dairies.

5.3.4.2 Recycled Water In-Lieu Projects

Recycled water is a reliable source of water year round and offers an opportunity for in-lieu use. Public perception generally limits the usage of recycled water to agricultural and landscape irrigation uses. The nearest source of recycled water is the San Jacinto Valley Regional Water Reclamation Facility. Proximity to this source is an important factor for keeping costs low for in-lieu projects.

One project already in the planning stages would deliver between 3,500 and 8,000 AFY of recycled water to Rancho Casa Loma and the Scott Brothers Dairy, both located roughly between Ramona Expressway and Gilman Springs Road and between Sanderson Avenue and Bridge Street in the northwestern-most portion of the Upper Pressure and Hemet North Management Zones. The delivered recycled water would coincide with an equivalent reduction in groundwater pumping by both Rancho Casa Loma and Scott Brothers Dairy. Details of the project include construction of approximately 13,000 linear feet of 24-inch pipeline, and acquisition of property in fee title and easement. Project costs would be split between the Public Agencies based on the pro-rata share of proposed production rights. Agreements with Rancho Casa Loma and the Scott Brothers Dairy would set limits on groundwater production and provide for payment of a portion of the O&M costs.

5.3.4.3 Hemet-Simpson Conjunctive Use Project

Currently MWD delivers treated water from Colorado River and State Water Project to its wholesale customers using the Skinner Water Treatment Plant. Although the Skinner plant is at full capacity, during wet years there appears to be excess water available from the plant for other potential wholesale customers.

The Simpson pump station is currently capable of pumping water to both the west and east. The treated water available from the Skinner plant would be used by customers such as the City of Hemet in lieu of groundwater pumping. The Simpson pump station has a capacity of approximately 14.5 cfs.

The following issues and constraints should be evaluated for this project:

- Quantity and timing of water available from the Skinner Plant;
- Quality of Skinner Plant water in relation to the groundwater quality used by customers such as City of Hemet, and any blending issues;
- Use of chlorinated water from Skinner Plant versus well water that does not contain chlorine;

- Transmission pipeline from Skinner line to the Simpson pump station and from Simpson pump station to local distribution system;
- Connections to the local distribution system and their impacts on the distribution system pressure zones; and
- Cost of MWD water and the cost distribution of such delivery.

5.3.4.4 Hemet Water Filtration Plant

Availability of treated imported water for distribution, in-lieu of groundwater production, has become a significant source for reducing stress on the groundwater system. One of the limiting factors in the substitution of imported water for groundwater is the ability to treat the imported water, which requires more treatment than groundwater. To allow for increased use of imported water, EMWD is building the 10 mgd (11,000 AFY) Hemet Water Filtration Plant near the intersection of Commonwealth Avenue and Kirby Street in Hemet. The plant will utilize State Water Project supplies.

The purpose of this Section is to document the background and settings in establishing the groundwater production rights for each Public Agency. The Base Production Rights and the method for determining Adjusted Production Rights have been established in a collaborative manner among the agencies, and have been the basis for the distribution of costs in a number of occasions during the development of the Plan.

6.1 PUBLIC AGENCIES BASE PRODUCTION RIGHTS

6.1.1 GENERAL

Together, the Public Agencies agreed upon some basic principles as a basis for allocating Base Production Rights. The base period for documenting actual pumping was determined to be calendar years 1995 through 1999. Figure 6.1 shows the average annual groundwater production by each Public Agency for 1995 – 1999. It was also recognized that, as a result of various operational activities of the Public Agencies, several adjustments would need to be made to the raw pumping data for 1995-1999. It was ultimately agreed to finalize all appropriate adjustments and to make one comprehensive adjustment to each Public Agency's raw 1995-1999 recorded pumping.

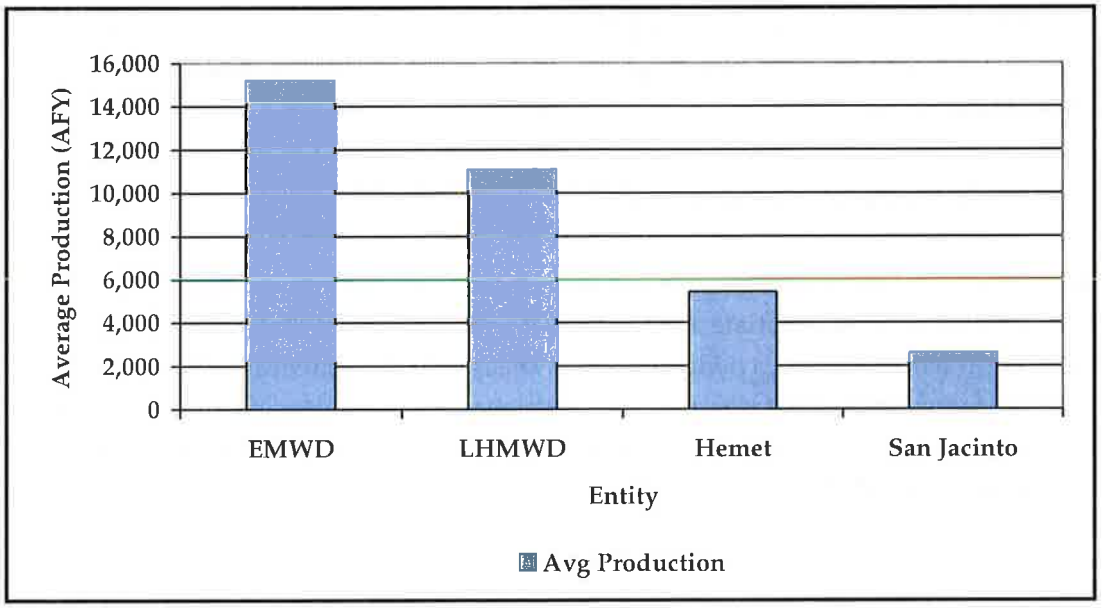


Figure 6.1 Average Annual Groundwater Production, 1995 - 1999

The operational activities that impacted groundwater resources, and therefore were used to make appropriate adjustments to raw 1995-1999 pumping data, include:

- Recharge Activities;
- MWD San Jacinto Tunnel Seepage;
- Fruitvale Entitlement Water Sold by EMWD to LHMWD, City of Hemet and City of San Jacinto;
- River Diversions;
- Conveyance Water Deliveries; and
- Other Considerations.

The Fruitvale Entitlement allocation amount was determined to be a total of 597 acre-feet for LHMWD, and Cities of Hemet and San Jacinto. The Tunnel Seepage allocation amount was determined to be 1,800 AFY, and the river diversions were determined to be 3,635 AFY for pro-ration to the four agencies. The Public Agencies have, therefore, been assigned the pro-rata shares of Base Production Rights as shown in Table 6.1:

Table 6.1 Base Production Rights

Public Agency	Base Production Rights (AFY)	Base Production Rights (Percent)
EMWD	10,869	33.7%
LHMWD	11,063	34.2%
City of Hemet	6,320	19.6%
City of San Jacinto	4,031	12.5%
Total	**32,283**	**100 %**

The details of the Public Agencies Base Production Right, with their corresponding adjustments, are described below:

6.1.2 EMWD Base Production Rights

For EMWD, the 1995-1999 actual average annual pumping was determined to be 15,166 AFY. After consideration of all appropriate adjustments, it was determined that EMWD's Base Production Right would include a deduction of 2,497 acre-feet for conveyance water and an additional net deduction of 1,800 acre-feet for other operational activities, including tunnel seepage, export, and Fruitvale Entitlement water sales. Therefore, EMWD's Base Production Right was set at 10,869 AFY.

6.1.3 LHMWD Base Production Rights

For LHMWD, the 1995-1999 actual average annual pumping was determined to be 11,063 AFY. There were no net adjustments for LHMWD as their credit for the Fruitvale entitlement water purchase tunnel seepage was deemed to be equivalent to their surface water diversion. Thus, the Base Production Right for LHMWD is set to 11,063 AFY.

6.1.4 City of Hemet Base Production Rights

For the City of Hemet, the 1995-1999 actual average annual pumping was determined to be 5,420 AFY. After consideration of all appropriate adjustments, it was agreed that the City of Hemet's Base Production Right would include an additional 900 AFY pumping right to account for Fruitvale Entitlement water purchase tunnel seepage credit, and surface diversion water. Therefore, the City of Hemet's Base Production Right was set at 6,320 AFY.

6.1.5 City of San Jacinto Base Production Rights

For the City of San Jacinto, the 1995-1999 actual average annual pumping was determined to be 2,631 AFY. However, review of the city's historic pumping showed the 1995-1999 base period was not as representative as other historic pumping periods. Therefore, it was agreed for the City of San Jacinto to receive an additional 500 AFY of pumping rights. In addition, after consideration of all other appropriate adjustments, it was determined that San Jacinto's Base Production Right would include an additional 900 AFY pumping right to account for Fruitvale Entitlement water purchase tunnel seepage credit and surface diversion water. Therefore, the City of San Jacinto's Base Production Right was set at 4,031 AFY.

6.2 PRIVATE WATER PRODUCER'S PRODUCTION RIGHTS

6.2.1 General

Development of the Hemet-San Jacinto Water Management Plan recognizes the rights of the overlying pumpers to pump and beneficially use needed groundwater. The overlying pumpers within the management area include Private Water Producers (and the Soboba Band of Luiseño Indians, discussed later). In recognition of the Private Water Producers' overlying rights, the management plan does not adversely impact or affect these rights and uses that are consistent with historical uses.

The Plan provides for the Private Water Producers to be Non-participants, Class A Participants, or Class B Participants. For Non-participants, the private producer(s) may elect to not participate and/or not acknowledge the Plan's existence. Non-participants are free to continue their past practices of pumping groundwater for beneficial uses according to state law. Non-participants are also excluded from future participation in the Plan. Class A and Class B Participants are described below.

6.2.2 Class A Production Rights

Class A Participants in the Plan have agreed to cooperate with the administrative and pumping accounting portions of the Plan. While historic pumping and beneficial uses may continue, the Class A Participants' pumping facilities are subject to metering, testing, and water level and water quality sampling at no cost to the owner. This information is valuable for successful implementation of the Plan. Class A participants are eligible to convert to Class B Participant status during the first three years of formal Plan implementation (Entry of the Judgment), with the payment of all past assessments (without interest) that would have been incurred as a Class B Participant.

6.2.3 Class B Production Rights

Class B Participants become participants to the Plan and have their water rights determined. The annual Base Production Right shall be determined based upon the average annual production from 1995 to 1999, less any amount of water that had been used on land that was developed for non-agricultural purposes after 1999, which is the Participant's Base Production Right. The Class B Participant shall pay Replenishment Water Assessments for pumping in excess of the individual Base Production Right. Class B Participants are not subject to Administrative Assessments, and until conversion to a Public Agency, not subject to reduction in Safe Yield. Class B Participants may sell or lease unused groundwater to the Watermaster or one of the Public Agencies, under terms and conditions approved by the Watermaster. Upon conversion of a Class B Participant's land from agricultural to a use that requires water service from a Public Agency, the Public Agency shall credit, to the extent legally permissible, the Class B Participant's Base Production Right, adjusted pursuant to certain reductions, against any requirement then in effect for any water supply assessment requirements, or against any fees associated with water supply that the Public Agency may then have in effect. The Public Agency serving the converted land shall receive a credit added to its Base Production Right as set forth in the Judgment. Class B Participants to the Plan have also agreed to participate in the groundwater monitoring and pumping accounting portion of the Plan, at no cost to the owner.

6.3 SOBOBA TRIBE WATER RIGHTS

Section 8 of this document provides a detailed description of the Soboba Indian Tribe water rights.

(This Page Left Blank Intentionally)

This Section provides a description of the surface water rights and licenses held by LHMWD and EMWD. The contents of this Section are provided for general information and documentation of the surface water rights only; such rights are not affected by the Stipulated Judgment or this Plan.

7.1 LHMWD'S DIVERSION RIGHTS

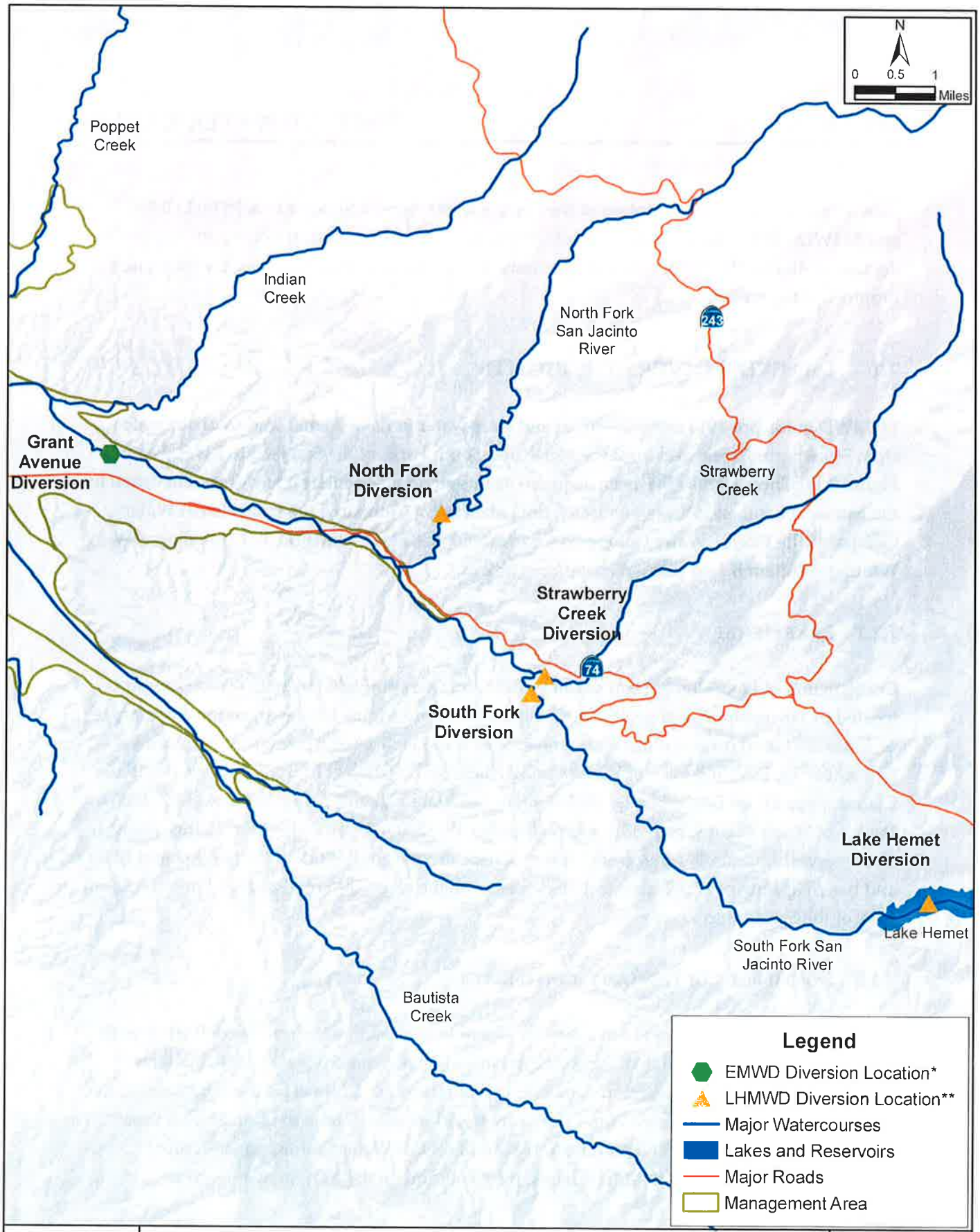
LHMWD holds pre-1914 rights to divert and store water in Lake Hemet, and to divert water from Strawberry Creek, and from the North and South Forks of the San Jacinto River (See Figure 7.1). These rights have been acquired as the successor-in-interest to rights established by the Fairview Land and Water Company, the Lake Hemet Company, the Lake Hemet Water Company, the Florida Water Company, Charles Thomas, H. M. Johnston, E. L. Mayberry, W. F. Whittier, William B. and Mary Webster, and others.

7.1.1 LAKE HEMET

Construction of Lake Hemet Dam began in 1889 and was completed in 1895. The reservoir is located in Township 6S, Range 3E, Sections 7 and 8. Water rights for the diversion and storage of water are based on actual use and upon at least these Notices of Appropriation filed on November 18, 1884 in Book 1 of Water Claims, page 38; on January 19, 1885 in Book 1 of Water Claims, page 47; on December 23, 1885 in Book 1 of Water Claims, page 115; on April 7, 1886 in Book 1 of Water Claims, page 134; and on October 18, 1890 in Book 2 of Water Claims, page 61. The reservoir impounds water from Hurkey Creek and the South Fork of the San Joaquin River, and has a capacity of 12,775 acre-feet. Releases from the reservoir are discharged into the South Fork of the San Jacinto River.

7.1.2 SOUTH FORK OF THE SAN JACINTO RIVER

This diversion site is located about a quarter of a mile upstream of the river's confluence with Strawberry Creek. A wooden diversion dam was originally constructed in 1888, but later replaced with a concrete diversion dam, taking water through a tunnel on the right bank of the stream into a 30-inch pipeline. Water rights are based on actual use and upon at least these Notices of Appropriation filed on June 6, 1885 in Book 1 of Water Claims, page 61; on August 11, 1886 in Book 1 of Water Claims, page 160; and on the Judgment entered



RIME

Location of Surface Water Diversions

Hemet / San Jacinto Water Management Plan

*Source: EMWD
**Source: LHMWD

October 2007

Figure 7.1

November 24, 1894 in the case of Florida Water Company v. Mary Webster, et al., No. 169, Riverside Superior Court.

7.1.3 North Fork of the San Jacinto River

This diversion site is now located on the North Fork of the San Jacinto River near the "Falls" in Section 17, T5S, R2E. The original facilities consisted of a small rock dam and a 10-inch sheet iron pipe constructed in about 1887. Current facilities, constructed in 1969-1970, consist of a concrete diversion dam, concrete intake and control structure, and 24-inch steel pipeline. Water rights are based on actual use and upon at least these Notices of Appropriation filed on September 14, 1886 in Book 1 of Water Claims, page 173; on May 19, 1897 in Book 1 of Water Claims, page 159; and on the Judgment described above.

7.1.4 Strawberry Creek

LHMWD's diversion site on Strawberry Creek is located in Section 28, T5S, R2E, about 1,300 feet upstream of its confluence with the South Fork of the San Jacinto River. Original construction of a concrete diversion dam and flume, carrying the water over the South Fork and into the main water line, occurred in about 1905. Current facilities consist of a concrete diversion dam, intake structure, and 28-inch pipeline. Water rights are based upon actual use and at least on these Notices of Appropriation filed on January 27, 1885 in Book 1 of Water Claims, page 49; on August 11, 1886 in Book 1 of Water Claims, page 160; and on deeds recorded July 24, 1885 in Book 51, page 145; on August 25, 1886 in Book 64, page 223; on February 21, 1887 in Book 73, page 235; on April 21, 1887 in Book 79, page 264; on April 27, 1887 in Book 79, page 266; and on the Judgment described above.

7.2 EMWD'S DIVERSION RIGHTS

EMWD holds a license to divert water from the San Jacinto River (see Appendix G). EMWD currently does not divert surface water for direct use, but recharges the water, when available, into the aquifer to augment groundwater supplies. Thus, the diversion is not directly part of EMWD's water supply. However, it plays an indirect role in groundwater resources. Information on these diversions is presented here.

EMWD's recharge of surface water from the San Jacinto River to the Canyon Management Zone takes place at EMWD's Grant Avenue Ponds in the Valle Vista area (See Figure 7.1). An application for a permit to appropriate water from the San Jacinto River and Indian Creek, Application 924, was filed on February 14, 1918 by the Citizens Water Company. Permit 468

was subsequently approved on August 15, 1918. On November 23, 1920, the filing was assigned to the FMWC as the successor-in-interest to the Citizens Water Company. Upon its 1971 acquisition of the FMWC, EMWD became the successor-in-interest to the filing.

Based on Application 924 and Permit 468, the State Water Resources Control Board issued License No. 10667 for the Diversion and Use of Water to EMWD on June 8, 1976. This license, still held by EMWD, allows for the diversion, underground storage by spreading, and subsequent extraction and beneficial use of 5,760 AFY of San Jacinto River water to be collected from November 1 of each year to June 30 of the succeeding year at a rate of 41 cfs. Additionally, the rate of diversion may be increased to a maximum of 100 cfs provided that the total quantity in any 30-day period does not exceed 2,442 AF.

SECTION 8 SOBOBA TRIBE SETTLEMENT REQUIREMENTS

8.1 ORIGINAL SOBOBA CLAIM

In 1995 the Soboba Tribe filed claims against EMWD and LHMWD for an alleged infringement of their water rights, and for damages in the sum of $70 million related to the alleged historical interference with the Tribe's rights and the unauthorized use of its water. EMWD and LHMWD denied any such interference or wrongful use of Tribal water, but agreed to negotiations to determine the water rights of the Tribe.

8.1.1 EARLY NEGOTIATIONS

Negotiations with the Tribe began in 1995 and in time involved the active participation of the United States.

8.1.2 UNITED STATES SETTLEMENT PROPOSAL

In 1998, the United States proposed a settlement whereby the Tribal Water Right would be determined to be 9,000 AFY, and the Federal government would provide a supply of 7,500AFY. Subsequently this proposal proved not to be feasible.

8.1.3 TRIBAL CLAIM AGAINST MWD

In 2000 the MWD was brought into the dispute when the Tribe filed suit against MWD in the U.S. District Court in Los Angeles, Case No. 00-04208 (GAF) (MANx) ("Los Angeles case"). The complaint alleged that the MWD tunnel drilled through Mt. San Jacinto in the 1930's had dried up springs on the Reservation and otherwise interfered with the Tribe's water supply.

8.1.4 MWD'S CROSS COMPLAINT

MWD brought EMWD into the Los Angeles action based upon an indemnity agreement signed by EMWD when the District was annexed to MWD, and in return for seepage water that continued to flow into the San Jacinto tunnel.

8.1.5 Final Negotiations

After lengthy negotiations among the Tribe, United States, EMWD, LHMWD and MWD, the parties reached an Agreement in 2004, subject to approval of Congress.

8.1.6 Status of Congressional Approval

The Agreement has not yet been approved by Congress, and it expires if such approval is not obtained by December 31, 2007.

8.2 FRAMEWORK OF THE SETTLEMENT AGREEMENT

The Agreement determines the water rights of the Tribe, and settles all claims among the parties, including those made in the Los Angeles case. The Agreement will be incorporated into a Stipulated Judgment in the Los Angeles case, and made subject to the continuing jurisdiction of the Court.

8.3 TRIBAL WATER RIGHT

Under the Agreement, the Tribe has a prior and paramount right, superior to all others, to pump 9,000 acre-feet annually from the Canyon Sub-basin and the Intake portion of the Upper Pressure Sub-basin for any use on the Reservation, and on lands now owned or hereafter acquired by the Tribe contiguous to the Reservation or within the above-mentioned Sub-basins. The Tribe's right is subject to an agreement to limit its pumping according to a yearly schedule, with a maximum of 4,100 AFY, for 50 years after the effective date of the Agreement.

8.4 PAYMENTS TO THE TRIBE

The United States agrees to pay $11 million to the Tribe, and EMWD and LHMWD are obligated to pay $17 million to the Tribe.

8.5 FUNDS RECEIVED BY THE LOCAL AGENCIES

The United States agrees to contribute to EMWD, on behalf of the participants in this Water Management Plan, the sum of $10 million for construction and operation of recharge facilities to accommodate deliveries of Imported Water.

8.6 IMPORTED WATER

MWD agrees to provide an average supply of 7,500 AFY of Imported Water to recharge the Canyon Management Zone and Intake portion of the Upper Pressure Management Zone, at untreated replenishment rates, until 2035, and to negotiate in good faith for an extension of the supply for a total of 50 years after the effective date of the Agreement.

8.6.1 MWD STORAGE RIGHT

The local agencies are obligated to provide groundwater recharge facilities to accommodate a flow rate of 42 cfs and to store up to 40,000 acre feet of Imported Water.

8.6.2 USE OF MWD SUPPLY

The supply of Imported Water provided by MWD is to supply water for the Tribe, and to reduce overdraft. Water not used by the Tribe is available for use by the participants in the Water Management Plan, pursuant to the terms hereof.

8.7 WATER QUALITY REQUIREMENTS

The Agreement provides that all water recharged shall conform to all applicable State water quality regulations and recharge in the Canyon Sub-basin and shall not exceed Federal or State primary or secondary drinking water quality standards (except for turbidity, color or coliform bacteria), nor 0.3 mg/l boron, or 0.05 mg/l lithium.

8.8 PROPERTY TRANSACTIONS

EMWD shall convey to the Tribe approximately 106 acres of land at Domenigoni Parkway and Highway 79. MWD shall convey to the Tribe approximately 21.7 acres of land. LHMWD shall make available for environmental mitigation purposes approximately 12 acres in the San Jacinto River bed. The Tribe shall make available up to 98 acres of land for habitat preservation and/or environmental mitigation in connection with the recharge facilities.

8.9 APPROVAL OF WATER MANAGEMENT PLAN

The Agreement provides that EMWD and LHMWD, with the cooperation of other groundwater producers, shall develop and implement a Water Management Plan for the Canyon

Management Zone and Intake portion of the Upper Pressure Management Zone that will address the current overdraft, and recognize and take into account the Tribal Water Right. This Plan is intended to meet such requirements of the Agreement, and is subject to the approval of the Soboba Tribe and the United States. No implementation or subsequent modification of this Plan shall threaten or adversely affect the rights of the Tribe under the Agreement, and the Tribe and the United States shall have the right under the continuing jurisdiction of the Court in the Los Angeles case to litigate any such issue.

9.1 PURPOSE

The purpose of the Watermaster is to implement the Water Management Plan (The Plan) as embodied in the Stipulated Judgment (JUDGMENT) in Eastern Municipal Water District v. Lake Hemet Municipal Water District, et al.; said implementation may be by Watermaster actions alone, actions undertaken through or in conjunction with one or more Public Agency Members or through a Joint Powers Authority (JPA) composed of some or all of its Public Agency Members.

9.2 WATERMASTER

9.2.1 COMPOSITION

The Watermaster Governing Board will consist of one (1) elected official representing each of the Public Agencies, namely, EMWD, LHMWD, and the Cities of Hemet and San Jacinto (collectively, Public Agencies), and one (1) representative selected by the Class A and Class B private groundwater producers (Private Water Producers).

9.2.2 TERMS OF OFFICE

Each member of the Watermaster shall serve until replaced by the Public Agency or Private Water Producers that made the original appointment.

9.2.3 REMOVAL AND REPLACEMENT

Any Watermaster member may be removed and replaced by the same procedure used in his or her appointment.

9.2.4 VOTING

Each member of the Watermaster shall have one (1) vote. All actions by the Watermaster shall require three (3) affirmative votes, except actions in the following matters that shall require four (4) affirmative votes:

- Any change sought in the form of governance;

- Any change in voting requirements;
- Establishing, levying, increasing or decreasing all assessment amounts;
- Determining the extent of overdraft and quantifying safe yield;
- Determining Adjusted Production Rights;
- Decisions regarding the financing of supplemental water or facilities, other than any financing provisions included in the Judgment;
- Decisions regarding ownership of facilities, other than ownership of the Phase I facilities (described in Section 3.2.2.1), which facilities shall be owned by EMWD, subject to a right of use by those parties participating in the financing thereof;
- Policies for the management of the Management Area;
- Any decision that involves a substantial commitment by the Watermaster, including any contracts for conserved water;
- Retaining the services of legal counsel or Advisor; and
- Adoption or amendment of an annual budget.

9.3 RULES AND REGULATIONS

The Watermaster may make such rules and regulations as may be necessary for the implementation of the Water Management Plan and Judgment, and for its own operations and procedures, subject to Court approval.

9.4 MEETINGS

The meetings of the Watermaster and standing committees will be subject to those provisions of the California Government Code known as the Brown Act (also popularly known as the Open Meeting Laws).

9.5 WATERMASTER ORGANIZATION

In carrying out its development and implementation responsibilities, the Watermaster may hire full-time or part-time personnel, such as managers, engineers, attorneys, hydrologists, geologists, accountants, operators, secretaries, clerical or others; may retain outside consultants on a full-time, part-time, or as-needed basis; and may contract with other agencies to perform some or all of the development and implementation tasks.

The Watermaster shall retain the services of an independent attorney or law firm to act as the Watermaster's legal counsel.

The Watermaster shall retain the services of a qualified independent individual or engineering firm with appropriate experience in hydrology to serve as Advisor to the Watermaster. The Advisor shall assist the Watermaster in the performance of the Watermaster's responsibilities as follows:

- Provide advice to the Watermaster on all matters within the authority and jurisdiction of the Watermaster;
- Provide recommendations for action to the Watermaster on all matters within the authority and jurisdiction of the Watermaster;
- Evaluate proposals for projects and/or recommendations for action received from members of the Watermaster regarding matters within the authority and jurisdiction of the Watermaster;
- Propose and/or evaluate contracts and other agreements to be entered into by the Watermaster necessary to the performance of its responsibilities;
- To administer all contracts and agreements entered into by the Watermaster;
- Assist the Watermaster in evaluating and analyzing data, the collection of which is required under the Judgment and/or Water Management Plan;
- Coordinate the evaluation and analyses of data, proposals, projects, and recommendations by the TC with members of the Watermaster and other consultants of the Watermaster;
- Serve as the Chairman of the TC; and
- Perform such other services, and take such actions, as may be approved by the Watermaster, that are necessary to implement and execute the directions and policies of the Watermaster.

The Watermaster retains the authority to assign or contract the performance of any task or function necessary to consider or perform any matter within the authority and jurisdiction of the Watermaster to any member of the Watermaster, the TC, or any other independent engineering firm or qualified individual. Such assignment or contract shall be coordinated and administered by the Advisor.

As used herein, the term independent means that the Consultant's or Advisor's representation of the Watermaster does not create any actual or potential conflict of interest between the Consultant or Advisor and any other member entity under applicable California statute, regulation, or court decision, or under the common law. Nothing in this definition shall prohibit the Watermaster and affected entity, after appropriate vote, from waiving such conflict in writing.

9.6 GENERAL DUTIES

The general duties of the Watermaster in order to implement the Judgment fall into three categories, as follows:

9.6.1 POLICY

The Watermaster is responsible for the administration of the Judgment and for the development of policies necessary to carry out the implementation of the Water Management Plan, and for additions and modifications thereof.

9.6.2 WATER MANAGEMENT PLAN IMPLEMENTATION

The Watermaster shall implement a water management plan; its responsibilities in that regard include the following:

- Calculating and making determinations regarding the following: (i) safe yield of the Management Area; (ii) each member's share of safe yield; (iii) necessary reductions in each member's Base Production Right to ensure production ultimately equals safe yield; (iv) unused storage capacity which may be used for put and take operations of recycled or imported water; and (v) whether replenishment of exported water is accomplished with an appropriate amount of similar or better quality water.
- Approving projects to be undertaken by the Watermaster in collaboration with member entities as proposed by members of the Watermaster or by the Advisor.
- Providing for the recharge of the Management Area. This includes: (i) implementing a replenishment program for the Management Area; (ii) acquisition of supplemental water supplies (imported, recycled, and Soboba Tribe water); and (iii) providing for the construction and operation of all necessary facilities (including surface and sub-surface percolation and injection facilities).
- Determining the amount of, and levying, billing, and collecting the administrative and replenishment assessments.
- Budgeting and appropriating funds collected by or on behalf of the Watermaster and paying, or authorizing the payment of, costs and expenses of the Watermaster consistent with the Judgment and Water Management Plan.
- Initiating and performing such planning and study activities as may be necessary to implement the Judgment and Water Management Plan, including, but not limited to, preparation of a Watermaster's Annual Report.

- Initiating necessary conservation and drought management measures, and developing water conservation agreements with the Private Water Producers and/or Soboba Tribe for local conservation measures.
- Identifying and participating in the in-lieu replenishment projects.
- Performing all other tasks and taking all other actions as may be necessary to carry out the purpose and intent of the Judgment and the Plan.

9.6.3 TECHNICAL OVERSIGHT

9.6.3.1 Technical Committee Composition

The Stipulated Judgment provides for the operation of a TC, consisting of representatives named in a written designation by EMWD, LHMWD, the Cities of Hemet and San Jacinto, and the Private Water Producers (as one entity). The representative(s) of an entity may be changed by that entity by written notice of the change to the Watermaster.

9.6.3.2 Technical Committee Purpose

The TC will provide such technical assistance as the Watermaster may request and should make recommendations to the Advisor and to the Watermaster on all matters requiring four votes for Watermaster action as outlined in the Voting section above, and on such other matters as requested by the Watermaster. The TC members shall also keep their respective City Councils and Boards of Directors of the Public Agency parties and the Private Water Producers fully informed about the implementation of the Plan.

9.6.3.3 Technical Committee Chairperson

The Advisor will act as the TC's Chairperson and fulfill all the necessary administrative functions required on behalf of the TC.

9.6.3.4 Technical Committee Costs

Costs incurred by individual TC members are the responsibility of the entity appointing that member, and Watermaster funds cannot be used to cover the costs and expenses incurred as a result of the TC activities and functions.

9.7 WATERMASTER INTERACTION WITH EMWD

9.7.1 CONTRACT FOR SERVICES

The Watermaster will contract with EMWD to provide the following services:

- Collection and maintenance of all production, water level, water quality, and other technical data necessary under or required by the Water Management Plan and the transmittal of such data to the Watermaster, its Advisor, and the TC as directed by the Watermaster; the foregoing shall not restrict the Watermaster from entering into other agreements with other members of the Watermaster and/or private firms and individuals for the collection of data.
- Obtaining imported water from MWD or other sources as requested by the Watermaster for replenishment or direct delivery; the foregoing shall not restrict the Watermaster's ability to enter into other agreements with other members of the Watermaster and/or private firms and individuals for the purchase and delivery of imported and/or supplemental water.
- Construct and operate the Phase I facilities (existing EMWD facilities, expansions thereof, and newly constructed facilities) in a manner consistent with the Water Management Plan.
- Perform the accounting functions necessary under the Judgment, i.e., the levy, billing, and collection of all assessments provided for under the Judgment; the payment of costs and expenses of the Watermaster; and related and required accounting and related functions. All funds collected shall be held in a segregated account. All expenses and disbursements shall be separately accounted for. The foregoing shall not restrict the Watermaster from entering into other agreements with other members of the Watermaster and/or private firms and individuals to perform some or all of the accounting functions.

9.7.2 FINANCIAL RESPONSIBILITIES

EMWD will establish restricted accounts and hold all funds collected on behalf of the Watermaster separate from other EMWD funds. All expenditures, encumbrances, and use of funds from these accounts are subject to Watermaster authorization and will be limited to activities related to the Plan. EMWD will transmit periodic reports regarding its financial activities to the Advisor, including annual reporting summarizing the preceding fiscal year financial activities for the approval of the Advisor and the Watermaster.

10.1 ANNUAL BUDGET

The Advisor shall prepare an Annual Budget for review, approval, and adoption by the Watermaster. This Budget shall identify each Public Agency member's financial obligations and assessments and a description of budgeted expenditures, including:

- Replenishment water purchase;
- Operation and maintenance;
- Data collection and evaluation;
- Plan implementation administration;
- Project planning and reporting;
- Billing and assessment collection;
- Capital facilities financial obligations; and
- Preparation of an Annual Audit.

10.2 OWNERSHIP OF FACILITIES

Each Public Agency will continue to own its existing capital facilities for water management. However, in some situations, it may be necessary and/or convenient to form a JPA to finance and build specific capital facilities. Responsibility for the cost of any existing and future capital facilities of the Management Plan should be apportioned among the Public Agencies based on relative benefit to be derived by each Public Agency.

10.2.1 EXISTING FACILITIES

The existing groundwater recharge facilities in the Management Area are owned by EMWD. The Phase I project which is an upgrade of the existing recharge facilities is defined in Section 3.2.2 of this document, and EMWD will own these upgraded facilities. However, the use of the upgraded facilities and the benefits of the low-cost MWD water deliveries through this system will be shared by all agencies based on the level of construction funding contributions for the Phase I facilities and level of participation in the Soboba Settlement financing.

10.2.2 Future Projects

Any of the participating Public Agencies may propose water supply projects to the Watermaster for inclusion in the Plan. Such proposals, after evaluation by the Advisor and the TC, shall be presented to the Watermaster for approval or rejection. If the Watermaster chooses to reject the proposal, the proposing Public Agency may implement the rejected project as long as it does not significantly impact the implementation of the Plan and/or interfere with ongoing groundwater production by the Public Agencies.

10.2.3 Use of Member Agency Assets

It is the intent of the Member Agencies that their respective facilities shall be used in a manner that facilitates the implementation of the Plan, on terms that are equitable to all parties and consistent with each agency's obligations to its customer base.

10.3 ASSESSMENTS

Public agencies participating in the Plan are subject to two different assessments:

- Administrative Assessment; and
- Replenishment Assessment.

The purpose and use of these assessment funds are described in the following two sections:

10.3.1 Administrative Assessments

Administrative Assessments will be levied on each acre-foot pumped by each Public Agency up to the agency's Adjusted Production Right. These assessments can be used to pay costs associated with:

- Advisor's activities and his/her administrative expenses;
- Billing and assessment collection costs;
- Data collection and evaluation projects;
- Plan implementation administration, including monitoring plan, and associated salaries and overhead; and
- Project planning and reporting expenses.

Initially, the Administrative Assessment shall be Fifty Dollars ($50.00) per AF, subject to adjustment by the Watermaster.

At the discretion of the Watermaster, any excess funds not used for the above expenditures at the end of the fiscal year can be used to purchase, deliver, and recharge the groundwater within the Management Area. These recharge waters are above and beyond groundwater replenishment waters purchased using the replenishment assessments, and should not be credited to individual Public Agencies as part of their required replenishment obligations. This shall not prohibit the development of a program or plan to provide credits for water purchased above and beyond that needed to satisfy a party's replenishment obligation.

Subject to the Watermaster's approval, funds may also be used to acquire and deliver water for direct use in lieu of pumping.

10.3.2 Replenishment Assessments

Replenishment Assessments will be levied on each acre-foot of water pumped in excess of each Public Agency's or Class B Participant's Adjusted Production Right. Replenishment Assessments will be in amounts equal to the cost of importing or acquiring supplemental water to recharge the Management Area. The component costs will include the cost of the water (including conveyance, transportation and energy costs, operations and maintenance costs, a reserve for replacement and other administrative costs). These assessments will be levied on a per AF of water in excess of each respective member's adjusted Base Production Right. The revenue received for the replacement component shall be placed in a separate reserve fund to be used to fund the replacement cost of the existing system. New and/or expanded facilities will be financed from other resources.

10.3.3 Collections and Accounts

All the collected assessments and accounts associated with the Plan will be administered by the EMWD and are subject to the policies set by the Watermaster. All payments made to the Watermaster shall be maintained in a separate restricted account established by EMWD, and all accounts shall be subject to annual independent financial audits.

All revenues and assessments shall be used exclusively to acquire supplemental water for the recharge of the management Area and for the facilities and operational and administrative expenses associated with the Plan.

10.4 PHASE I FACILITIES CONSTRUCTION AND SOBOBA SETTLEMENT FINANCING

10.4.1 EMWD CONSTRUCTION COST

The initial facilities, Phase I, shall consist of existing EMWD facilities and expansion and additions to be constructed by EMWD at a cost currently estimated at $16.12 million less public grants totaling $5.0 million, for a net cost of $11.12 million. EMWD shall finance the construction of these facilities through a bond issue or cash payment or by combination thereof. Each Public Agency shall be responsible for pro-rata repayment of the bonds through EMWD or reimbursement to EMWD (to the extent EMWD pays cash for said construction) based on that Agency's Base Production Right allocation percentage, i.e., 34.2% for LHMWD, 33.7% for EMWD, 19.6% for the City of Hemet, and 12.5% for the City of San Jacinto.

10.4.2 PAYMENTS TO SOBOBA TRIBE

In addition to the financing of the construction of Phase I facilities referred to in Section 10.4.1 above, the Soboba Settlement requires the payment of an additional $17 million to the Soboba Tribe in return for the right to use low cost MWD water delivered for the benefit of the Tribe but which the Tribe does not use and other unused Tribal water. The $17 million will be financed in the same manner as the construction of the initial Phase I facilities, i.e., by bond issue or cash payment by EMWD or a combination thereof. The $17 million obligation will be partially offset by a $10 million contribution by the United States toward the costs of constructing the Phase I facilities. Each Public Agency shall be responsible for pro-rata repayment of the bonds through EMWD or reimbursement to EMWD (for cash payment) based on that Agency's Base Production Right allocation percentage, as set out in Subparagraph (a) above.

10.4.2.1 Water Cost

The payment described above to the Soboba Tribe for the right to use low-cost MWD water delivered for the benefit of the Tribe but not used by the Tribe does not include the price of the water itself, which must be paid to MWD. Each Public Agency shall contractually agree with EMWD to pay its share of MWD's price for such water that it acquires for use to EMWD to enable EMWD to pay MWD.

10.4.3 EMWD Obligation

Agreements between EMWD and each other Public Agency setting forth that Agency's financial commitment as required under Sections 10.4.1 and 10.4.2 (*citation*) above will be required as a condition precedent to EMWD's obligation to finance the facilities construction and the payment to the Tribe so as to establish a dedicated source of revenue for bond repayment or reimbursement, as appropriate. Said agreements shall also provide that, in return for said financial commitment, the Public Agency shall be entitled to: (1) share in the capacity of the Phase I facilities (those in existence and those to be constructed) and (2) share in the rights to the MWD water not used by the Tribe and other unused Tribal water, in each case based on the Agency's Base Production Right allocation percentage, as set out in Subparagraph (a) above. Each agreement with EMWD shall provide for the Agency's method of pro-rata repayment of bonds or reimbursement to EMWD, provided, however, that no Agency will be required to do so by cash payment without its consent.

10.4.4 Right to Transfer Entitlement to Use Facilities and/or Entitlement to Share in Rights to Water Not Used by Tribe

Each Public Agency shall have the right to sell, lease or otherwise transfer the rights and obligations it holds to use the Phase I facilities described in Section 10.4.1 above and/or to share in the rights to the MWD water not used by the Tribe or other water not used by the Tribe described in Sections 10.4.2 and 10.4.3 above, provided that the transferee thereof shall be bound by said obligations. The foregoing notwithstanding, the Watermaster shall have the right of first refusal regarding any such transfer proposed by a Public Agency.

10.5 FUTURE CAPITAL FACILITIES

Future facilities may be required to meet the growth needs of the Management Area, which may require that a JPA or other financing conduit be formed. In either case, each Public Agency's contribution toward the cost of acquiring the added facilities shall be established by the Watermaster at the time such facilities will be needed. The use of such facilities shall be at the discretion of the Watermaster and be dedicated to replenishment activities. The foregoing shall not affect the right of a Public Agency to undertake a water supply project pursuant to Section 10.4.2 above.

(This Page Left Blank Intentionally)

The five-member Watermaster Governing Board (Watermaster) will be composed of one elected official each from the City of Hemet, City of San Jacinto, LHMWD, and EMWD (Public Agencies) and one representative elected by the private groundwater producers (Private Water Producers). Each member of the Watermaster will have one vote and will serve until replaced by the entity (Public Agencies or the Private Water Producers) making the original appointment.

The Watermaster is responsible for administering and enforcing the provisions of the Stipulated Judgment and any subsequent instructions or orders of the Court. The implementation of the Management Plan, along with any additions or modifications as may from time to time be appropriate, and all financial matters relating to Management Plan Activities are the responsibility of the Watermaster.

This section describes how the Watermaster is expected to implement different elements of the Physical Solution outlined in the Stipulated Judgment. Information provided in this section should be used for planning purposes and is not intended to set or change any conditions imposed by the Stipulated Judgment. The timelines provided in this section should be used as guidelines and are not meant to imply any obligation to be met by the Watermaster. The Watermaster is expected to use the information provided in this section during the early years after its formation and refine, revise, or redefine the information, as it deems appropriate.

11.1 ORGANIZATION

The Watermaster will receive assistance and support from legal counsel, an Advisor, a Technical Committee (TC), and Eastern Municipal Water District (EMWD). The duties and responsibilities of each entity are outlined in subsequent sections. Figure 11.1 demonstrates the relationships between the Watermaster and its supporting entities.

Within one month of the Stipulated Judgment approval, the Private Pumpers identified as Class A and B participants are expected to develop a procedure for electing their representative. The elected officials from the Agencies and the Private Pumpers serving as the Watermaster should be identified within the first two months of Stipulated Judgment approval, and the Watermaster should conduct its first meeting at a mutually acceptable location within one month after that.

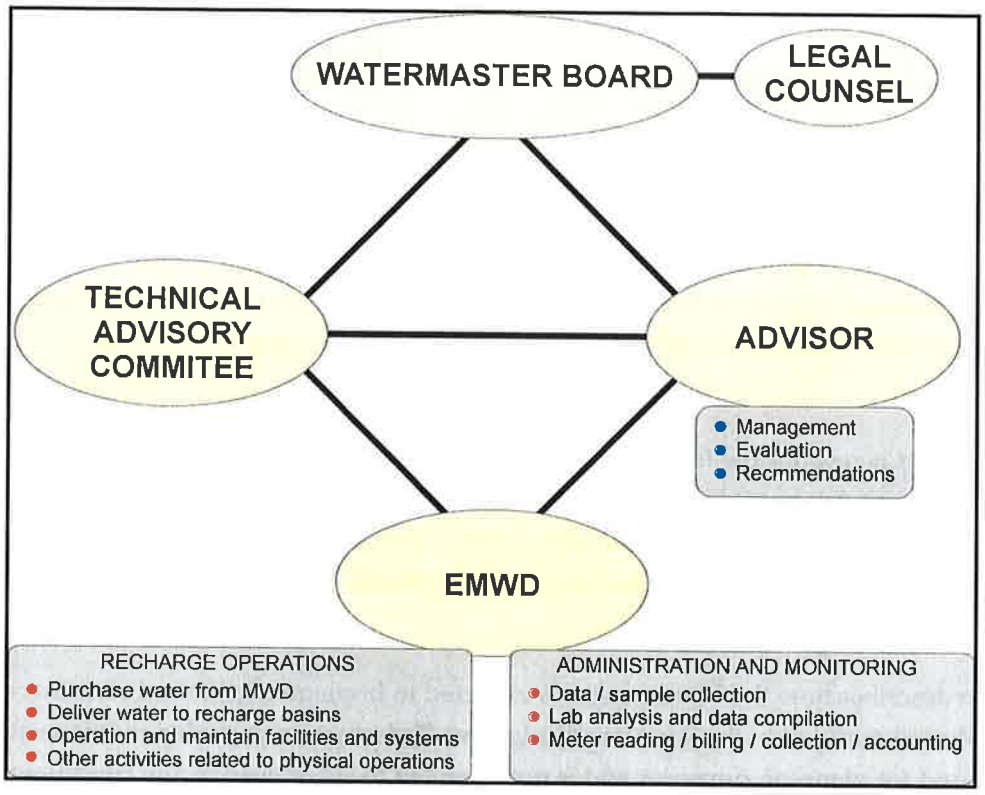


Figure 11.1 Relationships between Entities

Within three months of the Watermaster's first meeting, the Watermaster will retain the services of an independent attorney or legal firm (Legal Counsel) to provide assistance with legal matters and to provide ongoing advice and recommendations in legal areas appropriate to the Watermaster carrying out its duties

Also within three months of the Watermaster's first meeting, the Watermaster will contract with either an independent engineering firm or a qualified individual (Advisor) experienced in hydrology to evaluate and analyze the data collected by EMWD and any conclusions based on that data, and to make recommendations to the Watermaster. The Advisor will provide general coordination between the Watermaster, the Technical Committee, and EMWD with respect to their respective functions, and will also perform such executive functions as the Watermaster may direct. The Watermaster may refer any matter it chooses to any person it may select for assistance in carrying out its duties under the Judgment.

The TC will consist of managerial and technical representatives of the Agencies and Private Water Producers. The Advisor will serve as the TC chairman. The TC will provide technical assistance at the request of the Watermaster. The TC will make recommendations to the Advisor and to the Watermaster on all matters requiring four votes for Watermaster action, which are:

- Any change in the form of governance;
- Any change in voting requirements;
- Retaining the services of legal counsel and Advisor;
- Establishing, levying, increasing or decreasing all assessment amounts;
- Adopting or amending the annual budget;
- Determining the extent of overdraft and quantifying safe yield;
- Determining Adjusted Production Rights;
- Decisions regarding the financing of Supplemental Water or facilities;
- Decisions regarding ownership of facilities, other than ownership of the Phase I facilities, which will be owned by EMWD, subject to a right of use by those parties participating in the Phase I financing;
- Management policies for the Management Area; and
- Any decision that involves a substantial commitment by the Watermaster, including any contracts for conserved water.

In addition, the TC will receive all Monitoring Program and associated data from EMWD for review and evaluation. The TC members are anticipated to keep the City Councils, Agency Boards of Directors, and participating Private Pumpers informed about the Watermaster activities and the Water Management Plan's status.

Within six months of Stipulated Judgment approval, the Watermaster will prepare and adopt Rules and Regulations for its own operation as well as for the operation of the Water Management Plan and Judgment. A dispute resolution process will be included in the Rules and Regulations.

11.2 MONITORING PROGRAM IMPLEMENTATION

The Monitoring Program was initiated with the execution of the September 2003 *Agreement to Develop a Groundwater Monitoring Program in the Hemet/San Jacinto Management Area* between the Cities of Hemet and San Jacinto, EMWD, and LHMWD. Its purpose was to measure and monitor groundwater levels to assist in the accurate evaluation of conditions of overdraft and the evaluation of the operational safe yield in the Management Area. In addition to water levels, the program included water quality and production monitoring. The agreement for 2005 added surface water monitoring of San Jacinto River flows in conjunction with the U.S. Geological Survey. Funded equitably among the agencies, the Monitoring Program has been managed by EMWD. The monitoring locations currently are sampled annually for quality and are measured semi-annual for water levels. The locations are presented in Figure 11.2. These

locations may be updated based on the recommendations in the annual monitoring program as discussed later in this Section.

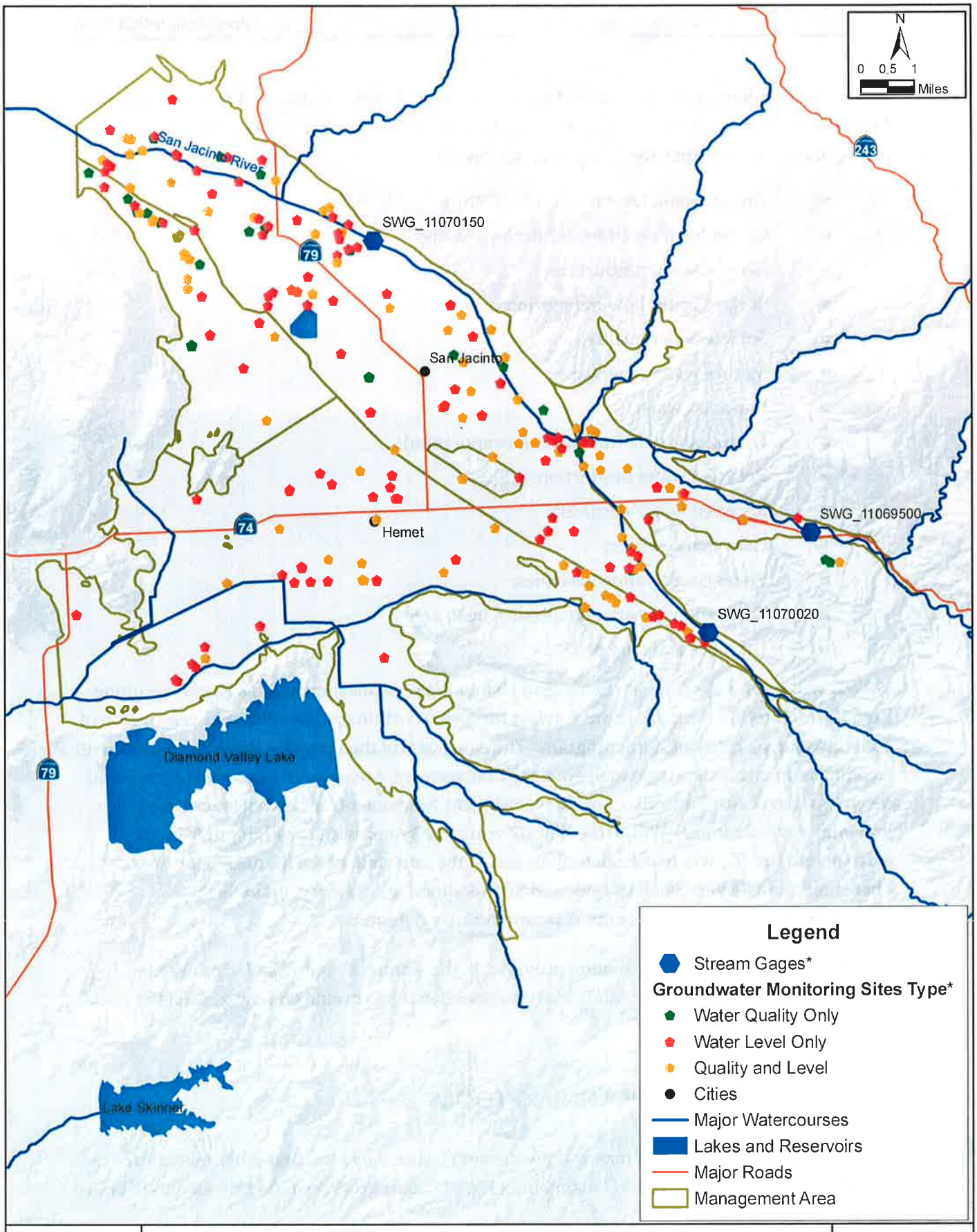
To protect groundwater supplies, an Inactive Well Capping/Sealing Program is included in the Monitoring Programs. Under this program, an inactive well or open casing will be capped/sealed at no charge to the well owner. These wells may still be used for water level and, in some cases, water quality monitoring. Priority is given to those wells that are potentially dangerous open holes (16-18" casings) or those located in areas where flooding resulting from precipitation might carry manure, fertilizers, or other contaminants into the well.

Any Agency or well owner can provide the Watermaster or Monitoring Program personnel with the location of an unused well or open casing for consideration for the Inactive Well Capping/Sealing Program.

Under a contract with the Watermaster, EMWD will lead the Monitoring Program effort. Prior to January 1st of any given year, EMWD staff will present a proposed Monitoring Program to the Advisor. The program is anticipated to include:

1. Estimated number of wells to be monitored for groundwater levels;
2. Estimated number of wells to be sampled for water quality;
3. Number of meters to be read monthly or installed or repaired;
4. Estimated number of inactive wells to be capped;
5. Any changes or variation from the previous year's activities; and
6. Estimated budget to include cost for the field activities and development of the annual report.

The Advisor will review, revise, approve or reject the proposed monitoring program and initiate the annual monitoring program before the end of January of each year. The annual Monitoring Program budget must be approved by the Watermaster before the end of February of each year. The Monitoring Program is run on a calendar year basis and each annual report and associated budget will reflect such a calendar year time period.



RIME

Stream Gages and Groundwater Monitoring Sites

Hemet / San Jacinto Water Management Plan

*Source: EMWD

October 2007

Figure 11.2

Data to be considered for collection and inclusion in the Hemet/San Jacinto Water Management Area Annual Reports to assess the status of the basins and to monitor the responses for future management activities may include, but is not limited to:

- Groundwater level monitoring results;
- Groundwater quality monitoring results;
- Groundwater production;
- Surface water flow monitoring results;
- Surface water quality;
- Surface water diversions;
- Imported water;
- Hydrologic data (rainfall and evaporation);
- Recycled water production;
- Recycled water sales/use;
- Conveyance water;
- Water conservation measures;
- Population growth and development; and
- Land use and crop mix.

EMWD will submit the Annual Hemet/San Jacinto Water Management Area Report resulting from the Monitoring Program to the Advisor for review within four months after completion of each calendar year's monitoring program. The Advisor will then provide the Watermaster with recommendations on how best to operate the Management Area as well as provide a proposed determination of Administrative and Replenishment Assessments for each agency based on previous year's activities. Within the first six years, the Watermaster, with input from its Advisor and the TC, will make a determination of the safe yield of the Management Area. Thereafter, the safe yield shall be reviewed and modified, if necessary, upon the recommendation of the TC or as the Watermaster may determine.

The Watermaster will use information provided in the Annual Hemet/San Jacinto Water Management Area Report and Advisor's recommendations to decide on how to meet the goals for the upcoming year(s).

11.3 MANAGEMENT PLANNING TOOLS

In the future, the Watermaster may want to develop or use databases and other numerical models as planning tools. EMWD maintains a RWRD. Data from the Groundwater and Surface

Water Monitoring Programs, as well as other water and groundwater-related data, are stored in this database. These data form the basis of the Hemet/San Jacinto Water Management Area Annual Reports and can be made available to the Advisor.

EMWD's groundwater flow/transport numerical model can also be made available to assist the Advisor and the Watermaster in evaluating different water resources management alternatives for future projects, for planning purposes, for analysis as in the Regional Water Quality Control Board permitting process, and for determining safe yield. The model is capable of calculating the water budget, exhibiting trends, evaluating regulatory constraints, and can be used as a planning tool. It is recommended that the model be updated every three to five years at the discretion of the Watermaster.

To use EMWD's RWRD and groundwater flow/transport numerical model, the Watermaster is anticipated to enter into a contract with EMWD to cover the Watermaster related cost of software upgrades, necessary hardware, and resources required for maintenance of these tools.

11.4 FINANCIAL ADMINISTRATION

The Watermaster is responsible for the levying, billing, and collection of all assessments provided for under the Judgment, for the payment of all costs and expenses of the Watermaster, and for the performance of accounting and related functions required in connection with performing the Watermaster's duties. The Agencies' groundwater production will be subject to Administrative and Replenishment Assessments. Class B participants are only subject to Replenishment Assessments.

The Watermaster will determine the amount of the Administrative Assessments. For the first year of implementation these assessments are set at $50 per acre-foot. The amount of the Replenishment Assessments will equal the cost of providing a like quantity of supplemental water to recharge the Management Area. The cost of providing a like quantity of water will include the costs of water, operations and maintenance costs of the replenishment system; capital recovery, and other administrative costs as defined in the Stipulated Judgment. An Administrative Assessment will be levied on each acre foot pumped by an Agency up to its adjusted base production right excluding any adjustments as outlined in the Stipulated Judgment.

In order to obtain operating funds for the Watermaster, the Agencies will advance payment of their share of the Administrative Assessments. These payments are anticipated to be paid within the first quarter of each year. Replenishment Assessments due will be determined on the basis of production during the prior calendar year, and are expected to be paid within the first

quarter of the year following the prior calendar year's production. Replenishment Assessments will be collected prior to actual recharge by the Watermaster.

In addition, the Agencies will be required to make payments as required under other obligations with EMWD, such as, Phase 1 Facilities and Construction Cost and Use, and delivery and use of recycled water agreements.

Starting with the second year, the Watermaster's invoices should reflect the balance of the Administrative and Replenishment Assessment payments from the previous year as a credit or debit on the invoices.

Within three months of Stipulated Judgment approval, the Watermaster is anticipated to contract with EMWD to perform the Watermaster's accounting functions including billing, collection, and accounting. EMWD will maintain a restricted account for such activities as the operation of the Monitoring Programs and purchase of replenishment water. In addition, EMWD will invoice the Watermaster for its share of imported water costs. EMWD's restricted accounts will be included in the Watermaster's year-end audits to be conducted in accordance with accepted accounting principles.

Funding for the monitoring program, development and use of the management planning tools, and the financial management of the accounts are anticipated to come from Administrative Assessments.

All funds collected by EMWD must be held in a segregated account and all expenses and disbursements must be separately accounted for.

11.5 STIPULATED JUDGMENT ADMINISTRATION

The Watermaster shall prepare, file with the Court, and distribute to relevant parties a Watermaster Annual Report including a summary of all activities during the preceding calendar year, an audited statement of all accounts and financial activities of the Watermaster, and a summary of extractions and replenishments as well as all other pertinent information. The Watermaster will provide the Court updated estimates of the groundwater budget, safe yield, and overdraft as required.

During the development of the Water Management Plan, a number of Agreements and MOUs were initiated among and between the Agencies. Within three months of the Stipulated Judgment approval, the Watermaster will review and re-issue the Agreements and MOUs in the name of the Watermaster if necessary and appropriate. The current MOUs are presented in Appendix H.

Upon Settlement Agreement implementation, the Watermaster will recognize the Tribal Water Rights, as set forth in the Stipulated Judgment and the applicable provisions of the Soboba Tribe Settlement Agreement.

11.6 FACILITIES AND PROJECTS

Each Agency shall continue to own its existing capital facilities for water management. However, capital facilities may be jointly constructed and owned by the Management Plan. Joint financing of such facilities may be funded by regional capital fees, loans and grants, municipal bonds, and contributions for storage by The Metropolitan Water District of Southern California or other third parties. Responsibility for the costs of any existing and future capital facility of the Management Plan should be apportioned among the Agencies based on the relative benefit to be derived by each Agency. Any Agency may propose a project to be included in the Management Plan to increase Management Area water supply. Such proposals, after evaluation by the Watermaster, shall be included or rejected. If the Watermaster chooses to reject a proposal, the proposing Agency may implement the rejected project as long as it does not significantly impact the implementation of the Management Plan and/or interfere with the ongoing production by the Agencies. The maintenance and upgrading of facilities currently owned by any Agency, and used to further the goals of the Management Plan, will be considered by the Watermaster for funding.

The Agencies have been evaluating and developing a number of programs to mitigate overdraft. The stakeholders agreed that the primary project, the core of the Physical Solution, is the IRRP. This project involves the artificial recharge of imported water into the basin along the San Jacinto River. An agreement that documents the ownership, financing, and operation of the facilities for Phase I of the IRRP is anticipated to be executed after completion of the California Environmental Quality Act (CEQA) process.

The Recycled Water In-Lieu Program identifies large agricultural pumpers in the Management Area that can use recycled water as their source of supply instead of producing groundwater. Providing recycled water to these producers will reduce the stress on groundwater resources and will reduce the community's long-term need for imported replenishment water.

The Watermaster, with assistance from the Advisor, TC, and EMWD, will develop recycled water strategies. The operational feasibility of these strategies will be assessed and determined by the Advisor and EMWD. The Advisor will recommend economically feasible projects to the Watermaster for implementation. It is anticipated that EMWD, as the sole recycled water provider in the Management Area will, own, operate and administer facilities required for these projects.

11.7 SPECIAL PROJECTS AND STUDIES

It will be necessary to conduct technical or other investigations such as hydrogeologic investigations, GIS analyses, field investigations, numerical modeling, or feasibility studies. The Watermaster may act individually or participate with other entities to conduct such investigations or to collect data necessary to accomplish the main goals of the Management Plan. In addition, any Agency may propose investigations or studies that are appropriate to the goals of the Management Plan. Such proposals, after review by the Advisor and evaluation by the Watermaster, shall either be accepted or rejected. If the Watermaster rejects a study, the proposing Agency may still implement the investigation or study so long as it does not significantly impact the implementation of the Management Plan or interfere with the ongoing activities by the Agencies.

11.8 CONSERVATION PROGRAMS

Each agency maintains its own individual Conservation Program. Additional conservation measures can be designed and implemented using Best Management Practices by the agencies and/or implemented by the agricultural producers and dairy water users. The Watermaster has the discretion to expand its involvement in local conservation programs and if appropriate, lead any collaborative conservation program amongst the agencies.

11.9 WELL CONSTRUCTION, ABANDONMENT, AND DESTRUCTION

Riverside County regulates the construction, reconstruction, abandonment, and destruction of community water supply wells, individual domestic wells, and agricultural wells. Through the offices of the Department of Environmental Health, the County is responsible for issuing permits for well drilling or abandonment.

Section 10 of the Ordinance No. 682.3 states, *"Standards for the construction, reconstruction, abandonment, or destruction of wells shall be the standards recommended in the Bulletins of the California Department of Water Resources as follows: Bulletin NO 74-81 Chapter II Water Wells, and Bulletin NO 74-90 (Supplement to Bulletin 74-81) and as these Bulletins may be amended by the State of California from time to time."*

To oversee management of the groundwater resources in the area, the Watermaster is expected to coordinate with the County of Riverside, and track new developments in the area. This will help the Watermaster to identify critical groundwater monitoring wells that are located in areas to be developed. A plan for proper abandonment and/or destruction, and replacement of the well as a monitoring well, if appropriate, will then be set in motion.

If the well is critical in providing data for the Management Area Monitoring Program, the Watermaster will work with the appropriate jurisdictional agency and the well owner to save the well for monitoring or to replace it with a new monitoring well in an area adjacent to a retention basin, park, green belt, or other community area in the vicinity of the original well location.

The Advisor, with the concurrence of the Watermaster, will arrange meetings with the Agencies to discuss and review future construction of any facilities that may be of value or interest to the Management Plan area. The Watermaster will work with the project proponent with regard to enhancing and or modifying the facilities to maximize the benefit to the Management Plan effort.

11.10 PUBLIC PARTICIPATION

The process by which interested and affected individuals, organizations, agencies and government entities are consulted and included in decision making, has been the driving force in the development of the Water Management Plan. Stakeholders in the Hemet/San Jacinto basins have recognized for several years that their groundwater basins are in a state of overdraft. The Soboba Water rights Proposal presented in February of 1995 provided the impetus for the examination of the overdraft problem. The topic of discussion of a public meeting held on December 13, 2000 was the state of the Hemet/San Jacinto groundwater basins.

EMWD sponsored community discussions in early 2001 entitled: "Groundwater Management: Avoiding Political Pitfalls", "State of the Hemet/San Jacinto Basins", and "Cooperate to Self-govern". The Principles for Water Management were drafted as the basis for a starting point to develop solutions, both for the Soboba proposal and for the overdrafted basin. The Principles were circulated to the general public in February 2001.

In June, 2001, EMWD, LHMWD, City of Hemet and City of San Jacinto signed a conjunctive management Memorandum of Understanding (MOU) with DWR. Two committees were organized to work cooperatively to address the issues. The policy committee, comprised of elected officials and staff members of the four agencies, plus local private pumpers, and a technical advisory committee with representatives from the four agencies, the private pumpers and a neutral consultant provide by DWR. The policy committee meetings are open to the public and are frequently attended by agricultural pumpers, local business owners, local residents, and tribal members, attorneys and technical consultants of the Soboba Band of Luiseño Indians.

Water Outreach Public Information Programs hosted by EMWD have been held at a local restaurant in Hemet in October 2001 and August 2002 to discuss the progress of the Groundwater and Technical Committees in the development of a Water Management Plan.

The Watermaster will continue this process of public involvement and community outreach during Management Plan implementation. Meetings of the Watermaster will be public meetings and will, therefore, be subject to the Brown Act.

11.11 GROUNDWATER MANAGEMENT PLAN COMPONENTS AND CONSISTENCY WITH THE CALIFORNIA WATER CODE

Groundwater management is the planned and coordinated local effort of sustaining the groundwater basin to meet future water supply needs. With the passage of AB 3030 in 1992, local water agencies were provided a systematic way of formulating groundwater management plans (California Water Code, Sections 10750 et seq.). AB 3030 also encourages coordination between local entities through joint-power authorities or MOUs. SB 1938, passed in 2002, further emphasized the need for groundwater management in California. SB 1938 requires AB 3030 groundwater management plans to contain specific plan components to receive state funding for water projects.

The Water Management Plan includes the seven mandatory components that are required to be eligible for the award of certain funds administered by DWR for the construction of groundwater projects or groundwater quality projects. The Plan also addresses the 12 specific technical issues identified in the California Water Code along with the seven recommended components identified in DWR Bulletin 118 (DWR 2003). Appendix I lists the required and recommended components and identifies the specific location within this Plan where the information can be found.

11.12 SCHEDULE

The Plan Implementation Schedule is shown in Table 11.1.

Phase I of the Integrated Recharge and Recovery Program is scheduled to be constructed in two phases, Phase A and Phase B. The schedule for activities related to these phases is shown in Table 11.2.

Table 11.1 Plan Implementation Schedule

Task No.	Description	Time Required	Estimated Completion
1	Retain Services of Legal Counsel	3 Mos.	Within 6 mos. of Stipulated Judgment Approval (S.J.A.)
2	Retain Services of Advisor	3 Mos.	
3	Review and Re-issue Existing Agreements and MOUs in the Name of the Watermaster if Appropriate and/or Necessary	3 Mos.	
4.	Watermaster Enter into Contract(s) with EMWD to: a) Manage/administer the Groundwater and Surface Water Monitoring Programs and prepare the *Hemet/San Jacinto Water Management Plan Annual Report* containing Monitoring Program results and related information; b) Compile all data and maintain the Regional Water Resources Database; c) Operate, maintain, and update the Groundwater Model. d) Provide Accounting Functions. e) Manage Recharge Facilities and any Other Field Operations.	3 Mos.	
6	First Watermaster Annual Report to the Court	3 Mos.	Within 14 mos. of S.J.A.
7	Develop and Adopt Rules and Regulations	3 Mos.	Within 6 mos. of S.J.A.
8	Administrative Assessment Payment	1st Quarter of Each Year	On-going
9	Replenishment Assessment Payment	1st Quarter of Each Year Following the Actual Production	On-going

Table 11.2 Phase I Project Construction

Task No.	Description	Time Required	Estimated Completion
PHASE A			
1	Environmental Process (EIR)	---	Completed
2	Land Acquisition		Within 6 mos. of Settlement Agreement Approval (S.A.A.)
3	Grant Approval, Advertising, Award	7 Mos.	
4	Extraction Well Drilling	17 Mos.	
5	Extraction Well Pump & Chlorination Equipping	12 Mos.	
6	Pump Station Modifications	12 Mos.	
PHASE B			
1	NEPA/Permitting Process	---	Before S.A.A.
2	Extraction Well Drilling	6 Mos.	Within 12 mos. of S.A.A.
3	Extraction Well Pump & Chlorination Equipping	19 Mos.	
4	Recharge Basins	5 Mos.	
5	Pipelines	5 Mos.	
6	Monitoring Wells	6 Mos.	

SECTION 12 REFERENCES

Boen, Doyle; Bunts, J.H.; Currie, Robert J. 1971. *Study of Reutilization of Wastewater Recycled through Groundwater, Vols.1 & 2*, USEPA Office of Research and Monitoring.

DWR. 2006. California Irrigation Management Information System (DWR CIMIS). Online. Accessed February 17, 2006. http://wwwcimis.water.ca.gov/cimis/monthlyEToReport.do.

DWR. 2000. Groundwater Basins shapefile. http://casil-mirror1.ceres.ca.gov/casil/gis.ca.gov/teale/grdwatba/

DWR. 1978. *Water Resources Evaluation of the San Jacinto Area.* April.

DWR. 1969. *Investigation of Ground Water Conditions in the San Jacinto River Valley.* July.

EMWD. 2005a. *Urban Water Management Plan 2005.* December.

EMWD. 2005b. *Hemet/San Jacinto Water Management Area 2004 Annual Report.* June.

EMWD. 2005c. *Regional Water Resources Database.*

EMWD. 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005d. *West San Jacinto Groundwater Basin Management Plan, Annual Report of the Status of the Groundwater Subbasins. Eastern Municipal Water District.* Report produced annually each year for the proceeding year from 1996-2004. Most recent report for 2004 published 2005.

Engineering Resources of Southern California. 2005. *Preliminary Design Report for the San Jacinto Agricultural In-Lieu Water Supply Project.* January.

Hemet, City of. 2006. *Urban Water Management Plan 2005.* February.

LHMWD. 2005. *Urban Water Management Plan 2005.* November.

Lofgren, Ben. 1976. *Land Subsidence & Aquifer System Compaction*, Journal Research USGS.

Lofgren & Rubin. 1975. *Radiocarbon Dates Indicate Rates of Graben Downfaulting*, Journal Research USGS.

Metropolitan Water District of Southern California (MWD). 1991. *Eastside Reservoir Project Final Environmental Impact Report*, October.

Morton, D. M. 1995. *Subsidence and Ground Fissuring in the San Jacinto Basin, Southern California.* In K. R. Prince, D. L. Galloway and S. A. Leake (eds.), U.S. Geological Survey Subsidence Interest Group Conference, Edwards Air Force Base, Antelope Valley, California

November 18-19, 1992: Abstracts and Summary: U.S. Geological Survey Open-File Report OF 94-532, p. 29-31.

Psomas. 2003. *Hemet-San Jacinto Recharge and Recovery Program- Feasibility Study.* June.

Rees, Terry F. 1994. letter sent to LeAnne Hamilton of EMWD. October 31.

San Jacinto, City of. 2005. *Urban Water Management Plan 2005.* December.

Santa Ana Regional Water Quality Control Board (RWQCB). 1995. *Water Quality Control Plan, Santa Ana River Basin (8).* Adopted March 11, 1994, and as amended (Resolution No. R8-2004-001, January 2004).

Singh, Gurinder Jit. 1992. *EMWD San Jacinto Water Harvesting Project Feasibility Study.* July.

State Water Resources Board (SWRB). 1955. *Bulletin No. 15 Santa Ana River Investigation, Appendix B Geology of San Jacinto and Elsinore Basins.* June 1955.

TechLink Environmental. 2002a. *Regional Groundwater Model for the San Jacinto Watershed.* December.

TechLink. 2002b. *Hemet-San Jacinto Integrated Recharge and Recovery Program- Feasibility Study Groundwater Flow Model.* December.

TetraTech. 2004. *Groundwater Infiltration Predictions Using Surface Water Model Output for the San Jacinto Watershed.* March.

TetraTech. 2003. *Lake Elsinore and Canyon Lake Nutrient Source Assessment.* January.

United States Department of Agriculture, Soil Conservation Service. 1971. Soil Survey: Western Riverside Area California. November.

Wildermuth Environmental, Inc. 2000. *TIN/TDS – Phase 2A of the Santa Ana Watershed, Development of Groundwater Management Zones, Estimation of Historic and Current TDS and Nitrogen Concentrations in Groundwater, Final Technical Memorandum.* July.

WRIME. 2003a. *Basin Assessment Report and Integrated Water Management Plan, TM 1, Assessment of Historical and Projected Land and Water Use Data.* June.

WRIME. 2003b. *Basin Assessment Study, Executive Summary.* May.

WRIME. 2003c. *Basin Assessment Report and Integrated Water Management Plan, TM 2, Identification and Description of Potential Conjunctive Use Projects.* May.

WRIME. 2003d. *Operation Yield Study, Hemet/San Jacinto Groundwater Management Area.* January.

WRIME. 2004. *Draft Technical Memorandum No. 3 (TM3) - Analysis of Impacts of Conjunctive Use Projects.* January.

(This Page Left Blank Intentionally)

APPENDIX A SETTLEMENT AGREEMENT

SOBOBA BAND OF LUISEÑO INDIANS

SETTLEMENT AGREEMENT

THIS SETTLEMENT AGREEMENT is entered into by the Soboba Band of Luiseño Indians on behalf of itself and its members (collectively, the "Soboba Tribe"); the United States of America solely in its capacity as trustee for the Soboba Tribe (the "United States"); the Eastern Municipal Water District ("EMWD"); the Lake Hemet Municipal Water District ("LHMWD"); and The Metropolitan Water District of Southern California ("MWD").

ARTICLE 1- RECITALS

1.1 The Soboba Tribe has made claims against EMWD and LHMWD (collectively, the "Local Districts") for alleged infringement of its water rights in the San Jacinto River ("River") and the Canyon Sub-basin and the Intake portion of the Upper Pressure Sub-basin associated therewith (collectively "Basin") in Riverside County, California, and for damages related to historical interference with the Soboba Tribe's rights and the unauthorized use of its water. Specifically, the Soboba Tribe alleges that the Local Districts, through their longstanding diversion of waters from the River and pumping of Groundwater from the Basin, have interfered with the Soboba Tribe's water resources and its rights to the beneficial use and enjoyment of the Reservation.

1.2 The Soboba Tribe also has filed a lawsuit against MWD styled *Soboba Band of Luiseño Indians v. Metropolitan Water District of Southern California*, United States District Court Case No. 00-04208 GAF (MANx) (the "Action"). The Action alleges that MWD, by the construction and operation of the San Jacinto Tunnel (the "Tunnel"), has interfered with the Soboba Tribe's water resources and its rights to the beneficial use and enjoyment of the Reservation.

1.3 The Parties have agreed to settle the Soboba Tribe's claims on the terms set forth in this Settlement Agreement.

1.4 MWD also contends that it has legal indemnification claims and other rights against EMWD for the Action arising out of MWD Board Resolution 3940 (EMWD's Terms of Annexation into MWD). In 1951, EMWD was created and annexed into MWD for the purposes of resolving claims that MWD's construction and operation of the Tunnel interfered with local water rights in the Basin and to obtain a supplemental supply of water for the area. The Terms of Annexation required EMWD to resolve potentially conflicting rights to the Tunnel seepage water and that MWD annually credit EMWD for the entire amount of Tunnel seepage, which MWD has done every year since 1951. In exchange for the benefits of being annexed into the MWD service area and the return of the Tunnel seepage water to EMWD, EMWD was required to defend and indemnify Metropolitan from certain claims seeking recovery for loss or injury as a consequence of the Tunnel seepage, specifically including claims brought by the Tribe. In response to the Tribe's Action, MWD tendered the defense and indemnity of the Tribe's claims to EMWD, which EMWD declined on the grounds that the Action allegedly exceeded the scope of its obligations under the Terms of Annexation. MWD subsequently filed a third party action against EMWD seeking to enforce the defense and indemnity provisions contained in the Terms of Annexation. EMWD and MWD dispute each other's contentions.

1.5 EMWD and MWD have agreed as part of this settlement to resolve their dispute over the scope of EMWD's defense and indemnity obligations to MWD reflected in the EMWD's Terms of Annexation.

NOW, THEREFORE, in consideration of the promises and agreements hereinafter set forth, the Parties agree as follows:

ARTICLE 2 - DEFINITIONS

This Settlement Agreement employs abbreviated terms that have the meanings below. To the extent that the definitions below conflict with those terms defined in other sections of the Settlement Agreement, the definitions in Article 2 shall prevail.

2.1 "Act" unless otherwise indicated, shall mean the Soboba Settlement Act approving this Settlement Agreement, attached as Exhibit A.

2.2 "Action" means the Soboba Tribe's lawsuit against MWD styled Soboba Band of Luiseño Indians v. Metropolitan Water District of Southern California, United States District Court Case No. 00-04208 GAF (MANx) and includes MWD's third party claim against EMWD.

2.3 "AFA" means acre-foot of water per annum.

2.4 "Basin" means collectively the Canyon Sub-basin and the Intake portion of the Upper Pressure Sub-basin as depicted on Exhibit B (map) and described in Exhibit C.

2.5 "Best Efforts" means that the Districts will take all commercially reasonable actions to fulfill the referenced contractual obligation.

2.6 "Canyon Sub-basin" means the groundwater basin as depicted on Exhibit B (map) and described in Exhibit C.

2.7 "Court" shall mean the Federal District Court for the Central District of California, Central Division, which has exercised jurisdiction over the Action.

2.8 "Decree Court" means the court with jurisdiction over the judgment and decree entered in accordance with this Settlement Agreement.

2.9 "Districts" means EMWD, LHMWD, and MWD.

2.10 "Effective Date" means the date on which the Secretary causes to be published in the Federal Register a statement of findings that the conditions in Section 3.1 have been fulfilled.

2.11 "EMWD" means the Eastern Municipal Water District.

2.12 "Groundwater" for the purposes of this Settlement Agreement means all water beneath the surface of the earth.

2.13 "Imported Water" means water sold by MWD to EMWD pursuant to Section 4.4 and is not intended to have the same meaning as the term "Imported Water" is used in MWD's Administrative Code.

2.14 "Intake Sub-basin" means the portion of the Upper Pressure groundwater Sub-basin as depicted on Exhibit B (map) and described in Exhibit C.

2.15 "LHMWD" means the Lake Hemet Municipal Water District.

2.16 "Local Districts" means EMWD and LHMWD.

2.17 "MWD" means The Metropolitan Water District of Southern California.

2.18 "Party" is the singular form of "Parties," which means the entities represented by the signatories to this Settlement Agreement.

2.19 "Recharge Facilities" means those facilities to be constructed by the Local Districts pursuant to Section 4.4.G of this Settlement Agreement for the purpose of recharging the Imported Water into the Basin.

2.20 "Reservation" means the Soboba Indian Reservation as depicted on Exhibit D (map), comprising approximately 5,935 acres, as established by Executive Order on June 19, 1883; thereafter expanded by Executive Orders on January 29, 1887, and December 29, 1891, the purchase of 709.65 acres known at "Tract 8" in 1911, the issuance of a trust patent for 68.9 acres in 1913, and the transfer of 880 acres pursuant to the Southern California Indian Land Transfer Act, Pub. L. No. 100-581, 102 Stat. 2946 (1988); and, thereafter modified by Executive Orders of March 22, 1886, and January 29, 1887, and the issuance of a fee patent for 32.84 acres in 1900. It does not include the 950 acres northwest of and contiguous to the Reservation known as the "Jones Ranch," purchased by the Soboba Tribe in fee on July 21, 2001, and placed into trust on January 13, 2003, nor the 278.49 acres southeast of and contiguous to the Reservation known as the "Greater Horseshoe," purchased by the Soboba Tribe in fee in five separate transactions in June and December 2001 and December 2004; nor the 478 acres north of and contiguous to the Reservation known as "Kwiili," purchased by the Soboba Tribe in fee on April 4, 2004.

2.21 "River" means the surface flow of the San Jacinto River and its tributaries from its origins in the San Jacinto Mountains into and across the Basin as shown on Exhibit B (map).

2.22 "Secretary" means the Secretary of the Interior or her designee.

2.23 "Settlement Agreement" means this document including all exhibits, which are incorporated by reference.

2.24 "Soboba Tribe" means the Soboba Band of Luiseño Indians, a body politic and federally recognized Indian tribe, and its individual members.

2.25 "Surface Water" means all surface water flows of the River.

2.26 "Terms of Annexation" means Metropolitan Resolution No. 3940 which sets forth the terms of EMWD's annexation to MWD.

2.27 "Tribal Water Right" means the Soboba Tribe's rights to water set forth in Section 4.1.

2.28 "Tunnel" means that portion of the Colorado River Aqueduct known as the San Jacinto Tunnel.

2.29 "United States," unless otherwise indicated, means the United States of America solely in its capacity as trustee on behalf of the Soboba Tribe or its members.

2.30 "Untreated Replenishment Water" means untreated water sold pursuant to the Replenishment Service program as defined by MWD's Administrative Code at sections 4104, 4114 and 4514.

2.31 "Upper Pressure Sub-basin" means the groundwater basin as depicted on Exhibit B (map).

2.32 "WMP" means the Water Management Plan that will be developed by EMWD, LHMWD, the City of Hemet, the City of San Jacinto and other Basin users, pursuant to Section 4.8.A of this Settlement Agreement, to manage the Canyon Sub-basin, the Upper Pressure Sub-basin downstream to Bridge Street, and the Hemet Basins. The principles of the Water Management Plan are attached as Exhibit E. The area covered by the Water Management Plan is depicted on Exhibit F (map) and described in Exhibit G.

ARTICLE 3 – CONDITIONS PRECEDENT AND ENFORCEMENT

3.1 This Settlement Agreement shall become enforceable, and the releases and waivers of Article 5 effective, as of the date the Secretary causes to be published in the Federal Register a statement of findings that the following conditions have been fulfilled:

A. the Act has been enacted;

B. to the extent that the Settlement Agreement conflicts with the Act, the Settlement Agreement has been revised to conform with the Act;

C. the Settlement Agreement, as so revised, and the Waivers and Releases have been executed by the Parties and the Secretary;

D. warranty deeds for the property to be conveyed in fee to the Soboba Tribe pursuant to Section 4.6 have been placed in escrow with instructions that they shall be delivered to the Soboba Tribe by close of business on the first business day following the date that all of the conditions in this paragraph have been fulfilled;

E. the Soboba Tribe and the United States have approved the WMP;

F. the Judgment and Decree attached to the Settlement Agreement as Exhibit H have been approved by the United States District Court, Eastern Division of the Central District of California, and that judgment and decree have become final and nonappealable; and

G. the Congress of the United States has appropriated the funds and the funds have been deposited in the appropriate accounts pursuant to Sections 4.5 and 4.7.

3.2 Other than to take all necessary steps to cause the events described in this Article to occur, no Party shall be required to perform any of the obligations, or be entitled to any of the benefits, under this Settlement Agreement before all conditions precedent have been fulfilled. After the fulfillment of all conditions precedent, the Parties shall be bound by all provisions of this Settlement Agreement.

3.3 If all of the conditions listed in Section 3.1 have not been fulfilled by December 31, 2007, this Settlement Agreement shall be null and void, and any consideration, together with any income earned thereon, shall be returned to the depositing entity.

ARTICLE 4 - TRIBAL WATER RIGHTS

4.1 Water Rights. The Parties ratify, confirm, declare to be valid and agree not to object to or dispute or challenge in any judicial or administrative proceedings the rights of the Soboba Tribe and the United States solely in its capacity as trustee for the Soboba Tribe, to the water rights set forth in this Section. In so doing, the Parties acknowledge that these rights are

the result of bargained for and exchanged concessions, as a result of which the Local Districts have agreed to supply water to the Soboba Tribe if it is unable, except for mechanical failure of its wells, pumps or water facilities, to produce the water to which it is entitled under this Article. Therefore, the Soboba Tribe shall have the following water rights which shall be held in trust by the United States for the benefit of the Soboba Tribe:

A. The prior and paramount right, superior to all others, to pump 9,000 AFA from the Basin for any use on the Reservation and lands now owned or hereafter acquired by the Soboba Tribe contiguous to the Reservation or within the Basin.

B. The Soboba Tribe's right to pump a total of 9,000 AFA from the Basin is without regard to whether the water was naturally or artificially recharged.

C. In the event the Soboba Tribe is unable, except for mechanical failure of its wells, pumps or water facilities, to produce from its existing wells or equivalent replacements up to 3,000 AFA production from the Canyon Sub-basin and the remainder of its Tribal Water Right from the Intake Sub-basin, subject to Section 4.3.A, the Local Districts shall deliver any shortage to the Soboba Tribe. Any shortage shall be delivered at such locations as the Soboba Tribe and the Local Districts may agree, or if there is no agreement, at the wellheads where the shortage occurred. Such water may be supplied from Local District wells in either the Canyon or Intake Sub-basins, or from other sources. For any water delivered pursuant to this paragraph, the Soboba Tribe shall pay an acre-foot charge equal to its then current cost of production, and any avoided cost of treatment, from the wells where the shortage occurred, assuming pumping lifts equal to the Soboba Tribe's averages in the respective Sub-basins over the preceding ten years.

4.2 Water Quality. Recharged water placed in the Canyon Sub-basin by Local Districts and/or the WMP and any replacement water delivered to the Soboba Tribe pursuant to Section 4.3.C shall conform to all applicable State water quality regulations and, without prior written approval from the Soboba Tribe, shall neither exceed (1) any Federal or State of California primary or secondary drinking water standards (except with respect to recharged water, turbidity, color, or coliform bacteria) nor (2) 0.3 milligrams per liter (mg/l) boron or 0.05

mg/l lithium. Recharged water placed in the Intake Sub-basin by EMWD, LHMWD, and/or the WMP shall conform to all applicable State water quality regulations. Nothing in this paragraph shall affect the water quality obligations assumed by Metropolitan for Imported Water set forth in Section 4.4.

4.3 Soboba Tribe's Water Use. Beginning on the Effective Date, the Soboba Tribe's right to pump groundwater in the exercise of its Tribal Water Right shall be subject to the following provisions:

A. The Soboba Tribe agrees to limit its exercise of the Tribal Water Right to 4,100 AFA for a period of fifty (50) years commencing with the Effective Date, according to the schedule set forth in Exhibit I to this Settlement Agreement. Should the Soboba Tribe during that period identify a need for water in addition to the Schedule set forth in Exhibit J, the Soboba Tribe shall have the right to purchase water from the WMP at the rate then being charged to the WMP's municipal producers.

B. Any use of the Tribal Water Right by an individual member of the Soboba Tribe shall be satisfied out of the water resources provided to the Soboba Tribe in this Settlement Agreement.

C. In addition to the limitation in Section 4.3.A, the Soboba Tribe may enter into contracts and options to lease, contracts and options to exchange, or contracts and options to forbear the use of the Tribal Water Right or postpone undertaking new or expanded water uses, provided that any such contract or option for a term greater than five years shall require the approval of the Secretary. Any such water thereby made available to others shall only be used by participants in, or other users within the area of, the WMP. No contract shall be for a term exceeding one hundred (100) years, nor shall any contract provide for permanent alienation of any portion of the Tribal Water Right.

4.4 Purchase of Imported Water [see definition of Imported Water in Section 2.13 of this Settlement Agreement]. In order to provide water to the Soboba Tribe and to reduce the overdraft of the Basin, EMWD and MWD agree to enter into a contract pursuant to which MWD

will sell and EMWD on behalf of the WMP will purchase the Imported Water under the following terms:

A. Price. The Imported Water will be sold by MWD to EMWD at the then prevailing service rate charged by MWD for Untreated Replenishment Water, which rate is reflected in MWD's Administrative Code at section 4401(a)(2). As of the date this Settlement Agreement is signed by MWD, the service rate for such water is $233 per acre foot. Changes in the rates charged for Imported Water shall be effective the same date that the new rates for Untreated Replenishment Water become applicable to MWD's member agencies. Should MWD ever discontinue the delivery of Untreated Replenishment Water, the service rate for water supplied pursuant to this contract shall initially be determined by taking the last published service rate for Untreated Replenishment Water and charged to EMWD under this contract. Thereafter, the rate for Imported Water would continue to be adjusted on the same percentage basis as MWD's service rate for the non-interruptible untreated water deliveries to its member agencies, which adjustments shall become effective on the same date that the new service rates become applicable to MWD's member agencies.

B. Use. For purposes of the Imported Water only, MWD releases EMWD from all covenants that now, or may in the future, require that water purchased at the service rate for Untreated Replenishment Water be left in the ground or otherwise not used for any period of time.

C. Duration. The contract shall commence upon the Effective Date and will expire on December 31, 2035. EMWD and MWD agree to negotiate in good faith a possible extension of this water sale contract for an additional period which, when added to the original term expiring on December 31, 2035, would provide for a total term of 50 years. In determining whether or not to extend the term of this contract for this additional period, MWD will consider the current status of its replenishment water program, the status of MWD's State Water Project contract, the implementation of this Settlement Agreement, and any other information that MWD deems relevant to the possible extension of the water sale contract. Nothing in this paragraph

shall be construed to require MWD to extend the water sale contact.

D. Water Quality. Water sold by MWD pursuant to this contract shall be of a quality that is consistent with MWD's operational and water quality goals. MWD agrees to make Best Efforts to meet water quality objectives set by the Santa Ana Regional Water Quality Control Board for recharged water being put into the Basin. MWD takes no risks associated with any discrepancy between the water quality obligations assumed by MWD pursuant to this paragraph and water quality standards applicable to recharged water set by the Santa Ana Regional Water Quality Control Board or other regulatory body.

E. Deliveries. Deliveries under this contract shall not begin until the Effective Date. Once deliveries are commenced, MWD shall use Best Efforts to deliver 7,500 AFA for the duration of the contract based upon 15-year averages. Annual deliveries shall be calculated on a January 1 to December 31 calendar year and shall be pro rated for any portion of a year during which the contract is in force. MWD reserves the right to deliver water at any time of the year. MWD shall give EMWD advance notice of Imported Water deliveries as provided for in MWD's then current Administrative Code and implementing guidelines for replenishment water deliveries, which presently is reflected in section 4514(c) of MWD's Administrative Code.

F. Point of Delivery. Deliveries shall be made by MWD to EMWD at the connection known as EM-14 or, upon mutual agreement of MWD and EMWD, at one or more additional existing or future connections. The Parties acknowledge that the suspension or termination of deliveries to EM-14 may, at any time, as determined by MWD's Chief Executive Officer, be required to meet MWD's operational needs. If deliveries to this location are suspended or terminated, then EMWD and MWD agree to negotiate in good faith to identify an alternative delivery point or points and, if MWD and EMWD are unable to reach agreement, the dispute shall be resolved by the Decree Court.

G. Recharge Facilities. The Local Districts, through the WMP, shall construct, operate, and maintain facilities for artificial Groundwater recharge and banking of the Imported Water. Said facilities shall be sufficient to accommodate a flow rate of 42 cubic feet per second

and to store up to 40,000 acre feet of Imported Water in the Basin. MWD shall have a paramount right to use capacity in the Recharge Facilities sufficient to accommodate a flow rate of 42 cubic feet per second and a paramount right to store up to 40,000 acre feet of Imported Water to meet its obligations under this Settlement Agreement, provided that MWD's sole remedy if the required storage capacity is not made available is to reduce its obligation by the amount of water that it was prepared but unable to deliver due to the lack of storage capacity. MWD's obligations under this Section 4.4 shall not arise until the Recharge Facilities are capable of meeting the capacity and storage requirements set forth in this paragraph.

H. Postponed Deliveries. EMWD shall have the right to postpone deliveries during periods when the Recharge Facilities are not capable of meeting the capacity and storage requirements set forth in Section 4.4.G, provided that each of the following four conditions are met: (i) the inability to meet capacity and storage requirements is the result of events beyond the control of the Local Districts and/or the WMP; (ii) the inability to meet capacity and storage requirements is not the result of negligence on the part of the Local Districts and/or the WMP; (iii) the inability to meet capacity and storage requirements is not the result of water quality limitations that are more restrictive than those established pursuant to Section 4.4.D, and (iv) that the Local Districts use Best Efforts to make necessary repairs and/or take other actions necessary to make the Recharge Facilities fully operational.

(1) If the conditions for postponed deliveries are met as required herein, MWD shall make up such deferred deliveries at a later time, to the extent that MWD has Untreated Replenishment Water available.

(2) If the conditions for postponed deliveries are not met as required herein, then MWD's obligation to deliver water shall be reduced by the amount of water that MWD was prepared to deliver, subject to the 42 cubic feet per second maximum flow rate, and the existence of unused storage capacity up to the 40,000 acre-foot maximum.

I. Pre-Deliveries. MWD shall have complete discretion concerning use of the 40,000 acre feet of storage capacity for the pre-delivery of Imported Water, including the right

not to use such capacity. As such, MWD makes no commitments to pre-deliver any amount of Imported Water.

4.5 Funding for Infrastructure. In accordance with the Act, the United States shall establish in the Treasury of the United States a fund in the amount of $10,000,000, managed by the Secretary of the Interior, which may be drawn upon by EMWD to pay or reimburse costs associated with constructing, operating, and maintaining that portion of the Recharge Facilities necessary to accommodate deliveries of the Imported Water.

4.6 Land Transfer.

A. EMWD Property. In settlement of the Action, EMWD shall place into escrow a warranty deed conveying to the Soboba Tribe in fee all of the property presently owned by EMWD at Domenigoni Parkway and Highway 79, consisting of approximately 106 acres which is described and illustrated in Exhibit J to this Settlement Agreement. The escrow instructions shall provide that the warranty deed shall be delivered to the Soboba Tribe by close of business on the first business day following the Effective Date.

B. MWD Property. In settlement of the Action, MWD shall place into escrow a warranty deed conveying to the Soboba Tribe in fee property presently owned by MWD at Domenigoni Parkway and Patterson Avenue, consisting of approximately 21.7 acres which is described and illustrated in Exhibit K to this Settlement Agreement. The escrow instructions shall provide that the warranty deed shall be delivered to the Soboba Tribe by close of business on the first business day following the Effective Date.

C. The Secretary shall accept into trust for the benefit of the Tribe the lands conveyed to the Tribe pursuant to this Section.

D. Use of Property. Management and development by the Soboba Tribe of the lands transferred by this paragraph shall comply with all applicable Federal law. Any regulation by the Soboba Tribe of the environment on, under or above such lands that impacts MWD's operations, including but not limited to its operations related to Diamond Valley Reservoir, shall be consistent with, and no more stringent than, comparable regulation by the United States and the

State of California.

4.7 Development Funds.

A. Local Districts. No later than 120 days after the Effective Date and before any funds are released to the Local Districts under Section 4.5, the Local Districts shall pay to the Soboba Tribe the sum of $17,000,000 plus interest at the average daily prime rate (as reported by the Wall Street Journal) plus two and one-quarter percent (2.25%) per annum from the Effective Date until paid. These funds are determined to be non-trust funds and shall be managed by the Soboba Tribe in its sole discretion. The United States shall have no responsibility with respect to the funds provided to the Soboba Tribe pursuant to this paragraph.

B. United States. In accordance with the Act, the United States shall establish in the Treasury of the United States a trust fund in the amount of $11,000,000, managed by the Secretary of the Interior in accordance with the American Indian Trust Fund Management Reform Act of 1994 (25 U.S.C. 4001 et seq.) and this Settlement Agreement. There shall be no expenditures from the trust fund until the conditions in Section 3.1 are fulfilled.

(1) Investment of the Fund. The Secretary shall invest amounts in this fund in accordance with the Act of April 1, 1880 (21 Stat. 70, ch. 41, 25 U.S.C. 161), the first section of the Act of June 24, 1938 (52 Stat. 1037, ch. 648, 25 U.S.C. 162a), and this paragraph.

(2) Fund Uses. This fund may be drawn upon by the Soboba Tribe with the approval of the Secretary to pay or reimburse costs associated with constructing, operating, and maintaining water and sewage infrastructure or other water-related development projects.

4.8 Other Terms.

A. The Local Districts, with the cooperation of other Groundwater producers in the Basin, shall develop and implement a WMP for the Basin that will address the current Basin overdraft, and recognize and take into account the Tribal Water Right. The WMP shall not be final or deemed effective for the purposes of this Settlement until it is approved by the Soboba Tribe and the United States. No implementation or subsequent modification of the WMP shall threaten or adversely affect the rights of the Soboba Tribe hereunder, and the Soboba Tribe and

the United States reserve the right under the continuing jurisdiction of the Decree Court to litigate any such issue.

B. EMWD will credit to the Soboba Tribe the sum of $1,000,000 to be deducted from the cost of water and sewage financial participation fees (connection fees) and similar fees charged by EMWD for any property owned by the Soboba Tribe within EMWD's then existing service area for which service is sought pursuant to an agreement for service between the Soboba Tribe and EMWD. The Soboba Tribe and EMWD agree to negotiate in good faith concerning any future agreement for service which shall be funded in whole or in part by the credit established pursuant to this paragraph.

C. LHMWD will make available for habitat preservation and/or environmental mitigation purposes property it owns in the San Jacinto River bed, consisting of approximately 12 acres which is described and illustrated in Exhibit L to this Settlement Agreement. This property shall be used for habitat preservation and/or environmental mitigation to assist in meeting the requirements of applicable Federal and State environmental laws relating to the Recharge Facilities.

D. In consideration for the benefits received under this Settlement Agreement, the Soboba Tribe shall make available, without transfer of title, up to 98 acres of land for habitat preservation and/or environmental mitigation to assist in meeting the requirements of applicable Federal and State environmental laws relating to the Recharge Facilities. The area from which the Soboba Tribe, in consultation with the United States Fish and Wildlife Service, will select the land to be used for these purposes is described and illustrated in Exhibit M of this Settlement Agreement.

E. The Soboba Tribe agrees to provide the Local Districts with all information reasonably available to the Soboba Tribe that the Local Districts and the Soboba Tribe agree is required to implement this Settlement Agreement and the WMP.

F. MWD shall not be joined in any legal proceeding to enforce the Tribal Water Right described in Sections 4.1 through 4.3 or which concerns the duties and obligations

reflected at Section 4.8, paragraphs A through E, unless said proceeding relates to MWD's failure to perform its obligations to deliver water set forth in Section 4.4.

ARTICLE 5 - RELEASES AND WAIVERS

5.1 Soboba Tribe

A. The Soboba Tribe, on behalf of itself and its members, and the United States solely in its capacity as trustee for the Tribe releases EMWD, LHMWD, and MWD for:

(1) All past, present and future claims to Surface and Groundwater rights for the Reservation, from time immemorial through the Effective Date and anytime thereafter;

(2) All past, present and future claims for injury of any kind, whether to person, property, or other right or interest, arising from, or in any way related to, interference with Surface and Groundwater rights and resources of the Reservation, including, but not limited to, all claims for injury to the Soboba Tribe's use and enjoyment of the Reservation, economic development, religion, language, social structure and culture, and injury to the natural resources of the Reservation, from time immemorial through the Effective Date;

(3) All past, present and future claims for injury of any kind, whether to person, property, or other right or interest, arising from, or in any way related to, continuing interference with Surface and Groundwater rights and resources of the Reservation, including the full scope of claims defined in Section 5.1.A(2), to the extent that such continuing interference began prior to the Effective Date, from time immemorial through the Effective Date and anytime thereafter;

(4) All past, present and future claims for injury of any kind, whether to person, property, or other right or interest, arising from, or in any way related to, seepage of water into the Tunnel, including the full scope of claims defined in Section 5.1.A(2), from time immemorial through the Effective Date and anytime thereafter.

B. The Soboba Tribe, on behalf of itself and its members, releases the United States for:

(1) All claims described in Section 5.1.A(1)-(4);

(2) All past, present and future claims for failure to acquire or develop water rights

and resources of the Reservation from time immemorial through the Effective Date and anytime thereafter;

(3) All past, present and future claims for failure to protect water rights and resources of the Reservation from time immemorial through the Effective Date, and any past, present and future claims for any continuing failure to protect water rights and resources of the Reservation, from time immemorial through the Effective Date and, to the extent that such continuing failure to protect began before the Effective Date, anytime thereafter;

(4) All past, present and future claims arising from the failure of any non-federal Party to fulfill the terms of this Settlement Agreement at anytime.

(5) All past, present, and future claims arising out of the negotiation of this Settlement Agreement or the negotiation and enactment of the Act, or any specific terms or provisions thereof, including but not limited to the Soboba Tribe's consent to limit the number of participant parties to this Settlement Agreement.

C. The Soboba Tribe, on behalf of itself and its members, expressly preserves as against all Parties all rights and remedies relating to:

(1) The enforcement of this Settlement Agreement;

(2) The infringement of any water rights arising under Federal or State law which may be appurtenant to property, other than the Reservation, that is now owned or hereafter acquired by the Soboba Tribe, excepting claims identified in Section 5.1.A(4), which relate to Tunnel seepage, and any challenge to approved portions of the WMP.

D. The Soboba Tribe agrees to defend, indemnify, and hold harmless EMWD, LHMWD, MWD, and the United States for any claim seeking damages or other form of relief based upon the rights released by the Soboba Tribe in Section 5.1.A and B, and all of their respective subparts.

5.2 EMWD

A. EMWD shall release LHMWD, MWD, the Soboba Tribe, and the United States from:

(1) All past and present claims arising from or in any way related to the claims released by the Soboba Tribe and the United States solely in its capacity as trustee for the Soboba Tribe in Section 5.1, A and B, and all of their respective subparts; and

(2) All past and present claims arising from, or in any way related to, interference with EMWD's Surface and Groundwater rights under Federal or State law from time immemorial through the Effective Date, including, but not limited to, all rights originally belonging to EMWD's predecessors and/or otherwise acquired by EMWD prior to the Effective Date .

B. Notwithstanding the dispute between EMWD and MWD over the scope of EMWD's defense and indemnity obligations reflected in Section 8 of Resolution 3940 (the Terms of Annexation) or the language of Section 8, EMWD shall defend and indemnify MWD against all demands, claims, suits, or other administrative or legal proceedings arising from, or in anyway connected to, the infiltration of water into the Tunnel. This obligation shall apply irrespective of when the claim arose or the alleged infringement, harm, or injury occurred.

C. EMWD expressly preserves all rights and remedies relating to:

(1) As against all Parties, the enforcement of this Settlement Agreement;

(2) As against all Parties, the infringement of any water rights arising under State law acquired in the future by EMWD; and

(3) As against MWD, the Terms of Annexation, except as expressly agreed to in Section 5.2.B.

5.3 LHMWD

A. LHMWD shall release EMWD, MWD, the Soboba Tribe, and the United States from:

(1) All past and present claims arising from or in any way related to the claims released by the Soboba Tribe and the United States solely in its capacity as trustee for the Soboba Tribe in Section 5.1.A and B, and all of their respective subparts; and

(2) All past and present claims arising from, or in any way related to, interference

with LHMWD's Surface and Groundwater rights under Federal or State law from time immemorial through Effective Date.

B. LHMWD expressly preserves all rights and remedies relating to:

(1) As against all Parties, the enforcement of th is Settlement Agreement; and

(2) As against all Parties, the infringement of any water rights arising under State law acquired in the future by LHMWD.

5.4 MWD

A. MWD shall release EMWD, LHMWD, the Soboba Tribe, and the United States from:

(1) All past and present claims arising from or in any way related to the claims released by the Soboba Tribe and the United States solely in its capacity as trustee for the Soboba Tribe in Section 5.1.A and B, and all of their respective subparts; and

(2) All past and present claims arising from, or in any way related to, interference with MWD's Surface and Groundwater rights under Federal or State law from time immemorial through the Effective Date .

B. MWD expressly preserves all rights and remedies relating to:

(1) As against all Parties, the enforcement of this Settlement Agreement;

(2) As against all Parties, the infringement of any water rights arising under State law acquired in the future by MWD; and

(3) As against EMWD, the Terms of Annexation, except as expressly agreed to in Section 5.2.B.

5.5 All Parties Release of Unknown Claims.

A. Each Party acknowledges and agrees that certain of the releases reflected in Sections 5.1 through 5.5 apply to all claims whether known or unknown to the releasing Party.

B. Each Party certifies that it has read the following provisions of California Civil Code Section 1542:

"A general release does not extend to claims which the creditor does not know or suspect

to exist in his favor at the time of executing the release, which if known by him must have materially affected his settlement with the debtor."

C. Each Party waives the application of California Civil Code Section 1542. In doing so, each Party acknowledges that it is consciously releasing claims that may exist as of the date of this release but which it does not know exist, and which, if known, would materially affect its decision to execute this Settlement Agreement, regardless of whether the Parties' lack of knowledge is the result of ignorance, oversight, error, negligence, or any other cause.

5.6 Waiver of Sovereign Immunity. If any Party to this Settlement Agreement brings an action or other proceeding in any court of the United States relating only and directly to the interpretation or enforcement of the Act or the Settlement Agreement and names the United States or the Soboba Tribe as a party, the United States, the Tribe, or both, may be joined in any such action, and any claim by the United States or the Tribe to sovereign immunity from the action is waived, other than with respect to claims for monetary awards, for the limited and sole purpose of such interpretation or enforcement.

ARTICLE 6- ADMINISTRATION AND OTHER CONSIDERATIONS

6.1 Disclaimer. Nothing in this Settlement Agreement shall be construed as establishing any standard to be used for the quantification of Federal reserved rights, aboriginal claims, or any other Indian claims to water or lands in any judicial or administrative forum or proceeding. Nothing in this Settlement Agreement shall be construed to quantify or otherwise affect the water rights, claims or entitlements to water of any California tribe, band or community other than the Soboba Tribe.

6.2 Evidentiary Effect of Negotiations. This Settlement Agreement has been arrived at in the process of good faith negotiation for the purpose of resolving legal disputes, including pending litigation, and all Parties agree that no conduct, statements, offers, or compromises made in the course thereof shall be construed as admissions against interest or be used in any legal forum or proceeding other than one for approval, confirmation, interpretation, or enforcement of this Settlement Agreement.

6.3 Authorship. The Parties agree that this Settlement Agreement reflects the joint drafting efforts of all Parties. In the event that any dispute, disagreement, or controversy arises regarding this Settlement Agreement, the Parties shall be considered joint authors and no provision shall be interpreted against any Party because of authorship.

6.4 Authorization to Execute. Each Party represents and warrants that she or he is authorized to execute this Settlement Agreement on behalf of the respective Parties to this Settlement Agreement and does so freely and voluntarily.

6.5 Effect of Execution by the Districts. Execution of this Settlement Agreement by the Districts signifies that provisions of this Settlement Agreement affecting the Districts have been approved by their respective Boards of Directors, and these agencies assume the obligations of and are entitled to the benefits of this Settlement Agreement.

6.6 No Inducements. Each Party acknowledges and represents that in executing this Settlement Agreement it has not relied upon any inducements, promises, or representations made by the other Parties which are not reflected in this Settlement Agreement.

6.7 Advice of Counsel. Each Party warrants and represents that, in executing this Settlement Agreement, it has relied upon legal advice from counsel of its choice; that the terms of this Settlement Agreement have been read and its consequences have been completely explained to it by counsel; and that it fully understands the terms of this Settlement Agreement.

6.8 Contingent on Appropriation of Funds. The expenditure or advance of any money or the performance of any obligation by the United States under this Settlement Agreement is contingent upon appropriation of funds therefor. If funds are not appropriated, the United States shall accrue no liability.

6.9 Officials Not to Benefit. No member of or delegate to Congress or Resident Commissioner shall be admitted to any share or part of this Settlement Agreement or to any benefit that may arise from this Settlement Agreement. This restriction shall not be construed to extend to this Settlement Agreement if made with a corporation or company for its general benefit.

6.10 Counterparts. This Settlement Agreement may be signed in counterparts by one or more of the Parties, and those counterparts, when taken together, shall have the same force and effect as if a single, original document had been signed by all the Parties.

6.11 Jurisdiction. The Decree Court retains jurisdiction over the Judgment and Decree and the Settlement Agreement.

6.12 Governing Law. This Settlement Agreement shall be construed in accordance with Federal laws and where appropriate the laws of the State of California.

6.13 Successors and Assigns. This Settlement Agreement and the attached waivers and agreements shall, unless otherwise indicated, be binding on and inure to the benefit of the Parties, and their respective successors and assigns.

6.14 Integration. This Settlement Agreement incorporates all the exhibits and sets forth the entire agreement of the Parties with respect to the subject matter hereof, with the exception that EMWD and MWD have resolved certain rights and obligations by way of a Partial Settlement Agreement dated November 14, 2001 which shall remain binding on those two Parties only. This Settlement Agreement may be amended only by written agreement executed by the Parties.

ARTICLE 7- NOTICE AND SIGNATURES

7.1 Notices. Any notice or other communication given under this Settlement Agreement must be in writing and delivered by overnight courier service or certified mail, return receipt requested, postage prepaid and properly addressed to the Parties at the addresses listed below (or to any other or further addresses the Parties may subsequently designate by notice in this manner). All these notices and communication shall be effective when delivery to the required recipient is completed in accordance with this paragraph:

To the Soboba Tribe:

Chairperson
Soboba Band of Luiseño Indians
P.O. Box 487
San Jacinto, CA 92581

To the United States of America:

Asst. Secretary for Indian Affairs
U.S. Department of the Interior
1849 C St. NW 4104 MIB
Washington, DC 20240-0001
Chief, U.S. Dept. of Justice
Indian Resources Section
P.O. Box 44378
L'Enfant Plaza Station Washington, DC 20026-4378

cc: Regional Director
Bureau of Indian Affairs
Pacific Region
2800 Cottage Way
Sacramento, CA 95825

To EMWD:

General Manager
Eastern Municipal Water District
P.O. Box 8300
Perris, CA 92572-8300

To LHMWD:

General Manager
Lake Hemet Municipal Water District
2480 East Florida Avenue
P.O. Box 5039
Hemet, CA 92544

To MWD:

Chief Executive Officer
Metropolitan Water District of Southern California
P.O. Box 54153
Los Angeles, California 90054-0153

General Counsel
Metropolitan Water District of Southern California
P.O. Box 54153
Los Angeles, California 90054-0153

IN WITNESS WHEREOF, the Parties have executed this Settlement Agreement on the day and year written below.

SOBOBA BAND OF LUISEÑO INDIANS

Date: _____

By: _____
Robert J. Salgado Sr., Chairman

THE UNITED STATES OF AMERICA

Date: _____ By:_____

THE EASTERN MUNICIPAL WATER DISTRICT

Date: _____ By:_____
Randy A. Record, President

THE LAKE HEMET MUNICIPAL WATER DISTRICT

Date: _____ By:_____
Joseph D. Van Sickle, President

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Date _____ By:_____
Jeffrey Kightlinger, General Manager

EXHIBITS TO SETTLEMENT AGREEMENT

A. Soboba Settlement Act

B. Map of the Basin and San Jacinto River

C. Description of the Basin

D. Map of the Soboba Reservation

E Principles for Water Management

F. Map of the Water Management Plan Area

G. Description of the Water Management Plan Area

H. Judgment and Decree

I. Soboba Tribe's Water Development Schedule

J. Description of EMWD Property

K. Description of MWD Property

L. Description of LHMWD Property

M. Map of Potential Soboba Reservation Lands for Habitat Preservation and/or Environmental Mitigation

SEC. 1. SHORT TITLE.

This Act may be cited as the 'Soboba Band of Luiseño Indians Settlement Act'.

SEC. 2. FINDINGS AND PURPOSES.

(a) FINDINGS.– The Congress finds the following–

(1) The Soboba Band of Luiseño Indians is a federally-recognized Indian tribe whose Reservation of approximately 6,000 acres, extending east and north from the banks of San Jacinto River in Riverside County, California, was created by an Executive Order of June 19, 1883, and enlarged and modified by subsequent Executive Orders, purchases, and an Act of Congress.

(2) The Tribe's water rights have not been quantified, and the Tribe has longstanding unresolved claims for interferences with the water resources of its Reservation, which the Tribe maintains have rendered much of the Tribe's Reservation useless for habitation, livestock, or agriculture. On April 20, 2000, the Tribe filed a lawsuit against The Metropolitan Water District of Southern California for interference with the Tribe's water resources and damages to its Reservation allegedly caused by Metropolitan's construction and operation of the San Jacinto Tunnel, which is part of the Colorado River Aqueduct. The lawsuit, styled *Soboba Band of Luiseño Indians v. Metropolitan Water District of Southern California*, No. 00-04208 GAF (MANx), is pending in the United States District Court for the Central District of California.

(3) The Tribe also has made claims against Eastern Municipal Water District and Lake Hemet Municipal Water District, located adjacent to the Reservation, seeking to secure its water rights and damages arising from alleged past interference with the Tribe's water resources.

(4) Recognizing that the final resolution of its water rights and claims through litigation will take many years and entail great expense to all parties, continue to limit the Tribe's access to water with economic, social, and cultural consequences to the Tribe, prolong uncertainty as to the availability of water supplies, and seriously impair the long-term economic planning and development of all parties, the Tribe and non-Indian entities have sought to settle their water-related disputes and reduce the burdens of litigation.

(5) After negotiations, which included participation by representatives of the Tribe, the United States, The Metropolitan Water District of Southern California, Eastern Municipal Water District, and Lake Hemet Municipal Water District, the parties have entered into a Settlement Agreement to determine the Tribe's water rights, resolve all of its claims for interference with the water resources of, and damages to, its Reservation, and provide for the construction of water projects to facilitate the exercise of the Tribe's rights.

(6) Pursuant to the Settlement Agreement, Eastern Municipal Water District and Lake Hemet Municipal Water District acknowledge and assure the Tribe's prior and paramount right, superior to all others, to pump 9,000 acre-feet of water annually from the San Jacinto River basin. To provide water to the Tribe and to

reduce the overdraft of the basin, the two water districts and The Metropolitan Water District of Southern California will contract to import and recharge supplemental water supplies into the basin. The water districts also will make substantial additional contributions to the settlement, including the conveyance of certain replacement lands and economic development funds to the Tribe, to carry out the Settlement Agreement's provisions.

(7) It is appropriate that the United States participate in the implementation of the Settlement Agreement, and contribute funds to enable the Tribe to use its water entitlement in developing its Reservation, and to assist the neighboring non-Indian entities in the construction, operation, and maintenance of the facilities required to recharge the imported water.

(b) PURPOSES.– The purposes of this Act are–

(1) to approve, ratify, and confirm the Settlement Agreement entered into by the Tribe and non-Indians entities;

(2) to authorize and direct the Secretary of the Interior to execute and perform the Settlement Agreement and related waivers;

(3) to authorize the actions, agreements, and appropriations as provided in the Settlement Agreement and this Act.

SEC. 3. DEFINITIONS.

In this Act–

(1) RESTORATION FUND.– The term 'Restoration Fund' means the San Jacinto Basin Restoration Fund established by section 6 of this Act.

(2) DEVELOPMENT FUND.– The term 'Development Fund' means the Soboba Band of Luiseño Indians Water Development Fund established by section 7 of this Act.

(3) RESERVATION.– The term 'Reservation' means the Soboba Indian Reservation created by an Executive Order dated June 19, 1883, and enlarged and modified by subsequent Executive Orders, purchases, and an Act of Congress, excluding the 950 acres northwest of and contiguous to the Reservation known as the "Jones Ranch," purchased by the Soboba Tribe in fee on July 21, 2001, and placed into trust on January 13, 2003, the 129.19 acres southeast of and contiguous to the Reservation known as the "Horseshoe Properties," purchased by the Soboba Tribe in fee in four separate transactions in June and December 2001, and the 478 acres north of and contiguous to the Reservation known as "Kwiili," purchased by the Soboba Tribe in fee on April 4, 2004.

(4) SECRETARY.– The term 'Secretary' means the Secretary of the Interior or her designee.

(5) SETTLEMENT AGREEMENT.– The term 'Settlement Agreement' means that agreement dated _____, 2004, together with all exhibits thereto. The parties to the Settlement Agreement are the Soboba Band of Luiseño Indians and its members, the United States on behalf of the Tribe and its members, The

Metropolitan Water District of Southern California, Eastern Municipal Water District, and Lake Hemet Municipal Water District.

(6) TRIBE, SOBOBA TRIBE, or SOBOBA BAND OF LUISEÑO INDIANS.– The terms 'Tribe', 'Soboba Tribe', or 'Soboba Band of Luiseño Indians' means the body politic and federally recognized Indian tribe, and its members.

(7) WATER MANAGEMENT PLAN.– The term 'Water Management Plan' means the plan, approved by the Soboba Tribe and the Secretary, developed pursuant to Section 4.8, paragraph A of the Settlement Agreement to resolve the overdraft of the San Jacinto basin.

SEC. 4. RATIFICATION OF SETTLEMENT AGREEMENT; AUTHORIZATION.

(a) IN GENERAL.– The United States hereby approves, ratifies, and confirms the Settlement Agreement, except to the extent it conflicts with the provisions of this Act, and consents to be made a party to the pending action described in section 2, paragraph (a)(2) of this Act for the purpose of entering the judgment and decree attached to the Settlement Agreement as Exhibit H.

(b) AUTHORIZATION.– The Secretary is authorized and directed to execute, and take such other actions as are necessary to implement, the Settlement Agreement and any amendments approved by the parties necessary to make the Settlement Agreement consistent with this Act.

SEC. 5. AUTHORIZATION OF APPROPRIATIONS.

(a) RESTORATION FUND.– There is authorized to be appropriated to the San Jacinto Basin Restoration Fund established in section 6 of this Act the amount of $10,000,000 to pay or reimburse costs associated with constructing, operating, and maintaining the portion of the basin recharge project, described in Section 4.5 of the Settlement Agreement, necessary to accommodate deliveries of the supplemental imported water under Section 4.4 of the Settlement Agreement.

(b) DEVELOPMENT FUND.– There is authorized to be appropriated to the Soboba Band of Luiseño Indians Water Development Fund established in section 7 of this Act the amount of $11,000,000 to pay or reimburse costs associated with constructing, operating, and maintaining water and sewage infrastructure, and other water-related development projects.

SEC. 6. RESTORATION FUND.

(a) ESTABLISHMENT.– There shall be established within the Treasury of the United States a non-interest bearing account to be known as the 'San Jacinto Basin Restoration Fund', consisting of the amounts authorized to be appropriated in section 5, paragraph (a) of this Act.

(b) ADMINISTRATION.– The Restoration Fund shall be administered by the Secretary for the purposes set forth in paragraph (d) of this section.

(c) AVAILABILITY.– The funds authorized to be appropriated pursuant to section 5, paragraph (a) of this Act shall be available for expenditure or withdrawal only after the requirements set forth in section 9(e) of this Act and paragraph (d) of this section have been met.

(d) EXPENDITURES AND WITHDRAWALS.–

(1) EXPENDITURE PLAN.–

(A) IN GENERAL.– Eastern Municipal Water District, on behalf of the Water Management Plan, shall submit to the Secretary for approval an expenditure plan for use of the Restoration Fund.

(B) REQUIREMENTS.– The expenditure plan shall require that any funds be expended or reimbursed in accordance with the purposes described in section 5, paragraph (a) of this Act.

(C) APPROVAL.– The Secretary shall approve the expenditure plan if it is reasonable and not inconsistent with this Act.

(2) WITHDRAWALS.– On approval by the Secretary of the expenditure plan described in this section, Eastern Municipal Water District, on behalf of the Water Management Plan, may withdraw monies from the Restoration Fund as provided in the plan.

(3) ENFORCEMENT.– The Secretary may take judicial or administrative action to enforce the provisions of any expenditure plan to ensure that monies withdrawn from the Restoration Fund under the plan are used in accordance with this Act.

(4) LIABILITY.– If Eastern Municipal Water District, on behalf of the Water Management Plan, exercises the right to withdraw monies from the Restoration Fund, neither the Secretary nor the Secretary of the Treasury shall retain any liability for the expenditure or investment of the monies withdrawn.

(5) ANNUAL REPORT.– Eastern Municipal Water District shall submit to the Tribe and the Secretary an annual report that describes all expenditures from the Restoration Fund during the year covered by the report.

SEC. 7. DEVELOPMENT FUND.

(a) ESTABLISHMENT.– There shall be established within the Treasury of the United States an interest bearing account to be known as the 'Soboba Band of Luiseño Indians Water Development Fund', to be managed and invested by the Secretary, consisting of the amounts authorized to be appropriated in section 5, paragraph (b) of this Act.

(b) MANAGEMENT.– The Secretary shall manage the Development Fund, make investments, and make monies available for distribution consistent with the American Indian Trust Fund Management Reform Act of 1994 (25 U.S.C. 4001 et seq.) (referred to in this section as the 'Trust Fund Reform Act'), this Act, and the Settlement Agreement.

(c) INVESTMENT.– The Secretary shall invest amounts in the Development Fund in accordance with–

(1) the Act of April 1, 1880 (21 Stat. 70, ch. 41, 25 U.S.C. 161);

(2) the first section of the Act of June 24, 1938 (52 Stat. 1037, ch. 648, 25 U.S.C. 162a); and

(3) paragraph (b) of this section.

(d) AVAILABILITY.– The funds authorized to be appropriated pursuant to section 5, paragraph (b) of this Act shall be available for expenditure or withdrawal only after the requirements set forth in section 9(e) of this Act and paragraph (e) below have been met.

(e) EXPENDITURES AND WITHDRAWALS.–

(1) TRIBAL MANAGEMENT PLAN.–

(A) IN GENERAL.– The Tribe may withdraw all or part of the Development Fund on approval by the Secretary of a tribal management plan as described in the Trust Fund Reform Act.

(B) REQUIREMENTS.– In addition to the requirements under the Trust Fund Reform Act, the tribal management plan shall require that any funds be expended or reimbursed in accordance with the purposes described in section 5, paragraph (b) of this Act.

(2) ENFORCEMENT.– The Secretary may take judicial or administrative action to enforce the provisions of any tribal management plan to ensure that monies withdrawn from the Development Fund under the plan are used in accordance with this Act.

(3) LIABILITY.– If the Tribe exercises the right to withdraw monies from the Development Fund, neither the Secretary nor the Secretary of the Treasury shall retain any liability for the expenditure or investment of the monies withdrawn.

(4) ANNUAL REPORT.– The Tribe shall submit to the Secretary an annual report that describes all expenditures from the Development Fund during the year covered by the report.

(5) NO PER CAPITA DISTRIBUTIONS.– No part of the Development Fund shall be distributed on a per capita basis to members of the Tribe.

SEC. 8. WAIVERS AND RELEASES.

(a) TRIBE AND UNITED STATES AUTHORIZATION.– The Tribe, on behalf of itself and its members, and the Secretary, on behalf of the United States in its capacity as trustee for the Tribe and its members, are authorized, as part of the performance of their obligations under the Settlement Agreement, to execute a waiver and release for claims under Federal, State, or other law against The Metropolitan Water District of Southern California, Eastern Municipal Water District and Lake Hemet Municipal Water District, for any and all–

(1) past, present, and future claims to surface and groundwater rights for the Reservation from time immemorial through the effective date described in section 10 of this Act and anytime thereafter;

(2) past, present, and future claims for injury of any kind, whether to person, property, or other right or interest, arising from, or in any way related to,

interference with surface and groundwater rights and resources of the Reservation, including, but not limited to, all claims for injury to the Tribe's use and enjoyment of the Reservation, economic development, religion, language, social structure and culture, and injury to the natural resources of the Reservation, from time immemorial through the effective date described in section 10 of this Act;

(3) past, present, and future claims for injury of any kind, whether to person, property, or other right or interest, arising from, or in any way related to, continuing interference with surface and groundwater rights and resources of the Reservation, including the full scope of claims defined in Section 5.1, paragraph A(2) of the Settlement Agreement, to the extent that such continuing interference began prior to the effective date described in section 10 of this Act, from time immemorial through the effective date described in section 10 of this Act and anytime thereafter; and

(4) past, present, and future claims for injury of any kind, whether to person, property, or other right or interest, arising from, or in any way related to, seepage of water into the San Jacinto Tunnel, including the full scope of claims defined in Section 5.1, paragraph A(2) of the Settlement Agreement, from time immemorial through the effective date described in section 10 of this Act and anytime thereafter.

(b) TRIBAL WAIVERS AGAINST THE UNITED STATES.– The Tribe is authorized, as part of the performance of its obligations under the Settlement Agreement, to execute a waiver and release for claims against the United States (acting in its capacity as trustee for the Tribe or its members, or otherwise acting on behalf of the Tribe or its members), including any agencies, officials, or employees thereof, for any and all–

(1) claims described in paragraph (a) of this section;

(2) past, present, and future claims for failure to acquire or develop water rights and resources of the Reservation from time immemorial through the effective date described in section 10 of this Act and anytime thereafter;

(3) past, present, and future claims for failure to protect water rights and resources of the Reservation from time immemorial through the effective date described in section 10 of this Act, and any past, present, and future claims for any continuing failure to protect water rights and resources of the Reservation, from time immemorial through the effective date described in section 10 of this Act and, to the extent that such continuing failure to protect began before the effective date described in section 10 of this Act, anytime thereafter;

(4) past, present, and future claims arising from the failure of any non-federal Party to fulfill the terms of the Settlement Agreement at anytime; and

(5) past, present, and future claims arising out of the negotiation of the Settlement Agreement or the negotiation and enactment of this Act, or any specific terms or provisions thereof, including, but not limited to, the Tribe's consent to limit the number of participant parties to the Settlement Agreement.

SEC. 9. MISCELLANEOUS PROVISIONS.

(a) WAIVER OF SOVEREIGN IMMUNITY.– If any party to the Settlement Agreement brings an action or other proceeding in any court of the United States relating only and directly to the interpretation or enforcement of this Act or the Settlement Agreement and names the United States or the Soboba Tribe as a party–

(1) the United States, the Tribe, or both, may be joined in any such action; and

(2) any claim by the United States or the Tribe to sovereign immunity from the action is waived, other than with respect to claims for monetary awards, for the limited and sole purpose of such interpretation or enforcement.

(b) TRIBAL USE OF WATER.–

(1) IN GENERAL.– With respect to water rights made available under the Settlement Agreement–

(A) the Tribe may use water made available to it under the Settlement Agreement for any use it deems advisable on the Reservation and on any other lands it owns or may acquire, in fee or in trust, contiguous to the Reservation or within the area of the groundwater basin described in Section 2.4 of the Settlement Agreement;

(B) such water rights shall be held in trust by the United States in perpetuity, and shall not be subject to forfeiture or abandonment; and

(C) State law shall not apply to the Tribe's use of water made available to it under the Settlement Agreement.

(2) LIMITATION.–

(A) IN GENERAL.– Except as provided in paragraph (B) below, the Tribe shall not sell or lease water made available to it under the Settlement Agreement.

(B) EXCEPTION.– The Tribe may enter into contracts and options to lease, contracts and options to exchange, or contracts and options to forbear the use of water made available to it under the Settlement Agreement or postpone undertaking new or expanded water uses, provided that any such contract or option for a term greater than five years shall require the approval of the Secretary. Any such water thereby made available to others shall only be used by participants in, or other users within the area of, the Water Management Plan described in Section 2.32 of the Settlement Agreement. No contract shall be for a term exceeding one hundred years, nor shall any contract provide for permanent alienation of any portion of the water rights made available under the Settlement Agreement.

(c) ACCEPTANCE OF LAND INTO TRUST.– The Secretary shall accept into trust for the benefit of the Tribe the lands conveyed to the Tribe pursuant to Section 4.6 of the Settlement Agreement, which conveyed lands shall be considered for all purposes as if

they were so acquired into trust status in 1937, except as to valid rights existing at the time of acquisition pursuant to this Act.

(d) HABITAT CONSERVATION.– The United States, in its capacity as trustee for the Tribe, and the Tribe in its own right shall make available, including, if necessary, by conveyance of a permanent easement to the United States Fish and Wildlife Service or other agency of the United States, up to 98 acres of Reservation land for habitat conservation related to the portion of the basin recharge project necessary to accommodate deliveries of the supplemental imported water described in Section 4.4 of the Settlement Agreement.

(e) AVAILABILITY OF APPROPRIATIONS.– The funds authorized to be appropriated under section 5 of this Act shall not be available for expenditure or withdrawal until the requirements of section 10(a) of this Act have been met and the waivers and releases set out in section 8 of this Act become effective.

(f) RETENTION OF RIGHTS.–

(1) In the event the waivers and releases set out in section 8 of this Act do not become effective pursuant to section 10(a) of this Act, the Soboba Tribe and the United States shall retain the right to assert all rights and claims enumerated in section 8, and any claims or defenses of the parties to the Settlement Agreement shall also be retained.

(2) The parties expressly reserve all rights not specifically granted, recognized, waived, or released by the Settlement Agreement or this Act.

(g) PRECEDENT.– Nothing in this Act shall be construed or interpreted as a precedent for the quantification or litigation of federal reserved water rights or the interpretation or administration of future water settlement Acts.

(h) OTHER INDIAN TRIBES.– Nothing in the Settlement Agreement or this Act shall be construed in any way to quantify or otherwise adversely affect the water rights, claims, or entitlements to water of any Indian tribe, band, or community, other than the Soboba Tribe.

(i) ENVIRONMENTAL COMPLIANCE.–

(1) Signing by the Secretary of the Settlement Agreement does not constitute major Federal action under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.).

(2) The Secretary shall comply with all aspects of the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.), and other applicable environmental laws, in implementing the terms of the Settlement Agreement and this Act.

SEC. 10. EFFECTIVE DATE.

(a) IN GENERAL.– The waiver and release authorizations contained in subsections (b) and (c) of section 8 of this Act shall become effective as of the date the Secretary causes to be published in the Federal Register a statement of findings that–

(1) this Act has been enacted;

(2) to the extent that the Settlement Agreement conflicts with this Act, the Settlement Agreement has been revised to conform with the Act;

(3) the Settlement Agreement, revised as necessary, and the waivers and releases described in Article 5 of the Settlement Agreement and section 8 of this Act have been executed by the parties and the Secretary;

(4) warranty deeds for the property to be conveyed to the Tribe described in section 4.6 of the Settlement Agreement have been placed in escrow;

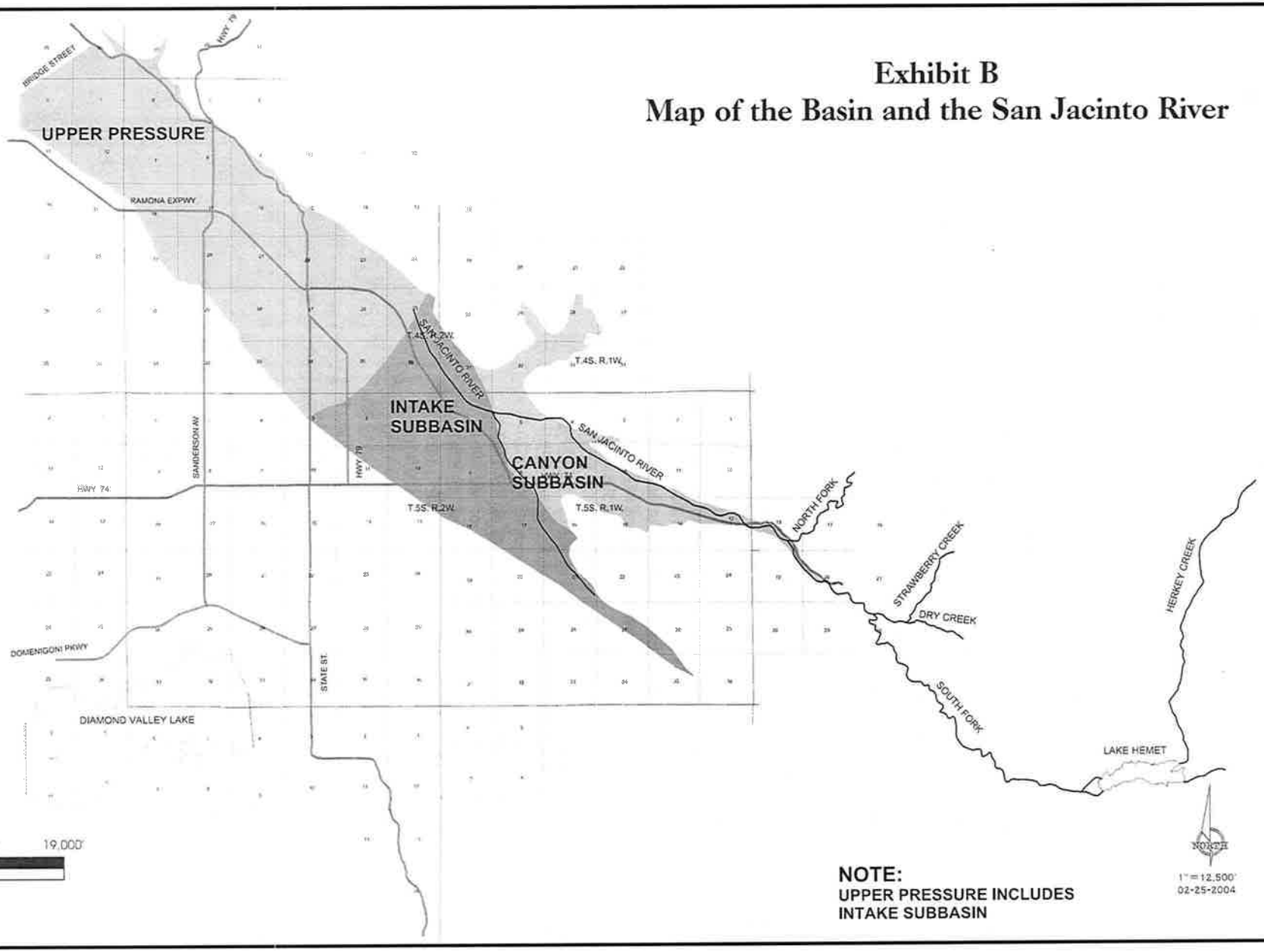
(5) the Tribe and the Secretary have approved the Water Management Plan;

(6) the judgment and decree attached to the Settlement Agreement as Exhibit H has been approved by the United States District Court, Eastern Division of the Central District of California, and that judgment and decree have become final and nonappealable; and

(7) the payment of the funds authorized by section 5 of this Act have been appropriated and deposited into the Restoration Fund and the Development Fund.

(b) DEADLINE FOR EFFECTIVE DATE.– If the conditions precedent required under paragraph (a) of this section have not been fulfilled by December 31, 2007, the Settlement Agreement and this Act shall not thereafter be effective and shall be null and void. Any funds and the interest accrued thereon appropriated pursuant to section 5 shall revert to the general fund of the United States Treasury on October 1, 2008.

Exhibit B
Map of the Basin and the San Jacinto River



NOTE:
UPPER PRESSURE INCLUDES INTAKE SUBBASIN

Exhibit C – Description of the Basin

Legal Description for Canyon Sub-basin

Beginning at a point lying North 03-03-37 East, a distance of 8693.42 feet from the north one quarter corner of Section 7, Township 5 South, Range 1 East, S.B.B. & M.:

Thence South 33-29-10 East, a distance of 1188.9727
Thence South 20-26-50 East, a distance of 500.9370
Thence South 27-28-23 East, a distance of 428.6517
Thence South 31-35-33 East, a distance of 630.8741
Thence South 21-07-46 East, a distance of 910.5965
Thence South 18-48-47 East, a distance of 1015.1730
Thence South 24-22-09 East, a distance of 638.3066
Thence South 14-50-24 East, a distance of 1778.9616
Thence South 09-47-36 East, a distance of 1132.4407
Thence South 10-53-51 East, a distance of 909.1444
Thence South 21-23-19 East, a distance of 960.3948
Thence South 16-05-57 East, a distance of 627.4825
Thence South 17-13-52 East, a distance of 1029.1928
Thence South 26-09-14 East, a distance of 249.2721
Thence South 46-45-44 East, a distance of 1246.0249
Thence South 45-42-20 East, a distance of 804.0414
Thence South 53-45-51 East, a distance of 494.8303
Thence South 41-51-15 East, a distance of 662.8068
Thence South 37-57-12 East, a distance of 682.2970
Thence South 44-35-54 East, a distance of 598.8896
Thence South 31-20-45 East, a distance of 1101.0137
Thence South 37-47-48 East, a distance of 1333.2990
Thence South 55-04-55 East, a distance of 865.4271
Thence South 61-29-59 East, a distance of 379.0620
Thence South 66-22-49 East, a distance of 339.4363
Thence South 42-07-01 East, a distance of 362.8961
Thence South 59-20-26 East, a distance of 310.8241
Thence North 44-35-20 West, a distance of 271.0057
Thence North 27-14-21 West, a distance of 679.4763
Thence North 09-26-25 West, a distance of 669.1250
Thence North 15-50-43 West, a distance of 716.4738
Thence North 22-47-41 West, a distance of 436.5304
Thence North 20-37-42 West, a distance of 399.1550
Thence North 05-56-49 West, a distance of 259.3960
Thence North 12-05-28 West, a distance of 264.3646
Thence North 14-27-19 East, a distance of 118.1782
Thence North 50-21-25 East, a distance of 158.1102
Thence North 65-13-15 East, a distance of 328.2188
Thence North 82-49-41 East, a distance of 264.3181
Thence South 84-49-29 East, a distance of 420.5895
Thence South 77-19-12 East, a distance of 411.1524
Thence South 62-03-23 East, a distance of 453.0744
Thence South 53-30-14 East, a distance of 237.5929
Thence South 57-59-51 East, a distance of 266.6488
Thence South 66-45-48 East, a distance of 360.0835
Thence South 74-02-50 East, a distance of 326.3171
Thence South 70-08-39 East, a distance of 314.8424
Thence South 63-01-30 East, a distance of 234.3736
Thence South 35-38-22 East, a distance of 237.4798

Thence South 42-04-07 East, a distance of 284.3200
Thence South 48-59-46 East, a distance of 322.1632
Thence South 55-05-28 East, a distance of 338.9985
Thence South 76-41-52 East, a distance of 627.2030
Thence South 80-50-12 East, a distance of 689.1699
Thence South 68-34-43 East, a distance of 243.1736
Thence South 51-17-14 East, a distance of 422.9187
Thence South 23-13-07 East, a distance of 305.0162
Thence South 17-07-37 East, a distance of 348.0598
Thence South 20-36-34 East, a distance of 243.2560
Thence South 77-20-44 East, a distance of 411.1112
Thence North 88-22-32 East, a distance of 489.4467
Thence South 89-35-23 East, a distance of 209.5054
Thence South 77-48-51 East, a distance of 428.1470
Thence South 46-33-41 East, a distance of 358.4156
Thence South 54-02-09 East, a distance of 300.5375
Thence North 76-21-42 East, a distance of 288.1242
Thence North 17-30-54 East, a distance of 237.5765
Thence North 16-48-48 East, a distance of 309.4149
Thence North 34-06-01 East, a distance of 125.9718
Thence North 84-56-56 East, a distance of 368.4308
Thence South 89-35-24 East, a distance of 227.1308
Thence South 79-15-43 East, a distance of 390.4622
Thence South 89-35-24 East, a distance of 751.1442
Thence North 68-02-21 East, a distance of 321.0451
Thence North 76-24-34 East, a distance of 144.1615
Thence North 82-57-46 East, a distance of 405.0514
Thence North 77-54-02 East, a distance of 322.0287
Thence South 66-25-23 East, a distance of 265.9506
Thence South 68-58-41 East, a distance of 149.3127
Thence North 54-52-10 East, a distance of 300.6385
Thence North 29-27-12 East, a distance of 179.7287
Thence North 56-43-55 East, a distance of 251.9098
Thence South 81-28-20 East, a distance of 370.4709
Thence South 78-57-07 East, a distance of 284.3959
Thence South 67-47-29 East, a distance of 470.2621
Thence South 83-24-48 East, a distance of 650.0405
Thence South 87-51-03 East, a distance of 576.6556
Thence North 81-40-49 East, a distance of 229.7933
Thence South 89-34-59 East, a distance of 524.0139
Thence South 80-08-29 East, a distance of 424.8993
Thence South 68-58-59 East, a distance of 149.1738
Thence South 85-18-12 East, a distance of 700.7279
Thence North 69-21-28 East, a distance of 243.2410
Thence North 83-18-13 East, a distance of 140.9616
Thence North 87-02-55 East, a distance of 297.3945
Thence South 84-24-08 East, a distance of 385.7145
Thence South 73-38-13 East, a distance of 381.5806
Thence South 60-46-31 East, a distance of 398.7573
Thence South 44-33-51 East, a distance of 197.5537
Thence South 44-36-26 East, a distance of 148.2746
Thence South 80-51-20 East, a distance of 229.6689
Thence South 77-41-23 East, a distance of 339.1733
Thence South 80-08-20 East, a distance of 106.1940
Thence South 74-17-21 East, a distance of 199.1918
Thence South 63-03-57 East, a distance of 156.1926

Thence South 89-35-24 East, a distance of 139.7536
Thence North 69-52-16 East, a distance of 149.1074
Thence South 74-22-05 East, a distance of 199.2446
Thence South 54-02-09 East, a distance of 150.2688
Thence South 57-32-02 East, a distance of 164.7486
Thence South 80-08-39 East, a distance of 212.5112
Thence South 81-28-20 East, a distance of 246.9807
Thence South 57-34-32 East, a distance of 164.8208
Thence South 59-51-45 East, a distance of 281.7053
Thence South 49-18-45 East, a distance of 297.3849
Thence South 53-35-18 East, a distance of 237.6448
Thence South 41-33-00 East, a distance of 235.0086
Thence South 49-00-08 East, a distance of 483.1160
Thence South 55-49-43 East, a distance of 125.8518
Thence South 44-35-25 East, a distance of 123.5701
Thence South 44-36-30 East, a distance of 271.6237
Thence South 44-36-10 East, a distance of 197.5973
Thence South 31-11-39 East, a distance of 266.6825
Thence South 29-50-24 East, a distance of 242.6743
Thence South 26-09-18 East, a distance of 273.3663
Thence South 28-55-20 East, a distance of 320.7559
Thence South 44-37-15 East, a distance of 247.0063
Thence South 39-21-54 East, a distance of 136.3797
Thence South 39-30-43 East, a distance of 1115.9357
Thence South 56-57-13 East, a distance of 518.5041
Thence South 32-18-58 East, a distance of 290.6424
Thence South 54-36-52 East, a distance of 213.2716
Thence South 47-36-34 East, a distance of 234.9146
Thence South 44-35-24 East, a distance of 172.8920
Thence South 35-05-29 East, a distance of 150.2478
Thence South 59-20-24 East, a distance of 242.6739
Thence South 59-19-30 East, a distance of 242.5664
Thence South 89-35-24 East, a distance of 139.7536
Thence South 89-35-24 East, a distance of 139.7536
Thence South 89-35-23 East, a distance of 52.3763
Thence North 67-16-06 East, a distance of 132.9522
Thence North 00-24-32 East, a distance of 52.5643
Thence North 33-16-47 West, a distance of 62.8730
Thence North 58-37-01 West, a distance of 203.6710
Thence North 47-58-30 West, a distance of 210.3380
Thence North 50-17-39 West, a distance of 248.1038
Thence North 41-34-22 West, a distance of 235.0915
Thence North 35-34-47 West, a distance of 237.6102
Thence North 52-44-11 West, a distance of 261.9812
Thence North 49-21-11 West, a distance of 297.5341
Thence North 49-21-20 West, a distance of 297.3572
Thence North 44-34-50 West, a distance of 271.7576
Thence North 38-15-35 West, a distance of 335.4983
Thence North 27-27-57 West, a distance of 336.0671
Thence North 50-30-00 West, a distance of 360.1165
Thence North 21-23-39 West, a distance of 470.1461
Thence North 10-11-56 West, a distance of 284.4954
Thence North 07-44-11 West, a distance of 246.9982
Thence North 19-33-17 West, a distance of 204.2826
Thence North 41-52-09 West, a distance of 259.7636
Thence North 63-00-09 West, a distance of 429.5609

Thence North 43-07-25 West, a distance of 481.8419
Thence North 42-44-17 West, a distance of 382.9316
Thence North 28-24-46 West, a distance of 398.7864
Thence North 28-23-07 West, a distance of 398.6130
Thence North 38-46-12 West, a distance of 608.4346
Thence North 72-21-04 West, a distance of 530.2057
Thence North 77-53-41 West, a distance of 517.3797
Thence North 84-31-51 West, a distance of 596.0885
Thence North 68-33-48 West, a distance of 486.5318
Thence North 67-12-28 West, a distance of 642.2768
Thence North 76-42-02 West, a distance of 627.0671
Thence North 60-32-28 West, a distance of 899.1237
Thence North 75-54-13 West, a distance of 665.1543
Thence North 66-23-19 West, a distance of 665.0515
Thence North 80-51-29 West, a distance of 459.4613
Thence North 74-27-13 West, a distance of 669.4943
Thence North 63-02-06 West, a distance of 312.4704
Thence North 73-53-13 West, a distance of 580.5569
Thence North 76-51-43 West, a distance of 555.1563
Thence North 72-03-23 West, a distance of 347.9228
Thence North 71-08-13 West, a distance of 497.2030
Thence North 69-01-58 West, a distance of 746.1565
Thence North 46-26-06 West, a distance of 382.9739
Thence North 55-28-34 West, a distance of 654.0611
Thence North 65-37-13 West, a distance of 516.0126
Thence North 73-38-41 West, a distance of 508.7107
Thence North 70-36-46 West, a distance of 591.0123
Thence North 69-01-55 West, a distance of 447.6429
Thence North 64-48-32 West, a distance of 1750.7575
Thence North 68-24-13 West, a distance of 917.8053
Thence North 68-02-33 West, a distance of 1427.2827
Thence North 64-07-22 West, a distance of 1625.0677
Thence North 43-46-42 West, a distance of 876.7911
Thence North 47-49-40 West, a distance of 655.7561
Thence North 61-41-57 West, a distance of 335.8997
Thence North 51-42-49 West, a distance of 199.2231
Thence North 48-40-34 West, a distance of 346.7099
Thence North 47-34-33 West, a distance of 235.0408
Thence North 36-26-36 West, a distance of 174.6548
Thence North 09-53-20 East, a distance of 106.2668
Thence South 78-41-19 East, a distance of 462.3561
Thence South 74-50-24 East, a distance of 343.1933
Thence South 79-53-51 East, a distance of 726.5141
Thence South 82-28-31 East, a distance of 422.3874
Thence North 74-29-44 East, a distance of 254.3821
Thence North 67-11-37 East, a distance of 399.0744
Thence North 60-41-37 East, a distance of 281.6756
Thence North 79-05-27 East, a distance of 445.1700
Thence North 00-26-51 East, a distance of 192.0059
Thence North 31-36-58 West, a distance of 164.7668
Thence North 80-07-13 West, a distance of 637.4534
Thence North 79-17-00 West, a distance of 585.8427
Thence North 83-52-06 West, a distance of 702.1421
Thence North 81-40-22 West, a distance of 634.8176
Thence North 71-46-52 West, a distance of 513.7552
Thence North 78-48-11 West, a distance of 746.7136

Thence North 70-26-56 West, a distance of 905.9868
Thence North 65-52-49 West, a distance of 2823.3710
Thence North 52-03-27 West, a distance of 1519.7285
Thence North 36-15-37 West, a distance of 1023.5333
Thence North 28-50-12 West, a distance of 1501.3573
Thence North 03-16-40 East, a distance of 699.5825
Thence North 40-00-38 East, a distance of 657.5376
Thence North 55-55-24 East, a distance of 339.1029
Thence North 56-42-53 East, a distance of 377.8643
Thence North 26-59-25 East, a distance of 312.6105
Thence North 71-58-47 East, a distance of 497.0045
Thence North 80-06-42 East, a distance of 585.9547
Thence South 87-23-25 East, a distance of 454.3462
Thence North 42-41-35 East, a distance of 519.3043
Thence North 65-30-29 East, a distance of 539.2736
Thence North 85-13-27 East, a distance of 192.9198
Thence South 77-48-22 East, a distance of 428.1601
Thence South 79-18-05 East, a distance of 195.2692
Thence North 69-51-14 East, a distance of 298.5136
Thence North 28-19-28 East, a distance of 335.9044
Thence North 31-22-11 East, a distance of 305.6825
Thence North 56-01-15 East, a distance of 402.0238
Thence North 82-39-26 East, a distance of 387.8052
Thence North 78-08-24 East, a distance of 411.1519
Thence North 60-22-03 East, a distance of 383.3919
Thence North 59-26-14 East, a distance of 203.6705
Thence North 05-12-58 East, a distance of 210.3711
Thence North 54-35-53 West, a distance of 426.4772
Thence North 11-40-50 West, a distance of 250.0533
Thence North 49-48-05 East, a distance of 161.0345
Thence North 48-23-44 East, a distance of 235.0392
Thence North 00-24-37 East, a distance of 174.5675
Thence North 23-13-24 West, a distance of 304.9592
Thence North 70-45-15 East, a distance of 259.7676
Thence South 78-49-18 East, a distance of 373.3326
Thence South 72-19-46 East, a distance of 530.4007
Thence North 68-01-44 East, a distance of 321.0687
Thence North 61-21-05 East, a distance of 179.8988
Thence North 15-39-15 East, a distance of 199.2007
Thence North 00-24-37 East, a distance of 174.5675
Thence North 09-52-20 West, a distance of 195.3932
Thence North 38-41-05 West, a distance of 359.9806
Thence North 38-15-35 West, a distance of 335.4983
Thence North 24-47-03 West, a distance of 328.3020
Thence North 18-01-30 West, a distance of 220.9698
Thence North 00-27-21 East, a distance of 157.1300
Thence North 24-36-33 West, a distance of 289.0680
Thence North 26-08-49 West, a distance of 195.4380
Thence North 37-10-21 West, a distance of 286.5286
Thence North 71-10-31 West, a distance of 276.0141
Thence North 89-35-24 West, a distance of 366.7594
Thence North 47-18-37 West, a distance of 259.8516
Thence North 02-26-15 West, a distance of 349.7545
Thence North 02-27-48 West, a distance of 125.0526
Thence North 02-27-50 West, a distance of 78.5106
Thence North 02-27-01 West, a distance of 146.1957

Thence North 05-17-26 West, a distance of 351.1208
Thence North 29-50-24 West, a distance of 242.6743
Thence North 87-54-29 West, a distance of 594.1460
Thence South 25-25-45 West, a distance of 289.0690
Thence South 07-33-35 West, a distance of 54.1577
Thence South 07-31-36 West, a distance of 368.3617
Thence South 15-40-43 West, a distance of 398.2550
Thence South 21-34-12 West, a distance of 580.7325
Thence South 17-07-05 West, a distance of 546.9813
Thence South 18-03-11 West, a distance of 403.3575
Thence South 25-37-23 West, a distance of 328.0751
Thence South 34-42-09 West, a distance of 465.0331
Thence South 25-01-48 West, a distance of 461.1868
Thence South 54-23-57 West, a distance of 475.1916
Thence South 69-37-52 West, a distance of 541.7496
Thence North 73-56-54 West, a distance of 453.4280
Thence North 48-34-43 West, a distance of 532.4290
Thence North 28-23-07 West, a distance of 398.6121
Thence North 54-35-53 West, a distance of 426.4777
Thence North 16-41-42 West, a distance of 237.5764
Thence North 12-06-59 West, a distance of 322.1772
Thence North 33-16-47 West, a distance of 251.7194
Thence North 60-46-31 West, a distance of 398.7569
Thence North 40-31-06 West, a distance of 346.7031
Thence North 29-18-46 West, a distance of 281.6207
Thence North 31-34-49 West, a distance of 329.6291
Thence North 65-37-55 West, a distance of 344.1602
Thence North 33-16-48 West, a distance of 314.8173
Thence North 40-10-53 West, a distance of 160.9938
Thence South 48-09-08 West, a distance of 259.5913
Thence South 05-10-56 West, a distance of 210.3598
Thence South 01-52-06 East, a distance of 437.1073
Thence South 17-14-28 East, a distance of 403.1796
Thence South 16-17-52 East, a distance of 546.9801
Thence South 17-24-29 East, a distance of 513.9131
Thence South 44-35-54 East, a distance of 296.2405
Thence South 40-10-11 East, a distance of 322.2593
Thence South 35-07-29 East, a distance of 300.4644
Thence South 31-25-13 East, a distance of 596.0948
Thence South 27-28-50 East, a distance of 335.9003
Thence South 04-21-44 East, a distance of 210.3594
Thence South 42-01-35 West, a distance of 210.4263
Thence South 45-23-50 West, a distance of 197.5089
Thence South 52-08-16 West, a distance of 422.9006
Thence South 45-24-36 West, a distance of 469.3541
Thence South 70-25-56 West, a distance of 408.8638
Thence South 66-59-15 West, a distance of 571.0711
Thence South 33-18-10 West, a distance of 353.7851
Thence South 37-17-32 West, a distance of 349.2845
Thence South 49-29-46 West, a distance of 346.7099
Thence South 65-13-51 West, a distance of 328.1924
Thence South 55-43-12 West, a distance of 276.0820
Thence South 59-26-46 West, a distance of 407.4482
Thence South 55-41-57 West, a distance of 385.3996
Thence South 74-49-34 West, a distance of 746.6568
Thence South 88-29-17 West, a distance of 502.1748

Exhibit C – Description of the Basin

Thence North 70-28-56 West, a distance of 460.1936
Thence North 69-36-20 West, a distance of 783.2207
Thence North 43-33-28 West, a distance of 939.4676
Thence South 90-00-00 East, a distance of 0.0000
to the point of beginning.

Perimeter: 140686.1563

Area: 191218952.8402 4389.7831 acres

Legal Description for Intake Sub-basin

Beginning at a point lying North 03-03-37 East, a distance of 8693.42 feet from the north one quarter corner of Section 7, Township 5 South, Range 1 East, S.B.B. & M.:

Thence North 43-33-19 West, a distance of 1036.0201
Thence North 40-54-46 West, a distance of 2583.7541
Thence North 31-11-35 West, a distance of 1531.8376
Thence North 29-04-17 West, a distance of 883.9252
Thence North 09-00-43 East, a distance of 1454.7700
Thence North 54-11-24 West, a distance of 779.7834
Thence North 87-31-53 West, a distance of 469.5258
Thence South 14-02-10 West, a distance of 1192.3299
Thence South 19-44-49 West, a distance of 1658.1895
Thence South 20-33-22 West, a distance of 1709.5454
Thence South 30-34-45 West, a distance of 1022.5993
Thence South 37-11-05 West, a distance of 1456.6566
Thence South 37-20-58 West, a distance of 1912.8988
Thence South 36-19-37 West, a distance of 1688.8119
Thence South 47-17-26 West, a distance of 1415.9609
Thence South 51-20-25 West, a distance of 1024.9459
Thence South 62-35-33 West, a distance of 1217.0825
Thence South 67-50-01 West, a distance of 1166.6981
Thence South 53-21-57 West, a distance of 2545.3471
Thence South 51-32-23 East, a distance of 1521.6193
Thence South 52-06-41 East, a distance of 3640.2127
Thence South 54-16-42 East, a distance of 2832.0686
Thence South 54-45-45 East, a distance of 8093.9477
Thence South 66-45-32 East, a distance of 1985.2225
Thence South 63-00-45 East, a distance of 1076.6119
Thence South 57-44-44 East, a distance of 10768.6202
Thence South 52-42-56 East, a distance of 2888.8756
Thence South 55-53-51 East, a distance of 6249.5878
Thence South 52-42-56 East, a distance of 2888.8756
Thence South 53-45-11 East, a distance of 2138.0014
Thence South 64-43-22 East, a distance of 2206.1030
Thence North 46-42-44 West, a distance of 156.7825
Thence North 44-35-15 West, a distance of 405.2711
Thence North 46-18-48 West, a distance of 669.1426
Thence North 37-52-35 West, a distance of 693.8574
Thence North 34-17-42 West, a distance of 906.2395
Thence North 33-57-07 West, a distance of 659.8059
Thence North 44-35-16 West, a distance of 608.0830
Thence North 46-47-40 West, a distance of 1054.3274
Thence North 48-19-10 West, a distance of 1868.4824
Thence North 56-06-31 West, a distance of 2130.4779
Thence North 66-07-44 West, a distance of 1655.6256
Thence North 58-12-53 West, a distance of 1376.2780
Thence North 41-24-29 West, a distance of 730.8163
Thence North 41-13-30 West, a distance of 345.0212
Thence North 26-08-55 West, a distance of 384.6138
Thence North 13-37-46 West, a distance of 354.3535
Thence North 41-34-35 West, a distance of 385.5755
Thence North 42-50-20 West, a distance of 669.1777

Thence North 50-29-55 West, a distance of 1181.6210
Thence North 31-24-48 West, a distance of 978.2580
Thence North 26-09-14 West, a distance of 704.9949
Thence North 08-33-23 West, a distance of 551.1343
Thence North 10-42-42 East, a distance of 640.9180
Thence North 35-06-54 East, a distance of 453.0875
Thence North 45-23-44 East, a distance of 243.3389
Thence North 52-32-18 East, a distance of 326.7674
Thence North 00-25-00 East, a distance of 171.8795
Thence North 34-34-34 West, a distance of 349.7803
Thence North 44-35-13 West, a distance of 337.0774
Thence North 59-20-26 West, a distance of 310.8241
Thence North 42-07-01 West, a distance of 362.8961
Thence North 66-22-49 West, a distance of 339.4363
Thence North 61-29-59 West, a distance of 379.0620
Thence North 55-04-55 West, a distance of 865.4271
Thence North 37-47-48 West, a distance of 1333.2990
Thence North 31-20-45 West, a distance of 1101.0137
Thence North 44-35-54 West, a distance of 598.8896
Thence North 37-57-12 West, a distance of 682.2970
Thence North 41-51-15 West, a distance of 662.8068
Thence North 53-45-51 West, a distance of 494.8303
Thence North 45-42-20 West, a distance of 804.0414
Thence North 46-45-44 West, a distance of 1246.0249
Thence North 26-09-14 West, a distance of 249.2721
Thence North 17-13-52 West, a distance of 1029.1928
Thence North 16-05-57 West, a distance of 627.4825
Thence North 21-23-19 West, a distance of 960.3948
Thence North 10-53-51 West, a distance of 909.1444
Thence North 09-47-36 West, a distance of 1132.4407
Thence North 14-50-24 West, a distance of 1778.9616
Thence North 24-22-09 West, a distance of 638.3066
Thence North 18-48-47 West, a distance of 1015.1730
Thence North 21-07-46 West, a distance of 910.5965
Thence North 31-35-33 West, a distance of 630.8741
Thence North 27-28-23 West, a distance of 428.6517
Thence North 20-26-50 West, a distance of 500.9370
Thence North 33-29-10 West, a distance of 1188.9727
Thence South 90-00-00 East, a distance of 0.0000
to the point of beginning.

Perimeter: 115214.4657

Area: 308717524.7511 7087.1792 acres

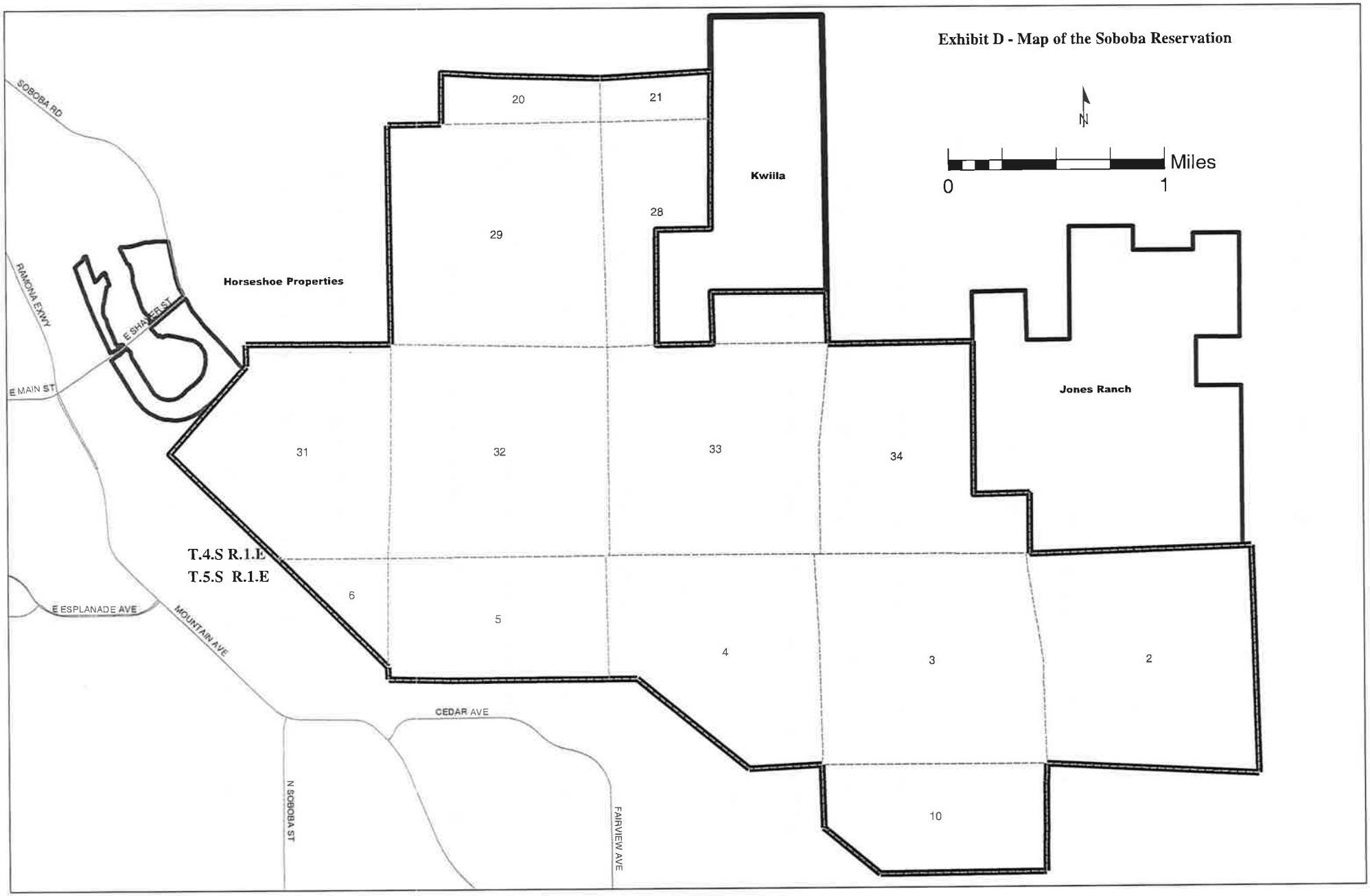


Exhibit D - Map of the Soboba Reservation
N
Miles
0
1
SOBOBA RD
RAMONA EXWY
E MAIN ST
E ESPLANADE AVE
MOUNTAIN AVE
CEDAR AVE
N SOBOBA ST
FAIRVIEW AVE
Horseshoe Properties
Kwiila
Jones Ranch
20
21
28
29
31
32
33
34
6
5
4
3
2
10
T.4.S R.1.E
T.5.S R.1.E

PRINCIPLES FOR WATER MANAGEMENT

1. Water Management Plan. These Principles, approved by the appropriate authority of each party, are intended to form the basis from which the parties will develop a Water Management Plan ("Management Plan") for the area described in Section 2. The Management Plan is being developed to ensure an adequate and reliable source of future water supply. The Management Plan is also intended to facilitate and accommodate a settlement of the claims of the Soboba Band of Luiseno Indians ("Soboba Tribe").

2. Management Area. The area included in the Management Plan consists of the Canyon Sub-basin and the San Jacinto Upper Pressure Sub-basin, downstream to Bridge Street, and the Hemet Basins ("Management Area"). The Management Area is shown upon the attached map.

3. Pumpers within the Management Area. The primary pumpers within the Management Area are: Eastern Municipal Water District ("Eastern"), Lake Hemet Municipal Water District ("Lake Hemet"), City of San Jacinto ("San Jacinto"), and City of Hemet ("Hemet") (individually

"Public Agency," collectively "Public Agencies"); the Soboba Tribe (not a Management Plan participant); and approximately 62 individual agricultural and other private pumpers who pump more than 25 acre-feet per year ("Private Pumpers").

4. Goals. The parties agree that the Management Plan shall incorporate and serve to implement the following goals:

A. Allowing for Future Urban Growth. The parties acknowledge that the Management Area will continue to experience residential, commercial, and industrial growth and development, and that existing water production and service systems will need to be expanded to meet this growth. It is estimated that at least 15,000 afy incremental water supply capacity over the existing base production rights of the Public Agencies must be dedicated to adequately serve this growth. The Management Plan should serve and provide a clear planning process so that each affected Public Agency will be able to meet these projected growth needs.

B. Water Quality Protection. Implementation of the Management Plan should protect and/or enhance Management Area water quality. However, implementation of certain elements of the Management Plan may cause limited localized water quality degradation. If such degradation impedes the then current beneficial use of any Public Agency in the Management Area, the Watermaster described in Section 22 ("Watermaster") shall implement appropriate mitigation measures to ensure water supply to the affected Public Agency and bear the associated costs. The standards for local water quality degradation shall be defined in the Management Plan.

C. Cost-Effective Management. The Management Plan should serve to support the pursuit of cost-effective water supply and water treatment by the Public Agencies, both individually and collectively.

D. Overdraft. The groundwater levels within the Management Area have generally been declining for a number of years, and the Management Area is presently in a condition of overdraft. It is recognized that the Management Plan will, within a reasonable period, eliminate groundwater overdraft and enhance operational yield by

implementing a combination of available water resources management elements. These elements include: reduction in native groundwater production; enhanced recharge with native, imported and/or recycled water; development of supplemental supplies such as imported and recycled water; and water conservation programs.

E. Monitoring. The Watermaster shall implement a monitoring program to ensure the Management Plan activities follow best management and engineering principles to protect Management Area water resources.

5. Public Agencies Base Production Rights.

A. The base production rights of Eastern, Lake Hemet and Hemet in the first year of the Management Plan shall be based upon their average production for calendar years 1995-1999. This period was chosen to reflect these Public Agencies' recent pumping, and shall determine their base production rights.

B. The base production right of San Jacinto in the first year of the Management Plan, shall be based upon its average production for calendar years 1995-1999, plus 500 afy. The 500 afy is added because San Jacinto's recent production does not reflect its historic production because of water purchases and other factors.

C. Pursuant to Section 21 below, for the life of the Management Plan, Hemet and San Jacinto shall each add an additional 900 afy to their base production rights. The additional 900 afy shall not be subject to reduction by the Watermaster as provided in Section 5.D and shall not be subject to any Administrative or Replenishment Assessments as provided in Section 6, or other fee or charge imposed under the Management Plan.

D. It is the goal of the Management Plan to adjust base production rights over time to a level consistent with the Watermaster's calculation of the Public Agencies' share of safe yield for the Management Area. Based on current information, it appears that the total reduction in base production rights will need to be approximately 35%. The ultimate reduction will be based on periodic demand, hydrology, recharge and

availability of imported water. In order to implement this reduction in a phased manner, each Public Agency's base production rights shall be subject to adjustment as follows:

(1) A 10% reduction from the base production rights in the first year of the Management Plan; and

(2) Until base production rights are consistent with the Public Agencies' share of safe yield, Watermaster shall determine the reductions in base production rights in each subsequent year of the Management Plan, to achieve this goal within 6 years of approval of the Management Plan. Each reduction shall not be more than 10% of the base production right of the prior year.

(3) Pursuant to Section 7(A)(2)(b), upon conversion of a Class B Participant's land from agricultural to a use that requires water service from a Public Agency, the Public Agency shall receive an increase in its base production rights equal to the adjusted base production right of the Class B Participant.

6. Public Agency Production Assessments. The Public Agency production will be subject to the following assessments:

A. An Administrative Assessment on each acre-foot pumped by a Public Agency up to its adjusted base production right. The parties contemplate that the Administrative Assessment will be $50.00 per acre-foot of water pumped in the first year of the Management Plan, and that such amount will thereafter be set by the Watermaster.

B. A Replenishment Assessment on each acre-foot pumped by a Public Agency in excess of its adjusted base production right equal to the cost of providing a like quantity of supplemental water to recharge the Management Area, including recharge losses. Pumping by a Public Agency in excess of its adjusted base production right in order to meet increasing demands is expected and permissible, provided that such excess extractions shall be subject to the Replenishment Assessment. The costs of providing a like quantity of supplemental water shall include the costs of water, O&M costs of the replenishment system, capital recovery and other administrative costs. Currently, the total of these cost items is estimated to be in the range

of $300 to $400 per acre-feet; the actual amount will reflect the costs at the time incurred.

7. Private Pumpers Water Rights. The Public Agencies recognize the overlying water rights of the Private Pumpers, and do not intend to take or adversely impact these rights without an agreement with the owner of such rights. The Management Plan will lay out alternatives for the retention, protection, or transfer of such rights, leaving selection of the alternative to the individual overlying water rights owner. A Private Pumper can elect not to participate in the Management Plan and not to formally acknowledge its existence. Such Pumpers shall be referred to herein as "Non-Participants"; such Pumpers shall continue to exercise whatever water rights they may hold under California law unaffected by the Management Plan. There is no intent to affect water use that is consistent with the historical use of the Private Pumpers. However, other pumpers under the Management Plan do not waive their rights to challenge new or expanded water rights. Non-Participants will not have the option of joining the program at a later date. The alternatives available to participants are as follows:

A. (1) Class A Participation. A Private Pumper can elect to sign a written agreement acknowledging the existence of the Management Plan. Such Pumper shall be a Class A Participant and shall be entitled to vote for and/or be elected to serve as the Private Pumper representative on the Management Plan's governing board or body described in Paragraph 22 below, but shall not otherwise be required to participate in the Management Plan implementation. A Class A Participant may, without any financial assessment by the Watermaster, pump from his/her/its property within the Management Area the amount of water that can be put to reasonable and beneficial use on the Pumper's land as may be authorized under California law. Class A Participants shall have the right to convert to Class B Participation during a grace period that shall end three (3) years after the effective date of the Management Plan, as approved by a judgment of the Superior Court for Riverside County, upon payment of the total assessments the Pumper would have paid had the Pumper elected to be a member of Class B from the outset, plus interest.

(2) Class B Participation. A Private Pumper can become a Class B Participant by electing to limit annual pumping to the Pumper's average annual production during the calendar years 1995 through

1999 and to pay replenishment assessments on amounts in excess of that average annual production. A Class B Participant shall enjoy the following benefits of Plan Participation:

a. Vote for and/or be elected to serve as the Private Pumper's representative on the Management Plan's Governing Board;

b. Upon conversion of Pumper's land from agricultural use to a use that requires water service from a participating Public Agency, Public Agency shall credit to the extent legally permissible, Pumper or Pumper's successor-in-interest's adjusted production right, using the formula in Section 5 towards satisfaction of any requirement then in effect for water supply assessment requirements. Furthermore, Pumper or Pumper's successor-in-interest shall be given a credit for Pumper's adjusted production right using the formula in Section 5 towards any fees associated with water supply that the Public Agency may then have in effect. The Public Agency serving the converted land shall receive a credit to its production right as set forth in Section 5.

c. To the extent the Pumper's land is not covered under Section 7(A)(2)(b), Pumper will be eligible to enter into a contract with the Management Plan, or a participating Public Agency, to sell for a defined period of time some portion of Pumper's adjusted production right, under terms and conditions mutually agreed upon by the Pumper and the Management Plan. Criteria used in consideration of such contract shall include:

(i) Management Plan's need to acquire additional water supplies to address Basin overdraft and recovery;

(ii) Submission of a water conservation plan, including use of in lieu water, by Pumper that will reasonably guarantee conservation of water that would otherwise be produced from the Basin;

(iii) Public policy considerations of local government jurisdictions, including economic and land use impacts of proposed water conservation plan.

B. In-Lieu Water Use. In the event a Private Pumper (or successor) receives recycled and/or imported water from a Public Agency to serve an overlying use in place of groundwater, or otherwise engages in an in-lieu program, the overlying water right of the Private Pumper (or successor) shall not be diminished by the receipt and use of such recycled and/or imported water or by engaging in an in-lieu program.

C. Well Monitoring. To become a Class A or B Participant, a Private Pumper shall authorize the metering of the Pumper's well(s) and the collection of groundwater level and quality data, and the reading thereof by Management Plan personnel. The metering and reading shall be at no cost to the Pumper, and the Pumper shall receive copies of the reports and information obtained upon request.

D. Future Production Participation. Any new Pumper after the effective date of the Management Plan, as approved by a judgment of the Superior Court for Riverside County, can only participate as a Class A Participant as described in Section 7A(1).

E. Replacement Wells. The redrilling of existing wells and the drilling of new wells to replace existing wells will not be considered new private production.

8. Capital Facilities. Each Public Agency shall continue to own its existing capital facilities for water management. However, capital facilities may be jointly constructed and owned by the Management Plan. Joint financing of such facilities may be funded by regional capital fees, loans and grants, contributions for storage by The Metropolitan Water District of Southern California ("Metropolitan") or other third-parties, and municipal bonds. Responsibility for the costs of any existing and future capital facility of the Management Plan should be apportioned among the Public Agencies based on relative benefit to be derived by each Public Agency. Any of the participating Public Agencies may propose projects to be included in the Management Plan to increase Management Area water supply. Such proposals, after evaluation by the Watermaster, shall be included or rejected. If the Watermaster chooses to reject the proposal, the proposing Public Agency may implement the rejected project as long as it does not significantly impact the implementation of the Management Plan and/or interfere with the ongoing production by the Public Agencies.

9. Soboba Tribe's Water Rights. The Soboba Tribe's water rights shall be determined as part of a settlement among the Soboba Tribe, the United States, Eastern, Lake Hemet and Metropolitan. Major points of the proposed settlement are:

A. The Soboba Tribe shall have a senior, prior right in the Canyon and San Jacinto Upper Pressure Sub-basins of 9000 afy, but its use shall be limited to a maximum of 4100 afy during the first 50 years after the effective date of the settlement.

B. The Soboba Tribe shall have the right to purchase replenishment water for use pursuant to the Principles of Settlement at the Management Plan replenishment rate.

C. The Soboba settlement provides that, among other things, Metropolitan will use its best efforts to deliver sufficient water to yield a 15-year average of 7,500 afy to the Management Plan until 2035 at its long-term interruptible rate (currently $233/af).

D. Subject to full funding of the settlement by the United States, the Management Plan shall pay the Soboba Tribe $10 million.

E. The Management Plan will also pay the Soboba Tribe $7 million. A Public Agency's payment of its share of this amount is optional, but in order to obtain the benefits of the low-cost Metropolitan water delivered pursuant to the settlement, a Public Agency shall pay its share of this amount.

F. The Management Plan will receive $10 million for capital improvements from the United States, and all unused Soboba Tribe water based on the Public Agency's participation in the payment in Section 9(E) above.

10. Implementation of These Principles. These Interim Principles for Water Management shall be used by the parties as a basis for the preparation of the Management Plan, and a stipulated judgment in a water rights adjudication. As explained below, the Management Plan shall be administered by the Watermaster. The Watermaster will be under the continuing jurisdiction of the Court.

11. Assessment Program. The assessment program contemplated by the Management Plan shall be administered by the Watermaster subject to the governance provisions herein. All payments shall be made to the Watermaster and shall be maintained in a separate restricted fund. All assessments shall be used exclusively to acquire imported, recycled or Metropolitan water for the recharge of the Management Area, and for the facilities and operational and administrative expenses associated with the assessment and recharge programs. Subject to Management Plan approval, assessments may also be used by affected parties to acquire and deliver water for direct use by the parties, in lieu of pumping.

12. Replenishment Program. The replenishment program contemplated by the Management Plan shall also be administered by the Watermaster. The program shall include: the acquisition of supplemental water supplies (including imported, recycled and Soboba Tribe water); the expenditure of assessments; the recharge of the Management Area; and the construction and operation of all necessary facilities, including but not limited to, development of surface and sub-surface percolation and injection facilities. Priority for replenishment will be based on an equitable

apportionment of available replenishment water among the sub-basins after full consideration of: the Public Agency's participation in the payment in Section 9(E) above; the Management Area conditions; water demands; the availability of storage capacity to accommodate the recharge of natural flows; the availability of appropriate conveyance facilities; and the availability of replenishment or imported water. The Watermaster is encouraged to take advantage of surplus imported water that occasionally may be available at low cost, and to use available assessment funds to bank such recharge against future pumping in excess of adjusted production rights.

13. Rights to Groundwater. Groundwater in the Management Area may occur from: natural recharge; spreading operations of natural flows; replenishment with imported, recycled or Metropolitan water acquired with assessment funds; or in-lieu recharge programs financed with assessment funds. All such groundwater shall be available to support the pumping of the parties as allowed herein, and shall not be the property of any individual party, subject to the provisions of Section 14.

14. Storage Rights. The parties recognize that unused storage capacity exists in the Management Area, and the Management Plan contemplates that this capacity will be managed conjunctively with available imported and recycled water supplies. Subject to availability of the Management Plan fund for assessments and unused storage capacity as determined by Watermaster, the Management Area will be recharged and water stored therein when such supplies are available, and drawn upon by the Public Agencies in dry years when such supplemental water supplies may not be available. In addition, unused storage capacity as determined by Watermaster may be used for "put and take" operations of recycled or imported water that is paid for by any party to the Management Plan provided that:

A. Such operations do not interfere with the rights of any other pumper, or with the use of the storage capacity for recharge and storage under the Management Plan;

B. Water available for recharge is purchased first, as needed, for the Management Plan;

C. Later recovery of stored water shall exclude losses; and

D. Such recovered water may be used anywhere within the service area of the party.

Any conjunctive use programs for the benefit of territory outside of the Management Area shall be subject to the governance provisions herein. Any storage, conjunctive use programs by third parties or in-lieu recharge programs financed with assessment funds shall be subject to the governance provisions herein.

15. Spreading Operations. The Public Agencies shall independently or jointly operate their respective facilities to maximize the existing spreading and recharge operations of natural flow in the Management Area.

16. Recharge Water Quality. Consistent with Section 4(E) above all water used to replenish any sub-basin in the Management Area shall meet the Regional Water Quality Control Board requirements, and may be used in any sub-basin where such requirements are met.

17. Recharge Losses. The accounting for storage recharge of the Management Area shall not include any water that escapes therefrom and migrates downstream beyond the Management Area. Losses will be calculated based upon best engineering principles.

18. Recycled Water. The use of recycled water can be of substantial benefit in providing additional water in the Management Area. Each Public Agency may implement a recycled water program, including the ownership, operation and construction of all necessary facilities, and the application for and administration of any loan or grant applications. The Management Plan will support loan or grant applications, and the Public Agencies will work to integrate recycled water into the Management Plan to the extent economically feasible while meeting regulatory standards. Subject to existing recycled water contracts, the Management Plan will have a first right of refusal to purchase excess recycled water for recharge. Priority shall be given to Management Area recharge for the use of recycled water which originates therefrom.

19. Export. The Public Agencies may export water outside the Management Area, on a temporary basis, upon approval by the Watermaster.

However, any water exported shall be replenished with an appropriate amount of similar or better quality water as determined by Watermaster. Also, water exports by the Public Agencies shall not interfere with the Management Plan or any other Public Agency's operations. The Management Plan will set forth the specific criteria for the export of water, including, but not limited to, conjunctive use programs.

20. Credits. Recharge credits documented before the Management Plan shall be calculated pursuant to the Management Plan. Future recharge credits shall be established by replenishment of water or by not exercising the full, adjusted base production right, and shall be calculated pursuant to the Management Plan.

21. Tunnel Seepage, Stream Diversions, Fruitvale To resolve Eastern's use of Tunnel seepage, Lake Hemet's stream diversions and Eastern's use of Fruitvale water, 900 afy shall be added to Hemet's adjusted base production and 900 afy shall be added to San Jacinto's adjusted base production right as discussed in Section 5 above. This is intended to provide Hemet and San Jacinto a fair share of water from these disputed issues.

22. Governance. The Management Plan will be administered by a Watermaster as follows:

A. The governing board of the Watermaster shall consist of one elected official from each of the Public Agencies and one Private Pumper representative selected by the Private Pumpers who participate in the Management Plan. Each member shall have one vote.

B. The Watermaster's duties shall include: determining safe yield; determining replenishment needs; determining annual adjusted base production rights; purchasing and selling imported and recycled water; constructing future capital facilities; establishing assessment rates; initiating necessary conservation and drought management measures; and implementing other responsibilities identified in the Management Plan documents.

Dated: _____, 2004.

EASTERN MUNICIPAL WATER DISTRICT

By: _____

Dated: _____, 2004. LAKE HEMET MUNICIPAL WATER DISTRICT

By: _____

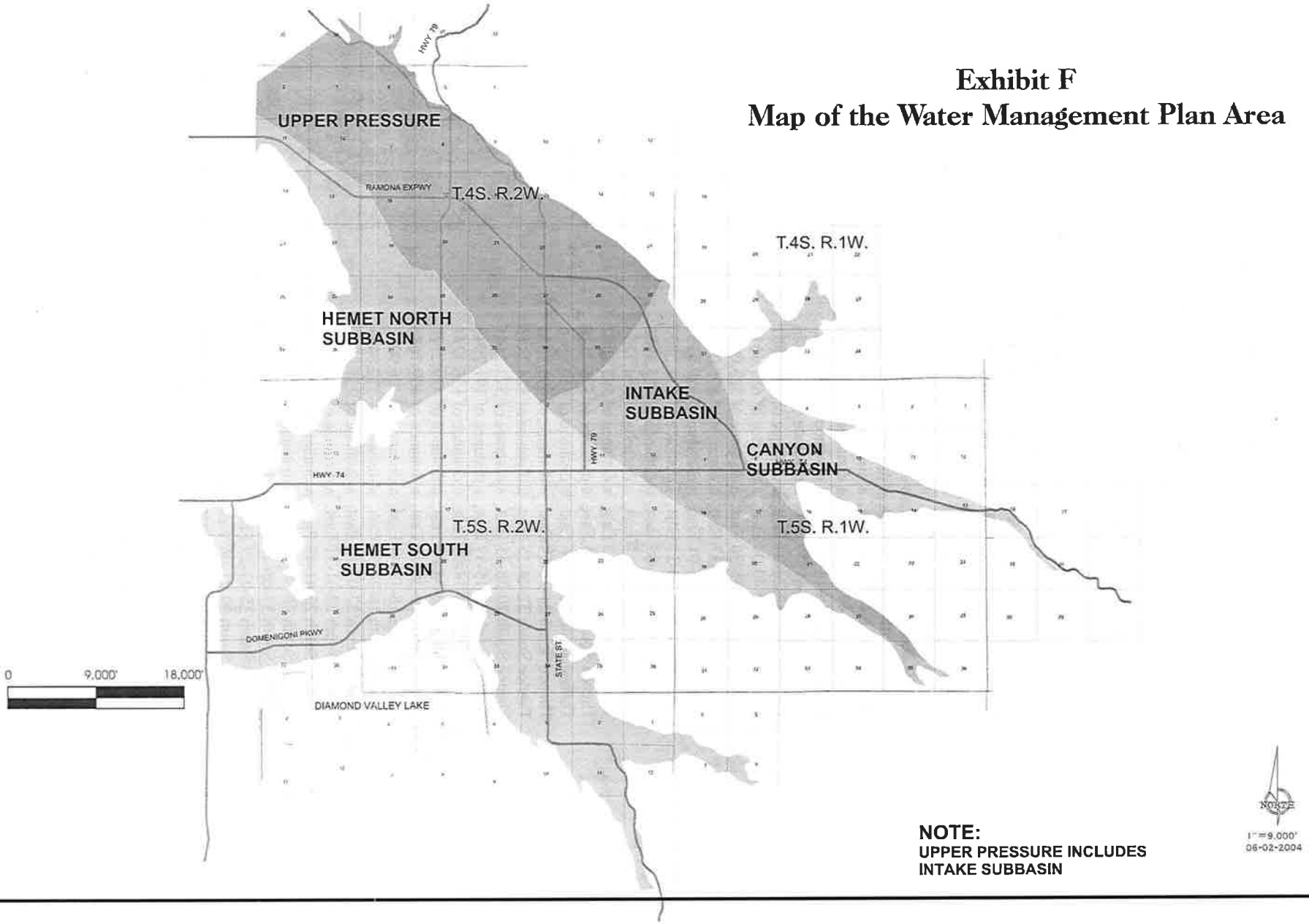
Dated: _____, 2004. CITY OF HEMET

By: _____

Dated: _____, 2004. CITY OF SAN JACINTO

By: _____

Exhibit F
Map of the Water Management Plan Area



NOTE:
UPPER PRESSURE INCLUDES INTAKE SUBBASIN

Exhibit G – Description of the Water Management Plan Area

Water Management Plan Area

Beginning at the North quarter Corner of Section 2, Township 4 South, Range 2 West, S.B.B.& M.:

Thence South 55-09-46 West, a distance of 3086.02 to the True Point of Beginning;

Thence South 01-57-57 West, a distance of 3159.1491
Thence South 00-29-02 West, a distance of 429.3273
Thence South 00-14-26 West, a distance of 1908.6588
Thence South 01-46-37 West, a distance of 1567.6119
Thence North 55-21-31 East, a distance of 446.8379
Thence North 26-23-15 East, a distance of 631.4127
Thence South 87-18-21 East, a distance of 191.4616
Thence South 87-17-52 East, a distance of 446.7468
Thence South 70-03-12 East, a distance of 419.5431
Thence South 48-59-17 East, a distance of 352.6834
Thence South 49-46-27 East, a distance of 298.9505
Thence South 38-14-56 East, a distance of 408.2682
Thence South 43-41-06 East, a distance of 568.0886
Thence South 33-24-04 East, a distance of 907.5881
Thence South 39-40-04 East, a distance of 681.4619
Thence South 44-35-36 East, a distance of 523.0954
Thence South 40-05-37 East, a distance of 805.0741
Thence South 37-55-01 East, a distance of 359.8351
Thence South 35-20-31 East, a distance of 531.5890
Thence South 22-00-05 East, a distance of 405.3986
Thence South 17-22-41 East, a distance of 504.7266
Thence South 25-17-32 East, a distance of 595.1082
Thence South 32-14-23 East, a distance of 575.2528
Thence South 38-11-56 East, a distance of 414.9866
Thence South 21-26-59 East, a distance of 691.8554
Thence South 22-44-15 East, a distance of 524.2415
Thence South 20-38-45 East, a distance of 573.2541
Thence South 32-15-39 East, a distance of 191.7948
Thence South 88-14-08 East, a distance of 156.3241
Thence South 46-34-05 East, a distance of 439.2778
Thence South 12-36-58 East, a distance of 409.7686
Thence South 18-19-44 East, a distance of 426.9082
Thence South 16-24-51 East, a distance of 572.8471
Thence South 22-07-10 East, a distance of 731.9991
Thence South 22-31-31 East, a distance of 720.1255
Thence South 22-41-43 East, a distance of 1039.9629
Thence South 38-30-56 East, a distance of 426.1504
Thence South 37-08-43 East, a distance of 350.8795
Thence South 35-21-27 East, a distance of 265.6921
Thence South 00-21-06 West, a distance of 692.3260
Thence South 09-53-35 East, a distance of 427.7983
Thence South 14-00-56 East, a distance of 460.9092
Thence South 00-49-47 East, a distance of 353.9741
Thence South 39-14-44 West, a distance of 334.1122
Thence North 88-16-13 West, a distance of 312.6425
Thence North 88-15-40 West, a distance of 327.5258

Exhibit G – Description of the Water Management Plan Area

Thence South 65-20-48 West, a distance of 211.1187
Thence South 51-19-16 West, a distance of 262.9182
Thence North 81-25-48 West, a distance of 270.5204
Thence North 00-23-36 East, a distance of 254.9440
Thence North 14-20-10 West, a distance of 196.8810
Thence North 69-38-37 West, a distance of 331.8501
Thence North 88-16-15 West, a distance of 312.7674
Thence South 45-39-54 West, a distance of 220.8974
Thence South 00-40-33 West, a distance of 158.9491
Thence South 08-40-14 West, a distance of 373.9607
Thence South 18-56-44 West, a distance of 166.3231
Thence South 13-04-14 East, a distance of 219.4350
Thence South 88-17-54 East, a distance of 208.3419
Thence South 52-36-50 East, a distance of 454.9685
Thence South 57-10-41 East, a distance of 307.7555
Thence South 10-23-15 East, a distance of 271.0676
Thence South 47-38-04 East, a distance of 488.4199
Thence South 38-59-11 East, a distance of 489.7587
Thence South 43-18-04 East, a distance of 225.0918
Thence South 36-19-43 East, a distance of 1211.7791
Thence South 00-40-32 West, a distance of 159.0111
Thence South 15-40-02 East, a distance of 555.4493
Thence South 32-13-48 East, a distance of 383.6829
Thence South 34-03-33 East, a distance of 457.3251
Thence South 06-55-29 West, a distance of 478.9941
Thence South 11-48-53 West, a distance of 538.4695
Thence South 04-00-47 East, a distance of 639.4428
Thence South 57-16-59 West, a distance of 374.5463
Thence South 59-59-38 West, a distance of 302.6944
Thence South 45-44-02 West, a distance of 220.8122
Thence South 40-23-23 West, a distance of 407.4181
Thence South 27-02-10 West, a distance of 234.5719
Thence South 18-54-48 West, a distance of 499.3999
Thence South 18-54-28 West, a distance of 332.9008
Thence South 08-40-29 West, a distance of 373.7759
Thence South 11-49-45 West, a distance of 538.4344
Thence South 00-40-31 West, a distance of 318.1471
Thence South 00-39-43 West, a distance of 530.0974
Thence South 30-14-06 West, a distance of 422.2534
Thence South 31-26-41 West, a distance of 305.2671
Thence South 77-24-27 West, a distance of 214.1513
Thence North 25-17-38 West, a distance of 238.1444
Thence South 35-31-17 West, a distance of 637.9021
Thence South 39-15-19 West, a distance of 169.0961
Thence South 39-13-20 West, a distance of 165.0641
Thence South 39-14-20 West, a distance of 668.3212
Thence South 30-15-45 West, a distance of 422.1539
Thence South 06-16-29 West, a distance of 531.8110
Thence South 18-55-03 West, a distance of 166.5596
Thence South 21-01-01 West, a distance of 449.2623
Thence South 27-03-08 West, a distance of 351.8017
Thence South 31-28-15 West, a distance of 305.2794
Thence South 45-41-33 West, a distance of 515.4747
Thence South 77-23-51 West, a distance of 642.2232
Thence South 85-54-45 West, a distance of 522.5793
Thence North 82-59-20 West, a distance of 576.5611

Exhibit G – Description of the Water Management Plan Area

Thence North 64-53-25 West, a distance of 400.6090
Thence North 66-16-35 West, a distance of 566.0858
Thence North 38-59-11 West, a distance of 489.7595
Thence North 32-14-03 West, a distance of 383.4039
Thence North 20-39-20 West, a distance of 286.6781
Thence North 43-18-43 West, a distance of 225.0460
Thence South 18-53-52 West, a distance of 166.3412
Thence North 88-17-24 West, a distance of 416.8106
Thence South 04-55-55 East, a distance of 533.6007
Thence South 51-18-38 East, a distance of 264.5584
Thence South 16-03-15 East, a distance of 723.6602
Thence South 34-10-30 West, a distance of 188.4831
Thence South 37-27-05 West, a distance of 261.0635
Thence South 06-18-55 East, a distance of 428.4127
Thence South 00-40-32 West, a distance of 371.0878
Thence South 66-17-12 East, a distance of 283.1573
Thence South 54-26-34 East, a distance of 380.8999
Thence South 18-53-51 West, a distance of 499.4190
Thence South 32-15-38 East, a distance of 191.7957
Thence South 14-32-01 West, a distance of 434.8520
Thence South 17-11-06 West, a distance of 549.9921
Thence South 31-27-03 West, a distance of 305.2142
Thence South 60-02-12 West, a distance of 302.7087
Thence South 60-45-52 West, a distance of 721.1047
Thence South 83-27-27 West, a distance of 367.5184
Thence South 57-14-27 West, a distance of 374.5758
Thence South 20-39-20 East, a distance of 286.6781
Thence South 88-16-51 East, a distance of 312.5156
Thence South 25-17-24 East, a distance of 476.0654
Thence South 57-08-56 East, a distance of 307.8569
Thence North 50-10-17 East, a distance of 479.5142
Thence North 29-05-00 East, a distance of 656.5286
Thence South 34-02-30 East, a distance of 457.5323
Thence South 17-22-42 East, a distance of 168.2415
Thence South 00-40-33 West, a distance of 158.9491
Thence South 60-02-12 West, a distance of 302.7087
Thence South 00-40-31 West, a distance of 371.2758
Thence South 67-32-00 East, a distance of 448.9489
Thence South 64-52-57 East, a distance of 400.4958
Thence North 71-51-49 East, a distance of 481.6809
Thence South 89-35-03 East, a distance of 344.3841
Thence South 46-25-17 East, a distance of 279.7030
Thence South 03-10-14 East, a distance of 409.0632
Thence South 23-51-22 West, a distance of 416.9340
Thence South 03-24-06 East, a distance of 383.4255
Thence South 66-09-28 East, a distance of 498.9547
Thence North 61-17-01 East, a distance of 418.4674
Thence North 62-31-22 East, a distance of 424.9349
Thence South 60-02-46 East, a distance of 439.7373
Thence South 24-58-10 East, a distance of 414.5596
Thence South 33-07-02 East, a distance of 260.1327
Thence South 34-34-28 East, a distance of 318.9559
Thence South 18-21-02 East, a distance of 308.8960
Thence South 13-34-41 West, a distance of 413.1727
Thence South 42-19-37 West, a distance of 343.9836
Thence South 63-55-07 West, a distance of 198.5981

Exhibit G – Description of the Water Management Plan Area

Thence North 85-31-13 West, a distance of 366.4946
Thence North 76-58-32 West, a distance of 406.8413
Thence North 72-11-08 West, a distance of 279.2651
Thence South 48-26-06 West, a distance of 204.3228
Thence South 34-26-55 West, a distance of 484.3828
Thence South 07-01-37 West, a distance of 389.2991
Thence South 05-32-54 East, a distance of 480.9402
Thence South 47-03-44 East, a distance of 682.8003
Thence South 21-46-09 East, a distance of 371.7621
Thence South 02-53-33 East, a distance of 483.0534
Thence South 14-20-24 West, a distance of 531.9487
Thence South 35-28-25 West, a distance of 663.8471
Thence South 52-23-59 West, a distance of 364.7668
Thence South 08-13-01 East, a distance of 698.7991
Thence South 67-31-20 East, a distance of 449.3910
Thence South 25-24-05 East, a distance of 238.0781
Thence South 22-14-37 West, a distance of 282.6599
Thence South 22-16-19 West, a distance of 282.6499
Thence South 26-41-31 East, a distance of 328.3674
Thence South 08-00-01 East, a distance of 374.5201
Thence South 00-14-32 West, a distance of 295.8146
Thence South 22-50-30 East, a distance of 524.2347
Thence South 32-19-47 East, a distance of 135.8012
Thence South 74-41-41 East, a distance of 495.5765
Thence North 87-48-16 East, a distance of 230.0439
Thence South 62-02-24 East, a distance of 271.0081
Thence South 27-01-09 East, a distance of 158.7654
Thence South 00-25-08 West, a distance of 188.1300
Thence South 47-28-36 West, a distance of 306.8174
Thence South 67-08-04 West, a distance of 1017.9951
Thence South 88-16-15 West, a distance of 559.2547
Thence North 38-00-54 West, a distance of 199.5152
Thence North 01-24-06 West, a distance of 209.4997
Thence North 29-50-03 West, a distance of 268.0941
Thence North 58-00-46 West, a distance of 880.2816
Thence North 18-49-54 East, a distance of 131.2772
Thence North 41-46-48 East, a distance of 881.2088
Thence North 53-22-34 East, a distance of 244.5273
Thence North 12-17-03 East, a distance of 196.8192
Thence North 32-10-09 West, a distance of 185.4739
Thence North 63-33-01 West, a distance of 250.0488
Thence North 87-33-20 West, a distance of 561.2607
Thence North 66-33-29 West, a distance of 616.6454
Thence North 08-43-43 East, a distance of 216.6340
Thence North 67-39-56 East, a distance of 702.4460
Thence North 35-11-58 East, a distance of 228.9973
Thence North 05-39-39 West, a distance of 221.7695
Thence North 52-37-23 West, a distance of 454.7550
Thence North 70-59-03 West, a distance of 713.5651
Thence North 88-13-32 West, a distance of 260.3749
Thence North 81-50-24 West, a distance of 472.9131
Thence North 46-37-10 West, a distance of 638.0651
Thence North 43-16-43 West, a distance of 300.1255
Thence North 38-12-54 West, a distance of 414.8389
Thence North 17-22-30 West, a distance of 336.5442
Thence North 15-44-09 East, a distance of 601.0252

Exhibit G – Description of the Water Management Plan Area

Thence North 17-21-42 West, a distance of 673.1694
Thence North 20-38-46 West, a distance of 573.2531
Thence North 18-52-30 West, a distance of 622.8685
Thence South 60-02-48 West, a distance of 302.6778
Thence North 69-38-36 West, a distance of 331.8504
Thence South 60-02-48 West, a distance of 302.6778
Thence North 43-18-30 West, a distance of 675.1831
Thence North 32-14-42 West, a distance of 383.5238
Thence North 57-09-25 West, a distance of 615.5074
Thence South 80-11-19 West, a distance of 529.6212
Thence South 86-26-44 West, a distance of 574.6054
Thence North 35-20-05 West, a distance of 531.4653
Thence North 00-38-55 East, a distance of 265.0170
Thence North 67-31-12 West, a distance of 448.8571
Thence South 88-18-10 West, a distance of 886.2638
Thence South 60-46-39 West, a distance of 721.0129
Thence South 45-41-01 West, a distance of 589.1057
Thence South 14-55-27 East, a distance of 387.3153
Thence South 00-40-32 West, a distance of 371.0888
Thence South 13-04-27 East, a distance of 438.7482
Thence South 21-26-38 East, a distance of 692.0304
Thence South 46-37-24 East, a distance of 638.0219
Thence South 47-03-19 East, a distance of 563.1754
Thence South 14-56-23 East, a distance of 387.4074
Thence South 23-12-42 East, a distance of 643.1882
Thence South 28-23-55 East, a distance of 428.9302
Thence South 14-56-32 East, a distance of 387.3475
Thence South 08-36-11 East, a distance of 323.3886
Thence South 04-55-55 East, a distance of 533.6007
Thence South 13-03-12 East, a distance of 205.8819
Thence South 09-36-40 East, a distance of 902.1630
Thence South 33-16-14 East, a distance of 321.9605
Thence South 36-27-41 West, a distance of 173.5290
Thence South 58-28-58 West, a distance of 639.1622
Thence South 01-42-32 East, a distance of 8216.1537
Thence North 78-59-47 East, a distance of 87.1013
Thence South 88-12-52 East, a distance of 469.3529
Thence South 74-02-23 East, a distance of 432.5486
Thence South 69-39-25 East, a distance of 664.8422
Thence South 88-10-48 East, a distance of 208.6052
Thence South 69-38-45 East, a distance of 498.6348
Thence South 82-26-13 East, a distance of 525.1939
Thence North 80-15-12 East, a distance of 265.0761
Thence South 69-37-59 East, a distance of 332.4062
Thence North 80-15-12 East, a distance of 265.0761
Thence North 61-21-31 East, a distance of 418.1679
Thence North 78-16-23 East, a distance of 907.4410
Thence South 79-58-51 East, a distance of 370.0179
Thence North 82-08-20 East, a distance of 316.2216
Thence North 55-40-58 East, a distance of 239.1251
Thence North 32-41-32 East, a distance of 260.8180
Thence North 87-54-28 East, a distance of 267.0530
Thence South 74-39-09 East, a distance of 360.3507
Thence South 81-59-59 East, a distance of 351.1678
Thence South 85-51-12 East, a distance of 535.0256
Thence North 74-27-22 East, a distance of 253.5225

Exhibit G – Description of the Water Management Plan Area

Thence North 68-04-45 East, a distance of 405.9771
Thence North 72-57-30 East, a distance of 164.2103
Thence North 68-40-29 East, a distance of 674.5618
Thence South 88-12-52 East, a distance of 469.3529
Thence North 84-02-19 East, a distance of 787.1317
Thence North 57-20-59 East, a distance of 187.2075
Thence North 72-57-06 East, a distance of 328.3010
Thence North 89-27-22 East, a distance of 1303.8087
Thence North 69-30-36 East, a distance of 279.4284
Thence North 55-24-17 East, a distance of 446.5897
Thence North 77-27-37 East, a distance of 428.3428
Thence North 57-20-59 East, a distance of 187.2075
Thence North 68-40-15 East, a distance of 674.4450
Thence North 54-02-04 East, a distance of 259.7702
Thence North 61-32-05 West, a distance of 236.0350
Thence North 11-48-13 East, a distance of 268.8725
Thence North 74-44-23 East, a distance of 542.1152
Thence North 79-01-23 East, a distance of 478.8868
Thence North 72-58-07 East, a distance of 328.4024
Thence North 39-15-47 East, a distance of 333.7907
Thence North 18-52-51 East, a distance of 332.5833
Thence North 77-29-05 East, a distance of 428.3020
Thence South 64-07-57 East, a distance of 518.8621
Thence South 88-12-19 East, a distance of 365.1791
Thence North 57-18-33 East, a distance of 748.5774
Thence North 30-13-53 East, a distance of 421.8035
Thence North 50-13-44 East, a distance of 479.1141
Thence North 27-01-48 East, a distance of 351.2419
Thence North 69-48-55 East, a distance of 347.5974
Thence North 73-52-54 East, a distance of 276.2335
Thence North 64-10-01 East, a distance of 564.5414
Thence North 48-25-39 East, a distance of 770.2680
Thence North 02-42-04 West, a distance of 363.4037
Thence North 07-15-13 East, a distance of 494.0156
Thence South 82-00-37 East, a distance of 544.5357
Thence North 23-34-36 East, a distance of 248.7655
Thence North 08-21-28 West, a distance of 257.9899
Thence North 12-57-56 West, a distance of 211.7095
Thence North 39-05-14 East, a distance of 188.3414
Thence South 59-36-44 East, a distance of 294.3064
Thence South 29-40-15 East, a distance of 384.3301
Thence North 77-27-50 East, a distance of 214.2324
Thence South 37-11-16 East, a distance of 340.4048
Thence South 29-37-50 East, a distance of 310.4751
Thence North 63-11-55 East, a distance of 298.2940
Thence North 54-27-48 East, a distance of 484.6434
Thence North 53-19-04 East, a distance of 504.0777
Thence North 70-16-43 East, a distance of 313.3817
Thence North 68-19-13 East, a distance of 338.7091
Thence South 79-55-46 East, a distance of 321.3256
Thence South 88-11-10 East, a distance of 260.6306
Thence South 88-14-05 East, a distance of 365.1733
Thence South 61-32-01 East, a distance of 235.8955
Thence South 69-37-59 East, a distance of 332.4058
Thence South 71-22-52 East, a distance of 548.3222
Thence South 13-09-09 East, a distance of 219.1868

Exhibit G – Description of the Water Management Plan Area

Thence South 22-05-36 East, a distance of 405.4599
Thence South 35-25-24 East, a distance of 265.9093
Thence South 61-31-13 East, a distance of 235.9251
Thence North 09-57-27 East, a distance of 320.9599
Thence North 12-08-01 West, a distance of 709.4744
Thence North 05-00-10 West, a distance of 533.2184
Thence North 31-28-03 East, a distance of 304.8291
Thence North 62-04-26 East, a distance of 534.2079
Thence North 76-04-08 East, a distance of 380.0540
Thence North 50-36-14 East, a distance of 898.3854
Thence South 60-30-43 East, a distance of 295.9651
Thence South 09-03-18 East, a distance of 874.4608
Thence South 42-03-39 West, a distance of 1049.7552
Thence South 33-04-47 East, a distance of 305.9692
Thence South 00-25-20 West, a distance of 424.0115
Thence South 08-41-25 West, a distance of 175.3885
Thence South 18-57-27 West, a distance of 88.8830
Thence South 00-37-56 West, a distance of 158.5727
Thence South 02-24-11 West, a distance of 420.3696
Thence South 10-51-56 West, a distance of 218.1612
Thence South 23-17-39 West, a distance of 1081.6711
Thence South 22-14-55 West, a distance of 282.6016
Thence South 09-56-34 West, a distance of 642.1445
Thence South 00-36-30 West, a distance of 423.7739
Thence South 05-36-43 East, a distance of 480.6166
Thence South 34-07-27 East, a distance of 457.6755
Thence South 43-22-35 East, a distance of 525.6352
Thence South 43-21-59 East, a distance of 468.2066
Thence South 86-51-47 East, a distance of 194.1659
Thence North 13-02-05 West, a distance of 207.2779
Thence North 31-29-15 East, a distance of 304.8943
Thence South 28-28-33 East, a distance of 429.1724
Thence South 00-37-56 West, a distance of 101.9432
Thence South 00-34-18 West, a distance of 162.8831
Thence South 79-04-14 West, a distance of 215.9165
Thence South 16-16-25 East, a distance of 365.7800
Thence South 29-40-24 East, a distance of 310.3196
Thence South 00-36-30 West, a distance of 211.8869
Thence South 11-46-39 West, a distance of 268.8469
Thence South 34-06-24 East, a distance of 457.6575
Thence South 32-18-47 East, a distance of 383.7376
Thence South 05-00-57 East, a distance of 533.2921
Thence South 18-52-51 West, a distance of 332.5833
Thence South 34-14-57 West, a distance of 564.8157
Thence South 62-30-45 West, a distance of 350.7168
Thence South 27-53-02 East, a distance of 1292.0070
Thence South 26-38-27 East, a distance of 844.3959
Thence South 35-16-45 East, a distance of 1398.9888
Thence South 43-11-11 East, a distance of 1392.1514
Thence South 42-14-40 East, a distance of 491.7866
Thence North 45-24-07 East, a distance of 151.1478
Thence South 77-29-31 East, a distance of 410.3647
Thence South 18-02-51 East, a distance of 181.1631
Thence South 39-21-33 East, a distance of 223.9113
Thence South 33-18-20 East, a distance of 206.6998
Thence South 00-25-39 West, a distance of 167.5677

Exhibit G – Description of the Water Management Plan Area

Thence South 54-42-30 East, a distance of 111.6424
Thence South 50-39-25 East, a distance of 838.8686
Thence North 11-47-14 West, a distance of 130.9483
Thence North 07-43-40 West, a distance of 202.6535
Thence North 00-24-22 East, a distance of 229.3178
Thence North 00-25-00 East, a distance of 171.8795
Thence North 37-17-40 East, a distance of 143.3793
Thence South 83-52-17 East, a distance of 288.0212
Thence South 35-07-26 East, a distance of 246.5899
Thence South 57-35-35 East, a distance of 270.2065
Thence South 66-24-50 East, a distance of 218.3676
Thence South 84-22-46 East, a distance of 316.5217
Thence South 67-45-17 East, a distance of 154.3641
Thence South 60-13-50 East, a distance of 526.0466
Thence South 30-34-27 East, a distance of 334.2156
Thence South 20-07-23 East, a distance of 244.8868
Thence South 21-23-16 East, a distance of 463.0777
Thence South 26-09-54 East, a distance of 192.1947
Thence South 37-28-06 East, a distance of 326.7182
Thence South 31-11-18 East, a distance of 437.6249
Thence South 36-28-24 East, a distance of 429.8103
Thence South 32-03-48 East, a distance of 373.6888
Thence South 38-14-10 East, a distance of 366.9793
Thence South 26-09-29 East, a distance of 448.5666
Thence South 26-08-48 East, a distance of 256.4284
Thence South 28-11-19 East, a distance of 359.0890
Thence South 27-53-11 East, a distance of 423.0643
Thence South 28-12-22 East, a distance of 359.1480
Thence South 32-03-30 East, a distance of 373.7422
Thence South 44-37-29 East, a distance of 80.9655
Thence North 18-52-20 East, a distance of 181.2433
Thence North 00-24-01 East, a distance of 143.1905
Thence North 14-50-58 West, a distance of 326.7890
Thence North 05-18-17 West, a distance of 287.9834
Thence North 00-24-59 East, a distance of 258.0698
Thence North 53-33-00 East, a distance of 143.2788
Thence North 84-41-51 East, a distance of 288.1079
Thence South 51-43-06 East, a distance of 326.7620
Thence South 44-34-21 East, a distance of 527.0298
Thence South 31-11-28 East, a distance of 437.3463
Thence South 33-58-56 East, a distance of 659.7382
Thence South 38-14-14 East, a distance of 550.5564
Thence South 63-00-06 East, a distance of 384.5311
Thence South 38-59-18 East, a distance of 1038.4843
Thence South 15-17-56 East, a distance of 952.6996
Thence South 55-56-23 East, a distance of 206.5605
Thence South 55-53-00 East, a distance of 516.8216
Thence South 38-53-16 East, a distance of 407.1779
Thence South 16-56-09 East, a distance of 1441.3852
Thence South 07-11-08 East, a distance of 433.7182
Thence South 21-02-16 East, a distance of 862.1560
Thence South 27-40-23 East, a distance of 487.1621
Thence South 26-09-29 East, a distance of 448.5666
Thence South 45-22-28 West, a distance of 81.1422
Thence South 06-42-29 East, a distance of 231.1453
Thence South 20-08-17 East, a distance of 244.7103

Exhibit G – Description of the Water Management Plan Area

Thence South 09-04-03 East, a distance of 174.4926
Thence South 09-02-24 East, a distance of 174.2271
Thence South 07-43-40 East, a distance of 202.6525
Thence South 00-24-00 West, a distance of 286.5700
Thence South 14-49-32 East, a distance of 326.8170
Thence South 00-24-00 West, a distance of 286.5070
Thence South 21-21-44 East, a distance of 154.4223
Thence South 13-37-15 East, a distance of 236.2051
Thence South 13-38-35 East, a distance of 236.3570
Thence South 15-31-50 East, a distance of 208.6814
Thence South 22-46-58 East, a distance of 218.2129
Thence South 22-46-35 East, a distance of 218.2700
Thence South 55-52-57 East, a distance of 206.7006
Thence South 78-16-53 East, a distance of 146.1716
Thence North 79-05-28 East, a distance of 292.2816
Thence North 74-28-54 East, a distance of 208.6048
Thence North 82-16-12 East, a distance of 202.5910
Thence South 89-35-39 East, a distance of 229.3808
Thence South 80-06-19 East, a distance of 174.2164
Thence North 22-12-54 East, a distance of 154.3976
Thence North 26-07-54 West, a distance of 192.1396
Thence North 36-27-45 West, a distance of 286.6826
Thence North 41-34-35 West, a distance of 385.5748
Thence North 26-08-54 West, a distance of 384.3343
Thence North 13-37-11 West, a distance of 354.5964
Thence North 24-22-44 West, a distance of 410.3376
Thence North 18-00-48 West, a distance of 362.5852
Thence North 12-07-44 West, a distance of 264.1464
Thence North 05-55-46 West, a distance of 519.0893
Thence North 00-24-59 East, a distance of 429.9494
Thence North 02-18-24 West, a distance of 602.4882
Thence North 02-04-24 West, a distance of 659.9320
Thence North 02-05-06 West, a distance of 659.6867
Thence North 25-08-41 West, a distance of 730.7479
Thence North 42-06-19 West, a distance of 466.4456
Thence North 19-15-13 West, a distance of 426.0813
Thence North 02-57-04 West, a distance of 488.0222
Thence North 00-24-41 East, a distance of 487.3876
Thence North 00-25-30 East, a distance of 286.5709
Thence North 19-34-09 West, a distance of 335.5043
Thence North 34-05-50 West, a distance of 556.3259
Thence North 22-12-56 West, a distance of 745.1916
Thence North 23-12-25 West, a distance of 500.5652
Thence North 06-43-37 West, a distance of 462.0560
Thence North 10-53-48 West, a distance of 292.2697
Thence North 00-25-22 East, a distance of 372.6971
Thence North 00-24-28 East, a distance of 544.3888
Thence North 00-24-21 East, a distance of 458.6995
Thence North 13-37-02 West, a distance of 472.5327
Thence North 16-18-14 West, a distance of 299.2196
Thence North 06-09-17 East, a distance of 287.9729
Thence North 63-49-21 East, a distance of 256.2870
Thence North 63-49-04 East, a distance of 192.3620
Thence South 89-35-15 East, a distance of 286.5074
Thence South 72-52-12 East, a distance of 299.4071
Thence South 36-27-54 East, a distance of 286.4572

Exhibit G – Description of the Water Management Plan Area

Thence South 63-00-19 East, a distance of 320.4094
Thence South 87-05-43 East, a distance of 659.8478
Thence South 87-18-26 East, a distance of 717.0418
Thence North 78-19-20 East, a distance of 410.3691
Thence North 86-20-49 East, a distance of 402.1922
Thence North 75-28-47 East, a distance of 444.9628
Thence North 68-35-42 East, a distance of 463.0656
Thence South 89-35-15 East, a distance of 573.1398
Thence North 74-30-26 East, a distance of 208.7087
Thence North 67-12-39 East, a distance of 218.1548
Thence North 40-38-39 East, a distance of 488.2085
Thence North 56-43-24 East, a distance of 309.9471
Thence North 82-49-48 East, a distance of 433.6411
Thence South 64-49-28 East, a distance of 410.3555
Thence South 79-35-09 East, a distance of 494.7756
Thence South 51-42-35 East, a distance of 326.8004
Thence South 67-19-51 East, a distance of 681.2553
Thence South 53-53-05 East, a distance of 1129.4102
Thence South 36-27-09 East, a distance of 573.2902
Thence South 69-38-11 East, a distance of 335.3323
Thence North 82-19-37 East, a distance of 202.6898
Thence North 75-09-58 East, a distance of 326.6362
Thence South 86-44-29 East, a distance of 573.9280
Thence South 44-35-15 East, a distance of 405.2711
Thence South 54-53-15 East, a distance of 453.2260
Thence South 26-08-48 East, a distance of 256.4275
Thence South 70-17-49 East, a distance of 607.3060
Thence South 72-29-09 East, a distance of 389.8210
Thence South 57-07-23 East, a distance of 373.7322
Thence South 78-17-20 East, a distance of 292.2079
Thence North 60-38-50 East, a distance of 231.0356
Thence North 63-52-05 East, a distance of 192.2792
Thence North 63-50-06 East, a distance of 256.2596
Thence North 33-14-52 West, a distance of 103.2813
Thence North 73-39-56 West, a distance of 208.6728
Thence North 83-14-16 West, a distance of 259.5556
Thence North 83-52-07 West, a distance of 287.8969
Thence North 38-15-29 West, a distance of 183.7039
Thence North 31-36-33 West, a distance of 270.2132
Thence North 06-40-38 West, a distance of 231.1308
Thence North 31-21-38 East, a distance of 167.1723
Thence North 36-29-06 West, a distance of 286.5315
Thence North 52-43-48 West, a distance of 143.2535
Thence North 12-07-13 West, a distance of 264.3292
Thence North 00-26-14 East, a distance of 229.3817
Thence North 49-48-32 East, a distance of 264.1064
Thence North 63-50-04 East, a distance of 64.2044
Thence North 81-00-14 East, a distance of 174.2687
Thence North 37-17-40 East, a distance of 143.3793
Thence North 11-41-40 East, a distance of 146.1588
Thence North 00-22-29 East, a distance of 114.6895
Thence North 44-33-45 West, a distance of 162.1090
Thence North 54-04-38 West, a distance of 246.5087
Thence North 74-39-06 West, a distance of 444.8663
Thence North 55-53-48 West, a distance of 206.6659
Thence North 81-26-16 West, a distance of 202.7599

Exhibit G – Description of the Water Management Plan Area

Thence North 89-35-15 West, a distance of 286.5074
Thence South 60-39-45 West, a distance of 231.1446
Thence South 75-28-47 West, a distance of 444.9625
Thence South 84-04-11 West, a distance of 259.5139
Thence North 74-39-14 West, a distance of 889.8532
Thence North 37-28-30 West, a distance of 326.6682
Thence North 60-56-43 West, a distance of 359.0601
Thence North 51-42-35 West, a distance of 326.8004
Thence North 74-40-45 West, a distance of 444.9374
Thence North 78-16-36 West, a distance of 584.4413
Thence North 59-50-38 West, a distance of 462.3204
Thence North 41-12-16 West, a distance of 345.1619
Thence North 36-28-24 West, a distance of 429.8103
Thence North 44-33-45 West, a distance of 324.2179
Thence North 78-17-37 West, a distance of 292.3305
Thence North 82-27-35 West, a distance of 230.9974
Thence North 85-45-59 West, a distance of 430.9259
Thence North 74-51-11 West, a distance of 563.0613
Thence South 86-51-26 West, a distance of 459.4410
Thence South 66-26-36 West, a distance of 282.2731
Thence North 87-12-58 West, a distance of 688.4375
Thence North 66-44-39 West, a distance of 590.7479
Thence North 71-08-45 West, a distance of 815.7709
Thence North 61-17-05 West, a distance of 423.1666
Thence North 75-34-27 West, a distance of 472.6522
Thence North 86-00-24 West, a distance of 459.4906
Thence North 54-52-19 West, a distance of 453.1594
Thence North 77-03-58 West, a distance of 792.7378
Thence North 64-34-10 West, a distance of 474.3353
Thence North 69-21-42 West, a distance of 580.3709
Thence North 65-57-27 West, a distance of 500.4138
Thence North 48-24-23 West, a distance of 914.0925
Thence North 48-58-47 West, a distance of 528.5110
Thence North 26-09-15 West, a distance of 576.8086
Thence North 28-38-22 West, a distance of 294.9630
Thence North 05-55-05 West, a distance of 259.4447
Thence North 39-03-22 East, a distance of 183.5086
Thence North 08-32-50 East, a distance of 202.6892
Thence North 18-02-29 West, a distance of 181.2221
Thence North 44-34-49 West, a distance of 283.6904
Thence North 16-56-18 West, a distance of 480.5332
Thence North 26-57-57 East, a distance of 63.9531
Thence North 26-59-06 East, a distance of 320.3812
Thence North 00-24-56 East, a distance of 86.1903
Thence North 13-36-07 West, a distance of 117.9965
Thence North 55-53-15 West, a distance of 103.4197
Thence North 80-07-57 West, a distance of 348.6579
Thence South 83-19-15 West, a distance of 231.0682
Thence South 71-56-46 West, a distance of 181.3012
Thence North 89-35-15 West, a distance of 286.5074
Thence North 65-37-31 West, a distance of 282.2862
Thence North 21-24-19 West, a distance of 154.4679
Thence North 00-25-00 East, a distance of 257.8188
Thence North 50-35-45 East, a distance of 223.8940
Thence North 72-00-09 East, a distance of 362.4866
Thence North 77-51-49 East, a distance of 264.2818

Exhibit G – Description of the Water Management Plan Area

Thence North 51-44-27 East, a distance of 367.0951
Thence North 54-54-11 East, a distance of 246.4308
Thence North 56-41-40 East, a distance of 310.0497
Thence North 62-07-05 East, a distance of 423.2595
Thence North 06-43-28 East, a distance of 259.4095
Thence North 21-22-37 West, a distance of 617.2803
Thence North 23-33-48 West, a distance of 282.3551
Thence North 89-33-45 West, a distance of 114.6283
Thence North 89-35-22 West, a distance of 401.2603
Thence South 69-51-30 West, a distance of 244.8490
Thence South 60-09-01 West, a distance of 398.0591
Thence South 54-23-11 West, a distance of 389.9315
Thence South 54-22-33 West, a distance of 389.8293
Thence South 61-48-41 West, a distance of 359.0890
Thence South 84-03-32 West, a distance of 259.6446
Thence North 89-35-15 West, a distance of 286.5074
Thence North 57-07-23 West, a distance of 373.7322
Thence North 00-24-59 East, a distance of 258.0698
Thence North 30-40-48 East, a distance of 398.0960
Thence North 00-23-59 East, a distance of 143.3785
Thence North 18-00-35 West, a distance of 90.5622
Thence North 40-11-02 West, a distance of 264.2419
Thence North 65-07-41 West, a distance of 346.2386
Thence North 83-15-30 West, a distance of 519.0892
Thence North 44-35-39 West, a distance of 324.3934
Thence North 60-59-24 West, a distance of 359.0481
Thence North 30-30-56 West, a distance of 167.1519
Thence North 18-02-29 West, a distance of 362.4451
Thence North 00-25-00 East, a distance of 171.9425
Thence North 53-32-05 East, a distance of 286.7694
Thence North 79-07-22 East, a distance of 292.1233
Thence South 89-35-23 East, a distance of 200.6301
Thence South 84-48-57 East, a distance of 345.1619
Thence South 50-18-17 East, a distance of 407.2701
Thence South 44-36-07 East, a distance of 324.3485
Thence South 47-35-44 East, a distance of 385.4597
Thence South 47-57-26 East, a distance of 345.2181
Thence South 50-18-41 East, a distance of 407.2305
Thence South 65-07-08 East, a distance of 346.2647
Thence South 85-11-02 East, a distance of 373.6944
Thence South 89-35-12 East, a distance of 372.6347
Thence North 70-25-25 East, a distance of 335.3866
Thence North 67-14-11 East, a distance of 218.3853
Thence North 32-23-49 East, a distance of 270.3989
Thence North 00-24-59 East, a distance of 344.0091
Thence North 06-44-46 West, a distance of 230.9107
Thence North 37-17-40 East, a distance of 286.7579
Thence North 00-23-34 East, a distance of 200.5677
Thence North 00-23-58 East, a distance of 143.4405
Thence North 54-03-04 West, a distance of 493.0265
Thence North 79-16-58 West, a distance of 640.9295
Thence North 85-45-54 West, a distance of 430.8012
Thence North 74-20-13 West, a distance of 653.5178
Thence North 71-09-25 West, a distance of 543.7674
Thence North 53-33-23 West, a distance of 779.7344
Thence North 26-08-55 West, a distance of 768.9482

Exhibit G – Description of the Water Management Plan Area

Thence North 21-24-02 West, a distance of 617.3128
Thence North 04-14-31 East, a distance of 430.9305
Thence North 42-24-18 East, a distance of 385.5473
Thence North 41-00-36 East, a distance of 264.2145
Thence North 30-08-41 East, a distance of 230.9893
Thence North 07-43-31 West, a distance of 202.7149
Thence North 40-45-25 West, a distance of 304.6257
Thence North 70-17-49 West, a distance of 607.3060
Thence North 55-54-46 West, a distance of 310.0155
Thence North 26-09-10 West, a distance of 256.3718
Thence North 00-27-01 East, a distance of 143.1924
Thence North 14-27-19 East, a distance of 118.1782
Thence North 00-23-59 East, a distance of 143.3785
Thence North 54-03-37 West, a distance of 246.4075
Thence North 81-58-34 West, a distance of 433.8727
Thence North 77-04-54 West, a distance of 264.1866
Thence North 37-26-54 West, a distance of 326.8667
Thence North 00-25-42 East, a distance of 200.6306
Thence North 00-24-14 East, a distance of 372.5092
Thence North 15-40-06 East, a distance of 326.7674
Thence North 16-21-03 East, a distance of 208.6903
Thence North 35-24-20 East, a distance of 349.7396
Thence North 63-50-04 East, a distance of 64.2044
Thence North 63-50-50 East, a distance of 256.3718
Thence North 56-43-24 East, a distance of 309.9471
Thence North 53-33-00 East, a distance of 286.5577
Thence North 76-22-18 East, a distance of 945.3672
Thence North 52-15-15 East, a distance of 510.2846
Thence North 66-11-52 East, a distance of 628.5904
Thence North 74-26-54 East, a distance of 625.9155
Thence North 58-25-38 East, a distance of 270.2542
Thence South 85-01-19 East, a distance of 718.8363
Thence South 63-01-36 East, a distance of 384.4457
Thence South 66-20-26 East, a distance of 218.3532
Thence South 69-03-13 East, a distance of 244.9364
Thence North 83-16-16 East, a distance of 230.9660
Thence North 53-34-47 East, a distance of 143.3794
Thence South 84-23-40 East, a distance of 949.5407
Thence South 56-51-35 East, a distance of 476.9601
Thence South 58-35-04 East, a distance of 167.2702
Thence North 84-03-22 East, a distance of 519.0406
Thence North 56-46-52 East, a distance of 103.2473
Thence North 58-23-45 East, a distance of 270.4916
Thence North 71-54-54 East, a distance of 90.6009
Thence South 89-35-01 East, a distance of 172.0045
Thence South 74-03-10 East, a distance of 535.4830
Thence South 44-34-13 East, a distance of 324.1737
Thence South 33-18-20 East, a distance of 310.0497
Thence South 20-36-19 East, a distance of 399.2270
Thence South 47-58-49 East, a distance of 345.0929
Thence South 53-33-09 East, a distance of 389.8856
Thence South 76-35-51 East, a distance of 764.7010
Thence South 81-44-01 East, a distance of 838.9669
Thence South 77-41-35 East, a distance of 556.5393
Thence South 84-08-48 East, a distance of 1209.1792
Thence South 87-06-12 East, a distance of 1319.5612

Exhibit G – Description of the Water Management Plan Area

Thence North 82-17-20 East, a distance of 607.8717
Thence South 89-35-38 East, a distance of 458.6365
Thence North 68-02-09 East, a distance of 526.8664
Thence North 76-22-18 East, a distance of 472.6836
Thence North 76-23-14 East, a distance of 590.8480
Thence South 89-35-37 East, a distance of 114.5029
Thence North 56-42-13 East, a distance of 103.4884
Thence North 63-53-06 East, a distance of 128.0747
Thence North 45-25-36 East, a distance of 243.2076
Thence North 29-27-11 East, a distance of 295.1445
Thence North 41-00-36 East, a distance of 264.2145
Thence South 89-35-37 East, a distance of 114.6279
Thence North 82-16-29 East, a distance of 202.7149
Thence South 89-35-00 East, a distance of 257.8818
Thence South 83-52-26 East, a distance of 288.1455
Thence South 52-40-48 East, a distance of 143.1916
Thence South 30-33-09 East, a distance of 167.2154
Thence South 09-52-16 West, a distance of 174.2679
Thence South 30-08-41 West, a distance of 230.9893
Thence South 22-12-22 West, a distance of 154.4560
Thence South 00-26-15 West, a distance of 229.1317
Thence South 00-23-59 West, a distance of 143.3785
Thence South 26-09-10 East, a distance of 384.5573
Thence South 30-33-01 East, a distance of 334.2063
Thence South 47-04-25 East, a distance of 466.5541
Thence South 59-51-47 East, a distance of 462.0867
Thence South 66-04-10 East, a distance of 718.7888
Thence South 60-34-06 East, a distance of 295.0830
Thence South 36-26-24 East, a distance of 429.9371
Thence South 38-16-32 East, a distance of 183.4302
Thence South 50-55-44 East, a distance of 367.0959
Thence South 80-07-32 East, a distance of 522.9976
Thence South 83-14-16 East, a distance of 259.5556
Thence South 89-35-00 East, a distance of 343.8841
Thence North 59-26-40 East, a distance of 167.0758
Thence North 60-38-50 East, a distance of 231.0356
Thence North 66-27-54 East, a distance of 282.3629
Thence North 63-51-05 East, a distance of 192.3069
Thence South 89-35-22 East, a distance of 200.5051
Thence South 44-36-00 East, a distance of 202.5910
Thence South 18-01-23 East, a distance of 181.4008
Thence South 13-38-22 East, a distance of 236.4173
Thence South 03-58-18 East, a distance of 373.5851
Thence South 10-53-48 East, a distance of 292.2697
Thence South 22-46-58 East, a distance of 218.2120
Thence South 31-34-53 East, a distance of 270.4261
Thence South 39-24-51 East, a distance of 223.8461
Thence North 76-20-46 East, a distance of 118.0872
Thence North 68-37-46 East, a distance of 154.3636
Thence North 18-52-43 East, a distance of 181.1847
Thence North 26-57-53 East, a distance of 256.3714
Thence North 18-50-39 East, a distance of 362.6232
Thence North 36-25-57 East, a distance of 389.8114
Thence North 45-25-49 East, a distance of 364.7890
Thence North 58-48-12 East, a distance of 437.5179
Thence North 73-54-12 East, a distance of 807.0133

Exhibit G – Description of the Water Management Plan Area

Thence South 89-35-13 East, a distance of 372.6347
Thence South 70-07-37 East, a distance of 516.6417
Thence South 57-26-00 East, a distance of 1184.7900
Thence South 42-06-12 East, a distance of 933.1152
Thence South 68-33-43 East, a distance of 399.1137
Thence South 44-35-55 East, a distance of 283.7774
Thence South 68-32-12 East, a distance of 399.1825
Thence South 71-10-13 East, a distance of 453.1256
Thence South 86-24-01 East, a distance of 516.6443
Thence South 63-00-36 East, a distance of 256.2886
Thence South 47-57-26 East, a distance of 345.2181
Thence South 61-08-28 East, a distance of 782.1325
Thence South 53-20-23 East, a distance of 533.2286
Thence South 58-37-21 East, a distance of 835.5739
Thence South 44-35-29 East, a distance of 526.8518
Thence South 68-43-27 East, a distance of 644.0187
Thence South 60-46-50 East, a distance of 654.2487
Thence South 56-28-54 East, a distance of 786.8458
Thence South 34-42-45 East, a distance of 946.2958
Thence South 31-35-39 East, a distance of 1081.5570
Thence South 24-47-42 East, a distance of 1076.9010
Thence South 09-02-24 East, a distance of 174.2261
Thence South 10-53-23 East, a distance of 292.4543
Thence South 29-50-59 East, a distance of 398.0591
Thence South 54-01-30 East, a distance of 246.5173
Thence South 55-54-06 East, a distance of 206.8047
Thence South 39-23-59 East, a distance of 223.7180
Thence South 35-07-27 East, a distance of 246.5891
Thence South 49-48-18 East, a distance of 223.7016
Thence South 71-06-40 East, a distance of 272.0239
Thence South 82-30-21 East, a distance of 230.9730
Thence South 89-35-39 East, a distance of 114.6279
Thence South 78-15-28 East, a distance of 146.1842
Thence South 63-02-06 East, a distance of 192.2788
Thence South 62-57-36 East, a distance of 128.1311
Thence North 00-22-28 East, a distance of 57.3762
Thence North 30-32-53 West, a distance of 166.9909
Thence North 36-27-13 West, a distance of 430.0114
Thence North 55-53-59 West, a distance of 309.9120
Thence North 29-50-11 West, a distance of 398.2213
Thence North 16-42-00 West, a distance of 389.7520
Thence North 03-40-13 West, a distance of 402.2620
Thence North 34-06-00 East, a distance of 310.1378
Thence South 89-35-37 East, a distance of 114.6279
Thence South 89-35-00 East, a distance of 257.8818
Thence South 33-18-20 East, a distance of 103.3499
Thence South 50-17-04 East, a distance of 407.3895
Thence South 83-51-32 East, a distance of 288.0279
Thence South 63-02-07 East, a distance of 192.2783
Thence South 58-09-42 East, a distance of 604.5925
Thence South 59-00-31 East, a distance of 732.2881
Thence North 85-12-37 East, a distance of 316.6057
Thence South 89-35-00 East, a distance of 343.8841
Thence South 79-34-59 East, a distance of 494.6526
Thence North 51-42-18 West, a distance of 326.6633
Thence North 53-35-56 West, a distance of 82.4656

Exhibit G – Description of the Water Management Plan Area

Thence North 53-34-06 West, a distance of 307.3090
Thence North 55-53-22 West, a distance of 413.3665
Thence North 72-53-50 West, a distance of 598.4647
Thence North 60-58-05 West, a distance of 718.2480
Thence North 46-42-41 West, a distance of 390.6740
Thence North 46-42-44 West, a distance of 156.7825
Thence North 44-35-15 West, a distance of 405.2711
Thence North 46-18-48 West, a distance of 669.1426
Thence North 37-52-35 West, a distance of 693.8574
Thence North 34-17-42 West, a distance of 906.2395
Thence North 33-57-07 West, a distance of 659.8059
Thence North 44-35-16 West, a distance of 608.0830
Thence North 46-47-40 West, a distance of 1054.3274
Thence North 48-19-10 West, a distance of 1868.4824
Thence North 56-06-31 West, a distance of 2130.4779
Thence North 66-07-44 West, a distance of 1655.6256
Thence North 58-12-53 West, a distance of 1376.2780
Thence North 41-24-29 West, a distance of 730.8163
Thence North 41-13-30 West, a distance of 345.0212
Thence North 26-08-55 West, a distance of 384.6138
Thence North 13-37-46 West, a distance of 354.3535
Thence North 41-34-35 West, a distance of 385.5755
Thence North 42-50-20 West, a distance of 669.1777
Thence North 50-29-55 West, a distance of 1181.6210
Thence North 31-24-48 West, a distance of 978.2580
Thence North 26-09-14 West, a distance of 704.9949
Thence North 08-33-23 West, a distance of 551.1343
Thence North 10-42-42 East, a distance of 640.9180
Thence North 35-06-54 East, a distance of 453.0875
Thence North 45-23-44 East, a distance of 243.3389
Thence North 52-32-18 East, a distance of 326.7674
Thence North 00-25-00 East, a distance of 171.8795
Thence North 34-34-34 West, a distance of 349.7803
Thence North 44-35-13 West, a distance of 337.0774
Thence North 44-35-20 West, a distance of 271.0057
Thence North 27-14-21 West, a distance of 679.4763
Thence North 09-26-25 West, a distance of 669.1250
Thence North 15-50-43 West, a distance of 716.4738
Thence North 22-47-41 West, a distance of 436.5304
Thence North 20-37-42 West, a distance of 399.1550
Thence North 05-56-49 West, a distance of 259.3960
Thence North 12-05-28 West, a distance of 264.3646
Thence North 14-27-19 East, a distance of 118.1782
Thence North 50-21-25 East, a distance of 158.1102
Thence North 65-13-15 East, a distance of 328.2188
Thence North 82-49-41 East, a distance of 264.3181
Thence South 84-49-29 East, a distance of 420.5895
Thence South 77-19-12 East, a distance of 411.1524
Thence South 62-03-23 East, a distance of 453.0744
Thence South 53-30-14 East, a distance of 237.5929
Thence South 57-59-51 East, a distance of 266.6488
Thence South 66-45-48 East, a distance of 360.0835
Thence South 74-02-50 East, a distance of 326.3171
Thence South 70-08-39 East, a distance of 314.8424
Thence South 63-01-30 East, a distance of 234.3736
Thence South 35-38-22 East, a distance of 237.4798

Exhibit G – Description of the Water Management Plan Area

Thence South 42-04-07 East, a distance of 284.3200
Thence South 48-59-46 East, a distance of 322.1632
Thence South 55-05-28 East, a distance of 338.9985
Thence South 76-41-52 East, a distance of 627.2030
Thence South 80-50-12 East, a distance of 689.1699
Thence South 68-34-43 East, a distance of 243.1736
Thence South 51-17-14 East, a distance of 422.9187
Thence South 23-13-07 East, a distance of 305.0162
Thence South 17-07-37 East, a distance of 348.0598
Thence South 20-36-34 East, a distance of 243.2560
Thence South 77-20-44 East, a distance of 411.1112
Thence North 88-22-32 East, a distance of 489.4467
Thence South 89-35-23 East, a distance of 209.5054
Thence South 77-48-51 East, a distance of 428.1470
Thence South 46-33-41 East, a distance of 358.4156
Thence South 54-02-09 East, a distance of 300.5375
Thence North 76-21-42 East, a distance of 288.1242
Thence North 17-30-54 East, a distance of 237.5765
Thence North 16-48-48 East, a distance of 309.4149
Thence North 34-06-01 East, a distance of 125.9718
Thence North 84-56-56 East, a distance of 368.4308
Thence South 89-35-24 East, a distance of 227.1308
Thence South 79-15-43 East, a distance of 390.4622
Thence South 89-35-24 East, a distance of 751.1442
Thence North 68-02-21 East, a distance of 321.0451
Thence North 76-24-34 East, a distance of 144.1615
Thence North 82-57-46 East, a distance of 405.0514
Thence North 77-54-02 East, a distance of 322.0287
Thence South 66-25-23 East, a distance of 265.9506
Thence South 68-58-41 East, a distance of 149.3127
Thence North 54-52-10 East, a distance of 300.6385
Thence North 29-27-12 East, a distance of 179.7287
Thence North 56-43-55 East, a distance of 251.9098
Thence South 81-28-20 East, a distance of 370.4709
Thence South 78-57-07 East, a distance of 284.3959
Thence South 67-47-29 East, a distance of 470.2621
Thence South 83-24-48 East, a distance of 650.0405
Thence South 87-51-03 East, a distance of 576.6556
Thence North 81-40-49 East, a distance of 229.7933
Thence South 89-34-59 East, a distance of 524.0139
Thence South 80-08-29 East, a distance of 424.8993
Thence South 68-58-59 East, a distance of 149.1738
Thence South 85-18-12 East, a distance of 700.7279
Thence North 69-21-28 East, a distance of 243.2410
Thence North 83-18-13 East, a distance of 140.9616
Thence North 87-02-55 East, a distance of 297.3945
Thence South 84-24-08 East, a distance of 385.7145
Thence South 73-38-13 East, a distance of 381.5806
Thence South 60-46-31 East, a distance of 398.7573
Thence South 44-33-51 East, a distance of 197.5537
Thence South 44-36-26 East, a distance of 148.2746
Thence South 80-51-20 East, a distance of 229.6689
Thence South 77-41-23 East, a distance of 339.1733
Thence South 80-08-20 East, a distance of 106.1940
Thence South 74-17-21 East, a distance of 199.1918
Thence South 63-03-57 East, a distance of 156.1926

Exhibit G – Description of the Water Management Plan Area

Thence South 89-35-24 East, a distance of 139.7536
Thence North 69-52-16 East, a distance of 149.1074
Thence South 74-22-05 East, a distance of 199.2446
Thence South 54-02-09 East, a distance of 150.2688
Thence South 57-32-02 East, a distance of 164.7486
Thence South 80-08-39 East, a distance of 212.5112
Thence South 81-28-20 East, a distance of 246.9807
Thence South 57-34-32 East, a distance of 164.8208
Thence South 59-51-45 East, a distance of 281.7053
Thence South 49-18-45 East, a distance of 297.3849
Thence South 53-35-18 East, a distance of 237.6448
Thence South 41-33-00 East, a distance of 235.0086
Thence South 49-00-08 East, a distance of 483.1160
Thence South 55-49-43 East, a distance of 125.8518
Thence South 44-35-25 East, a distance of 123.5701
Thence South 44-36-30 East, a distance of 271.6237
Thence South 44-36-10 East, a distance of 197.5973
Thence South 31-11-39 East, a distance of 266.6825
Thence South 29-50-24 East, a distance of 242.6743
Thence South 26-09-18 East, a distance of 273.3663
Thence South 28-55-20 East, a distance of 320.7559
Thence South 44-37-15 East, a distance of 247.0063
Thence South 39-21-54 East, a distance of 136.3797
Thence South 39-30-43 East, a distance of 1115.9357
Thence South 56-57-13 East, a distance of 518.5041
Thence South 32-18-58 East, a distance of 290.6424
Thence South 54-36-52 East, a distance of 213.2716
Thence South 47-36-34 East, a distance of 234.9146
Thence South 44-35-24 East, a distance of 172.8920
Thence South 35-05-29 East, a distance of 150.2478
Thence South 59-20-24 East, a distance of 242.6739
Thence South 59-19-30 East, a distance of 242.5664
Thence South 89-35-24 East, a distance of 139.7536
Thence South 89-35-24 East, a distance of 139.7536
Thence South 89-35-23 East, a distance of 52.3763
Thence North 67-16-06 East, a distance of 132.9522
Thence North 00-24-32 East, a distance of 52.5643
Thence North 33-16-47 West, a distance of 62.8730
Thence North 58-37-01 West, a distance of 203.6710
Thence North 47-58-30 West, a distance of 210.3380
Thence North 50-17-39 West, a distance of 248.1038
Thence North 41-34-22 West, a distance of 235.0915
Thence North 35-34-47 West, a distance of 237.6102
Thence North 52-44-11 West, a distance of 261.9812
Thence North 49-21-11 West, a distance of 297.5341
Thence North 49-21-20 West, a distance of 297.3572
Thence North 44-34-50 West, a distance of 271.7576
Thence North 38-15-35 West, a distance of 335.4983
Thence North 27-27-57 West, a distance of 336.0671
Thence North 50-30-00 West, a distance of 360.1165
Thence North 21-23-39 West, a distance of 470.1461
Thence North 10-11-56 West, a distance of 284.4954
Thence North 07-44-11 West, a distance of 246.9982
Thence North 19-33-17 West, a distance of 204.2826
Thence North 41-52-09 West, a distance of 259.7636
Thence North 63-00-09 West, a distance of 429.5609

Exhibit G – Description of the Water Management Plan Area

Thence North 43-07-25 West, a distance of 481.8419
Thence North 42-44-17 West, a distance of 382.9316
Thence North 28-24-46 West, a distance of 398.7864
Thence North 28-23-07 West, a distance of 398.6130
Thence North 38-46-12 West, a distance of 608.4346
Thence North 72-21-04 West, a distance of 530.2057
Thence North 77-53-41 West, a distance of 517.3797
Thence North 84-31-51 West, a distance of 596.0885
Thence North 68-33-48 West, a distance of 486.5318
Thence North 67-12-28 West, a distance of 642.2768
Thence North 76-42-02 West, a distance of 627.0671
Thence North 60-32-28 West, a distance of 899.1237
Thence North 75-54-13 West, a distance of 665.1543
Thence North 66-23-19 West, a distance of 665.0515
Thence North 80-51-29 West, a distance of 459.4613
Thence North 74-27-13 West, a distance of 669.4943
Thence North 63-02-06 West, a distance of 312.4704
Thence North 73-53-13 West, a distance of 580.5569
Thence North 76-51-43 West, a distance of 555.1563
Thence North 72-03-23 West, a distance of 347.9228
Thence North 71-08-13 West, a distance of 497.2030
Thence North 69-01-58 West, a distance of 746.1565
Thence North 46-26-06 West, a distance of 382.9739
Thence North 55-28-34 West, a distance of 654.0611
Thence North 65-37-13 West, a distance of 516.0126
Thence North 73-38-41 West, a distance of 508.7107
Thence North 70-36-46 West, a distance of 591.0123
Thence North 69-01-55 West, a distance of 447.6429
Thence North 64-48-32 West, a distance of 1750.7575
Thence North 68-24-13 West, a distance of 917.8053
Thence North 68-02-33 West, a distance of 1427.2827
Thence North 64-07-22 West, a distance of 1625.0677
Thence North 43-46-42 West, a distance of 876.7911
Thence North 47-49-40 West, a distance of 655.7561
Thence North 61-41-57 West, a distance of 335.8997
Thence North 51-42-49 West, a distance of 199.2231
Thence North 48-40-34 West, a distance of 346.7099
Thence North 47-34-33 West, a distance of 235.0408
Thence North 36-26-36 West, a distance of 174.6548
Thence North 09-53-20 East, a distance of 106.2668
Thence South 78-41-19 East, a distance of 462.3561
Thence South 74-50-24 East, a distance of 343.1933
Thence South 79-53-51 East, a distance of 726.5141
Thence South 82-28-31 East, a distance of 422.3874
Thence North 74-29-44 East, a distance of 254.3821
Thence North 67-11-37 East, a distance of 399.0744
Thence North 60-41-37 East, a distance of 281.6756
Thence North 79-05-27 East, a distance of 445.1700
Thence North 00-26-51 East, a distance of 192.0059
Thence North 31-36-58 West, a distance of 164.7668
Thence North 80-07-13 West, a distance of 637.4534
Thence North 79-17-00 West, a distance of 585.8427
Thence North 83-52-06 West, a distance of 702.1421
Thence North 81-40-22 West, a distance of 634.8176
Thence North 71-46-52 West, a distance of 513.7552
Thence North 78-48-11 West, a distance of 746.7136

Exhibit G – Description of the Water Management Plan Area

Thence North 70-26-56 West, a distance of 905.9868
Thence North 65-52-49 West, a distance of 2823.3710
Thence North 52-03-27 West, a distance of 1519.7285
Thence North 36-15-37 West, a distance of 1023.5333
Thence North 28-50-12 West, a distance of 1501.3573
Thence North 03-16-40 East, a distance of 699.5825
Thence North 40-00-38 East, a distance of 657.5376
Thence North 55-55-24 East, a distance of 339.1029
Thence North 56-42-53 East, a distance of 377.8643
Thence North 26-59-25 East, a distance of 312.6105
Thence North 71-58-47 East, a distance of 497.0045
Thence North 80-06-42 East, a distance of 585.9547
Thence South 87-23-25 East, a distance of 454.3462
Thence North 42-41-35 East, a distance of 519.3043
Thence North 65-30-29 East, a distance of 539.2736
Thence North 85-13-27 East, a distance of 192.9198
Thence South 77-48-22 East, a distance of 428.1601
Thence South 79-18-05 East, a distance of 195.2692
Thence North 69-51-14 East, a distance of 298.5136
Thence North 28-19-28 East, a distance of 335.9044
Thence North 31-22-11 East, a distance of 305.6825
Thence North 56-01-15 East, a distance of 402.0238
Thence North 82-39-26 East, a distance of 387.8052
Thence North 78-08-24 East, a distance of 411.1519
Thence North 60-22-03 East, a distance of 383.3919
Thence North 59-26-14 East, a distance of 203.6705
Thence North 05-12-58 East, a distance of 210.3711
Thence North 54-35-53 West, a distance of 426.4772
Thence North 11-40-50 West, a distance of 250.0533
Thence North 49-48-05 East, a distance of 161.0345
Thence North 48-23-44 East, a distance of 235.0392
Thence North 00-24-37 East, a distance of 174.5675
Thence North 23-13-24 West, a distance of 304.9592
Thence North 70-45-15 East, a distance of 259.7676
Thence South 78-49-18 East, a distance of 373.3326
Thence South 72-19-46 East, a distance of 530.4007
Thence North 68-01-44 East, a distance of 321.0687
Thence North 61-21-05 East, a distance of 179.8988
Thence North 15-39-15 East, a distance of 199.2007
Thence North 00-24-37 East, a distance of 174.5675
Thence North 09-52-20 West, a distance of 195.3932
Thence North 38-41-05 West, a distance of 359.9806
Thence North 38-15-35 West, a distance of 335.4983
Thence North 24-47-03 West, a distance of 328.3020
Thence North 18-01-30 West, a distance of 220.9698
Thence North 00-27-21 East, a distance of 157.1300
Thence North 24-36-33 West, a distance of 289.0680
Thence North 26-08-49 West, a distance of 195.4380
Thence North 37-10-21 West, a distance of 286.5286
Thence North 71-10-31 West, a distance of 276.0141
Thence North 89-35-24 West, a distance of 366.7594
Thence North 47-18-37 West, a distance of 259.8516
Thence North 02-26-15 West, a distance of 349.7545
Thence North 02-27-48 West, a distance of 125.0526
Thence North 02-27-50 West, a distance of 78.5106
Thence North 02-27-01 West, a distance of 146.1957

Exhibit G – Description of the Water Management Plan Area

Thence North 05-17-26 West, a distance of 351.1208
Thence North 29-50-24 West, a distance of 242.6743
Thence North 87-54-29 West, a distance of 594.1460
Thence South 25-25-45 West, a distance of 289.0690
Thence South 07-33-35 West, a distance of 54.1577
Thence South 07-31-36 West, a distance of 368.3617
Thence South 15-40-43 West, a distance of 398.2550
Thence South 21-34-12 West, a distance of 580.7325
Thence South 17-07-05 West, a distance of 546.9813
Thence South 18-03-11 West, a distance of 403.3575
Thence South 25-37-23 West, a distance of 328.0751
Thence South 34-42-09 West, a distance of 465.0331
Thence South 25-01-48 West, a distance of 461.1868
Thence South 54-23-57 West, a distance of 475.1916
Thence South 69-37-52 West, a distance of 541.7496
Thence North 73-56-54 West, a distance of 453.4280
Thence North 48-34-43 West, a distance of 532.4290
Thence North 28-23-07 West, a distance of 398.6121
Thence North 54-35-53 West, a distance of 426.4777
Thence North 16-41-42 West, a distance of 237.5764
Thence North 12-06-59 West, a distance of 322.1772
Thence North 33-16-47 West, a distance of 251.7194
Thence North 60-46-31 West, a distance of 398.7569
Thence North 40-31-06 West, a distance of 346.7031
Thence North 29-18-46 West, a distance of 281.6207
Thence North 31-34-49 West, a distance of 329.6291
Thence North 65-37-55 West, a distance of 344.1602
Thence North 33-16-48 West, a distance of 314.8173
Thence North 40-10-53 West, a distance of 160.9938
Thence South 48-09-08 West, a distance of 259.5913
Thence South 05-10-56 West, a distance of 210.3598
Thence South 01-52-06 East, a distance of 437.1073
Thence South 17-14-28 East, a distance of 403.1796
Thence South 16-17-52 East, a distance of 546.9801
Thence South 17-24-29 East, a distance of 513.9131
Thence South 44-35-54 East, a distance of 296.2405
Thence South 40-10-11 East, a distance of 322.2593
Thence South 35-07-29 East, a distance of 300.4644
Thence South 31-25-13 East, a distance of 596.0948
Thence South 27-28-50 East, a distance of 335.9003
Thence South 04-21-44 East, a distance of 210.3594
Thence South 42-01-35 West, a distance of 210.4263
Thence South 45-23-50 West, a distance of 197.5089
Thence South 52-08-16 West, a distance of 422.9006
Thence South 45-24-36 West, a distance of 469.3541
Thence South 70-25-56 West, a distance of 408.8638
Thence South 66-59-15 West, a distance of 571.0711
Thence South 33-18-10 West, a distance of 353.7851
Thence South 37-17-32 West, a distance of 349.2845
Thence South 49-29-46 West, a distance of 346.7099
Thence South 65-13-51 West, a distance of 328.1924
Thence South 55-43-12 West, a distance of 276.0820
Thence South 59-26-46 West, a distance of 407.4482
Thence South 55-41-57 West, a distance of 385.3996
Thence South 74-49-34 West, a distance of 746.6568
Thence South 88-29-17 West, a distance of 502.1748

Exhibit G – Description of the Water Management Plan Area

Thence North 70-28-56 West, a distance of 460.1936
Thence North 69-36-20 West, a distance of 783.2207
Thence North 43-33-28 West, a distance of 939.4676
Thence North 43-33-19 West, a distance of 1036.0201
Thence North 40-54-46 West, a distance of 2583.7541
Thence North 31-11-35 West, a distance of 1531.8376
Thence North 29-04-17 West, a distance of 883.9252
Thence North 09-00-43 East, a distance of 1454.7700
Thence North 54-11-24 West, a distance of 779.7834
Thence North 87-31-53 West, a distance of 468.6850
Thence North 57-43-25 West, a distance of 728.5775
Thence North 45-11-13 West, a distance of 1123.8200
Thence North 42-28-03 West, a distance of 639.0971
Thence North 44-35-23 West, a distance of 993.5551
Thence North 53-37-20 West, a distance of 1053.8761
Thence North 45-08-03 West, a distance of 1265.5924
Thence North 59-09-53 West, a distance of 2532.3330
Thence North 47-35-59 West, a distance of 2350.0134
Thence North 58-27-25 West, a distance of 2060.8752
Thence North 66-50-08 West, a distance of 1174.2981
Thence North 63-57-03 West, a distance of 968.6480
Thence North 63-00-31 West, a distance of 390.6801
Thence North 70-40-49 West, a distance of 646.2686
Thence North 40-55-19 West, a distance of 581.6539
Thence North 34-57-19 West, a distance of 664.1211
Thence North 29-30-50 West, a distance of 665.0486
Thence North 40-11-42 West, a distance of 644.1840
Thence North 32-41-45 West, a distance of 479.4718
Thence North 31-47-25 West, a distance of 557.3641
Thence North 35-29-16 West, a distance of 625.5074
Thence North 57-26-41 West, a distance of 722.0837
Thence North 56-11-52 West, a distance of 920.3187
Thence North 52-01-01 West, a distance of 859.5622
Thence North 43-09-18 West, a distance of 988.3405
Thence North 48-19-27 West, a distance of 1138.6784
Thence North 49-20-55 West, a distance of 892.3305
Thence North 61-42-59 West, a distance of 128.6036
Thence North 61-46-06 West, a distance of 582.4067
Thence North 38-45-39 West, a distance of 608.3563
Thence North 57-50-10 West, a distance of 431.4674
Thence North 54-15-44 West, a distance of 513.7375
Thence North 47-06-09 West, a distance of 284.2715
Thence North 61-17-55 West, a distance of 257.9420
Thence North 69-55-30 West, a distance of 259.6503
Thence North 82-28-31 West, a distance of 422.3874
Thence North 76-33-36 West, a distance of 233.1347
Thence North 73-00-13 West, a distance of 856.5357
Thence North 30-02-19 West, a distance of 344.5967
Thence North 32-29-37 West, a distance of 707.3623
Thence North 37-17-46 West, a distance of 485.6130
Thence North 24-21-08 West, a distance of 500.1906
Thence North 19-14-31 West, a distance of 519.2580
Thence North 09-53-20 East, a distance of 212.5327
Thence North 00-24-37 East, a distance of 296.8196
Thence North 38-14-00 West, a distance of 335.6954
Thence North 89-35-24 West, a distance of 192.1299

Exhibit G – Description of the Water Management Plan Area

Thence North 89-35-24 West, a distance of 209.6304
Thence North 55-06-11 West, a distance of 339.1010
Thence North 16-16-08 West, a distance of 182.4945
Thence North 34-35-39 West, a distance of 213.1185
Thence North 64-49-05 West, a distance of 250.1489
Thence North 70-17-53 West, a distance of 370.0374
Thence North 44-34-57 West, a distance of 345.8289
Thence North 16-18-05 West, a distance of 364.7246
Thence North 29-57-57 West, a distance of 587.1073
Thence North 16-16-28 West, a distance of 182.4350
Thence North 38-34-12 East, a distance of 310.9619
Thence North 26-58-53 East, a distance of 507.7685
Thence North 26-02-10 East, a distance of 484.4089
Thence North 28-30-44 East, a distance of 296.9540
Thence North 09-08-31 East, a distance of 229.7301
Thence North 06-25-49 East, a distance of 333.7245
Thence North 09-22-35 East, a distance of 336.0530
Thence North 04-13-57 East, a distance of 262.5279
Thence North 31-34-44 West, a distance of 164.7022
Thence South 45-26-05 West, a distance of 98.9540
Thence South 50-38-19 West, a distance of 136.2910
Thence South 31-20-58 West, a distance of 203.7449
Thence South 20-23-24 West, a distance of 204.5015
Thence South 37-18-31 West, a distance of 174.6797
Thence South 35-56-42 West, a distance of 300.4641
Thence South 30-10-36 West, a distance of 281.7456
Thence South 19-50-56 West, a distance of 314.7618
Thence South 10-42-47 West, a distance of 390.6845
Thence South 56-43-54 West, a distance of 251.9103
Thence South 62-31-10 West, a distance of 335.9003
Thence North 83-15-45 West, a distance of 316.4353
Thence South 67-46-15 West, a distance of 226.9957
Thence South 84-04-56 West, a distance of 316.4363
Thence North 80-51-20 West, a distance of 229.6689
Thence North 66-23-39 West, a distance of 398.4678
Thence North 66-22-50 West, a distance of 665.7744
Thence North 40-11-08 West, a distance of 805.0972
Thence North 55-01-37 West, a distance of 954.6359
Thence North 44-35-45 West, a distance of 419.8105
Thence North 59-05-55 West, a distance of 344.5304
Thence North 42-58-24 West, a distance of 432.4011
Thence North 50-05-14 West, a distance of 384.7675
Thence North 63-02-07 West, a distance of 312.4699
Thence North 64-14-47 West, a distance of 367.0874
Thence South 17-59-39 East, a distance of 110.4651
Thence South 35-50-56 East, a distance of 324.8520
Thence South 32-28-58 East, a distance of 353.7862
Thence South 31-35-51 East, a distance of 329.4689
Thence South 44-35-03 East, a distance of 420.0770
Thence South 41-51-46 East, a distance of 519.2197
Thence South 13-37-56 East, a distance of 287.9879
Thence South 09-35-21 East, a distance of 301.6528
Thence South 05-18-52 East, a distance of 175.4412
Thence South 27-00-57 West, a distance of 117.2299
Thence South 49-48-06 West, a distance of 161.0338
Thence North 89-35-23 West, a distance of 157.1290

Exhibit G – Description of the Water Management Plan Area

Thence North 72-13-07 West, a distance of 292.8656
Thence North 38-14-40 West, a distance of 223.5397
Thence North 49-21-21 West, a distance of 1487.2756
Thence North 50-30-26 West, a distance of 154.9607
Thence South 53-10-59 West, a distance of 150.5821
Thence South 54-44-21 West, a distance of 1005.8733
Thence South 55-06-24 West, a distance of 6992.3760
Thence South 54-09-37 West, a distance of 1051.0319
to the True Point of Beginning.

Perimeter: 551741.8300

Area: 2495992473.0343 57300.1027 acres
Mapcheck Closure - (Uses listed courses & COGO Units)
Error of Closure: 0.02737 Thence South 68-46-44 W
Precision 1: 20161685.12

Exhibit H – Judgment and Decree

UNITED STATES DISTRICT COURT

CENTRAL DISTRICT OF CALIFORNIA

SOBOBA BAND OF LUISEÑO INDIANS, a federally recognized Indian tribe,

Plaintiff,

v.

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA, a California metropolitan water district; LAKE HEMET MUNICIPAL WATER DISTRICT, a California water district; the UNITED STATES OF AMERICA for the benefit of the Soboba Band of Luiseño Indians,

Defendants,

v.

EASTERN MUNICIPAL WATER DISTRICT, a California water district,

Third-Party Defendant.

Case No. 00-04208 GAF (MANx)
Judge: Honorable Gary A. Feess

STIPULATED JUDGMENT

JUDGMENT AND DECREE

The Court has considered the Settlement Agreement dated _____, 2004, which permanently resolves the claims of the Soboba Band of Luiseño Indians, (hereinafter "Soboba Tribe") and the United States appearing for the benefit of the Soboba Tribe for alleged infringement of its water rights in the San Jacinto River and the Canyon Sub-basin and Intake portion of the Upper Pressure Sub-basin associated therewith (collectively "Basin") in Riverside County, California, and for damages related to historical interference with the Soboba Tribe's rights and unauthorized use of its water. A copy of the Settlement Agreement is attached as Exhibit 1 to the Stipulation and Request for Entry of Judgment and Decree.

After consideration of the pleadings and papers filed in this action, the evidence presented by the Parties, and the Stipulation and Request for Entry of Judgment and Decree, it is hereby ORDERED, ADJUDGED AND DECREED:

1. The Settlement Agreement is hereby approved in its entirety, and this Judgment and Decree incorporates the definitions set forth therein. When used in this Judgment and Decree, the term "United States" shall mean the United States of America acting on behalf of the Soboba Tribe, and in no other capacity except as specifically otherwise provided herein.

2. The Soboba Tribe shall have the right to waters beneath the Soboba Indian Reservation, which shall be held in trust by the United States for the benefit of the Soboba Tribe, as follows:

A. The prior and paramount right, superior to all others, to pump 9,000 AFA from the Basin for any use on the Reservation and lands now owned or hereafter acquired by the Soboba Tribe contiguous to the Reservation or within the Basin.

B. The Soboba Tribe's right to pump a total of 9,000 AFA from the

Basin is without regard to whether the water was naturally or artificially recharged.

C. In the event the Soboba Tribe is unable, except for mechanical failure of its wells, pumps or water facilities, to produce from its existing wells or equivalent replacements up to 3,000 AFA production from the Canyon Sub-basin and the remainder of its Tribal Water Right from the Intake Sub-basin, Eastern Municipal Water District and Lake Hemet Municipal Water District ("the Local Districts") shall deliver any shortage to the Soboba Tribe. Any shortage shall be delivered at such locations as the Soboba Tribe and the Local Districts may agree, or if there is no agreement, at the wellheads where the shortage occurred. Such water may be supplied from Local District wells in either the Canyon or Intake Sub-basins, or from other sources. For any water delivered pursuant to this paragraph, the Soboba Tribe shall pay an acre-foot charge equal to its then current cost of production, and any avoided cost of treatment, from the wells where the shortage occurred, assuming pumping lifts equal to the Soboba Tribe's averages in the respective Sub-basins over the preceding ten years.

3. Beginning on the Effective Date of the Settlement Agreement, the Soboba Tribe's right to pump groundwater in the exercise of its Tribal Water Right shall be subject to the following provisions:

A. The Soboba Tribe agrees to limit its exercise of the Tribal Water Right to 4,100 acre-feet annually, for a period of fifty (50) years commencing with the Effective Date of the Settlement Agreement, according to the schedule set forth in Exhibit F of the Settlement Agreement. Should the Soboba Tribe during that period identify a need for water in addition to the Schedule set forth in Exhibit F, the Soboba Tribe shall have the right to purchase water from the Water Management Plan at the rate then being charged to the Water Management Plan's municipal producers.

B. Any use of the Tribal Water Right by an individual member of the

Soboba Tribe shall be satisfied out of the water resources provided to the Soboba Tribe in the Settlement Agreement and this Judgment and Decree.

4. The foregoing rights are in full satisfaction of all of the Soboba Tribe's claims as provided in Article 5 of the Settlement Agreement.

5. This Court retains jurisdiction over this matter and the Parties for the limited and sole purpose of interpretation and enforcement of this Judgment and Decree and the Settlement Agreement.

6. The Action shall be transferred to the United States District Court, Central District of California, Eastern Division.

7. Except as may be included in the payments contemplated by the Settlement Agreement, no Party shall recover any attorney's fees or costs from any other Party.

8. The Parties have waived their rights to appeal, and therefore, this Judgment and Decree shall become final and nonappealable as of the date it is entered. This Judgment and Decree shall become enforceable as of the date the United States Secretary of the Interior causes to be published in the Federal Register a statement of findings that all actions necessary to make the settlement effective have been completed, as required by Section 10 of the Soboba Band of Luiseño Indians Settlement Act, Public Law _____.

Dated: _____, 200_

_____
United States District Court Judge

Exhibit I – Soboba Tribe's Water Development Schedule

SETTLEMENT YEARS (FROM EFFECTIVE DATE)	MAXIMUM TRIBAL USAGE (AFA)
1 – 5	2900
6 – 10	3215
11 – 15	3520
16 – 20	3825
21 – 25	4010
26 – 30	4020
31 – 35	4025
36 – 40	4040
41 – 45	4075
46 – 50	4100

Exhibit J – Description of EMWD Property

Parcel 1:

The North half of the Northwest quarter of Section 34 in Township 5 South, Range 2 West, San Bernardino Meridian, in the County of Riverside, State of California, according to the Official Plat thereof;

Excepting therefrom the Westerly 30 feet for road purposes as conveyed to the County of Riverside, by Deed recorded November 13, 1929 in Book 722 page 447 of Deeds, Riverside County Records;

Also excepting therefrom that portion conveyed to the County of Riverside, for road purposes, by Deed filed for record January 18, 1949 as Instrument No. 1917, Official Records.

Also except that portion conveyed to Riverside County Flood Control and Water Conservation District by Grant Deed recorded May 13, 1987 as Instrument No. 133741, Official Records.

Also except that portion conveyed to the Metropolitan Water District of Southern California, a public corporation, by Grant Deed recorded July 22, 1994 as Instrument No. 291698, Official Records.

Also except that portion conveyed to the Metropolitan Water District of Southern California by Grant Deed recorded July 22, 1994 as Instrument No. 291699, Official Records.

Also except that portion conveyed to the Metropolitan Water District of Southern California, a public corporation by Grant Deed recorded January 30, 1997 as Instrument No. 32920, Official Records.

Parcel 2:

The South half of the Northwest quarter of Section 34, Township 5 South,.Range 2 East, San Bernardino Meridian, in the County of Riverside, State of California, according to the Official Plat thereof.

Except that portion conveyed to the County of Riverside, by deed recorded April 26, 1949 in Book 1071, Page 392, Official Records.

Also except that portion conveyed to the Metropolitan Water District of Southern California, a public corporation, by Grant Deed recorded July 22, 1994 as Instrument No. 291698, Official Records.

Also except that portion conveyed to the Metropolitan Water District of Southern California, a public corporation by Grant Deed recorded January 30, 1997 as Instrument No. 32920, Official Records.

Also except that portion conveyed to the Metropolitan Water District of Southern California, a public corporation, by Grant Deed recorded May 5, 1997 as Instrument No. 154365, Official Records.

Exhibit K - Description of MWD Property

DRAFT

EXHIBIT A

Diamond Valley Lake
144-1-649C
Grant Deed
MWD to
The Soboba Band of Luiseno Indians

That parcel of land conveyed to The Metropolitan Water District of Southern California by Grant Deed recorded April 25, 1996 as Instrument No. 149322 Official Records of Riverside County, California, lying within the west half of the northeast quarter of Section 34, Township 5 South, Range 2 West San Bernardino Meridian, as shown on Record of Survey filed in Book 104, pages 62 through 76, inclusive, Records of Survey of said County.

EXCEPTING therefrom that portion lying southerly of the northerly line of that certain parcel conveyed to the County of Riverside by Grant Deed recorded November 21, 1999 as Document No. 1999-463789 Official Records of said County.

ALSO EXCEPTING therefrom that portion lying northerly of the southerly line of that certain parcel conveyed to the Riverside County Flood Control and Water Conservation District by Document No. 1999-441419, recorded October 4, 1999, Official Records of said County

Containing 21.718 acres, more or less.

All as shown on EXHIBIT "B" attached hereto and made a part hereof.

END OF DESCRIPTION

PREPARED UNDER MY SUPERVISION

DRAFT

Date _____

DRAFT

EXHIBIT B

W1/2NE1/4, SEC. 34, T5S, R2W, SBM,
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

THIS EXHIBIT IS TO BE ATTACHED TO THE LEGAL DESCRIPTION

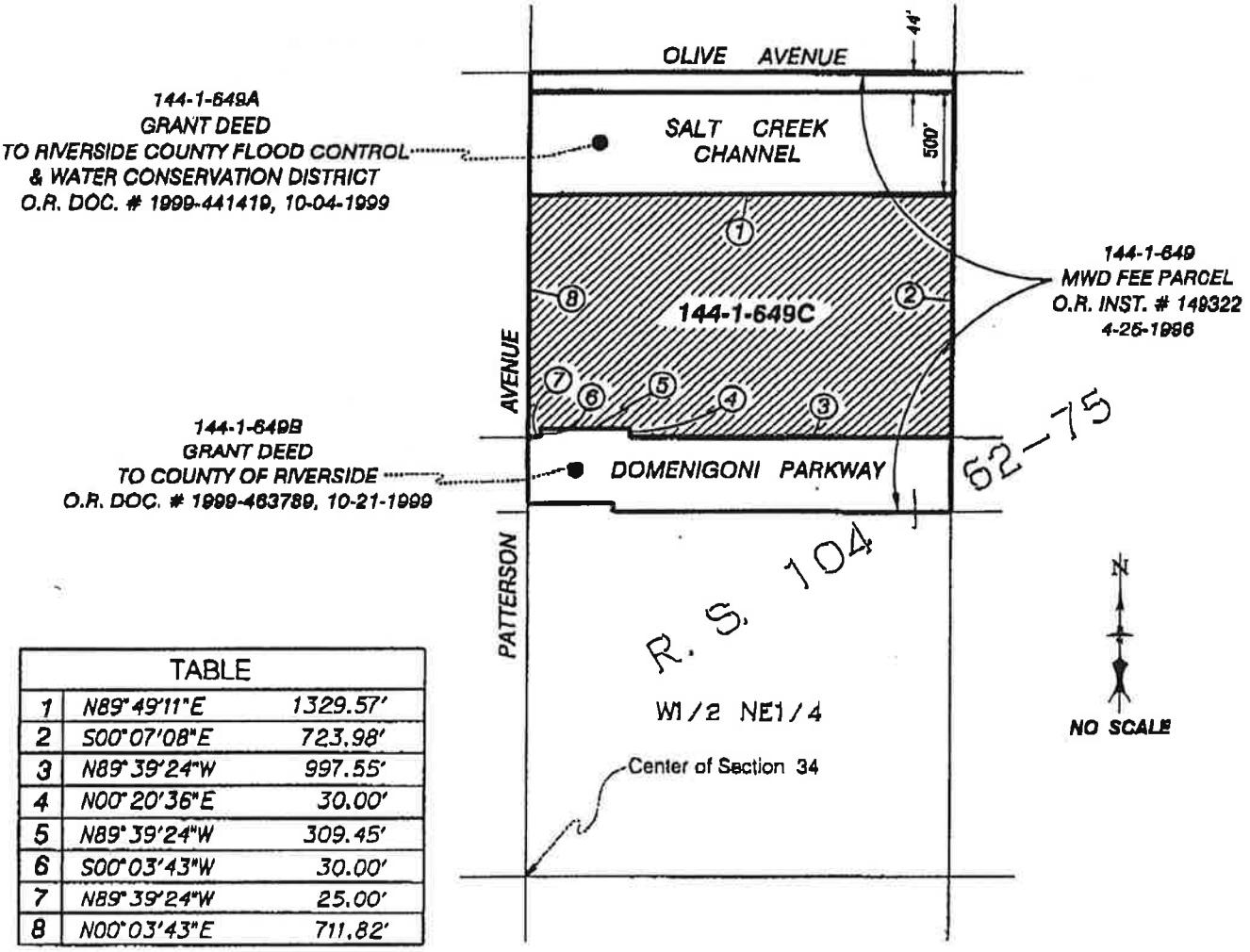
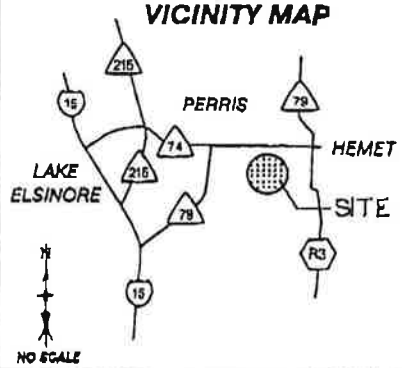


TABLE		
1	N89°49'11"E	1329.57'
2	S00°07'08"E	723.98'
3	N89°39'24"W	997.55'
4	N00°20'36"E	30.00'
5	N89°39'24"W	309.45'
6	S00°03'43"W	30.00'
7	N89°39'24"W	25.00'
8	N00°03'43"E	711.82'

LEGEND

= **144-1-649C GRANT DEED 21.718 ACRES.**

VICINITY MAP



PREPARED UNDER
MY SUPERVISION

DRAFT

DATE

THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

DIAMOND VALLEY LAKE PROJECT

GRANT DEED

MWD

TO

THE SOBOBA BAND OF LUISENO INDIANS

144-1-649C

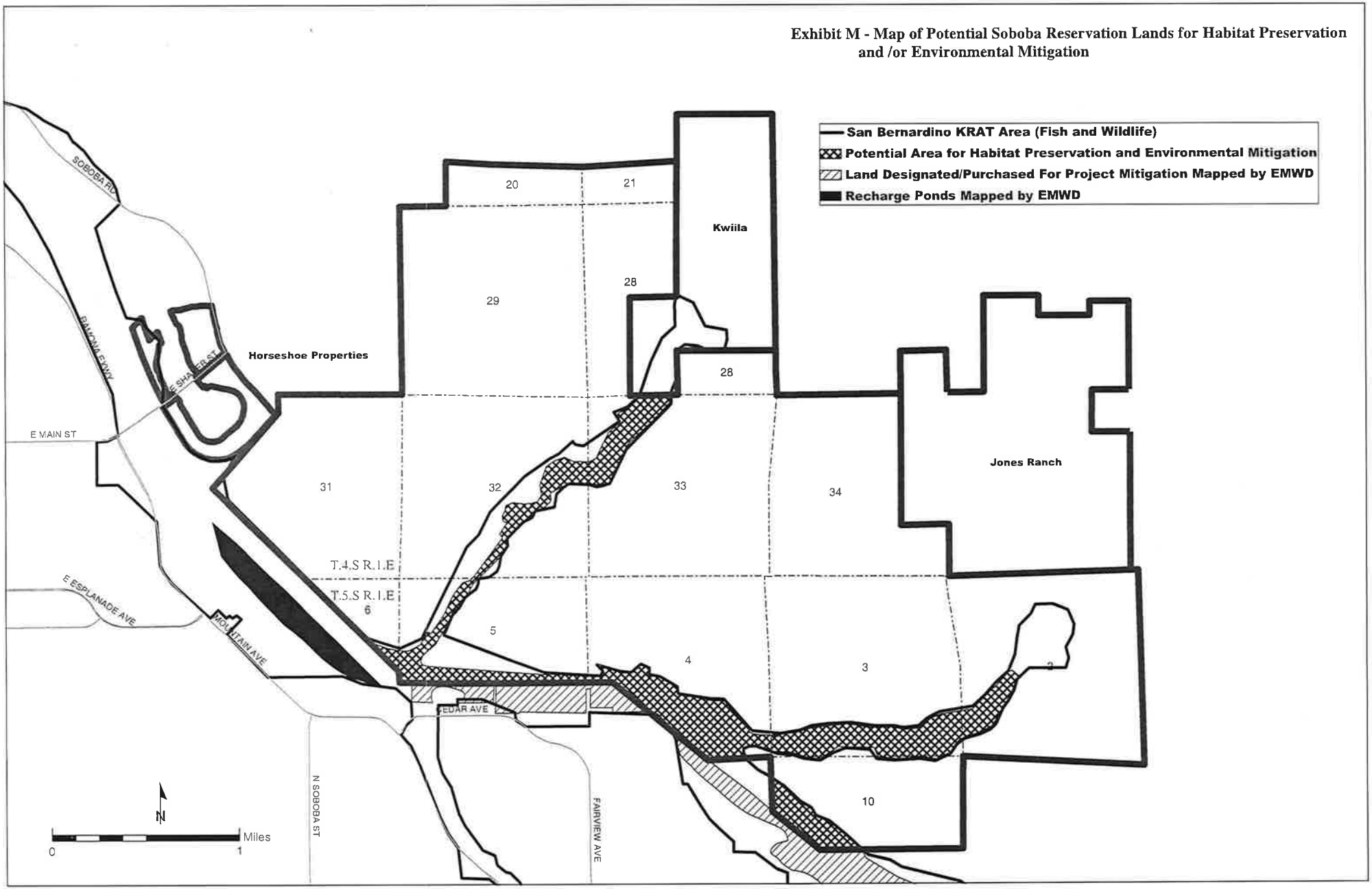
/dvr/row/exhib/1441649c.dgn

4-8-2003 HN

Exhibit L – Description of LHMWD Property

Portions of Lots 3, 4 and 5 of Fairview Tract, as shown on the plat in San Diego Map Book 006, page 307, in Riverside County, California, comprising 11.57 acres more or less.

Exhibit M - Map of Potential Soboba Reservation Lands for Habitat Preservation and /or Environmental Mitigation



(This Page Left Blank Intentionally)

APPENDIX B STIPULATED JUDGMENT

DRAFT
May 19, 2006

DRAFT

Attorneys for _____

_____

SUPERIOR COURT OF THE STATE OF CALIFORNIA

COUNTY OF RIVERSIDE

EASTERN MUNICIPAL WATER DISTRICT, a California municipal water district,

Plaintiff,

v.

LAKE HEMET MUNICIPAL WATER DISTRICT, a California municipal water district; CITY OF HEMET, a California municipal corporation; CITY OF SAN JACINTO, a California municipal corporation; _____, an individual; _____, an individual; _____, an individual; _____, an individual,

Defendants.

Case No.
Judge:

STIPULATED JUDGMENT

Action Filed: _____, 200_
Trial Date: Stipulation

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

FINDINGS

After consideration of the pleadings and the Stipulation for Entry of Judgment, the Court finds that:

1. Complaint. On _____, 200_, Plaintiff Eastern Municipal Water District ("Eastern") filed a Complaint against Defendants Lake Hemet Municipal Water District ("Lake Hemet"), City of Hemet ("Hemet"), City of San Jacinto ("San Jacinto"), _____, _____, _____. The Complaint requests a declaration of Plaintiff's and Defendants' individual and collective rights to surface water and groundwater in the Canyon Sub-basin, the San Jacinto Upper Pressure Sub-basin downstream to Bridge Street, and the Hemet Basin ("Management Area") and the imposition of a physical solution to achieve the optimum, reasonable, beneficial use of the waters of the Management Area pursuant to Section 2 of Article X of the California Constitution. A map describing the boundaries of the Management Area is attached to this Judgment as Exhibit A and to the Complaint.

2. Parties.

A. Eastern. Eastern is a California municipal water district formed pursuant to the Municipal Water District Law, California Water Code Sections 71000-73001 (West 1966), with its principal place of business in Riverside County, California. Eastern diverts surface water from the San Jacinto River, and pumps groundwater from the Management Area for use by its customers within its boundaries.

B. Lake Hemet. Lake Hemet is a California municipal water district formed pursuant to the Municipal Water District Law, California Water Code Sections 71000-73001 (West 1966), with its principal place of business in Riverside County, California. Lake Hemet diverts surface water from the Santa Jacinto River and its tributaries, and pumps groundwater from the Management Area for use by its customers within its boundaries.

C. Hemet. Hemet is a California municipal corporation providing utility services pursuant to the California Constitution, Article XI, Section 9. Hemet pumps groundwater from the Management Area for use by its customers within its boundaries.

D. San Jacinto. San Jacinto is a California municipal corporation providing utility services pursuant to the California Constitution, Article XI, Section 9. San Jacinto pumps groundwater from the Management Area for use by its customers within its boundaries.

E. _____, _____, _____, _____ and _____ are persons who own farms or other property within the Management Area, and pump groundwater from the Management Area.

3. Answers and Stipulation for Judgment. On _____, 200_, Defendants filed Answers. On _____, 200_, the Parties filed a Stipulation for Entry of Judgment.

4. Sole Producers. Other than the Soboba Band of Luiseno Indians, and certain overlying users not parties to this litigation, the parties claim essentially all of the rights to produce surface water and groundwater in the Management Area.

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

5. Importance of Surface Water and Groundwater. Surface water and groundwater from the Management Area are important water supplies for agriculture, domestic and municipal use. The Parties have a mutual and collective interest in the coordinated management of such water resources to ensure that the common resource is used efficiently and reasonably, and that it is sustained and replenished.

6. Overdraft. It is estimated that the overdraft of the Management Area is at least 10,000 acre-feet per year. This estimate will be refined through further studies to be completed pursuant to the Water Management Plan, including data on the several sub-basins within the Management Area. Studies confirm that in recent years the total production from the Management Area, including pumping by those persons not parties to this litigation, has averaged approximately 63,800 acre-feet per year.

7. Importance of Judgment. The Parties have an interest in the physical solution imposed by this Judgment to promote the efficient and coordinated management of surface water and groundwater, to avoid problems from overdraft, to assist in protecting the rights of the Soboba Band of Luiseno Indians, to sustain and enhance water resources, and to resolve competing claims to surface water and groundwater.

8. Jurisdiction. This Court has jurisdiction to enter this Judgment declaring and adjudicating the rights of the Parties to the reasonable and beneficial use of surface water and groundwater in the Management Area, and to impose a physical solution pursuant to law, including California Constitution, Article X, Section 2.

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

JUDGMENT

IT IS ORDERED, ADJUDGED AND DECREED:

1. DEFINITIONS.

1.1 Adjusted Production Right – the Base Production Right of each Public Agency, as adjusted pursuant to Sections 3.2 to 3.2.5.

1.2 Administrative Assessment – an acre-foot charge to be levied against each Public Agency for water pumped up to its Adjusted Production Right, including any unused amount of such Right that is pumped in a following year. Such assessments shall be used for Administrative Expenses, and for the purchase of Supplemental Water after Administrative Expenses have been paid.

1.3 Administrative Expenses – Watermaster's expenses for office rental, personnel, supplies, office equipment, general overhead, preparing and collecting assessments, monitoring well pumping, measuring water levels, sampling and analyzing water quality, compiling and interpreting collected data, conducting special studies, and litigation.

1.4 Advisor. An independent engineering firm or qualified individual as provided in Section 9.6.3.

1.5 Annual Basin Yield – the quantity of Groundwater that Watermaster determines the Parties may Produce from the Management Area in a calendar year without a replenishment obligation under the Physical Solution.

1.6 Base Production Right – the water right of a Public Agency or Class B Participant as set forth in the attached Exhibit "C."

1.7 Carry-Over Credit – a Party's credit against the Replenishment Assessment in a Fiscal Year, based on the Party's Adjusted Production Right or share of Imported Water not produced in prior calendar years.

1.8 Class A Participant – a Private Pumper who stipulates to this Judgment and participates in the Water Management Plan as defined in Sections 4.3 to 4.3.5.

1.9 Class B Participant – a Private Pumper who stipulates to this Judgment and participates in the Water Management Plan as defined in Sections 4.4 to 4.4.6.

1.10 Fiscal Year – the period from July 1 through June 30 of the following calendar year.

1.11 Fruitvale Documents –

(a) Fruitvale Judgment – The Judgment and Decree entered in the Superior Court for the County of Riverside on June 4, 1954, in an action titled The City of San Jacinto, et al. v. Fruitvale Mutual Water Company, et al., Case No. 51-546;

(b) Fruitvale Mutual Water Company Sale of Assets to Eastern – That certain "Agreement for the Sale of Assets of the Fruitvale Mutual Water Company to Eastern Municipal Water District" dated September 10, 1971;

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

(c) Fruitvale Mutual Water Company Agency Agreements – The Agreement Between the City of San Jacinto and Eastern Municipal Water District dated June 15, 1972, the Agreement Between Lake Hemet Municipal Water District and Eastern Municipal Water District dated June 9, 1972, and the Agreement Between the City of Hemet and Eastern Municipal Water District dated June 13, 1972, all providing for recognition of ownership of stock in Fruitvale Mutual Water Company by the Cities and by Lake Hemet, and making provision for the continued sale of water produced through the Fruitvale facilities by Eastern to the Cities and to Lake Hemet.

1.12 Groundwater – all water within and beneath the ground surface of the Management Area.

1.13 Imported Water – An average of 7,500 acre feet annually of water sold by The Metropolitan Water District of Southern California to Eastern pursuant to Section 4.4 of the Soboba Band of Luiseño Indians "Settlement Agreement."

1.14 Management Area –the Canyon Sub-basin, the San Jacinto Upper Pressure Sub-basin downstream to Bridge Street, and the Hemet Basin, as delineated on the map attached as Exhibit "A."

1.15 Metropolitan – The Metropolitan Water District of Southern California.

1.16 Natural Recharge – Groundwater replenishment within the Management Area occurring from precipitation on the surface, percolation from surface flows of the San Jacinto River and its tributaries, return flows from

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

irrigation, artificial spreading or injection of such surface flows, and subsurface inflows.

1.17 Non-Participant – a Private Pumper who elects not to participate in the Management Plan, or to be a party to this Judgment.

1.18 Overdraft – a condition whereby pumping in the Management Area exceeds the Safe Yield thereof.

1.19 Overlying Right – the appurtenant right of an owner of land overlying the Management Area to pump water from such land for beneficial use thereon.

1.20 Party or Parties – Eastern, Lake Hemet, Hemet, San Jacinto and the other Persons listed in the attached Exhibit "B."

1.21 Person – any individual, partnership, association, corporation, trust, government agency or other organization.

1.22 Physical Solution – the Court decreed method of managing the water supply of the Management Area to maximize the reasonable and beneficial use of the waters thereof pursuant to the California Constitution, Article X, Section 2, to eliminate overdraft pursuant to the provisions of this Judgment, to protect the prior rights of the Soboba Tribe, and to provide for the substantial enjoyment of all water rights recognizing their priorities.

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

1.23 Private Pumper – a Person who owns land with an Overlying Right or other right in the Management Area and pumps more than 25 acre-feet per year.

1.24 Public Agency or Agencies – Eastern, Lake Hemet, Hemet and San Jacinto.

1.25 Recharge or Replenish – to sink, spread or inject water directly or indirectly underground in the Management Area.

1.26 Recharge Right – a Party's right to the use of Recharge Water.

1.27 Recharge Water – water used for Recharge.

1.28 Recycled Water – treated wastewater which is processed and suitable for controlled use in the Management Area, including Recharge.

1.29 Replenishment Assessment – an acre-foot charge to be levied against each Public Agency for water pumped in excess of the sum of its respective Adjusted Production Right, its share of Imported Water, and applicable Carry-Over Credits; and against each Class B Participant for pumping in excess of its 1995-99 average production, i.e., its Base Production Right. Such assessments shall be determined by the Watermaster to be used for Replenishment Expenses.

1.30 Replenishment Expenses – Watermaster expenses for the acquisition of Supplemental Water supplies, for land, and for the construction, maintenance and operation of facilities necessary to replenish groundwater in the

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

Management Area, or otherwise to provide water to producers within the Management Area.

1.31 Safe Yield – the long term, average quantity of water supply in the Management Area that can be pumped without causing undesirable results, including the gradual reduction of natural groundwater in storage over long-term hydrologic cycles.

1.32 Settlement Agreement – that Agreement titled "The Soboba Band of Luiseño Indians Settlement Agreement" among the Soboba Tribe, the United States, as Trustee for the Tribe, Eastern Municipal Water District, Lake Hemet Municipal Water District, and The Metropolitan Water District of Southern California.

1.33 Soboba Tribe (sometimes the "Tribe") -- the Soboba Band of Luiseno Indians.

1.34 Soboba Action – the lawsuit entitled Soboba Band of Mission Indians, etc., v. Metropolitan, etc., et al, U.S. District Court, Central District of California, Case No. 00-84208 GAF (MANx).

1.35 Storage Agreement – an agreement between Watermaster and a Party to store Supplemental Water by sinking, spreading, injecting or in-lieu procedures in the Management Area, and subsequently to recover such water, without payment of Replenishment Assessments.

1.36 Storage Right – a Party's right to store and pump Supplemental Water pursuant to a Storage Agreement.

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

1.37 Stored Water – Supplemental Water stored by a Party pursuant to a Storage Agreement.

1.38 Surface Water – all water tributary to the Management Area and flowing above the ground surface.

1.39 Supplemental Water – nontributary water imported into the Management Area, including Imported Water and Recycled Water, and in-lieu programs that reduce groundwater pumping.

1.40 Transfer – a temporary or permanent conveyance, assignment, sale, contract or lease of part or all of a Party's Adjusted Production Right, Carry-Over Credit, Storage Right or Recharge Right to any other Party, or a temporary assignment, contract, lease or sale of part of the Soboba Tribe's quantified water right.

1.41 Tribal Water Rights – the Soboba Tribe's rights to water set forth in Section 4.1 of the Settlement Agreement and Section 5 of this Stipulated Judgment.

1.42 Tunnel – the San Jacinto Tunnel in Riverside County, California, constructed by Metropolitan in the 1930s.

1.43 Watermaster – the Board with the powers and duties defined in Section 9.

1.44 Water Management Plan (sometimes the "Plan") – the Plan adopted by the Watermaster, as it may be modified from time to time, to

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

implement the Physical Solution, to ensure an adequate and reliable source of future water supply for the Management Area, and to protect the prior rights of the Soboba Tribe.

2. EXHIBITS.

The following exhibits are attached to this Judgment and incorporated in it:

"A." Map of the Management Area and the Management Area Watershed.

"B." List of Parties to this Judgment.

"C." Description of each Public Agency's and Class B Participant's Base Production Right.

3. PUBLIC AGENCIES' WATER RIGHTS.

3.1 Base Production Right. The Public Agencies are owners of rights to pump groundwater from the Management Area as set forth in Exhibit "C." These rights are for a calendar year and were calculated as follows:

3.1.1 The Base Production Right of Eastern is based upon its respective average pumping for calendar years 1995-1999, less an adjustment of 1800 acre-feet for seepage from Metropolitan's San Jacinto tunnel, and for use of Fruitvale water. The 1995-1999 period was chosen to reflect recent production prior to the commencement of negotiations leading to this Stipulated Judgment.

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

3.1.2 The Base Production Right of Lake Hemet is based on its average production for calendar years 1995-1999.

3.1.3 The Base Production Right of Hemet is based on its average production for calendar years 1995-99, plus an adjustment of 900 acre feet per year.

3.1.4 The Base Production Right of San Jacinto is based upon its average Production for calendar years 1995-1999, plus 500 acre-feet per year, and plus an adjustment of 900 acre feet per year. The 500 acre-feet per year has been added because San Jacinto's recent pumping does not reflect its historic production, due to water purchases and other factors.

3.1.5 The Base Production Rights of Hemet and San Jacinto each include 900 acre-feet per year that have been added to their respective amounts of pumping for calendar years 1995-1999. These amounts have been added to provide Hemet and San Jacinto a fair share of water from, and to resolve disputes regarding, Eastern's use of tunnel seepage, Eastern's use of Fruitvale waters, and Lake Hemet's surface stream diversions. These additional amounts of 900 acre-feet per year shall be treated as the first amounts pumped by Hemet and San Jacinto, shall not be subject to reduction by the Watermaster as provided in Sections 3.2 to 3.2.2, and shall not be subject to any Administrative or Replenishment Assessments as provided in Sections 3.3 to 3.3.2, or to any other fee or charge imposed under the Management Plan.

3.2 Adjusted Production Rights. It is the goal of the Physical Solution to adjust Base Production Rights over time on a pro-rata basis to a level consistent with the Watermaster's determination of Safe Yield. The reduction

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

will be based on periodic demand, hydrology, recharge, and the community's ability to pay for Supplemental Water, and protection of the Tribal Water Rights. In order to implement this reduction in a phased manner, each Public Agency's Base Production Right shall be subject to adjustment as follows:

3.2.1 Subject to Section 3.1.5, a 10% reduction from each Base Production Right in the first full year after entry of this Judgment.

3.2.2 Until Adjusted Production Rights are consistent with the Public Agencies' share of Safe Yield, Watermaster shall determine the required reductions in Adjusted Production Rights in each subsequent year to achieve Safe Yield within a reasonable period of time as determined by the Watermaster, considering the extent of the overdraft, the economic impact on the Parties bound by this Judgment, and other relevant factors. The goal is to achieve Safe Yield over a six (6) year period assuming an annual overdraft of 10,000 acre feet. In the event the extent of the overdraft is greater or lesser than assumed, then the period of time reasonably required to reach Safe Yield may be extended or reduced accordingly. However, in no event shall any reduction be more than 10% of the Adjusted Production Rights of the prior year.

3.2.3 A party may pump in excess of its Adjusted Production Right, without any additional Replenishment Assessment, by an amount equal to its share of the 7,500 acre feet of Imported Water that is not used by the Tribe. The amount of the Tribe's unused portion of the 7,500 acre feet shall be determined annually by the Watermaster. This provision shall apply only during such period as Imported Water is provided pursuant to Section 5.2 hereof. Shares of unused Imported Water shall be allotted in proportion to Base Production Rights, and shall be acquired and paid for pursuant to contract with Eastern.

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

3.2.4 A Base Production Right of a Public Agency serving the land of a Class B Participant shall be increased in an amount equal to such Participant's Base Production Right, adjusted and reduced pursuant to Sections 3.2.1 and 3.2.2, when the Participant's land is converted from agricultural use to water service from the Public Agency, pursuant to Section 4.4.3.

3.2.5 The Adjusted Production Rights of the Public Agencies may be increased by the Watermaster on a prorata basis to the extent that pumping by Class A participants, or pumping by persons not parties to this Judgment, may decrease, and the Watermaster finds that achieving the goal of maintaining the Management Area in a Safe Yield condition can still be met.

3.3 Public Agency Production Assessments. Public Agency pumping shall be subject to the following assessments:

3.3.1 An Administrative Assessment as provided in Section 1.2 . The Administrative Assessment will be $50.00 per acre-foot of water pumped in the first full year after entry of this Judgment, and such amount thereafter will be set by the Watermaster.

3.3.2 A Replenishment Assessment as provided in Section 1.29. Pumping by a Public Agency in excess of the sum of its Adjusted Production Right, its share of Imported Water, and applicable Carry-Over Credits in order to meet increasing demands is permissible, provided that such excess extractions shall be subject to Replenishment Assessments.

3.4 Surface Rights. Eastern holds License Number 016667 from the State Water Resources Control Board to divert, spread and recover surface

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

flows of the San Jacinto River within the Management Area. Lake Hemet holds pre-1914 appropriative rights to divert and store surface flows in Lake Hemet, and to divert surface flows tributary to but outside of the Management Area from Strawberry Creek and from the North and South Forks of the San Jacinto River. All Parties acknowledge such Eastern and Lake Hemet rights, and the fact that they are not subject to any assessments under this Judgment; provided that any water pumped by Eastern under its License shall be included in its Adjusted Production Right.

3.5 Fruitvale Judgment, Sale of Assets, and Agreements. The Court hereby finds that Eastern purchased all of the water rights and assets of the Fruitvale Mutual Water Company ("Fruitvale") pursuant to the Agreement described in Section 1.11(b) hereof, and is now the owner thereof. Eastern, as the successor in interest to Fruitvale, is also a defendant in the action described in Section 1.11(a) hereof. The Court finds that the only other remaining party in such action is the plaintiff City of San Jacinto. The Court retained continuing jurisdiction in such action, and Eastern has made annual reports pursuant to the Fruitvale Judgment. Pursuant to stipulation between Eastern and San Jacinto, and in accord with the physical solution and terms of this Judgment, the Court hereby finds that the rights and obligations of the Fruitvale Judgment have been subsumed in, and superseded by, this Judgment and are no longer enforceable; that the limitations upon the place and amounts of water use in the Fruitvale Judgment, the sale Agreement, and the Agency Agreements described in Sections 1.11(a), (b), (c) are no longer applicable or enforceable; and that the continuing jurisdiction of the Court under the Fruitvale Judgment, and the obligation of Eastern to report thereunder, are hereby terminated; provided, however, that none of the service area agreements included in the Fruitvale documents in Section

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

1.11, or any other agreements related to mutual aid, system interties, or service areas, shall be affected by this Judgment.

3.6 Fruitvale Agency Rights. The water rights of Hemet, San Jacinto and Lake Hemet under the several agreements with Eastern described in Section 1.11(c) hereof have been incorporated in their respective Base Production Rights under this Judgment.

4. PRIVATE PUMPERS' WATER RIGHTS

4.1 Recognition of Rights. The Private Pumpers are owners of Overlying or other water rights to pump from the Management Area. The Public Agencies recognize these rights, and do not intend to take or adversely impact these rights without an agreement with the owner of such rights. There is no intent to affect water use that is consistent with the historical use of the Private Pumpers.

4.2 Non-Participation. A Private Pumper can elect not to participate in the Water Management Plan and not to formally acknowledge its existence. Such Pumpers are referred to as Non-Participants. Non-Participants shall continue to exercise whatever water rights they may hold under California law unaffected by the Plan. However, the Parties do not waive their rights to challenge any new or expanded use of water or water rights. Non-Participants will not have the option of intervening as a party under the Judgment at a later date.

4.3 Class A Participation. A Private Pumper can stipulate to be a party to the Judgment as a Class A Participant under the following terms:

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

4.3.1 A Class A Participant approves this Physical Solution and may vote for and/or be elected to serve as the Private Pumper representative on the Watermaster, but other than Section 4.3.4 shall not otherwise have any obligation for the implementation of the Physical Solution or the Water Management Plan.

4.3.2 A Class A Participant may, without any assessment by the Watermaster, pump from the Participant's property within the Management Area the amount of water that can be put to reasonable and beneficial use in the Participant's historic place of use or as authorized under California law.

4.3.3 A Class A Participant shall have the right to convert to Class B Participation during a grace period that shall end 3 years after the entry of this Judgment, and upon payment of the total assessments, without interest, that the Class A Participant would have paid had the Class A Participant elected to be a Class B Participant from the outset.

4.3.4 A Class A Participant hereby authorizes the installation of water meters, and the collection and reading of Groundwater production, level and water quality data from the Class A Participant's well(s) by personnel authorized by the Watermaster. The metering, meter reading, and other related monitoring efforts shall be at no cost to the Class A Participant, and the Class A Participant shall receive copies of the reports and information obtained upon request.

4.3.5 The Stipulation signed by a Class A Participant shall describe or otherwise identify the Participant's land and wells within the Management Area. The heirs, successors and assigns of such land and wells shall

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

succeed to the benefits of the Participant's rights under the Judgment, and be bound by the obligations thereof, provided that such successor intervenes as a party under the Judgment. Absent such intervention, the successor will be treated as a Non-Participant.

4.4 Class B Participation. A Private Pumper can stipulate to be or intervene as a party under the Judgment as a Class B Participant on the following terms:

4.4.1 A Class B Participant's annual pumping shall be limited to average annual Production during the calendar years 1995 through 1999, less any amount of water that had been used on land that was developed for non-agricultural purposes after 1999, which is the Participant's Base Production Right. The Class B Participant shall pay Replenishment Assessments on amounts in excess of its Base Production Right. A Class B Participant shall not be subject to Administrative Assessments, and until conversion to a Public Agency, such Base Production Right shall not be subject to reduction to Safe Yield. In the absence of production history for this period, the Watermaster, using all available information including power consumption records and records of water use by similar farming operations in the area, will estimate the average annual production for the Participant.

4.4.2 The Class B Participant approves this Physical Solution and may vote for and/or be elected to serve as the Private Pumper's representative on the Watermaster;

4.4.3 Upon conversion of a Class B Participant's land from agricultural to a use that requires water service from a Public Agency, the Public Agency shall credit, to the extent legally permissible, the Class B Participant's Base

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

Production Right, adjusted pursuant to the percentage reductions in Sections 3.2.1 and 3.2.2, against any requirement then in effect for any water supply assessment requirements, or against any fees associated with water supply that the Public Agency may then have in effect. The Public Agency serving the converted land shall receive a credit added to its Base Production Right as set forth in Section 3.2.4.

4.4.4 A Class B Participant is eligible to enter into a contract with the Watermaster, or a participating Public Agency, to sell for a defined period of time the unused portion of the Class B Participant's Base Production Right, under terms and conditions approved by the Watermaster. Criteria used in consideration of such contract shall include:

4.4.4.1 The Water Management Plan's need to acquire additional water supplies to address overdraft and recovery;

4.4.4.2 Submission of a water conservation plan, including use of in lieu water, by the Class B Participant that will reasonably guarantee conservation of water that would otherwise be produced from the Management Area; and the amount of conserved water transferred reflects a reduction pursuant to Sections 3.2.1 and 3.2.2.

4.4.4.3 Public policy considerations of local government jurisdictions, including economic, land use and community impacts of any proposed water conservation plan.

4.4.5 The Class B Participant hereby authorizes the installation of meters and the collection and reading of Groundwater production, water level

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

and water quality data from the Class B Participant's well(s) by personnel authorized by the Watermaster. The metering, meter reading and other related monitoring efforts shall be at no cost to the Class B Participant, and the Class B Participant shall receive copies of the reports and information obtained upon request.

4.4.6 The Stipulation signed by a Class B Participant shall describe or otherwise identify the Participant's land and wells within the Management Area. The heirs, successors and assigns of such land and wells shall succeed to the benefits of the Participant's rights under the Judgment, and be bound by the obligations thereof, provided that such successor intervenes as a party under the Judgment. Absent such intervention, the successor will be treated as a Non-Participant.

4.5 In-Lieu Water Use. In the event a Private Pumper receives Supplemental Water from a Public Agency to serve an historic use in place of Groundwater, or otherwise engages in an in-lieu program, the Overlying Right of the Private Pumper shall not be diminished by the receipt and use of such Supplemental Water or by engaging in an in-lieu program.

4.6 Future Production Participation. Any new pumper after the entry of this Judgment may intervene in this action and Judgment only as a Class A Participant.

4.7 Replacement Wells. Re-drilling of existing wells and the drilling of new wells to replace existing wells will not be considered new production as provided in Section 4.6.

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

5. TRIBAL WATER RIGHTS

The Tribal Water Rights will be determined as part of a settlement among the Soboba Tribe, the United States, Eastern, Lake Hemet and Metropolitan. The settlement will be reflected in a Settlement Agreement, Congressional legislation and appropriation of funds, and a Judgment in the Soboba Action. Such settlement includes the following provisions, which shall be effective only upon fulfillment of all of the conditions precedent set forth in Article 3 of the Settlement Agreement, a copy of which is attached hereto.

5.1 Senior Right. The Soboba Tribe shall have a prior and paramount right, superior to all others, to pump 9000 acre-feet per year (3000 acre feet from the Canyon Subbasin and the remainder from a portion of the San Jacinto Upper Pressure Subbasin referred to as the Intake Subbasin), for use on the Reservation, as defined in Article 2.20 of the Settlement Agreement, and on lands now owned or hereafter acquired by the Soboba Tribe contiguous to the Reservation or within the Canyon and Intake Subbasins; provided, however, that such use shall be limited to 4100 acre-feet per year for the first 50 years after the Effective Date as set forth in the Settlement Agreement. The Tribe's right to pump applies to all Groundwater, whether replenished by Natural Recharge or by Supplemental Water. In addition, the Tribe shall have the right to purchase additional water from the Watermaster during the fifty years that its use is limited to 4,100 AFA at the rate then being charged to the Public Agencies under the Water Management Plan. In the event the Soboba Tribe is unable, except for mechanical failure of its wells, pumps or water facililties, to produce from its existing wells or equivalent replacements up to 3000 AFA production from the Canyon Sub-basin and the remainder of its Tribal Water Rights from the Intake Sub-basin, Eastern and Lake Hemet shall deliver any shortage to the Soboba

Tribe as provided in Section 4.1C of the Settlement Agreement. Pumping for such purpose shall not be subject to Administrative or Replenishment Assessments, and shall not be counted as part of Adjusted Production Rights.

5.2 Metropolitan Water. The Soboba settlement provides, among other matters, that Metropolitan will use its best efforts to deliver sufficient Imported Water to yield 7,500 acre-feet per year, based upon 15 year averages, for recharge in the Management Area at its untreated replenishment water rate, or any successor rate as provided in Section 4.4A of the Settlement Agreement.

5.3 Settlement Payment. Subject to the Effective Date of the Settlement Agreement and funding by the United States, Eastern pursuant to the terms set forth in the Water Management Plan, will pay the Soboba Tribe $17 million dollars pursuant to Article 4.7A of the Settlement Agreement in consideration, in part, of the Tribe's agreement to limit its water use up to 4,100 acre-feet per year for the first 50 years after the Effective Date according to the build-up schedule set forth in the Settlement Agreement as Exhibit I. Subject to contracts with Eastern, the Public Agencies shall have the right to pump and use all Imported Water not used by the Tribe, and the unused portion of the Tribal Water Rights shall be available for use by the Parties, pursuant to their rights herein.

5.4 Capital Facilities. Eastern on behalf of the Water Management Plan participants will receive $10 million from the United States, to be applied to the costs of constructing and operating the Phase I capital facilities necessary to import and recharge Supplemental Water as described in the Plan. Additional grant funds from the State of California or the United States may also be available for such capital facilities. The rights of the Public Agencies to the

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

use of such facilities will be affirmed by contract as set forth in Sections 9.6.4(a) and 9.6.4(c).

5.5 Acknowledgement of Soboba Tribe Settlement. The Parties to this Judgment hereby recognize the Tribal Water Rights, as set forth above, and the applicable provisions of the Soboba Tribe Settlement Agreement, and acknowledge that protection of Tribal Water Rights is one of the goals of the Water Management Plan.

6. PHYSICAL SOLUTION.

6.1 Purpose and Objective. Pursuant to California water law and the California Constitution, Article X, Section 2, the Court adopts this Physical Solution to maximize reasonable beneficial use of Surface Water, Groundwater and Supplemental Water for water users in or dependent upon the Management Area, to eliminate overdraft, to protect the prior rights of the Soboba Tribe, and to provide the Parties with the substantial enjoyment of their respective rights, including, the priorities thereof.

6.2 Need for Flexibility. In order to adapt to potential changes in hydrology, land use, and social and economic conditions, the Physical Solution must provide some degree of flexibility and adaptability. Accordingly, the Court retains broad jurisdiction to supplement the discretion granted to the Watermaster.

6.3 Rights to Groundwater. Groundwater in the Management Area may occur from: natural recharge; spreading operations of natural flows; recharge with Supplemental Water acquired with Assessment funds; return flows,

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

fallowing or in-lieu recharge programs financed with Assessment funds. All such Groundwater shall be available to support the pumping of the Parties as allowed herein, and shall not be the property of any individual Party. Subject to the provisions of Section 6.7.2, this Section does not preclude any Party, pursuant to a Storage Agreement, from storing Supplemental Water at its own cost, retaining title thereto, and pumping such water without Assessment.

6.4 Resolution of Priorities. By reason of the long and continuous overdraft of the Management Area, the contribution of all parties to the overdraft, the economies that have developed on the basis of the overdraft, the severe economic disruption that could occur under strict priorities and the doctrines of prescription and laches, the complexity of determining appropriative priorities, and the need to make the maximum beneficial use of the water resources of the State, the Parties are estopped and barred from asserting specific priorities or preferences to the pumping of groundwater in the Management area, except as provided in this Judgment, and the Court finds that the provisions of this Judgment provide for the substantial enjoyment of the respective rights of the Parties.

6.5 Water Management Plan. The Watermaster will approve and implement a Water Management Plan to enforce and implement the Physical Solution, and may modify such Plan as conditions require, subject to the provisions of the Settlement Agreement. The Plan will also facilitate and accommodate the settlement of the water rights of the Soboba Tribe, and shall be subject to the approval of the Soboba Tribe and the United States as trustee for the Tribe. The Parties agree that the Plan shall incorporate and serve to implement the following goals:

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

6.5.1 Groundwater levels within the Management Area have generally been declining for a number of years, and the Management Area is presently in a condition of Overdraft. The Plan will, within a reasonable period, eliminate Groundwater Overdraft and provide for excess production by implementing a combination of available water resources management elements. These elements include: reduction in natural Groundwater production; enhanced Recharge with native and/or Supplemental Water; increased use of recycled water; in-lieu replenishment; acquisition and development of Supplemental Water; and water conservation programs.

6.5.2 The Management Area is expected to experience residential, commercial, and industrial growth and development over the next decade. The estimated amount of Supplemental Water that will be necessary to provide for and adequately serve this new growth and development is 15,000 acre feet per year. The Water Management Plan shall accommodate the orderly expansion of existing water production and service systems, and provide a clear planning process for meeting these projected growth trends.

6.5.3 The Plan should be implemented in a manner to protect and/or enhance Management Area water quality. However, implementation of certain elements of the Plan may cause limited localized water quality degradation. If such degradation impedes the then current beneficial uses of water by any Public Agency in the Management Area, the Watermaster shall implement appropriate mitigation measures to ensure the water supply to the affected Public Agency, and to bear the associated costs. The standards for local water quality degradation shall be defined in the Plan.

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

6.5.4 The Water Management Plan should serve to support the pursuit of cost-effective water supply and water treatment by the Public Agencies, both individually and collectively.

6.5.5 The Water Management Plan should serve to protect Tribal Water Rights.

6.5.6 The Watermaster shall implement a monitoring program to ensure that Plan activities follow best management and engineering principles to protect Management Area water resources, and to compile and analyze data on groundwater production, water levels, water quality and groundwater in storage.

6.6 Replenishment Program. The groundwater replenishment program shall be administered by the Watermaster. The program shall include: the acquisition of Supplemental Water; the collection and expenditure of Replenishment Assessments; the recharge of the Management Area; and the construction and operation of all necessary facilities, including but not limited to, development of surface and sub-surface percolation and injection facilities. In addition, a source of Recharge Water for agencies contributing to the Settlement Payment described in Section 5.3 will be Imported Water provided by Metropolitan under the Settlement Agreement, and not used by the Soboba Tribe.

6.6.1 Priority for replenishment will be based on an equitable apportionment of available replenishment water among the sub-basins after full consideration of:

6.6.1.1 The Public Agency's participation in the payment in the Settlement Payment described in Section 5.3.

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

6.6.1.2 Hydrologic conditions in the Management Area.

6.6.1.3 The Management Area's Water demands.

6.6.1.4 The availability of storage capacity to accommodate the Natural Recharge of surface flows.

6.6.1.5 The availability of appropriate conveyance facilities.

6.6.1.6 The availability of Supplemental Water,

6.6.1.7 Protection of Tribal Water Rights.

6.6.2 The Watermaster is encouraged to take advantage of surplus imported water from Metropolitan that occasionally may be available at low cost, and to use available Assessment funds to bank such Recharge Water against future production in excess of Adjusted Production Rights.

6.6.3 The Public Agencies shall independently or jointly operate their present facilities to maximize the existing spreading and Recharge operations of natural flow in the Management Area. Such Recharge Water shall be available to support the pumping of all users, and shall not be the property of the spreading Public Agency.

6.6.4 All water used to replenish any sub-basin in the Management Area shall meet the Regional Water Quality Control Board, Santa Ana

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

Region requirements, and the provisions of Article 4.2 of the Settlement Agreement, and may be used in any sub-basin where such requirements are met.

6.7 Storage Rights. Unused storage capacity may exist in the Management Area, and this capacity will be managed by the Watermaster conjunctively with natural and available Supplemental Water supplies.

6.7.1 Subject to availability of Assessment funds and unused storage capacity as determined by Watermaster, the Management Area may be Recharged when water is available, to be drawn upon by the Public Agencies in later years when such Supplemental Water may not be available.

6.7.2 Unused storage capacity, as determined by Watermaster, and pursuant to a Storage Agreement, may be used for "put and take" operations of Supplemental Water that is paid for by any Public Agency provided that:

6.7.2.1 Such operations do not interfere with the rights of any other pumper, or with the use of the storage capacity for recharge and storage under the Water Management Plan.

6.7.2.2 The Watermaster shall have the first right to purchase any water available for Recharge for use under the Plan.

6.7.2.3 Later recovery of Stored Water shall exclude losses, and shall not be subject to either Administrative or Replenishment Assessments.

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

6.7.2.4 Such recovered water may be used anywhere within the service area of the Party.

6.7.2.5 Such Stored Water may be transferred while still in storage.

6.7.3 Any conjunctive use programs for the benefit of territory outside of the Management Area shall be subject to the Watermaster and the governance provisions herein. Any storage, conjunctive use programs by third parties, or in-lieu recharge programs financed with assessment funds, shall be subject to the Watermaster and the governance provisions herein; provided that Metropolitan has the right under the Soboba Settlement Agreement to use up to 40,000 acre-feet of storage capacity in the San Jacinto Upper Pressure Sub-basin for the pre-delivery of water required under Section 5.2.

6.7.4 Eastern and Lake Hemet have previously provided water for replenishment of the Management Area. As of May 1, 2005 these amounts, less losses, were 12,694 acre-feet for Eastern and 950 acre-feet for Lake Hemet Such Parties shall have Recharge Rights to recover these amounts, less any future losses, without either Administrative or Replenishment Assessments, and may be used to offset excess pumping in lieu of Replenishment Assessments. The water available under such Recharge Rights shall be pumped within 15 years of the entry of this Judgment, but at not more than 2000 acre-feet in a single year. The Public Agencies shall notify the Watermaster when such Recharged Water is being pumped, and in what amounts, and the Watermaster shall keep an accounting of the amounts remaining. The use of such credits shall be interpreted and administered so as not to increase the replenishment obligations or assessments of those parties without such past credits, or after such credits have been fully used.

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

6.7.5 The accounting for recovery of Stored Water or Recharge Water from the Management Area shall not include any water that escapes therefrom and migrates downstream beyond the Management Area. Losses will be calculated based upon best engineering principles.

6.8 Recycled Water. The use of Recycled Water produced by Eastern can be of substantial benefit in providing additional water in the Management Area. The Watermaster shall have a right of first refusal to purchase all recycled water produced from treatment facilities serving the Management Area that is not subject to then existing contracts. Such recycled water may be used for recharge or direct use within the Management Area..

6.8.1 Each Public Agency may implement its own Recycled Water program, for direct use, subject to the availability of recycled water. The Public Agency shall be responsible for financing, operating and maintaining the facilities necessary for that program. The Watermaster will support loan or grant applications, and the Public Agencies will work to integrate Recycled Water into the Water Management Plan, to the extent economically feasible while meeting regulatory standards.

6.8.2 Currently only Eastern has Recycled Water available for Recharge. To the extent such Recycled Water is not acquired by the Watermaster for use under the Plan, the water if recharged in the Management Area shall remain the property of Eastern and may be pumped (less losses) without Replenishment Assessments.

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

6.9 Assessment Program. The assessment program contemplated by the Water Management Plan shall be administered by Eastern pursuant to a contract with the Watermaster pursuant to the provisions of Section 9.6.4(e).

6.9.1 All Assessments shall be used for Replenishment Expenses and Administrative Expenses.

6.9.2 Subject to the limitations in this Judgment, each Public Agency that produces less than its Adjusted Production Right and share of Imported Water, and any Class B Participant producing less than its Base Production Right, shall have the following Carry-Over Credit:

6.9.2.1 Carry-Over Credit shall be the difference in acre-feet between a Party's Adjusted Production Right and share of Imported Water, or the Class B Participant's Base Production Right, and the Party's actual production in a calendar year.

6.9.2.2 The Carry-Over Credit may be applied to reduce the amount of acre feet upon which a Party must pay a Replenishment Assessment. Carry-Over Credits are transferable among the Parties, and may be retained for more than one calendar year. The Parties shall notify the Watermaster if a Carry-Over Credit is being retained.

6.9.2.3 The Watermaster shall keep an accounting of all Carry-Over Credits.

6.9.3 All Watermaster assessment invoices shall be payable to Watermaster within 60 days of notice. Any delinquent assessments shall bear

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

interest at a rate to be set by the Watermaster. Watermaster is entitled to recover its reasonable expenses in collecting any assessment, including attorney's fees and costs.

6.10 Export. The Public Agencies may export water outside the Management Area, on a temporary basis, upon approval by the Watermaster. However, any water exported shall be replenished with an appropriate amount of similar or better quality water as determined by Watermaster. Water exports by the Public Agencies shall not interfere with the Water Management Plan or any other Public Agency's operations. The Water Management Plan will set forth the specific criteria for the export of water, including, but not limited to, conjunctive use programs.

6.11 Capital Facilities. Each Public Agency shall continue to own its existing capital facilities for water supply and management, subject to the provisions of Section 9.6.6. However, the Phase I capital facilities necessary to implement the Water Management Plan shall be owned and operated by Eastern, pursuant to the Plan and in a fiduciary capacity for the benefit of all Parties under this Judgment, pursuant to Sections 5.4; 9.6.4(a); 9.6.4(c).

6.11.1 Financing of Water Management Plan facilities may be funded by Assessments, regional capital fees, loans and grants, contributions for storage rights by Metropolitan or other third-parties, and municipal bonds. Responsibility for the costs of future capital facilities necessary to implement the Plan, beyond the Phase I facilities, shall be determined by the Watermaster and apportioned on relative benefit to be derived by each Public Agency.

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

6.11.2 Any of the participating Public Agencies may propose projects to be included in the Water Management Plan to increase the Management Area water supply. Such proposals, after evaluation by the Watermaster, shall be included or rejected. If the Watermaster chooses to reject the proposal, the proposing Public Agency may implement the rejected project at its own cost so long as it does not significantly impact the implementation of the Management Plan and/or interfere with the ongoing production by the Public Agencies.

7. INJUNCTION.

Each Party and his, her or its officers, agents, employees, successors and assigns, is enjoined and restrained from:

7.1 Producing water from the Management Area without payment of required Administrative Assessments.

7.2 Producing water from the Management Area in excess of the Party's Adjusted Production Right and share of Imported Water, or the Base Production Right in the case of a Class B Participant, without payment of required Replenishment Assessments.

7.3 Transferring Production Rights except as authorized in this Judgment.

7.4 Recharging water in the Management Area except as authorized in this Judgment.

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

7.5 Storing or exporting water except as authorized in this Judgment.

8. CONTINUING JURISDICTION.

8.1 Full Jurisdiction. Full jurisdiction, power and authority is reserved to the Court as to all matters contained in this Judgment, including expedited intervention by successors in interest to Private Pumpers, except:

8.1.1 To redetermine Base Production Rights of the Public Agencies or Class B Participants.

8.1.2 As otherwise limited by law.

8.2 Motion to Interpret. By motion to the Court, upon 30 days written notice and after hearing, any Party or Watermaster may request the Court to make such further or supplemental orders to interpret, enforce, carry-out or amend this Judgment. Any such motion shall be reviewed de novo by the Court. Any such motion shall be served on all Parties and Watermaster at the addresses on the Watermaster's notice list.

9. WATERMASTER.

9.1 Composition. The Watermaster shall consist of a board composed of one elected official selected by each of the Public Agencies and one Private Pumper representative selected by the Class A and Class B Private Pumpers.

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

9.2 Terms. Each member of the Watermaster shall serve until replaced by the Public Agency or Private Pumpers that made the original appointment.

9.3 Removal and Replacement. Any Watermaster member may be removed and replaced by the same procedure used in his or her appointment.

9.4 Voting. Each member of the Watermaster shall have one vote. Four affirmative votes shall be required in order to constitute Watermaster action on each of the following matters. (1) any change sought in the form of governance; (2) any change in voting requirements; (3) retaining the services of legal counsel and Advisor; (4) establishing, levying, increasing or decreasing all assessment amounts; (5) adopting or amending an annual budget; (6) determining the extent of overdraft and quantifying safe yield; (7) determining Adjusted Production Rights; (8) decisions regarding the financing of Supplemental Water or facilities, other than any financing provisions included in this Stipulated Judgment as provided in Sections 5.3, 5.4, 5.5 hereof; (9) decisions regarding ownership of facilities, other than ownership of the Phase I facilities described in the Water Management Plan, which shall be owned by Eastern Municipal Water District, subject to a right of use by those parties participating in the financing thereof; (10) policies for the management of the Management Area; (11) and any decision that involves a substantial commitment by the Watermaster, including any contracts for conserved water. All other actions by the Watermaster shall require three affirmative votes.

9.5 Court Review. Any action by the Watermaster, or any failure to act by virtue of insufficient votes, may be reviewed by the Court on motion by

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

any party, with notice to all other parties. The Court's review shall be de novo, and the Court's decision shall constitute action by the Watermaster.

9.6 Powers and Duties. In order to implement the provisions of this Judgment, the Watermaster shall have the following duties and powers:

9.6.1 Water Management Plan. Watermaster shall develop and implement a Water Management Plan, with such additions and modifications as may from time to time be appropriate, and shall administer the provisions of this Judgment. The Water Management Plan shall be subject to approval by the Court, by the Soboba Tribe, and by the United States.

9.6.2 Independent Counsel. The Watermaster shall retain independent legal counsel to provide such legal services as the Watermaster may direct.

9.6.3 Advisor. The Watermaster shall retain either an independent engineering firm or qualified individual experienced in hydrology to evaluate and analyze the data collected by Eastern, and any conclusions based thereon, and to make recommendations to the Watermaster, referred to herein as "Advisor." The Advisor shall also provide general coordination among Eastern, the Technical Advisory Committee and the Watermaster with respect to their respective functions, and perform such executive functions as the Watermaster may direct. The Watermaster reserves the right to refer any matter it may choose to any person it may select for assistance in carrying out its duties under this Judgment.

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

9.6.4 Operations and Other Functions.

(a) *Operations – Phase I Facilities*. The Phase I Facilities (including capital facilities and spreading basins, as more particularly defined in the Water Management Plan) are either existing facilities of Eastern that will be expanded or improved as part of the Water Management Plan, or are new facilities that will be integrated into Eastern's existing facilities and will be owned by Eastern. Pursuant to the terms and conditions of contracts to be entered into between Eastern and the Watermaster, and Eastern and the other Public Agencies, Eastern shall construct, install, and operate the Phase I Facilities consistent with the Water Management Plan.

(b) *Operations – Other Facilities*. The Water Management Plan anticipates the need for the construction and installation of other facilities in order to accomplish the goals of the Judgment. Such facilities may be constructed, installed and operated under contract with the Watermaster, by a member of the Watermaster or, in circumstances approved by the Watermaster, by other responsible entities.

(c) *Purchase of Water for Groundwater Recharge.* The Soboba settlement requires Metropolitan to use its best efforts to deliver an average of 7500

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

acre-feet per year of Imported Water for recharge of the Management Area. This supply is dedicated first to satisfy the rights of the Soboba Tribe as provided in the Settlement Agreement. Such portion of the supply that is not used by the Soboba Tribe will be available to those Parties who have participated in the cost thereof. Subject to the approval of the Watermaster, Eastern shall enter into a contract with Metropolitan for the purchase and delivery of such Imported Water supply. Eastern shall also purchase as a member agency of Metropolitan, or otherwise acquire, such additional supplies of water as may be directed by the Watermaster to implement the Water Management Plan, subject to availability and transmission capacity. All such water delivered by Metropolitan, or otherwise acquired by Eastern, and all Eastern facilities used to deliver, recharge and recapture such water, shall be subject to rights of use by the Parties entitled thereto. Such rights of use shall be confirmed in detail in written contracts with Eastern. Recyled water is also available for direct and indirect groundwater recharge from Eastern's wastewater treatment facilities serving the Management Area. The Watermaster shall have a right of first refusal to purchase all recycled water produced from such plant that is not subject to then existing contracts. Nothing contained herein shall limit the right of the Watermaster to acquire Imported or Supplemental Water supplies from any of the Parties, or from other responsible entities.

(d) *Data Collection*. The Watermaster shall provide for the collection and maintenance of all production, water level, water quality, and other

technical data necessary under or required by the Water Management Plan ("Data"). Pursuant to the terms and conditions of a contract to be entered into between Eastern and the Watermaster, Eastern shall collect and maintain all such Data and transmit such Data to the Watermaster, its Advisor, and the Technical Advisory Committee as directed by the Watermaster. The foregoing clause does not restrict the ability of the Watermaster to enter into other agreements with other members of the Watermaster and/or private firms and individuals for the collection of Data.

(e) *Accounting*. The Watermaster shall provide for the levy, billing, and collection of all assessments provided for under the Judgment, for the payment of costs and expenses of the Watermaster, and for the performance of such accounting and related functions as may be required in connection with those functions ("Accounting Functions"). All funds collected shall be held in a segregated account. All expenses and disbursements shall be separately accounted for. Pursuant to the terms and conditions of a contract to be entered into between Eastern and the Watermaster, Eastern shall initially perform the Accounting Functions for Watermaster. The foregoing clause does not restrict the ability of the Watermaster to enter into other agreements with other members of the Watermaster and/or private firms and individuals to provide some or all of the Accounting Functions.

9.6.5 Technical Advisory Committee. There has been a Technical Advisory Committee that has functioned throughout the development of the Water Management Principles and Plan, and this Stipulated Judgment. That Committee has been composed of such managerial and technical representatives as the individual parties decide to appoint. Each party has paid the costs of its own representatives, and shall continue to do so in the future. The Technical Advisory Committee shall continue to function, and to provide such technical assistance as

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

the Watermaster may request. The Technical Advisory Committee shall make recommendations to the Watermaster's Advisor and to the Watermaster on all matters requiring four votes for Watermaster action, and shall receive from Eastern all data associated with such matters for its review and evaluation. The Technical Advisory Committee and its members shall also function as a way to keep the City Councils, Boards of Directors and participating Private Pumpers fully informed about the implementation of this Judgment.

9.6.6 Reservation of Rights. The Watermaster reserves the right to assume, on its own, any functions set forth in Section 9.6.4, except as provided in Section 9.6.4(a), and to undertake all other acts required to implement the Plan and this Judgment, so long as it is legally capable of performing such functions. The Watermaster, if it should choose, may also act through or in conjunction with the other Public Agencies, or through a Joint Powers Agency composed of all the Public Agencies hereunder. Except as specifically provided in Section 9.6.4(a) with respect to Eastern's facilities used in Phase I, the Watermaster shall have no right to use or acquire the water facilities of any of the Parties, without their consent, provided that it is the intent of the Parties that their individual facilities will be available where appropriate to implement the Water Management Plan, upon terms equitable to all parties, and consistent with their respective obligations to their own customers.

9.6.7 Rules and Regulations. The Watermaster may make such rules and regulations as may be necessary for its own operations as well as for the operation of the Plan and this Judgment, subject to Court approval. Meetings of the Watermaster shall be subject to the Brown Act .

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

9.6.8 Reports to Court. The Watermaster shall file annually with the Court, and serve on all Parties, a report regarding its activities during the preceding year, including an audited statement of all accounts and financial activities.

9.6.9 Notice to Parties. Watermaster shall maintain a current list of the Parties and their addresses for notice purposes. Rules for service shall be governed by the California Code of Civil Procedure and the California Rules of Court. Each Party shall notify Watermaster in writing of the name and address for its receipt of notice and service under this Judgment. A Party may change this information by written notice to Watermaster. Notice shall be deemed sufficient if directed to the most recent address provided by the Watermaster.

9.7 Watermaster Records. Watermaster's records shall be kept at the office of Eastern unless changed by the Watermaster and approved by the Court. These records shall be treated as public records under the Public Records Act. Cal. Gov't Code §§ 6250-6277 (West 1995 and Supp. 2002).

10. MISCELLANEOUS.

10.1 Intervention After Judgment. Any Person who is not a Party and who proposes to Produce water from the Management Area, or who is an heir, successor or assign of an existing party, may become a Party to this action and Judgment, subject to the conditions contained herein, by filing a petition in intervention. The petition may be filed and approved ex parte with notice to the Watermaster. Such intervener shall thereafter be a Party bound by this Judgment, and entitled to the rights and privileges accorded under this Judgment.

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

10.2 Loss of Rights. No right adjudicated in this Judgment shall be lost by non-use, abandonment, forfeiture or otherwise, except upon a written election by the owner of the right filed with Watermaster, or by order of the Court upon noticed motion and after hearing.

10.3 Attorney's Fees and Costs. No Party shall recover any attorney's fees or costs in this proceeding from any Party.

Dated: _____, 200_

_____
Judge of the Superior Court

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

EXHIBIT B

List of Parties to this Judgment

1. Parties

   A. Eastern Municipal Water District ("Eastern)
   B. Lake Hemet Municipal Water District ("Lake Hemet")
   C. City of Hemet ("Hemet")
   D. City of San Jacinto ("San Jacinto")

2. Class A Participants

   A.
   B.
   C.
   D.

3. Class B Participants

   A.
   B.
   C.

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

Exhibit C

Base Production Rights

1. Public Agencies

Agency Name	Base Production Rights (Acre-feet per year)
Eastern Municipal Water District	10,869
Lake Hemet Municipal Water District	11,063
City of Hemet	6,320
City of San Jacinto	4,031

2. Class B Participants

LAW OFFICES OF
BEST BEST & KRIEGER LLP
3750 UNIVERSITY AVENUE
P.O. BOX 1028
RIVERSIDE, CALIFORNIA 92502

APPENDIX C LIST OF GOVERNING BODIES

Eastern Municipal Water District:

Name	Title
David J. Slawson	Board President, Division 5
Ronald Sullivan	Board Vice President, Division 4
Joe Kuebler, CPA	Director Division 2, EMWD Board Treasurer
Philip E. Paule	Director Division 1
Randy A. Record	Director Division 3, MWD Director

Lake Hemet Municipal Water District:

Name	Title
Frank Douglas Marshall III	Board President
Patrick Searl	Board Vice President
Herbert C. Forst	Board Secretary
John S. Fricker	Board Treasurer
Larry Minor	Director

City of Hemet:

Name	Title
Marc Searl	Mayor
Lori Van Arsdale	Vice- Mayor
C. Robin Resser Lowe	Councilperson
Brian Christie	Councilperson
Eric Mc Bride	Councilperson
Steve Clayton	City Clerk
Judith Oltman	City Treasurer

City of San Jacinto:

Name	Title
Jim Ayres	Mayor
Chris Carlson	Vice- Mayor
Dale Stubblefield	Council Member
Robert Ritchie	Council Member
John Mansperger	Council Member

APPENDIX D PRINCIPLES FOR WATER MANAGEMENT

PRINCIPLES FOR WATER MANAGEMENT

1. Water Management Plan. These Principles, approved by the appropriate authority of each party, are intended to form the basis from which the parties will develop a Water Management Plan ("Management Plan") for the area described in Section 2. The Management Plan is being developed to ensure an adequate and reliable source of future water supply. The Management Plan is also intended to facilitate and accommodate a settlement of the claims of the Soboba Band of Luiseno Indians ("Soboba Tribe").

2. Management Area. The area included in the Management Plan consists of the Canyon Sub-basin and the San Jacinto Upper Pressure Sub-basin, downstream to Bridge Street, and the Hemet Basins ("Management Area"). The Management Area is shown upon the attached map.

3. Pumpers within the Management Area. The primary pumpers within the Management Area are: Eastern Municipal Water District ("Eastern"), Lake Hemet Municipal Water District ("Lake Hemet"), City of San Jacinto ("San Jacinto"), and City of Hemet ("Hemet") (individually

"Public Agency," collectively "Public Agencies"); the Soboba Tribe (not a Management Plan participant); and approximately 62 individual agricultural and other private pumpers who pump more than 25 acre-feet per year ("Private Pumpers").

4. Goals. The parties agree that the Management Plan shall incorporate and serve to implement the following goals:

A. Allowing for Future Urban Growth. The parties acknowledge that the Management Area will continue to experience residential, commercial, and industrial growth and development, and that existing water production and service systems will need to be expanded to meet this growth. It is estimated that at least 15,000 afy incremental water supply capacity over the existing base production rights of the Public Agencies must be dedicated to adequately serve this growth. The Management Plan should serve and provide a clear planning process so that each affected Public Agency will be able to meet these projected growth needs.

B. Water Quality Protection. Implementation of the Management Plan should protect and/or enhance Management Area water quality. However, implementation of certain elements of the Management Plan may cause limited localized water quality degradation. If such degradation impedes the then current beneficial use of any Public Agency in the Management Area, the Watermaster described in Section 22 ("Watermaster") shall implement appropriate mitigation measures to ensure water supply to the affected Public Agency and bear the associated costs. The standards for local water quality degradation shall be defined in the Management Plan.

C. Cost-Effective Management. The Management Plan should serve to support the pursuit of cost-effective water supply and water treatment by the Public Agencies, both individually and collectively.

D. Overdraft. The groundwater levels within the Management Area have generally been declining for a number of years, and the Management Area is presently in a condition of overdraft. It is recognized that the Management Plan will, within a reasonable period, eliminate groundwater overdraft and enhance operational yield by

implementing a combination of available water resources management elements. These elements include: reduction in native groundwater production; enhanced recharge with native, imported and/or recycled water; development of supplemental supplies such as imported and recycled water; and water conservation programs.

E. Monitoring. The Watermaster shall implement a monitoring program to ensure the Management Plan activities follow best management and engineering principles to protect Management Area water resources.

5. Public Agencies Base Production Rights.

A. The base production rights of Eastern, Lake Hemet and Hemet in the first year of the Management Plan shall be based upon their average production for calendar years 1995-1999. This period was chosen to reflect these Public Agencies' recent pumping, and shall determine their base production rights.

B. The base production right of San Jacinto in the first year of the Management Plan, shall be based upon its average production for calendar years 1995-1999, plus 500 afy. The 500 afy is added because San Jacinto's recent production does not reflect its historic production because of water purchases and other factors.

C. Pursuant to Section 21 below, for the life of the Management Plan, Hemet and San Jacinto shall each add an additional 900 afy to their base production rights. The additional 900 afy shall not be subject to reduction by the Watermaster as provided in Section 5.D and shall not be subject to any Administrative or Replenishment Assessments as provided in Section 6, or other fee or charge imposed under the Management Plan.

D. It is the goal of the Management Plan to adjust base production rights over time to a level consistent with the Watermaster's calculation of the Public Agencies' share of safe yield for the Management Area. Based on current information, it appears that the total reduction in base production rights will need to be approximately 35%. The ultimate reduction will be based on periodic demand, hydrology, recharge and

availability of imported water. In order to implement this reduction in a phased manner, each Public Agency's base production rights shall be subject to adjustment as follows:

(1) A 10% reduction from the base production rights in the first year of the Management Plan; and

(2) Until base production rights are consistent with the Public Agencies' share of safe yield, Watermaster shall determine the reductions in base production rights in each subsequent year of the Management Plan, to achieve this goal within 6 years of approval of the Management Plan. Each reduction shall not be more than 10% of the base production right of the prior year.

(3) Pursuant to Section 7(A)(2)(b), upon conversion of a Class B Participant's land from agricultural to a use that requires water service from a Public Agency, the Public Agency shall receive an increase in its base production rights equal to the adjusted base production right of the Class B Participant.

6. Public Agency Production Assessments. The Public Agency production will be subject to the following assessments:

A. An Administrative Assessment on each acre-foot pumped by a Public Agency up to its adjusted base production right. The parties contemplate that the Administrative Assessment will be $50.00 per acre-foot of water pumped in the first year of the Management Plan, and that such amount will thereafter be set by the Watermaster.

B. A Replenishment Assessment on each acre-foot pumped by a Public Agency in excess of its adjusted base production right equal to the cost of providing a like quantity of supplemental water to recharge the Management Area, including recharge losses. Pumping by a Public Agency in excess of its adjusted base production right in order to meet increasing demands is expected and permissible, provided that such excess extractions shall be subject to the Replenishment Assessment. The costs of providing a like quantity of supplemental water shall include the costs of water, O&M costs of the replenishment system, capital recovery and other administrative costs. Currently, the total of these cost items is estimated to be in the range

of $300 to $400 per acre-feet; the actual amount will reflect the costs at the time incurred.

7. Private Pumpers Water Rights. The Public Agencies recognize the overlying water rights of the Private Pumpers, and do not intend to take or adversely impact these rights without an agreement with the owner of such rights. The Management Plan will lay out alternatives for the retention, protection, or transfer of such rights, leaving selection of the alternative to the individual overlying water rights owner. A Private Pumper can elect not to participate in the Management Plan and not to formally acknowledge its existence. Such Pumpers shall be referred to herein as "Non-Participants"; such Pumpers shall continue to exercise whatever water rights they may hold under California law unaffected by the Management Plan. There is no intent to affect water use that is consistent with the historical use of the Private Pumpers. However, other pumpers under the Management Plan do not waive their rights to challenge new or expanded water rights. Non-Participants will not have the option of joining the program at a later date. The alternatives available to participants are as follows:

A. (1) Class A Participation. A Private Pumper can elect to sign a written agreement acknowledging the existence of the Management Plan. Such Pumper shall be a Class A Participant and shall be entitled to vote for and/or be elected to serve as the Private Pumper representative on the Management Plan's governing board or body described in Paragraph 22 below, but shall not otherwise be required to participate in the Management Plan implementation. A Class A Participant may, without any financial assessment by the Watermaster, pump from his/her/its property within the Management Area the amount of water that can be put to reasonable and beneficial use on the Pumper's land as may be authorized under California law. Class A Participants shall have the right to convert to Class B Participation during a grace period that shall end three (3) years after the effective date of the Management Plan, as approved by a judgment of the Superior Court for Riverside County, upon payment of the total assessments the Pumper would have paid had the Pumper elected to be a member of Class B from the outset, plus interest.

(2) Class B Participation. A Private Pumper can become a Class B Participant by electing to limit annual pumping to the Pumper's average annual production during the calendar years 1995 through

1999 and to pay replenishment assessments on amounts in excess of that average annual production. A Class B Participant shall enjoy the following benefits of Plan Participation:

a. Vote for and/or be elected to serve as the Private Pumper's representative on the Management Plan's Governing Board;

b. Upon conversion of Pumper's land from agricultural use to a use that requires water service from a participating Public Agency, Public Agency shall credit to the extent legally permissible, Pumper or Pumper's successor-in-interest's adjusted production right, using the formula in Section 5 towards satisfaction of any requirement then in effect for water supply assessment requirements. Furthermore, Pumper or Pumper's successor-in-interest shall be given a credit for Pumper's adjusted production right using the formula in Section 5 towards any fees associated with water supply that the Public Agency may then have in effect. The Public Agency serving the converted land shall receive a credit to its production right as set forth in Section 5.

c. To the extent the Pumper's land is not covered under Section 7(A)(2)(b), Pumper will be eligible to enter into a contract with the Management Plan, or a participating Public Agency, to sell for a defined period of time some portion of Pumper's adjusted production right, under terms and conditions mutually agreed upon by the Pumper and the Management Plan. Criteria used in consideration of such contract shall include:

(i) Management Plan's need to acquire additional water supplies to address Basin overdraft and recovery;

(ii) Submission of a water conservation plan, including use of in lieu water, by Pumper that will reasonably guarantee conservation of water that would otherwise be produced from the Basin;

(iii) Public policy considerations of local government jurisdictions, including economic and land use impacts of proposed water conservation plan.

B. In-Lieu Water Use. In the event a Private Pumper (or successor) receives recycled and/or imported water from a Public Agency to serve an overlying use in place of groundwater, or otherwise engages in an in-lieu program, the overlying water right of the Private Pumper (or successor) shall not be diminished by the receipt and use of such recycled and/or imported water or by engaging in an in-lieu program.

C. Well Monitoring. To become a Class A or B Participant, a Private Pumper shall authorize the metering of the Pumper's well(s) and the collection of groundwater level and quality data, and the reading thereof by Management Plan personnel. The metering and reading shall be at no cost to the Pumper, and the Pumper shall receive copies of the reports and information obtained upon request.

D. Future Production Participation. Any new Pumper after the effective date of the Management Plan, as approved by a judgment of the Superior Court for Riverside County, can only participate as a Class A Participant as described in Section 7A(1).

E. Replacement Wells. The redrilling of existing wells and the drilling of new wells to replace existing wells will not be considered new private production.

8. Capital Facilities. Each Public Agency shall continue to own its existing capital facilities for water management. However, capital facilities may be jointly constructed and owned by the Management Plan. Joint financing of such facilities may be funded by regional capital fees, loans and grants, contributions for storage by The Metropolitan Water District of Southern California ("Metropolitan") or other third-parties, and municipal bonds. Responsibility for the costs of any existing and future capital facility of the Management Plan should be apportioned among the Public Agencies based on relative benefit to be derived by each Public Agency. Any of the participating Public Agencies may propose projects to be included in the Management Plan to increase Management Area water supply. Such proposals, after evaluation by the Watermaster, shall be included or rejected. If the Watermaster chooses to reject the proposal, the proposing Public Agency may implement the rejected project as long as it does not significantly impact the implementation of the Management Plan and/or interfere with the ongoing production by the Public Agencies.

9. Soboba Tribe's Water Rights. The Soboba Tribe's water rights shall be determined as part of a settlement among the Soboba Tribe, the United States, Eastern, Lake Hemet and Metropolitan. Major points of the proposed settlement are:

A. The Soboba Tribe shall have a senior, prior right in the Canyon and San Jacinto Upper Pressure Sub-basins of 9000 afy, but its use shall be limited to a maximum of 4100 afy during the first 50 years after the effective date of the settlement.

B. The Soboba Tribe shall have the right to purchase replenishment water for use pursuant to the Principles of Settlement at the Management Plan replenishment rate.

C. The Soboba settlement provides that, among other things, Metropolitan will use its best efforts to deliver sufficient water to yield a 15-year average of 7,500 afy to the Management Plan until 2035 at its long-term interruptible rate (currently $233/af).

D. Subject to full funding of the settlement by the United States, the Management Plan shall pay the Soboba Tribe $10 million.

E. The Management Plan will also pay the Soboba Tribe $7 million. A Public Agency's payment of its share of this amount is optional, but in order to obtain the benefits of the low-cost Metropolitan water delivered pursuant to the settlement, a Public Agency shall pay its share of this amount.

F. The Management Plan will receive $10 million for capital improvements from the United States, and all unused Soboba Tribe water based on the Public Agency's participation in the payment in Section 9(E) above.

10. Implementation of These Principles. These Interim Principles for Water Management shall be used by the parties as a basis for the preparation of the Management Plan, and a stipulated judgment in a water rights adjudication. As explained below, the Management Plan shall be administered by the Watermaster. The Watermaster will be under the continuing jurisdiction of the Court.

11. Assessment Program. The assessment program contemplated by the Management Plan shall be administered by the Watermaster subject to the governance provisions herein. All payments shall be made to the Watermaster and shall be maintained in a separate restricted fund. All assessments shall be used exclusively to acquire imported, recycled or Metropolitan water for the recharge of the Management Area, and for the facilities and operational and administrative expenses associated with the assessment and recharge programs. Subject to Management Plan approval, assessments may also be used by affected parties to acquire and deliver water for direct use by the parties, in lieu of pumping.

12. Replenishment Program. The replenishment program contemplated by the Management Plan shall also be administered by the Watermaster. The program shall include: the acquisition of supplemental water supplies (including imported, recycled and Soboba Tribe water); the expenditure of assessments; the recharge of the Management Area; and the construction and operation of all necessary facilities, including but not limited to, development of surface and sub-surface percolation and injection facilities. Priority for replenishment will be based on an equitable

apportionment of available replenishment water among the sub-basins after full consideration of: the Public Agency's participation in the payment in Section 9(E) above; the Management Area conditions; water demands; the availability of storage capacity to accommodate the recharge of natural flows; the availability of appropriate conveyance facilities; and the availability of replenishment or imported water. The Watermaster is encouraged to take advantage of surplus imported water that occasionally may be available at low cost, and to use available assessment funds to bank such recharge against future pumping in excess of adjusted production rights.

13. Rights to Groundwater. Groundwater in the Management Area may occur from: natural recharge; spreading operations of natural flows; replenishment with imported, recycled or Metropolitan water acquired with assessment funds; or in-lieu recharge programs financed with assessment funds. All such groundwater shall be available to support the pumping of the parties as allowed herein, and shall not be the property of any individual party, subject to the provisions of Section 14.

14. Storage Rights. The parties recognize that unused storage capacity exists in the Management Area, and the Management Plan contemplates that this capacity will be managed conjunctively with available imported and recycled water supplies. Subject to availability of the Management Plan fund for assessments and unused storage capacity as determined by Watermaster, the Management Area will be recharged and water stored therein when such supplies are available, and drawn upon by the Public Agencies in dry years when such supplemental water supplies may not be available. In addition, unused storage capacity as determined by Watermaster may be used for "put and take" operations of recycled or imported water that is paid for by any party to the Management Plan provided that:

A. Such operations do not interfere with the rights of any other pumper, or with the use of the storage capacity for recharge and storage under the Management Plan;

B. Water available for recharge is purchased first, as needed, for the Management Plan;

C. Later recovery of stored water shall exclude losses; and

D. Such recovered water may be used anywhere within the service area of the party.

Any conjunctive use programs for the benefit of territory outside of the Management Area shall be subject to the governance provisions herein. Any storage, conjunctive use programs by third parties or in-lieu recharge programs financed with assessment funds shall be subject to the governance provisions herein.

15. Spreading Operations. The Public Agencies shall independently or jointly operate their respective facilities to maximize the existing spreading and recharge operations of natural flow in the Management Area.

16. Recharge Water Quality. Consistent with Section 4(E) above all water used to replenish any sub-basin in the Management Area shall meet the Regional Water Quality Control Board requirements, and may be used in any sub-basin where such requirements are met.

17. Recharge Losses. The accounting for storage recharge of the Management Area shall not include any water that escapes therefrom and migrates downstream beyond the Management Area. Losses will be calculated based upon best engineering principles.

18. Recycled Water. The use of recycled water can be of substantial benefit in providing additional water in the Management Area. Each Public Agency may implement a recycled water program, including the ownership, operation and construction of all necessary facilities, and the application for and administration of any loan or grant applications. The Management Plan will support loan or grant applications, and the Public Agencies will work to integrate recycled water into the Management Plan to the extent economically feasible while meeting regulatory standards. Subject to existing recycled water contracts, the Management Plan will have a first right of refusal to purchase excess recycled water for recharge. Priority shall be given to Management Area recharge for the use of recycled water which originates therefrom.

19. Export. The Public Agencies may export water outside the Management Area, on a temporary basis, upon approval by the Watermaster.

However, any water exported shall be replenished with an appropriate amount of similar or better quality water as determined by Watermaster. Also, water exports by the Public Agencies shall not interfere with the Management Plan or any other Public Agency's operations. The Management Plan will set forth the specific criteria for the export of water, including, but not limited to, conjunctive use programs.

20. Credits. Recharge credits documented before the Management Plan shall be calculated pursuant to the Management Plan. Future recharge credits shall be established by replenishment of water or by not exercising the full, adjusted base production right, and shall be calculated pursuant to the Management Plan.

21. Tunnel Seepage, Stream Diversions, Fruitvale To resolve Eastern's use of Tunnel seepage, Lake Hemet's stream diversions and Eastern's use of Fruitvale water, 900 afy shall be added to Hemet's adjusted base production and 900 afy shall be added to San Jacinto's adjusted base production right as discussed in Section 5 above. This is intended to provide Hemet and San Jacinto a fair share of water from these disputed issues.

22. Governance. The Management Plan will be administered by a Watermaster as follows:

A. The governing board of the Watermaster shall consist of one elected official from each of the Public Agencies and one Private Pumper representative selected by the Private Pumpers who participate in the Management Plan. Each member shall have one vote.

B. The Watermaster's duties shall include: determining safe yield; determining replenishment needs; determining annual adjusted base production rights; purchasing and selling imported and recycled water; constructing future capital facilities; establishing assessment rates; initiating necessary conservation and drought management measures; and implementing other responsibilities identified in the Management Plan documents.

Dated: _____, 2004.

EASTERN MUNICIPAL WATER DISTRICT

By: _____

Dated: _____, 2004.

LAKE HEMET MUNICIPAL WATER DISTRICT

By: _____

Dated: _____, 2004.

CITY OF HEMET

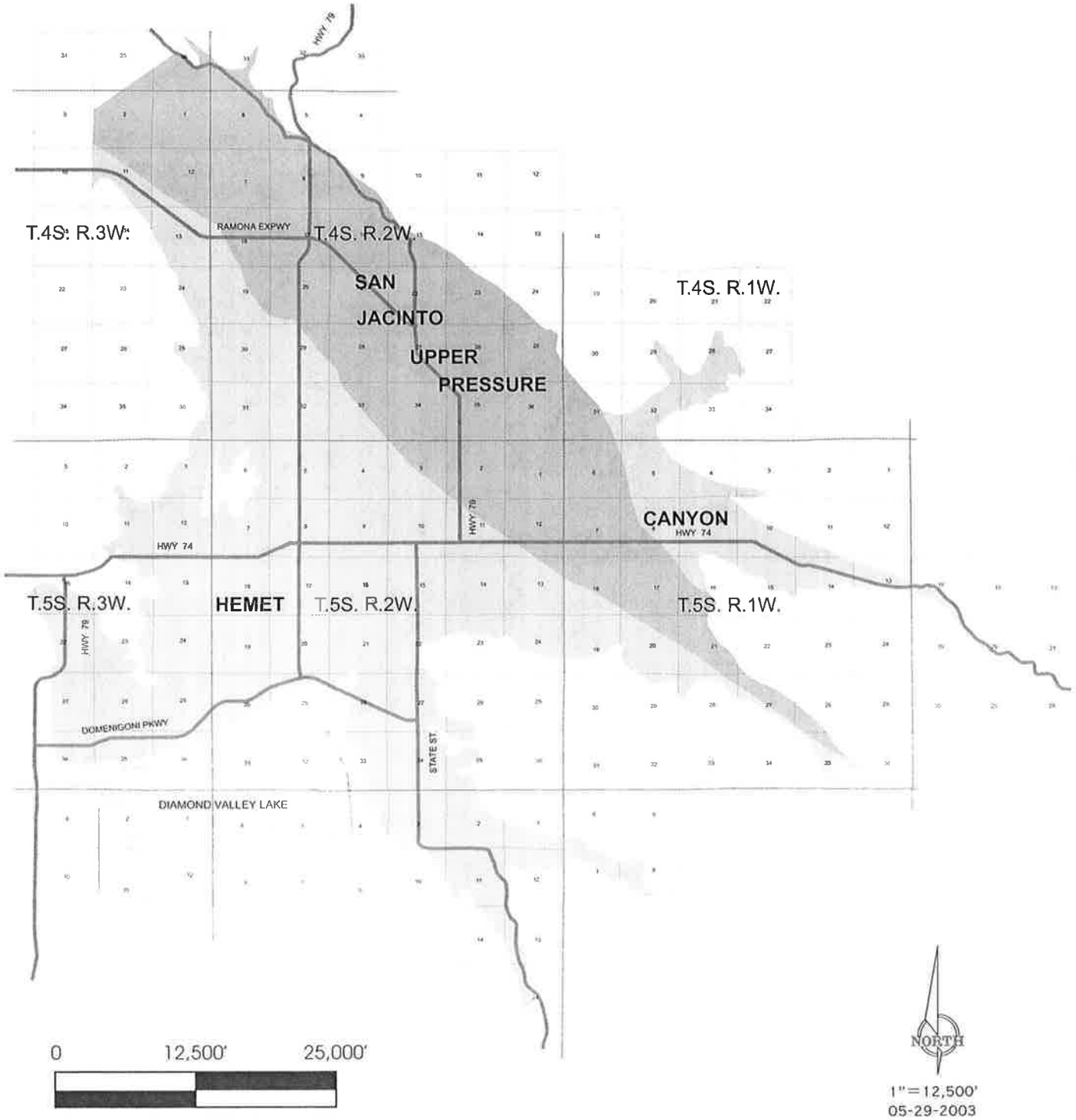
By: _____

Dated: _____, 2004.

CITY OF SAN JACINTO

By: _____

MANAGEMENT AREA



(This Page Left Blank Intentionally)

APPENDIX E LIST OF COMMITTEE ATTENDEES

The attendees of the PC who contributed to this plan:

Name	Title	Affiliation
Debi Lara	Administrative Assistant	City of Hemet
Marc Searl	Member, City Council	City of Hemet
Steve Temple	City Manager	City of Hemet
Eric Vail	Attorney	City of Hemet
Lori VanArsdale	Member, City Council	City of Hemet
Dennis Williams	Consultant	City of Hemet
Chris Carlson-Buydos	Member, City Council	City of San Jacinto
Bob Hargreaves	Attorney	City of San Jacinto
Steven Johnson	Consultant	City of San Jacinto
Barry McClellan	City Manager	City of San Jacinto
Ken Shaw	Member, City Council	City of San Jacinto
Samson Haile-Selassie	Project Manager	DWR
Eric Hong	Project Manager	DWR
Dale Schafer	Facilitator	DWR
Ali Taghavi	Consultant	DWR
Mike Garner	Asst. General Manager	EMWD
Richard Hall	Member, BOD	EMWD
Behrooz Mortazavi	Asst. General Manager	EMWD
Tony Pack	General Manager	EMWD
Ravi Ravishanker	Deputy General Manager	EMWD
Gerry Shoaf	Attorney	EMWD
Rodger Siems	Member, BOD	EMWD
Herb Forst	Member, BOD	LHMWD
John Fricker	Member, BOD	LHMWD
Rob Lindquist	General Manager	LHMWD
Art Littleworth	Attorney	LHMWD
John Loncar	Consultant	LHMWD
Tom Wagoner	General Manager	LHMWD
Bruce Scott	Private Water Producer	Private Water Producer
Jim Conner	Private Water Producer	Private Water Producer
Bill Corwin	Private Water Producer	Private Water Producer
Gary McMillan	Private Water Producer	Private Water Producer
Randy Record	Private Water Producer	Private Water Producer
Joe Garcia	Environmental Specialist	Soboba Tribe

The members of the TC who contributed to this plan:

Name	Title	Affiliation
Mike Gow	Director of Public Works	City of Hemet
Dennis Williams	Consultant	City of Hemet
Steve Johnson	Consultant	City of San Jacinto
Maurice Hall	Project Manager	DWR
Eric Hong	Project Manager	DWR
Dale Schafer	Facilitator	DWR
Ali Taghavi	Consultant	DWR
Khos Ghaderi	Director of Operations	EMWD
Joe Lewis	Director of Engineering Svcs.	EMWD
Fahkri Manghi	Hydrologist	EMWD
Behrooz Mortazavi	Asst. General Manager	EMWD
Peter Odencrans	Public Affairs Officer	EMWD
Ralph Phraner	Senior Geologist	EMWD
Ravi Ravishanker	Deputy General Manager	EMWD
John Loncar	Consultant	LHMWD
Tom Wagoner	General Manager	LHMWD
Dick Kelley	Private Water Producer	Private Water Producer
Bruce Scott	Private Water Producer	Private Water Producers
Joe Garcia	Environmental Specialist	Soboba Tribe
Peter Pyle	Consultant	Soboba Tribe

The representatives of each Public Agency and DWR at CAM Committee meetings who contributed to this plan:

Name	Title	Affiliation
Steve Temple	City Manager	City of Hemet
Eric Vail	Attorney	City of Hemet
Dennis Williams	Consultant	City of Hemet
Bob Hargreaves	Attorney	City of San Jacinto
Steve Johnson	Consultant	City of San Jacinto
Barry McClellan	City Manager	City of San Jacinto
Samson Haile-Selassie	Project Manager	DWR
Eric Hong	Project Manager	DWR
Dale Schafer	Facilitator	DWR
Ali Taghavi	Consultant	DWR
Mike Garner	Asst. General Manager	EMWD
Behrooz Mortazavi	Asst. General Manager	EMWD
Tony Pack	General Manager	EMWD
Chuck Rathbone	Director of Finance	EMWD
Gerry Shoaf	Attorney	EMWD
Art Littleworth	Attorney	LHMWD
John Loncar	Consultant	LHMWD
Tom Wagoner	General Manager	LHMWD

APPENDIX F HISTORICAL WATER SUPPLIES

LHMWD SURFACE WATER DIVERSION

EMWD IMPORTED WATER USAGE

EMWD RECYCLED WATER PRODUCTION

EMWD RECYCLED WATER SALES

EMWD
Historical Water Supply Components (AF)

Year	Groundwater*	Imports	Recycled Water**	Sales to other Agencies	Conveyance Water	Total
1984	11,763	2,228	0	(1,811)	0	12,181
1985	11,859	971	0	(2,301)	0	10,529
1986	11,605	605	0	(1,750)	0	10,460
1987	12,217	2,889	37	(3,549)	0	11,594
1988	14,539	4,463	42	(2,929)	0	16,116
1989	14,762	5,712	40	(4,500)	0	16,014
1990	16,533	5,774	24	(8,417)	0	13,915
1991	12,051	378	24	(2,667)	0	9,786
1992	11,810	92	25	(2,149)	0	9,778
1993	10,483	0	1	(155)	0	10,329
1994	12,253	0	0	(1,823)	0	10,430
1995	11,055	50	7	(707)	0	10,406
1996	16,349	0	57	(1,902)	(2,583)	11,921
1997	16,282	183	31	(1,133)	(3,120)	12,242
1998	14,692	0	4	(417)	(3,656)	10,623
1999	17,458	0	0	(1,658)	(3,130)	12,670
2000	17,634	198	0	(2,236)	(2,690)	12,906
2001	15,127	1,761	0	(2,853)	(907)	13,128
2002	15,370	0	0	(4,895)	(929)	9,546
2003	13,693	325	0	(1,864)	(686)	11,468
2004	12,515	5,636	0	(4,283)	0	13,868

* Groundwater includes conveyance water

** Recycled water does not include water sold to land owners for irrigation

LHMWD
Historical Water Supply Components (AF)

Year	Groundwater	Purchases from EMWD	Surface Water	Total
1984	4,901	1811	*	*
1985	6,609	2074	6,557	15,241
1986	6,961	1750	6,078	14,789
1987	6,929	3396	4,418	14,743
1988	7,427	2792	6,424	16,642
1989	6,481	4338	6,837	17,656
1990	5,829	8382	1,902	16,114
1991	7,559	2300	2,057	11,917
1992	7,770	2149	2,206	12,125
1993	6,748	155	6,064	12,967
1994	9,780	1820	1,633	13,233
1995	9,166	653	4,328	14,146
1996	10,932	1841	3,359	16,132
1997	12,472	507	2,959	15,938
1998	9,356	266	4,019	13,641
1999	13,390	952	3,033	17,375
2000	13,093	1808	1,765	16,666
2001	12,490	2103	1,348	15,941
2002	12,595	4100	441	17,136
2003	12,044	1343	1,530	14,918
2004	11,900	3635	1,330	16,865

* Surface water data unavailable for 1984

City of Hemet Water Service Area
Historical Water Supply Components (AF)

Year	Groundwater	Purchases from EMWD	Total
1984	3,514	0	3,514
1985	3,810	227	4,037
1986	5,531	0	5,531
1987	4,669	153	4,822
1988	6,306	137	6,443
1989	6,549	162	6,711
1990	5,776	35	5,811
1991	5,138	367	5,505
1992	5,597	0	5,597
1993	5,478	0	5,478
1994	5,327	3	5,330
1995	5,643	1	5,644
1996	5,961	14	5,975
1997	5,891	27	5,918
1998	4,801	31	4,832
1999	4,805	642	5,447
2000	5,048	428	5,476
2001	4,735	749	5,484
2002	4,955	761	5,716
2003	4,999	518	5,517
2004	5,684	345	6,029

City of San Jacinto Water Service Area
Historical Water Supply Components (AF)

Year	Groundwater	Purchases from EMWD	Total
1984	2,805	0	2,805
1985	2,840	0	2,840
1986	2,763	0	2,763
1987	2,746	0	2,746
1988	2,980	0	2,980
1989	2,662	0	2,662
1990	3,841	0	3,841
1991	3,051	0	3,051
1992	3,481	0	3,481
1993	2,802	0	2,802
1994	2,793	0	2,793
1995	2,637	54	2,691
1996	2,831	47	2,878
1997	2,337	600	2,937
1998	2,585	120	2,705
1999	2,766	65	2,831
2000	2,780	0	2,780
2001	2,742	1	2,743
2002	3,231	34	3,265
2003	3,154	2	3,156
2004	2,794	303	3,097

Private Water Producers
Historical Water Supply Components (AF)

Year	Groundwater	Recycled Water	Total
1984	27,420	2086	29,506
1985	30,465	4076	34,541
1986	29,317	4480	33,797
1987	28,512	4461	32,973
1988	27,933	5010	32,943
1989	27,390	5571	32,961
1990	24,725	4439	29,164
1991	23,894	3688	27,582
1992	23,904	3076	26,980
1993	26,130	3301	29,431
1994	30,777	2416	33,193
1995	28,777	3847	32,624
1996	27,216	4312	31,528
1997	28,566	4507	33,073
1998	27,630	3926	31,556
1999	29,358	4975	34,333
2000	33,123	4596	37,719
2001	28,678	4319	32,997
2002	19,962	4888	24,850
2003	15,465	3898	19,363
2004	17,179	5047	22,226

Soboba Tribe
Historical Water Supply Components (AF)

Year	Groundwater	Total
1984	398	398
1985	948	948
1986	912	912
1987	450	450
1988	450	450
1989	450	450
1990	450	450
1991	450	450
1992	450	450
1993	450	450
1994	246	246
1995	951	951
1996	1,324	1,324
1997	1,190	1,190
1998	1,000	1,000
1999	1,545	1,545
2000	1,321	1,321
2001	1,536	1,536
2002	2,016	2,016
2003	1,773	1,773
2004	1,315	1,315

(This Page Left Blank Intentionally)

APPENDIX G

EMWD LICENSE FOR SAN JACINTO RIVER DIVERSION

STATE OF CALIFORNIA
THE RESOURCES AGENCY
STATE WATER RESOURCES CONTROL BOARD
DIVISION OF WATER RIGHTS

License for Diversion and Use of Water

APPLICATION 924 PERMIT 468 LICENSE 10667

THIS IS TO CERTIFY, *That* EASTERN MUNICIPAL WATER DISTRICT
P. O. BOX 858, HEMET, CALIFORNIA 92343

HAS *made proof as of* JANUARY 23, 1969 *(the date of inspection) to the satisfaction of the State Water Resources Control Board of a right to the use of the water of* SAN JACINTO RIVER IN RIVERSIDE COUNTY

tributary to LAKE ELSINORE

for the purpose of IRRIGATION AND DOMESTIC USES *under Permit* 468 *of the Board and that the right to the use of this water has been perfected in accordance with the laws of California, the Regulations of the Board and the permit terms; that the priority of this right dates from* FEBRUARY 14, 1918 *and that the amount of water to which this right is entitled and hereby confirmed is limited to the amount actually beneficially used for the stated purposes and shall not exceed* FIVE THOUSAND SEVEN HUNDRED SIXTY (5,760) ACRE-FEET PER ANNUM, TO BE COLLECTED TO UNDERGROUND STORAGE BY SPREADING FROM NOVEMBER 1 OF EACH YEAR TO JUNE 30 OF THE SUCCEEDING YEAR AT A RATE OF 41 CUBIC FEET PER SECOND AND SUBSEQUENTLY EXTRACTED AND PLACED TO BENEFICIAL USE. SO LONG AS THERE IS NO INTERFERENCE WITH OTHER RIGHTS, JUNIOR, AS WELL AS SENIOR, LICENSEE MAY INCREASE HIS RATE OF DIVERSION TO A MAXIMUM OF 100 CUBIC FEET PER SECOND; PROVIDED THAT THE TOTAL QUANTITY DIVERTED IN ANY 30-DAY PERIOD DOES NOT EXCEED 2,442 ACRE-FEET.

THE POINTS OF DIVERSION OF SUCH WATER ARE LOCATED:

(1) SOUTH 2,900 FEET AND EAST 1,400 FEET FROM NW CORNER OF SECTION 10, T5S, R1E, SBB&M, BEING WITHIN NE1/4 OF SW1/4 OF SAID SECTION 10, AND
(2) NORTH 1,600 FEET AND WEST 900 FEET FROM SW CORNER OF SECTION 4, T5S, R1E, SBB&M, BEING WITHIN NW1/4 OF SW1/4 OF SAID SECTION 4.

A DESCRIPTION OF LANDS OR THE PLACE WHERE SUCH WATER IS PUT TO BENEFICIAL USE IS AS FOLLOWS:

DOMESTIC USE AND IRRIGATION OF 7,500 ACRES NET WITHIN A GROSS AREA OF 29,500 ACRES WITHIN T4S, R1W; T4S, R1E; T5S, R1E; T5S, R1W; T5S, R2W, SBB&M, AS SHOWN ON MAP FILED WITH STATE WATER RESOURCES CONTROL BOARD.

DIVERSION OF WATER UNDER THIS LICENSE IS, AND SHALL BE, SUBJECT TO THE PROVISION OF JUDGMENT AND DECREE ISSUED IN CASE NUMBER 51,546 IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA IN AND FOR THE COUNTY OF RIVERSIDE, SAID JUDGMENT AND DECREE BEING DATED 3 JUNE, 1954.

Licensee shall allow representatives of the Board and other parties, as may be authorized from time to time by the Board, reasonable access to project works to determine compliance with the terms of this license.

All rights and privileges under this license including method of diversion, method of use and quantity of water diverted are subject to the continuing authority of the Board in accordance with law and in the interest of the public welfare to prevent waste, unreasonable use, unreasonable method of use or unreasonable method of diversion of said water.

Reports shall be filed promptly by licensee on appropriate forms which will be provided for the purpose from time to time by the Board.

The right hereby confirmed to the diversion and use of water is restricted to the point or points of diversion herein specified and to the lands or place of use herein described.

This license is granted and licensee accepts all rights herein confirmed subject to the following provisions of the Water Code:

Section 1625. Each license shall be in such form and contain such terms as may be prescribed by the Board.

Section 1626. All licenses shall be under the terms and conditions of this division (of the Water Code).

Section 1627. A license shall be effective for such time as the water actually appropriated under it is used for a useful and beneficial purpose in conformity with this division (of the Water Code) but no longer.

Section 1628. Every license shall include the enumeration of conditions therein which in substance shall include all of the provisions of this article and the statement that any appropriator of water to whom a license is issued takes the license subject to the conditions therein expressed.

Section 1629. Every licensee, if he accepts a license does so under the conditions precedent that no value whatsoever in excess of the actual amount paid to the State therefor shall at any time be assigned to or claimed for any license granted or issued under the provisions of this division (of the Water Code), or for any rights granted or acquired under the provisions of this division (of the Water Code), in respect to the regulation by any competent public authority of the services or the price of the services to be rendered by any licensee or by the holder of any rights granted or acquired under the provisions of this division (of the Water Code) or in respect to any valuation for purposes of sale to or purchase, whether through condemnation proceedings or otherwise, by the State or any city, city and county, municipal water district, irrigation district, lighting district, or any political subdivision of the State, of the rights and property of any licensee, or the possessor of any rights granted, issued, or acquired under the provisions of this division (of the Water Code).

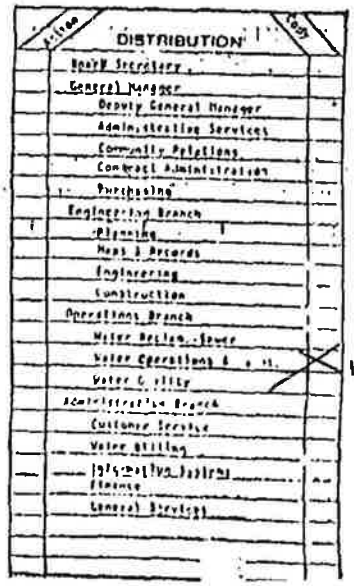
Section 1630. At any time after the expiration of twenty years after the granting of a license, the State or any city, city and county, municipal water district, irrigation district, lighting district, or any political subdivision of the State shall have the right to purchase the works and property occupied and used under the license and the works built or constructed for the enjoyment of the rights granted under the license.

Section 1631. In the event that the State, or any city, city and county, municipal water district, irrigation district, lighting district, or political subdivision of the State so desiring to purchase and the owner of the works and property cannot agree upon the purchase price, the price shall be determined in such manner as is now or may hereafter be provided by law for determining the value of property taken in eminent domain proceedings.

Dated: MAY 25 1976

STATE WATER RESOURCES CONTROL BOARD

R. L. Rosenberger
Chief, Division of Water Rights



w/enul.

(This Page Left Blank Intentionally)

APPENDIX H MEMORANDA OF UNDERSTANDING

APPENDIX H1: PREPARATION OF WATER MANAGEMENT PLAN

APPENDIX H2: DRAFT AGREEMENT REGARDING PHASE 1 FACILITIES CONSTRUCTION COST AND USE

APPENDIX H3: MONITORING PROGRAM

APPENDIX H4: INTERIM WATER SUPPLY PLAN

MEMORANDUM OF UNDERSTANDING

PREPARATION OF WATER MANAGEMENT PLAN FOR THE HEMET/SAN JACINTO MANAGEMENT AREA

This Memorandum Of Understanding: Preparation of Water Management Plan for the Hemet/San Jacinto Management Area ("MOU"), is hereby entered into this 17th day of June, 2004 by and between the EASTERN MUNICIPAL WATER DISTRICT, a California municipal water district ("EMWD"), LAKE HEMET MUNICIPAL WATER DISTRICT, a California municipal water district ("LHMWD"), CITY OF HEMET, a California general law city ("Hemet"), and CITY OF SAN JACINTO, a California general law city ("San Jacinto"), (collectively referred to hereinafter as the "Parties"), based on the following facts:

RECITALS

A. Groundwater in the Hemet/San Jacinto Management area has been, and will remain, a significant source of water for the people and agribusiness of Riverside County providing an invaluable contribution to the local economy and public good. As a result, the Parties have acknowledged their collective interest in the management of local water resources within the Hemet/San Jacinto Management area.

B. In furtherance of this collective interest, the Parties entered into that "Memorandum of Understanding to Work Cooperatively to Promote Conjunctive Use Projects and Programs in Upper San Jacinto River Basins" dated June 19, 2001 (the "Conjunctive Use MOU"). The purpose of the Conjunctive Use MOU is to encourage cooperation among the Parties to facilitate and support local groundwater management efforts and conjunctive use programs particularly those that could increase dry-year water supplies, within the safe-yield and without the overdraft of San Jacinto groundwater basins.

C. In the cooperative spirit of the Conjunctive MOU and with assistance from the State Department of Water Resources, the parties engaged in several rounds of policy discussions and technical investigations into suitable methods to alleviate the overdraft, manage long term water supplies, and provide for demands of growth. As the result of these efforts, the Parties each approved a statement of principles entitled "Principles for Water Management" (the "Principles") in February 2004 with regard to the Hemet and San Jacinto Basins. The Principles established the framework from which the Parties agreed to develop a Water Management Plan for the Hemet and San Jacinto Basins.

D. The intent of this MOU is to provide for the creation of the Water Management Plan ("WMP") called for in the Principles, to appoint Eastern Municipal Water District as the Contract Administrator for preparation of the WMP, and to establish an equitable mechanism for funding the WMP by the Parties.

OPERATIVE PROVISIONS

NOW, THEREFORE, in consideration of the promises made and recited herein, the Parties do hereby enter into this Memorandum of Understanding setting forth their pledges, commitments, understandings and appropriate limiting conditions, as follows:

ARTICLE 1.0 AGREEMENT TO UNDERTAKE WMP

1.1 **Cooperation**. The Parties agree that the WMP shall be timely undertaken and completed in accordance with this MOU. In order to ensure the timely and efficient completion of the WMP within the budget described in this MOU, the Parties agree to cooperate with and amongst each other, to share information necessary for the preparation of the WMP, and to take such other reasonable actions as may be necessary for the timely completion of the WMP, provided such actions do not result in additional costs to the Parties.

1.2. **Scope of Work**. The WMP shall be prepared in accordance with the Scope of Work attached hereto and incorporated herein by reference as Attachment 1 (hereinafter referred to as the "Scope of Work"). The Scope of Work defines the extent of the WMP, the tasks necessary for its completion, assigns responsibility for those tasks, and outlines the basic content of each constituent section.

1.3. **Consultant**. The Parties agree that the WMP shall be prepared by an independent contractor, except for those sections which the Scope of Work designates will be prepared by EMWD or the Parties collectively. The Parties agree that Water Resources & Information Management Engineering, Inc, (hereinafter "WRIME") is hereby selected to be the independent contractor principally responsible for undertaking and completing the Scope of Work. However, it is contemplated that WRIME will subcontract with, or EMWD will enter into separate contracts with, GEOSCIENCE, Support Services, Inc., and Stetson Engineering (hereinafter collectively referred to as "Subconsultants") for certain work identified in the Scope of Work. Subconsultants shall serve as consultants for WRIME with regard to performance of the Scope of Work and shall not serve as consultants for Hemet or San Jacinto or their attorneys for performance of the Scope of Work.

1.4. **Project Cost**. The Parties agree that the amount to be paid to WRIME and Subconsultants for undertaking and completing the Scope of Work shall not exceed that amounts reflected on the WMP Budget attached hereto and incorporated herein by reference as Attachment 2. The WMP Budget reflects a total, not to exceed, project cost of $180,894 ("Total Project Cost"). The Parties agree that the approximately $16,869 remaining in the budget for the Hemet/San Jacinto Groundwater Association ("GWA") and the approximately $20,000 remaining in the budget for the Integrated Water Management Plan ("IWMP") shall be reprogrammed and allocated toward payment of the Total Project Cost. After application of these funds, a cost of $144,025 remains to be funded by and apportioned among the Parties ("Adjusted Project Cost"). The Adjusted

Project Cost excludes individual expenses of the Parties regarding for their own review, comment, and approval of the WMP as well as expenses of EMWD in preparing sections of the WMP for which the Scope of Work indicates it is principally responsible.

ARTICLE 2.0 OBLIGATIONS OF THE PARTIES

2.1 **Funding of WMP**. Each of the Parties individually agrees to fund up to their apportioned share of the Adjusted Project Cost as determined in Article 3.0 "Apportionment of Cost" and to pay such share in a lump sum payment within thirty (30) calendar days of receipt of an invoice from EMWD, provided that EMWD invoices the parties in July of 2004 or thereafter in accordance with Attachment 3.

2.2 **Administration of Contract**. EMWD hereby agrees to act as the contracting agency for the preparation of the WMP. In this regard, EMWD shall enter into and execute the appropriate contract(s) with WRIME and the Subconsultants to perform the Scope of Work for an amount not to exceed the Project Cost. EMWD shall also perform the duties set forth in Attachment 3.

ARTICLE 3.0 APPORTIONMENT OF COST

3.1. **Method of Apportionment**. The Parties agree to apportion the Adjusted Project Cost among themselves based on each Party's pro rata share of the total base production of all the Parties as determined by the Hemet/San Jacinto Policy Committee and shown below:

Apportionment of Adjusted Project Cost (*900 af credit taken out)			
Agency	**Base Production (AF)**	**Percentage**	**Cost Contribution**
City of Hemet*	5,420	17.7 %	$ 25,492
City of San Jacinto*	3,131	10.3 %	$ 14,835
LHMWD.	11,063	36.3 %	$ 52,281
EMWD	10,869	35.7 %	$ 51,417
Totals	**30,483**	**100.0 %**	**$144,025**

ARTICLE 4.0 MISCELLANEOUS PROVISIONS

4.1 **Term**. This MOU shall terminate, unless extended by the mutual agreement of the Parties memorialized in writing, upon acceptance of the completed WMP by the governing boards of each of the Parties, provided the Consultant has been fully paid for the Scope of Work and has released the Parties, and each of them, from any claims for further or additional compensation for the Scope of Work.

4.2 **Ownership of Documents**. The WMP together with all data, information, materials and reports (including electronically or digitally stored materials) produced in the preparation of the WMP shall become the joint property of the Parties upon acceptance of the WMP.

4.3 **Individual Costs & Expenses**. Except for the costs and expenses which the Parties have collectively agreed to fund as provided in Article 3.0 "Apportionment of Funding" of this MOU, any cost or expense incurred any one of the Parties with regard to the WMP or its review or approval, shall remain the sole cost and expense of the incurring Party.

4.4 **Authority**. The individuals executing this Agreement on behalf of the Parties and the instruments referenced on behalf of the Parties represent and warrant that they have the legal power, right and actual authority to bind the Parties to the terms and conditions hereof and thereof.

4.5 **Counterpart Originals**. This Agreement may be executed in original counterparts, which together shall constitute a single agreement.

4.6 **Effective Date**. This MOU has become effective among and between the Parties on the date by which each Party's governing board or council has approved the MOU and the authorized representative of each Party has executed the MOU.

IN WITNESS WHEREOF, the Parties hereto have executed this Memorandum of Understanding on the date and year first above written.

EASTERN MUNICIPAL WATER DISTRICT

By: _____
_____, General Manager

LAKE HEMET MUNICIPAL WATER DISTRICT

By: _____
ROBERT V. LINDQUIST, JR., General Manager

[additional signatures on following page]

CITY OF HEMET

By: _____
Steve Temple, City Manager

ATTEST:

By: Sarah McComas
~~Stephen Clayton~~ Sarah McComas
Deputy City Clerk

Approved as to Form:

By: Julie H. Biggs
~~Eric S. Vail~~ Julie H. Biggs
Assistant City Attorney

CITY OF SAN JACINTO

By: Peter A. Cosentini
Peter A. Cosentini, City Manager

ATTEST:

By: Dorothy L. Chauinard
City of San Jacinto
City Clerk

Approved as to Form:

By: Robert Hargreaves, Bert Rostz & Manager
City Attorney

AGREEMENT TO DEVELOP A GROUNDWATER MONITORING PROGRAM IN THE HEMET/SAN JACINTO MANAGEMENT AREA

THIS AGREEMENT is made and entered into by and among the following entities, which are hereinafter collectively referred to as the "AGENCIES."

City of Hemet
Lake Hemet Municipal Water District
City of San Jacinto
Eastern Municipal Water District

I. RECITALS

A - Background:

1. Groundwater in the Hemet/San Jacinto Management Area has been, and will remain, a significant source of water for the people and agribusiness of Riverside County providing an invaluable contribution to the local economy and public good.
2. The Cities of Hemet and San Jacinto, Lake Hemet Municipal Water District, and Eastern Municipal Water District strive to increase the availability and reliability of local surface and ground water resources in the area.
3. The Cities of Hemet and San Jacinto, Lake Hemet Municipal Water District, and Eastern Municipal Water District have an interest in the management of local water resources within the Hemet/San Jacinto Management Area.
4. The Department of Water Resources seeks to support local groundwater management efforts, particularly those that could increase dry-year water supplies, within the safe yield and without the overdraft of groundwater resources.
5. Through cooperation, open communication, and consensus building among the AGENCIES, the Hemet/San Jacinto Groundwater Policy and Technical Committees were formed in June of 2001 to identify programs needed to improve groundwater resources management in the area.
6. The AGENCIES have determined that development and implementation of a groundwater monitoring program is necessary for the accurate evaluation of the operational yield of the Hemet/San Jacinto Management Area.

B – The Purpose of this Agreement:

1. Develop a Monitoring Program in the Hemet/San Jacinto Management Area.
2. Appoint Eastern Municipal Water District as the Monitoring Program Administrator.
3. Establish an equitable funding mechanism among the Agencies to collect and fund the Monitoring Program.

II. COVENANTS

NOW, THEREFORE, in consideration of the foregoing recitals and mutual covenants contained herein, the AGENCIES hereby agree as follows:

A Develop a Groundwater Monitoring Program:
The AGENCIES and other private groundwater producers in the area hereby agree to develop the Groundwater Monitoring Program, as more specifically provided for in Attachment 1.

B Roles and Responsibilities of the AGENCIES:
The AGENCIES shall perform the duties as more specifically provided for in Attachment 1.

C Monitoring Program Costs:
A total of $200,000 is estimated to be required for the meter installation and first year operation of the monitoring program. This amount includes contingencies and uncertainties associated with such monitoring programs. Attachment 1 contains detailed cost estimates.
It is anticipated that Department of Water Resources (DWR) will contribute $100,000 of the $200,000 estimated cost for the meter installation and first year implementation of the monitoring program, provided the Agencies agree to fund and implement the monitoring program into future years pursuant to Covenant II.D, below.

D Cost Sharing of the Monitoring Program:
Until the full implementation of the Water Management Plan, the AGENCIES will share the annual Monitoring Program costs based on their base groundwater production percentages as determined by the Hemet/San Jacinto Groundwater Policy Committee and shown below:

Cost Sharing Prior to Plan Implementation			
Agency	**Base Production (AF)**	**Percentage**	**Cost Contribution**
City of Hemet	6,320	19.6 %	$ 19,600
City of San Jacinto	4,031	12.5 %	$ 12,500
LHMWD.	11,063	34.2 %	$ 34,200
EMWD	10,869	33.7 %	$ 33,700
Totals	**32,283**	**100.0 %**	**$100,000**

As noted above, the AGENCIES' share of the first year's budget is $100,00. Future years' budgets will be approved by the Hemet/San Jacinto Groundwater Policy Committee, and incorporate any excesses or deficits from prior years.

E Term of the Agreement:
This Agreement shall terminate, unless extended by mutual agreement of the AGENCIES, on the date a stipulated judgment for the Water Management Plan is executed by the AGENCIES provided that all debts and liabilities of the Monitoring Program are satisfied.

An Agency may terminate its participation in this agreement on an anniversary date of the Agreement by given the other Agencies written notice three months prior to that anniversary date.

F Ownership of Documents:
All data and reports produced shall become the joint property of the AGENCIES.

G Effective Date:
This Agreement shall become effective upon execution by all AGENCIES pursuant to authorization by each AGENCY's Governing Board.

H Counterparts:
This Agreement may be executed in original counterparts, which together shall constitute a single agreement.

IN WITNESS WHEREOF, the AGENCIES have executed this Agreement on the date set forth below.

CITY OF HEMET

DATE 9/13/03 BY _____
City Manager

CITY OF SAN JACINTO

DATE 9-16-03 BY _____
City Manager

LAKE HEMET MUNICIPAL WATER DISTRICT

DATE 9/16/03 BY _____
General Manager

EASTERN MUNICIPAL WATER DISTRICT

DATE 9/19/03 BY _____
General Manager

AGREEMENT TO IMPLEMENT THE 2005 WATERSHED MONITORING PROGRAM IN THE HEMET/SAN JACINTO MANAGEMENT AREA

THIS AGREEMENT is made and entered into by and among the following entities, which are hereinafter collectively referred to as the "AGENCIES."

City of Hemet
Lake Hemet Municipal Water District

City of San Jacinto
Eastern Municipal Water District

I. RECITALS

A - Background:

1. Groundwater in the Hemet/San Jacinto Management area has been, and will remain, a significant source of water for the people and agribusiness of Riverside County providing an invaluable contribution to the local economy and public good.
2. The Cities of Hemet and San Jacinto, Lake Hemet Municipal Water District, and Eastern Municipal Water District strive to increase the availability and reliability of local surface and ground water resources in the area.
3. The Cities of Hemet and San Jacinto, Lake Hemet Municipal Water District, and Eastern Municipal Water District have an interest in the management of local water resources within the Hemet/San Jacinto Management area.
4. The Department of Water Resources seeks to support local groundwater management efforts, particularly those that could increase dry-year water supplies, within the safe yield and without the overdraft of groundwater resources.
5. Through cooperation, open communication, and consensus building among the AGENCIES, the Hemet/San Jacinto Policy and Technical Committees was formed in June of 2001 to identify programs needed to improve groundwater resources management in the area.
6. The AGENCIES developed and implemented a groundwater monitoring program for the year 2004 for the accurate evaluation of groundwater changes within the Hemet/San Jacinto Management area.
7. The AGENCIES are interested in the continuation of the groundwater monitoring program for the accurate evaluation of water resources in the Hemet/San Jacinto Management area.
8. The AGENCIES are interested in overseeing the current USGS surface water monitoring program for better evaluation of the recharge into the Hemet/San Jacinto Management area.
9. The AGENCIES have determined that implementation of a watershed monitoring program which consists of groundwater and surface water monitoring is necessary for the accuate evaluation of the safe yield of the Hemet/San Jacinto Management area.

B – The Purpose of this Agreement:

1. Conduct a Watershed Monitoring Program which consists of groundwater and surface water monitoring in the Hemet/San Jacinto Management area for year 2005.
2. Appoint Eastern Municipal Water District as the Monitoring Program Administrator.
3. Establish an equitable funding mechanism to collect the corresponding shares of each entity to fund the Monitoring Program for 2005.

II. COVENANTS

NOW, THEREFORE, in consideration of the foregoing recitals and mutual covenants contained herein, the AGENCIES hereby agree as follows:

A Watershed Monitoring Program:
The AGENCIES and other private groundwater producers in the area hereby will implement a Watershed Monitoring Program during 2005.

B Roles and Responsibilities of the AGENCIES:
The AGENCIES shall continue the duties as performed during implementation of the Groundwater Monitoring Program in 2004 and oversee the surface water monitoring conducted by U.S. Department of Interior - Geological Survey (USGS).

C Monitoring Program Costs:
A total of $112,000 is estimated to be required for the operation of the watershed monitoring program during 2005. This amount includes participation in a cooperative surface water monitoring program with USGS in addition to the groundwater monitoring program conducted during 2004. Contingencies and uncertainties associated with such monitoring programs are also included in this amount.

D Cost Sharing of the Monitoring Program:
Until the full implementation of the Water Management Plan, the AGENCIES will share the Watershed Monitoring Program costs based on their base groundwater production percentages that are subject to assessments as determined by the Hemet/San Jacinto Policy Committee and shown below:

Cost Sharing For 2005				
Agency	**Base Production (AF)**	**Production subject to Assessment**	**Percentage**	**Cost Contribution**
City of Hemet	6,320	5,420	17.8%	$ 19,900
City of San Jacinto	4,031	3,131	10.3%	$ 11,500
LHMWD.	11,063	11,063	36.3%	$ 40,700
EMWD	10,869	10,869	35.7%	$ 39,900

Totals	32,283	30,483	100.0%	$ 112,000

If the above costs increase by more than 10%, the AGENCIES shall meet and confer on the cost allocation amendment.

E Term of the Agreement:
This Agreement shall terminate, unless extended by mutual agreement of the AGENCIES, on the date a stipulated judgment for the Water Management Plan is executed by the AGENCIES provided that all debts and liabilities of the Monitoring Program are satisfied.

F Ownership of Documents:
All data and reports produced shall become the joint property of the AGENCIES.

G Effective Date:
This Agreement shall become effective upon execution by all AGENCIES pursuant to authorization by each AGENCY's Governing Board.

H Counterparts:
This Agreement may be executed in original counterparts, which together shall constitute a single agreement.

IN WITNESS WHEREOF, the AGENCIES have executed this Agreement on the date set forth below.

CITY OF HEMET

DATE 1/24/05 **BY** _____
City Manager

CITY OF SAN JACINTO

DATE 1-12-05 **BY** _____
City Manager

LAKE HEMET MUNICIPAL WATER DISTRICT

DATE JAN. 12, 2004 BY _____
General Manager

EASTERN MUNICIPAL WATER DISTRICT

DATE Jan 19, 2005 BY _____
General Manager

MEMORANDUM OF UNDERSTANDING

2006-2008 WATERSHED MONITORING PROGRAM

HEMET/SAN JACINTO MANAGEMENT AREA

This Memorandum Of Understanding; 2006-2008 Watershed Monitoring Program, Hemet/San Jacinto Management Area ("MOU"), is hereby dated for reference purposes as of May 23, 2006, by and between the EASTERN MUNICIPAL WATER DISTRICT, a California municipal water district ("EMWD"), LAKE HEMET MUNICIPAL WATER DISTRICT, a California municipal water district ("LHMWD"), CITY OF HEMET, a California general law city ("Hemet"), and CITY OF SAN JACINTO, a California general law city ("San Jacinto"), (collectively referred to hereinafter as the "Parties"), based on the following facts:

RECITALS

A. The Parties previously entered into an "Agreement to Implement the 2004 Watershed Monitoring Program in the Hemet/San Jacinto Management Area" dated September 19, 2003 ("2004 MOU") and an "Agreement to Implement the 2005 Watershed Monitoring Program in the Hemet/San Jacinto Management Area" dated January 26, 2005 ("2005 MOU"). The purpose and rationale of the Watershed Monitoring Program ("WMP") as reflected in the 2004 MOU and 2005 MOU is to conduct a program which consists of groundwater and surface water monitoring in the Hemet/San Jacinto Management Area ("Management Area") for years 2004 and 2005.

B. The Parties agree that the groundwater in the Management Area has been, and will remain, a significant source of water for the people and agribusiness of Riverside County, thus providing an invaluable contribution to the local economy and public good, for which the Parties strive to increase the availability and reliability of local surface and groundwater resources in the area.

C. The Parties have an interest in the management of local water resources within the Management Area. To this end, the California Department of Water Resources seeks to support local groundwater management efforts, particularly those that could increase dry-year water supplies, within the safe yield and without the overdraft of groundwater resources.

D. Through cooperation, open communication, and consensus building among the Parties, the Hemet/San Jacinto Policy and Technical Committees were formed in June of 2001, to identify programs needed to improve groundwater resources management in the area. Through these committees, the Parties developed and implemented the 2004 MOU and 2005 MOU for the accurate evaluation of groundwater changes within the Management Area. The parties desire to continue the WMP for the accurate evaluation of water resources within the Management Area.

E. The Parties further desire to oversee the current U.S. Department of Interior - Geological Survey ("USGS") Surface Water Monitoring Program for a better evaluation of the

recharge into the Management Area. Accordingly, the Parties have determined that implementation of a WMP which consists of groundwater and surface water monitoring is necessary for the accurate evaluation of the safe yield of the Management Area.

F. In furtherance thereof, it is the purpose and intent of the Parties in entering into this MOU to continue the WMP consisting of groundwater and surface water monitoring in the Management Area for years 2006 through 2008, appoint Eastern Municipal Water District as the WMP Administrator, and establish an equitable funding mechanism to collect the corresponding shares of each entity to fund the WMP for 2006 through 2008. To implement this goal, the Parties pledge to undertake the following actions.

OPERATIVE PROVISIONS

NOW, THEREFORE, in consideration of the promises made and recited herein, the Parties do hereby enter into this Memorandum of Understanding setting forth their pledges, commitments, understandings and appropriate limiting conditions, as follows:

1.0 THE PARTIES' PLEDGES AND CONDITIONS

1.1 **Pledges by the Parties**. Subject to the conditions set forth in Section 1.2, the Parties pledge the following:

1.1.1 Implementation of the WMP. The Parties agree to implement, and other local private groundwater producers have separately agreed to implement outside of this MOU, a WMP for the years 2006 through 2008, and agree to continue the duties as performed during implementation of the 2004 MOU and 2005 MOU to oversee the surface water monitoring conducted by U.S. Department of Interior - Geological Survey (USGS).

1.1.2 Appointment of EMWD as WMP Administrator. The Parties agree that EMWD shall be appointed as the WMP Administrator, whose duties shall include the administration of the WMP and the invoicing of the other Parties as provided below.

1.1.3 WMP Costs. An annual cost of $112,000 is estimated to be required for the operation of the WMP for each of the three years from 2006 through 2008. This amount includes participation in a cooperative Surface Water Monitoring Program with USGS in addition to the WMP conducted during 2004 and 2005. Contingencies and uncertainties associated with such monitoring programs are also included in this amount. If the above cost increases by more than 10%, the Parties agree to meet and confer on the cost allocation amendment.

1.1.4 Cost Sharing of the WMP. Until the full implementation of the Water Management Plan, the Parties agree to share the WMP costs based on their base groundwater production percentages that are subject to assessments as determined by the Hemet/San Jacinto Policy Committee and shown in the table below:

Cost Sharing For 2006 through 2008				
Agency	Base Production (AF)	Production subject to Assessment	Percentage	Cost Contribution
Hemet	6,320	5,420	17.8%	$ 19,900
San Jacinto	4,031	3,131	10.3%	$ 11,500
LHMWD	11,063	11,063	36.3%	$ 40,700
EMWD	10,869	10,869	35.7%	$ 39,900
Totals	32,283	30,483	100.0%	$ 112,000

1.2 **Cooperation with Other Parties**. The Parties agree to cooperate with each other to reasonably facilitate each Party's performance of their pledge, to share information and to regularly meet and confer concerning implementation of this MOU as part of the regularly scheduled meetings of the Groundwater Policy Committee or such sub-committee as the Policy Committee shall designate from time to time.

2.0 MISCELLANEOUS PROVISIONS

2.1 **Term and Continuation of the WMP**. This MOU shall terminate, unless extended by the mutual agreement of the Parties memorialized in writing, on the earlier of the following dates: (i) the date upon which two or more Parties mutually agree to terminate the MOU; (ii) the date upon which all Parties have adopted the Water Management Plan; or (iii) December 31, 2008. During the Term of this MOU, all of the obligations of the Parties shall be continued and carried over to the next calendar year, subject to adjustment if the WMP cost increases by more than 10%. The Parties shall meet and confer during the last quarter of the preceding year to determine the anticipated cost to be apportioned among the Parties for the forthcoming year and memorialized in a statement signed by the managers of all Parties. In any year subsequent to 2006, no Party shall be obligated to contribute more than one hundred twenty-five percent (125%) of its contribution assigned for the prior year without approval of its Board or Council

2.2 **Invoicing**. The Parties agree that EMWD shall invoice each Party for its contribution to the WMP and subsequent years, either in one lump sum during the year, or in installments over the year as is agreed upon by the Party being invoiced and arranged by that Party with EMWD.

2.3 **Ownership of Documents**. The Parties agree that all data and reports produced shall become the joint property of the Parties.

2.4 **Costs & Expenses**. Other than as set forth above, the Parties shall bear their own costs and expenses of otherwise participating in this MOU.

2.5 **Authority**. The individuals executing this MOU on behalf of the Parties and the instruments referenced on behalf of the Parties represent and warrant that they have the legal

power, right and actual authority to bind the Parties to the terms and conditions hereof and thereof.

2.6 **Counterpart Originals**. This Agreement may be executed in duplicate originals, each of which is deemed to be an original.

2.7 **Effective Date**. This MOU has become effective among and between the Parties on the date by which each Party's governing board or council has approved the MOU and the authorized representative of each Party has executed the MOU.

IN WITNESS WHEREOF, the Parties hereto have executed this Memorandum of Understanding on the date and year first above written.

[SIGNATURE ON FOLLOWING PAGES]

EASTERN MUNICIPAL WATER DISTRICT

By: _____
Tony Pack
General Manager

ATTEST:

By: _____
Board Secretary

Approved as to Form:

By: _____
Gerry Schoaf
General Counsel

LAKE HEMET MUNICIPAL WATER DISTRICT

By: _____
Tom Wagoner, General Manager

ATTEST:

By: _____
District, Secretary

Approved as to Form:

By: _____
Arthur Littleworth, General Counsel

CITY OF HEMET

By: _____
Steve Temple, City Manager

ATTEST:

By: _____
Stephen Clayton, City Clerk

Approved as to Form:

By: _____
Eric S. Vail, City Attorney

CITY OF SAN JACINTO

By: _____
Barry McClellan, City Manager

ATTEST:

By: _____
Dorothy Chouinard, City Clerk

Approved as to Form:

By: _____
Robert Hargreaves, Special Counsel

C:\Documents and Settings\robert.hargreaves\My Documents\San Jacinto monitoring program MOU 2006-08.doc

MEMORANDUM OF UNDERSTANDING

INTERIM WATER SUPPLY PLAN

UPPER SAN JACINTO SUB-BASINS

This Memorandum Of Understanding; Interim Water Supply Plan, Upper San Jacinto Sub-Basins ("MOU"), is hereby entered into this 1st day of April, 2004 by and between the EASTERN MUNICIPAL WATER DISTRICT, a California municipal water district ("EMWD"), LAKE HEMET MUNICIPAL WATER DISTRICT, a California municipal water district ("LHMWD"), CITY OF HEMET, a California general law city ("Hemet"), and CITY OF SAN JACINTO, a California general law city ("San Jacinto"), (collectively referred to hereinafter as the "Parties"), based on the following facts:

RECITALS

A. The Parties have entered into that "Memorandum of Understanding to Work Cooperatively to Promote Conjunctive Use Projects and Programs in Upper San Jacinto River Basins" dated June 19, 2001 (the "Conjunctive Use MOU"). The purpose of the Conjunctive Use MOU is to encourage cooperation among the Parties to facilitate and support local groundwater management efforts and conjunctive use programs particularly those that could increase dry-year water supplies, within the safe-yield and without the overdraft of San Jacinto groundwater basins.

B. The Parties have also entered into that "Agreement to Develop a Groundwater Monitoring Program in the Hemet/San Jacinto Management Area" dated _____ 2003 ("GWM Program"). The purpose of the GWM Program is to measure and monitor groundwater levels to assist in the accurate evaluation of conditions of overdraft and the evaluation of operational safe yield in the Hemet/San Jacinto Management Area.

C. Furthermore, in February of 2004, the Parties each approved a statement of principles entitled "Principles for Water Management" (the "PWM") with regard to the Hemet and San Jacinto Basins. The PWM establishes the framework from which the Parties will develop a Water Management Plan for the Hemet and San Jacinto Basins.

D. The Conjunctive Use MOU and the PWM recognize that the Parties, individually and collectively, have an interest in managing and preserving the ground and surface water resources within the Hemet and San Jacinto Basins in order to alleviate an escalating condition of overdraft within those Basins.

E. Through the ongoing GWM Program conducted by the Parties, it has been discovered that well levels within certain portions of the Canyon and Intake sub-areas of the San Jacinto Basin ("Upper San Jacinto Sub-Basins") have declined more than the Parties had originally projected. This fact suggests that the condition of overdraft in the Upper San Jacinto Sub-Basins may be deteriorating more rapidly than anticipated,

making a collective effort to address the situation prudent prior to establishment of the Water Management Plan.

F. Therefore, in furtherance of the goals stated in the Conjunctive Use MOU and the PWM, it is the purpose and intent of the Parties in entering into this MOU to provisionally address the deteriorating situation by providing interim stabilization of the Upper San Jacinto Sub-Basins through the application of approximately 6,000 acre feet of direct and indirect groundwater recharge during calendar year 2004. To implement this goal, the Parties pledge to undertake the following actions during the calendar year 2004.

OPERATIVE PROVISIONS

NOW, THEREFORE, in consideration of the promises made and recited herein, the Parties do hereby enter into this Memorandum of Understanding setting forth their pledges, commitments, understandings and appropriate limiting conditions, as follows:

ARTICLE 1.0 - EMWD's PLEDGES AND CONDITIONS

1.1 **Pledges by EMWD**. Subject to the conditions set forth in Section 1.2, EMWD pledges the following:

1.1.1 Purchase and Recharge of Water. EMWD will contribute up to Eight Hundred Eighty Three Thousand Dollars and No Cents ($883,000.00) for the acquisition, transportation, operations, and recharge of imported water into the Upper San Jacinto Sub-Basins. EMWD will coordinate and cooperate with LHMWD and MWD regarding the acquisition of imported water. EMWD understands and agrees that it will implement the transportation and recharge of the purchased imported water into the Upper San Jacinto Sub-Basins using its existing conveyance and spreading facilities within the Management Area.

1.1.2 Restriction on Conveyances and Exports. EMWD will use its best efforts to eliminate flows from San Jacinto Basin to the Homeland and Juniper flats area during July, August, and September 2004, and will eliminate the use of any conveyance water during the 2004 calendar year in the Menifee Area. EMWD will not otherwise export any water intended for groundwater recharge, or made available due to groundwater recharge, in the Upper San Jacinto Sub-Basins during the 2004 calendar year. In addition, EMWD will pursue construction of Reach 16 to deliver recycled water to the Heartland Area and will investigate water supply contingency plans.

1.2 **EMWD's Conditions**. The pledges of EMWD stated in Section 1.1 are subject to the following conditions:

1.2.1 Optimizing Capacity. That the Parties cooperate with EMWD's efforts to optimize its delivery capacity during the months of July, August, and September 2004, by refraining, to the extent feasible, from exercising their rights to

delivery of Entitlement Water and/or Excess Water ("Fruitvale Water") under EMWD's Improvement District No. 24 program as provided in those agreements between the Parties individually and EMWD ("Fruitvale Agreements"). It is understood and agreed that any Party's cooperation with such effort by EMWD will not result in a loss, waiver, abrogation or diminishment of their contract rights under the Fruitvale Agreements or such other rights as the Party may have to purchase and receive Fruitvale Water.

1.2.2 Compliance by Other Parties. That each other party use its best efforts in good faith to perform and fulfill their respective pledges as expressed in Sections 2.1, 3.2, and 4.2.

1.3 **Acceptance of Other Parties' Conditions**. EMWD hereby accepts each other Party's conditions on their respective pledges.

1.4 **Cooperation with Other Parties**. EMWD agrees to cooperate with the other Parties to reasonably facilitate each Party's performance of their pledge, to share information and to regularly meet and confer concerning implementation of this MOU as part of the regularly scheduled meetings of the Groundwater Policy Committee or such sub-committee as the Policy Committee shall designate from time to time.

ARTICLE 2.0 - LHMWD'S PLEDGES AND CONDITIONS

2.1 **Pledges by LHMWD**. Subject to the conditions set forth in Section 2.2, LHMWD pledges the following:

2.1.1 Purchase and Recharge of Water. LHMWD will contribute up to Eight Hundred Twenty-eight Thousand Dollars and No Cents ($828,000.00) for the acquisition, transportation, operations, and recharge of imported water into the Upper San Jacinto Sub-Basins. LHMWD will coordinate and cooperate with EMWD and MWD regarding the acquisition of imported water. LHMWD understands and agrees that EMWD will implement the transportation and recharge of the purchased imported water into the Upper San Jacinto Sub-Basins using its existing conveyance and spreading facilities within the Management Area.

2.1.2 Optimizing Capacity. LHMWD will cooperate with EMWD's efforts to optimize EMWD's delivery capacity during the months of July, August, and September 2004, by refraining during such months, to the extent feasible, from exercising their rights to delivery of Entitlement Water and/or Excess Water ("Fruitvale Water") under EMWD's Improvement District No. 24 program as provided in those agreements between the Parties individually and EMWD. It is understood and agreed that LHMWD's cooperation with such effort by EMWD will not result in a loss, waiver, abrogation or diminishment of LHMWD's contract rights under the Fruitvale Agreements or such other rights as LHMWD may have to purchase and receive Fruitvale Water.

2.2 **LHMWD's Conditions**. The pledges of LHMWD stated in Section 2.1 are subject to the following conditions:

2.2.1 Emergency Production of Water. In the event LHMWD experiences an emergency loss of water production capacity or is otherwise unable to satisfy its municipal demand through the use of its own facilities, as determined by the LHMWD, LHMWD reserves the right to exercise its rights to delivery of Fruitvale Water during the months of July, August and September 2004 and shall pay EMWD the standard rate for Fruitvale Water, for amounts delivered within LHMWD's entitlement. For amounts required by LHMWD and delivered by EMWD over the entitlement amount, LHMWD shall pay EMWD's then current wholesale water rates.

2.2.2 Restriction on Conveyance Water and Exports. That EMWD use its best efforts to eliminate flows from San Jacinto Basin to the Homeland and Juniper flats area during July, August, and September 2004, and to eliminate the use of any conveyance water during the 2004 calendar year in the Menifee Area. EMWD will not otherwise export any water intended for groundwater recharge, or made available due to groundwater recharge, in the Upper San Jacinto Sub-Basins during the 2004 calendar year.

2.2.3 Preservation of Fruitvale Water Rights. Notwithstanding LHMWD's pledge to not exercise its entitlements to purchase and receive Fruitvale Water during July, August and September 2004, such pledge and non-exercise shall not be construed by the Parties or any of them as a waiver, failure to exercise, or other abrogation of LHMWD's rights under the Fruitvale Agreements or Fruitvale Adjudication and such rights shall be preserved, survive without diminishment, and remain valid and in full force and effect.

2.2.4 Compliance by Other Parties. That each other party use its best efforts in good faith to perform and fulfill their respective pledges as expressed in Sections 1.1, 3.2, and 4.2.

2.3 **Acceptance of Other Parties' Conditions**. LHMWD hereby accepts each other Party's conditions on their respective pledges.

2.4 **Cooperation with Other Parties**. LHMWD agrees to cooperate with the other Parties to reasonably facilitate each Party's performance of their pledge, to share information and to regularly meet and confer concerning implementation of this MOU as part of the regularly scheduled meetings of the Groundwater Policy Committee or such sub-committee as the Policy Committee shall designate from time to time.

ARTICLE 3.0 - HEMET'S PLEDGES AND CONDITIONS

3.1 **Acknowledgement of Conditions**. Hemet acknowledges the need of the Parties to cooperatively minimize the impacts on water resources in the Upper San Jacinto Sub-Basins. The Parties acknowledge that groundwater resources and well levels surrounding Hemet's water production facilities in the Hemet Basin have not experienced the same rate of decline, as have facilities of the Parties in the San Jacinto Basin. The Parties further acknowledge that Hemet's temporary reallocation of production from the Upper San Jacinto Sub-Basins to the Hemet Basin, as stated in

Section 3.2.1 [Reallocation of Water Production], is provided by Hemet as a means of cooperating with, and providing benefit to, the other Parties to address the conditions in the Upper San Jacinto Sub-Basins. The Parties also acknowledge that Hemet's temporary reallocation of production will not adversely impact the rights, interests, or facilities of the other Parties, and will not unreasonable contribute to the overdraft of the Hemet Basin.

3.2 **Pledges by Hemet**. Subject to the conditions set forth in Section 3.3, Hemet pledges the following:

3.2.1 Reallocation of Water Production. Hemet will reduce its water production and/or receipt from the Upper San Jacinto Sub-Basins during calendar year 2004 by a total of 1072 acre feet. The reduction will be accomplished by: (i) reducing groundwater production from Hemet wells No. 6 and No. 9, by approximately 300 acre feet over the 2004 calendar year; and (ii) by foregoing the exercise of its right to receive deliveries of Entitlement Water or Excess Water ("Fruitvale Water") – currently 772 acre feet -- under EMWD's Improvement District No. 24 program as provided in that Agreement between Hemet and EMWD dated June 13, 1972 ("Fruitvale Agreement") during calendar year 2004. Hemet will off-set this decrease in water production and/or receipt with an increase in groundwater production from Hemet's new or existing facilities in the Hemet Basin.

3.2.2 Optimizing Capacity. Hemet will cooperate with EMWD's efforts to optimize EMWD's delivery capacity during the months of July, August, and September 2004, by refraining during such months, to the extent feasible, from exercising its rights to delivery of Entitlement Water and/or Excess Water ("Fruitvale Water") under EMWD's Improvement District No. 24 program as provided in those agreements between the Parties individually and EMWD ("Fruitvale Agreements"). It is understood and agreed that Hemet's cooperation with such effort by EMWD will not result in a loss, waiver, abrogation or diminishment of Hemet's contract rights under the Fruitvale Agreements or such other rights as Hemet may have to purchase and receive Fruitvale Water.

3.3 **Hemet's Conditions**. The pledge's of Hemet stated in Section 3.2 are subject to the following conditions:

3.3.1 Emergency Production of Water. In the event Hemet experiences an emergency loss of water production capacity, or is otherwise unable to satisfy its municipal demand from its own facilities, as determined by the Hemet Water District, Hemet shall be entitled to increase water production from Hemet Well No. 6 and No. 9, or receive Fruitvale Water during the duration of the emergency. Hemet's pledge to reallocate water production as provided in Section 3.2 shall be reduced by the same amount. However, Hemet shall contribute an amount of funds equal to the acre feet of water produced multiplied by EMWD's then current wholesale water rate for the acquisition of replacement water.

3.3.2 Preservation of Water Lease Obligations. Hemet has an obligation to produce one hundred (100) acre feet of water per year each from Well No. 6 and Well No. 9. Notwithstanding anything to the contrary in Section 3.2, Hemet shall be entitled to produce such amounts from these wells. Hemet anticipates that it will be able to meet both its pledged reduction and its lease obligations.

3.3.3 Preservation of Fruitvale Water Rights. Notwithstanding Hemet's pledge to not exercise its entitlements to purchase and receive Fruitvale Water during calendar year 2004, such pledge and non-exercise shall not be construed by the Parties or any of them as a waiver, failure to exercise, or other abrogation of Hemet's rights under the Fruitvale Agreements or Fruitvale Adjudication and such rights shall be preserved, survive without diminishment, and remain valid and in full force and effect.

3.3.4 Restriction on Conveyance Water and Exports. That EMWD use its best efforts to eliminate flows from San Jacinto Basin to the Homeland and Juniper flats area and to eliminate the use of any conveyance water during the 2004 calendar year in the Menifee Area. EMWD will not otherwise export any water intended for groundwater recharge in the Upper San Jacinto Sub-Basins during the 2004 calendar year.

3.3.5 Compliance by Other Parties. That each other party use its best efforts in good faith to perform and fulfill their respective pledges as expressed in Sections 1.1, 2.1, and 4.2.

3.4 **Acceptance of Other Parties' Conditions**. Hemet hereby accepts each other Party's conditions on their respective pledges.

3.5 **Cooperation with Other Parties**. Hemet agrees to cooperate with the other Parties to reasonably facilitate each Party's performance of their pledge, to share information and to regularly meet and confer concerning implementation of this MOU as part of the regularly scheduled meetings of the Groundwater Policy Committee or such sub-committee as the Policy Committee shall designate from time to time.

ARTICLE 4.0 - SAN JACINTO'S PLEDGES AND CONDITIONS

4.1 **Acknowledgement of Conditions**. San Jacinto acknowledges the need of the Parties to cooperatively minimize the impacts on water resources in the Upper San Jacinto Sub-Basins.

4.2 **Pledges by San Jacinto**. Subject to the conditions set forth in Section 4.3, San Jacinto pledges the following:

4.2.1 Pledge of Future Credits. San Jacinto pledges 243 acre feet (the current equivalent of $78,260 at the import water rate of $322) of future recharge credits that are anticipated to accrue to San Jacinto pursuant to Section 20 of the Principles For Water Management. San Jacinto's recharge credits will be reduced by 243 acre feet once accrued. Another Party may purchase these credits from the

Watermaster for $78,260, which amount will then be applied to the 2004 interim recharge program.

4.2.2 Optimizing Capacity. San Jacinto will make a good faith effort to cooperate with EMWD's efforts to optimize EMWD's delivery capacity during the months of July, August, and September 2004, by refraining, to the extent feasible in its sole discretion, from exercising its rights to delivery of Entitlement Water and/or Excess Water ("Fruitvale Water") under EMWD's Improvement District No. 24 program as provided in those agreements between the Parties individually and EMWD ("Fruitvale Agreements"). It is understood and agreed that San Jacinto's cooperation with such effort by EMWD will not result in a loss, waiver, abrogation or diminishment of San Jacinto's contract rights under the Fruitvale Agreements or such other rights as San Jacinto may have to purchase and receive Fruitvale Water.

4.3 **San Jacinto's Conditions**. San Jacinto's pledges as stated in Section 4.2 are subject to the following conditions:

4.3.1 Emergency Production of Water. In the event San Jacinto experiences an emergency loss of water production capacity or is otherwise unable to satisfy its municipal demand through the use of its own facilities, as determined by the San Jacinto, San Jacinto reserves the right to exercise its rights to delivery of Fruitvale Water during the months of July, August and September 2004 and shall pay EMWD the standard rate for Fruitvale Water, for amounts delivered within San Jacinto's entitlement. For amounts required by San Jacinto and delivered by EMWD over the entitlement amount, San Jacinto shall pay EMWD's then current wholesale water rates.

4.3.2 Preservation of Fruitvale Rights. Notwithstanding San Jacinto's pledge to not otherwise exercise its entitlements to purchase and receive Fruitvale Water during July, August and September 2004, such pledge and non-exercise shall not be construed by the Parties or any of them as a waiver, failure to exercise, or other abrogation of San Jacinto's rights under the Fruitvale Agreement or Fruitvale Adjudication and such rights shall be preserved, survive without diminishment, and remain valid and in full force and effect.

4.3.3 Restriction on Conveyances and Exports. That EMWD use its best efforts to eliminate flows from San Jacinto Basin to the Homeland and Juniper flats area and will eliminate the use of any conveyance water during the 2004 calendar year in the Menifee Area. EMWD will not otherwise export any water intended for groundwater recharge in the Upper San Jacinto Sub-Basins during the 2004 calendar year.

4.3.4 Compliance by Other Parties. That each other party use its best efforts in good faith to perform and fulfill their respective pledges as expressed in Sections 1.1, 2.1, and 3.2.

4.4 **Acceptance of Other Parties' Conditions**. San Jacinto hereby accepts each other Party's conditions on their respective pledges.

4.5 **Cooperation with Other Parties**. San Jacinto agrees to cooperate with the other Parties to reasonably facilitate each Party's performance of their pledge, to share information and to regularly meet and confer concerning implementation of this MOU as part of the regularly scheduled meetings of the Groundwater Policy Committee or such sub-committee as the Policy Committee shall designate from time to time.

ARTICLE 5.0 - MISCELLANEOUS PROVISIONS

5.1 **Term**. This MOU shall terminate, unless extended by the mutual agreement of the Parties memorialized in writing, on December 31, 2004.

5.2 **Costs & Expenses**. The Parties shall bear the costs of implementing their own pledges, and shall bear their own costs and expenses otherwise participating in this MOU.

5.3 **Authority**. The individuals executing this Agreement on behalf of the Parties and the instruments referenced on behalf of the Parties represent and warrant that they have the legal power, right and actual authority to bind the Parties to the terms and conditions hereof and thereof.

5.4 **Counterpart Originals**. This Agreement may be executed in duplicate originals, each of which is deemed to be an original.

5.5 **Effective Date**. This MOU has become effective among and between the Parties on the date by which each Party's governing board or council has approved the MOU and the authorized representative of each Party has executed the MOU.

IN WITNESS WHEREOF, the Parties hereto have executed this Memorandum of Understanding on the date and year first above written.

EASTERN MUNICIPAL WATER DISTRICT

By: _____

Its: GENERAL MANAGER

LAKE HEMET MUNICIPAL WATER DISTRICT

By: _____

Its: GENERAL MANAGER

CITY OF HEMET

By: _____

Steve Temple, City Manager

ATTEST:

By: _____

Stephen Clayton
City Clerk

Approved as to Form:

By: _____

Eric S. Vail
Assistant City Attorney for the City of Hemet

CITY OF SAN JACINTO

By: _____

Peter A. Cosentini, City Manager

ATTEST:

_____

Dorothy L. Chouinard, City Clerk

Approved as to Form:

By: _____

City Attorney for the City of San Jacinto
Best Best & Krieger LLP

MEMORANDUM OF UNDERSTANDING

2005 INTERIM WATER SUPPLY PLAN

UPPER SAN JACINTO SUB-BASINS

This Memorandum Of Understanding; 2005 Interim Water Supply Plan, Upper San Jacinto Sub-Basins ("MOU"), is hereby entered into this 1ST day of March, 2005 by and between the EASTERN MUNICIPAL WATER DISTRICT, a California municipal water district ("EMWD"), LAKE HEMET MUNICIPAL WATER DISTRICT, a California municipal water district ("LHMWD"), CITY OF HEMET, a California general law city ("Hemet"), and CITY OF SAN JACINTO, a California general law city ("San Jacinto"), (collectively referred to hereinafter as the "Parties"), based on the following facts:

RECITALS

A. The Parties previously entered into that "Memorandum of Understanding Interim Water Supply Plan Upper San Jacinto Sub-Basins" dated April 1, 2004 ("2004 MOU") to purchase supplemental water for recharge into certain portions of the canyon and intake sub-areas of the San Jacinto Basin ("Upper San Jacinto Sub-Basins"). The purpose and rationale of the Interim Water Supply Plan ("IWSP") is more fully recited in the 2004 MOU and is incorporated herein by reference.

B. The Parties have determined that it is in the best interest of each of them to continue the IWSP through calendar year 2005 on the terms and conditions set forth in this MOU. The Parties have also affirmed that continuation of the IWSP in this manner is consistent with their effort to engage in collective approaches to addressing the overdraft while the Parties work toward completion of the Water Management Plan.

C. In furtherance thereof, it is the purpose and intent of the Parties in entering into this MOU to assist in providing for interim stabilization of the Upper San Jacinto Sub-Basins through the application of approximately 8,000 acre feet of direct and indirect groundwater recharge during the calendar year 2005. To implement this goal, the Parties pledge to undertake the following actions during the calendar year 2005.

OPERATIVE PROVISIONS

NOW, THEREFORE, in consideration of the promises made and recited herein, the Parties do hereby enter into this Memorandum of Understanding setting forth their pledges, commitments, understandings and appropriate limiting conditions, as follows:

ARTICLE 1.0 - EMWD's PLEDGES AND CONDITIONS

1.1 Pledges by EMWD. Subject to the conditions set forth in Section 1.2, EMWD pledges the following:

1.1.1 Purchase and Recharge of Water. EMWD will contribute up to One Million One Hundred Fifty-eight Thousand Two Hundred Dollars and No Cents ($1,158,200.00) for the acquisition, transportation, operation, and recharge of imported water into the Upper San Jacinto Sub-Basins. EMWD will coordinate and cooperate with LHMWD and MWD regarding the acquisition of imported water. EMWD understands and agrees that it will implement the transportation and recharge of the purchased imported water into the Upper San Jacinto Sub-Basins using its existing conveyance and spreading facilities within the Management Area.

1.1.2 Restriction on Conveyances and Exports. EMWD will use its best efforts to eliminate flows from San Jacinto Basin to the Homeland and Juniper Flats area during July, August, and September 2005, and will eliminate the use of any conveyance water during the 2005 calendar year in the Menifee Area. EMWD will not otherwise export any water intended for groundwater recharge, or made available due to groundwater recharge, in the Upper San Jacinto Sub-Basins during the 2005 calendar year. In addition, EMWD will pursue construction of Reach 16 to deliver recycled water to the Heartland Area and will investigate water supply contingency plans.

1.2 **EMWD's Conditions**. The pledges of EMWD stated in Section 1.1 are subject to the following conditions:

1.2.1 Optimizing Capacity. That the Parties cooperate with EMWD's efforts to optimize its delivery capacity during the months of July, August, and September 2005, by refraining, to the extent feasible, from exercising their rights to delivery of Entitlement Water and/or Excess Water ("Fruitvale Water") under EMWD's Improvement District No. 24 program as provided in those agreements between the Parties individually and EMWD ("Fruitvale Agreements"). It is understood and agreed that any Party's cooperation with such effort by EMWD will not result in a loss, waiver, abrogation or diminishment of their contract rights under the Fruitvale Agreements or such other rights the Party may have to purchase and receive Fruitvale Water.

1.2.2 Compliance by Other Parties. That each other Party use its best efforts in good faith to perform and fulfill their respective pledges as expressed in Sections 2.1, 3.1, and 4.1.

1.3 **Acceptance of Other Parties' Conditions**. EMWD hereby accepts each other Party's conditions on their respective pledges.

1.4 **Cooperation with Other Parties**. EMWD agrees to cooperate with the other Parties to reasonably facilitate each Party's performance of their pledge, to share information and to regularly meet and confer concerning implementation of this MOU as part of the regularly scheduled meetings of the Groundwater Policy Committee or such sub-committee as the Policy Committee shall designate from time to time.

ARTICLE 2.0 - LHMWD'S PLEDGES AND CONDITIONS

2.1 **Pledges by LHMWD**. Subject to the conditions set forth in Section 2.2, LHMWD pledges the following:

2.1.1 Purchase and Recharge of Water. LHMWD will contribute up to Nine Hundred Eighty-seven Thousand Six Hundred Dollars and No Cents ($987,600.00) for the acquisition, transportation, operation, and recharge of imported water into the Upper San Jacinto Sub-Basins. LHMWD will coordinate and cooperate with EMWD and MWD regarding the acquisition of imported water. LHMWD understands and agrees that EMWD will implement the transportation and recharge of the purchased imported water into the Upper San Jacinto Sub-Basins using its existing conveyance and spreading facilities within the Management Area.

2.1.2 Optimizing Capacity. LHMWD will cooperate with EMWD's efforts to optimize EMWD's delivery capacity during the months of July, August, and September 2005, by refraining during such months, to the extent feasible, from exercising their rights to delivery of Entitlement Water and/or Excess Water ("Fruitvale Water") under EMWD's Improvement District No. 24 program as provided in those agreements between the Parties individually and EMWD. It is understood and agreed that LHMWD's cooperation with such effort by EMWD will not result in a loss, waiver, abrogation or diminishment of LHMWD's contract rights under the Fruitvale Agreements or such other rights as LHMWD may have to purchase and receive Fruitvale Water.

2.2 **LHMWD's Conditions**. The pledges of LHMWD stated in Section 2.1 are subject to the following conditions:

2.2.1 Emergency Production of Water. In the event LHMWD experiences an emergency loss of water production capacity or is otherwise unable to satisfy its municipal demand through the use of its own facilities, as determined by the LHMWD, LHMWD reserves the right to exercise its rights to delivery of Fruitvale Water during the months of July, August and September 2005 and shall pay EMWD the standard rate for Fruitvale Water, for amounts delivered within LHMWD's entitlement. For amounts required by LHMWD and delivered by EMWD over the entitlement amount, LHMWD shall pay EMWD's then current wholesale water rates.

2.2.2 Restriction on Conveyance Water and Exports. That EMWD use its best efforts to eliminate flows from San Jacinto Basin to the Homeland and Juniper Flats area during July, August, and September 2005, and to eliminate the use of any conveyance water during the 2005 calendar year in the Menifee Area. EMWD will not otherwise export any water intended for groundwater recharge, or made available due to groundwater recharge, in the Upper San Jacinto Sub-Basins during the 2005 calendar year.

2.2.3 Preservation of Fruitvale Water Rights. Notwithstanding LHMWD's pledge to not exercise its entitlements to purchase and receive Fruitvale Water during July, August and September 2005, such pledge and non-exercise shall not be construed by the Parties or any of them as a waiver, failure to exercise, or other abrogation of LHMWD's rights under

the Fruitvale Agreements or Fruitvale Adjudication and such rights shall be preserved, survive without diminishment, and remain valid and in full force and effect.

2.2.4 Compliance by Other Parties. That each other Party use its best efforts in good faith to perform and fulfill their respective pledges as expressed in Sections 1.1, 3.1, and 4.1.

2.3 **Acceptance of Other Parties' Conditions**. LHMWD hereby accepts each other Party's conditions on their respective pledges.

2.4 **Cooperation with Other Parties**. LHMWD agrees to cooperate with the other Parties to reasonably facilitate each Party's performance of their pledge, to share information and to regularly meet and confer concerning implementation of this MOU as part of the regularly scheduled meetings of the Groundwater Policy Committee or such sub-committee as the Policy Committee shall designate from time to time.

ARTICLE 3.0 - HEMET'S PLEDGES AND CONDITIONS

3.1 **Pledges by Hemet**. Subject to the conditions set forth in Section 3.2, Hemet pledges the following:

3.1.1 Purchase and Recharge of Water. Hemet will contribute up to One Hundred Sixty-four Thousand Dollars and No Cents ($164,000.00) for the acquisition, transportation, operation, and recharge of imported water into the Upper San Jacinto Sub-Basins. Hemet will coordinate and cooperate with EMWD and MWD regarding the acquisition of imported water. Hemet understands and agrees that EMWD will implement the transportation and recharge of the purchased imported water into the Upper San Jacinto Sub-Basins using its existing conveyance and spreading facilities within the Management Area.

3.1.2 Optimizing Capacity. Hemet will cooperate with EMWD's efforts to optimize EMWD's delivery capacity during the months of July, August, and September 2005, by refraining during such months, to the extent feasible, from exercising its rights to delivery of Entitlement Water and/or Excess Water ("Fruitvale Water") under EMWD's Improvement District No. 24 program as provided in those agreements between the Parties individually and EMWD ("Fruitvale Agreements"). It is understood and agreed that Hemet's cooperation with such effort by EMWD will not result in a loss, waiver, abrogation or diminishment of Hemet's contract rights under the Fruitvale Agreements or such other rights Hemet may have to purchase and receive Fruitvale Water.

3.2 **Hemet's Conditions**. The pledges of Hemet stated in Section 3.1 are subject to the following conditions:

3.2.1 Emergency Production of Water. In the event Hemet experiences an emergency loss of water production capacity, or is otherwise unable to satisfy its municipal demand from its own facilities, as determined by the Hemet Water District, Hemet shall be entitled to increase water production from Hemet Well No. 6 and No. 9, or receive Fruitvale

Water during the duration of the emergency. Hemet's pledge to reallocate water production as provided in Section 3.2 shall be reduced by the same amount. However, Hemet shall contribute an amount of funds equal to the acre feet of water produced multiplied by EMWD's then current wholesale water rate for the acquisition of replacement water.

3.2.2 Preservation of Fruitvale Water Rights. Notwithstanding Hemet's pledge to not exercise its entitlements to purchase and receive Fruitvale Water during calendar year 2005, such pledge and non-exercise shall not be construed by the Parties or any of them as a waiver, failure to exercise, or other abrogation of Hemet's rights under the Fruitvale Agreements or Fruitvale Adjudication and such rights shall be preserved, survive without diminishment, and remain valid and in full force and effect.

3.2.3 Restriction on Conveyance Water and Exports. That EMWD use its best efforts to eliminate flows from San Jacinto Basin to the Homeland and Juniper flats area and to eliminate the use of any conveyance water during the 2005 calendar year in the Menifee Area. EMWD will not otherwise export any water intended for groundwater recharge in the Upper San Jacinto Sub-Basins during the 2005 calendar year.

3.2.4 Compliance by Other Parties. That each other Party use its best efforts in good faith to perform and fulfill their respective pledges as expressed in Sections 1.1, 2.1, and 4.1.

3.3 **Acceptance of Other Parties' Conditions**. Hemet hereby accepts each other Party's conditions on their respective pledges.

3.4 **Cooperation with Other Parties**. Hemet agrees to cooperate with the other Parties to reasonably facilitate each Party's performance of their pledge, to share information and to regularly meet and confer concerning implementation of this MOU as part of the regularly scheduled meetings of the Groundwater Policy Committee or such sub-committee as the Policy Committee shall designate from time to time.

ARTICLE 4.0 - SAN JACINTO'S PLEDGES AND CONDITIONS

4.1 **Pledges by San Jacinto**. Subject to the conditions set forth in Section 4.3, San Jacinto pledges the following:

4.1.1 Purchase and Recharge of Water. San Jacinto will contribute up to Ninety Thousand Two Hundred Dollars and No Cents ($90,200.00) for the acquisition, transportation, operation, and recharge of imported water into the Upper San Jacinto Sub-Basins. San Jacinto will coordinate and cooperate with EMWD and MWD regarding the acquisition of imported water. San Jacinto understands and agrees that EMWD will implement the transportation and recharge of the purchased imported water into the Upper San Jacinto Sub-Basins using its existing conveyance and spreading facilities within the Management Area.

4.1.2 Optimizing Capacity. San Jacinto will make a good faith effort to cooperate with EMWD's efforts to optimize EMWD's delivery capacity during the months of

July, August, and September 2005, by refraining, to the extent feasible in its sole discretion, from exercising its rights to delivery of Entitlement Water and/or Excess Water ("Fruitvale Water") under EMWD's Improvement District No. 24 program as provided in those agreements between the Parties individually and EMWD ("Fruitvale Agreements"). It is understood and agreed that San Jacinto's cooperation with such effort by EMWD will not result in a loss, waiver, abrogation or diminishment of San Jacinto's contract rights under the Fruitvale Agreements or such other rights as San Jacinto may have to purchase and receive Fruitvale Water.

4.2 **San Jacinto's Conditions**. San Jacinto's pledges as stated in Section 4.2 are subject to the following conditions:

4.2.1 Emergency Production of Water. In the event San Jacinto experiences an emergency loss of water production capacity or is otherwise unable to satisfy its municipal demand through the use of its own facilities, as determined by San Jacinto, San Jacinto reserves the right to exercise its rights to delivery of Fruitvale Water during the months of July, August and September 2005 and shall pay EMWD the standard rate for Fruitvale Water, for amounts delivered within San Jacinto's entitlement. For amounts required by San Jacinto and delivered by EMWD over the entitlement amount, San Jacinto shall pay EMWD's then current wholesale water rates.

4.2.2 Preservation of Fruitvale Rights. Notwithstanding San Jacinto's pledge to not otherwise exercise its entitlements to purchase and receive Fruitvale Water during July, August and September 2005, such pledge and non-exercise shall not be construed by the Parties or any of them as a waiver, failure to exercise, or other abrogation of San Jacinto's rights under the Fruitvale Agreement or Fruitvale Adjudication and such rights shall be preserved, survive without diminishment, and remain valid and in full force and effect.

4.2.3 Restriction on Conveyances and Exports. That EMWD use its best efforts to eliminate flows from San Jacinto Basin to the Homeland and Juniper flats area and will eliminate the use of any conveyance water during the 2004 calendar year in the Menifee Area. EMWD will not otherwise export any water intended for groundwater recharge in the Upper San Jacinto Sub-Basins during the 2005 calendar year.

4.2.4 Compliance by Other Parties. That each other party use its best efforts in good faith to perform and fulfill their respective pledges as expressed in Sections 1.1, 2.1, and 3.1.

4.3 **Acceptance of Other Parties' Conditions**. San Jacinto hereby accepts each other Party's conditions on their respective pledges.

4.4 **Cooperation with Other Parties**. San Jacinto agrees to cooperate with the other Parties to reasonably facilitate each Party's performance of their pledge, to share information and to regularly meet and confer concerning implementation of this MOU as part of the regularly scheduled meetings of the Groundwater Policy Committee or such sub-committee as the Policy Committee shall designate from time to time.

ARTICLE 5.0 - MISCELLANEOUS PROVISIONS

5.1 **Term**. This MOU shall terminate, unless extended by the mutual agreement of the Parties memorialized in writing, on December 31, 2005.

5.2 **Invoicing**. The Parties agree that EMWD shall invoice each Party for its contribution to the 2005 IWSP either in one lump sum during the Term, or in installments over the Term as is agreed upon by the Party being invoiced and arranged by that Party with EMWD.

5.3 **Costs & Expenses**. The Parties shall bear the costs of implementing their own pledges, and shall bear their own costs and expenses of otherwise participating in this MOU.

5.4 **Authority**. The individuals executing this Agreement on behalf of the Parties and the instruments referenced on behalf of the Parties represent and warrant that they have the legal power, right and actual authority to bind the Parties to the terms and conditions hereof and thereof.

5.5 **Counterpart Originals**. This Agreement may be executed in duplicate originals, each of which is deemed to be an original.

5.6 **Effective Date**. This MOU has become effective among and between the Parties on the date by which each Party's governing board or council has approved the MOU and the authorized representative of each Party has executed the MOU.

IN WITNESS WHEREOF, the Parties hereto have executed this Memorandum of Understanding on the date and year first above written.

[SIGNATURE PAGES FOLLOW]

EASTERN MUNICIPAL WATER DISTRICT

By: _____
Tony Pack
General Manager

ATTEST:

By: _____
Board Secretary

Approved as to Form:

By: _____
Gerry Schoaf
General Counsel

LAKE HEMET MUNICIPAL WATER DISTRICT

By: _____
Rob Lindquist, General Manager

ATTEST:

By: _____
Karen Hornbarger, ~~Secretary~~ Assistant Secretary

Approved as to Form:

By: _____
Arthur Littleworth, General Counsel

CITY OF HEMET

By: _____
Steve Temple, City Manager

ATTEST:

By: _____
Stephen Clayton, City Clerk

Approved as to Form:

By: _____
Eric S. Vail, City Attorney

CITY OF SAN JACINTO

By: _____
Peter Cosentini, City Manager

ATTEST:

By: _____
City Clerk

Approved as to Form:

By: _____
Robert Hargreaves, Special Counsel

MEMORANDUM OF UNDERSTANDING

2006 INTERIM WATER SUPPLY PLAN

UPPER SAN JACINTO SUB-BASINS

This Memorandum Of Understanding; 2006 Interim Water Supply Plan, Upper San Jacinto Sub-Basins ("MOU"), is hereby dated for reference purposes as of May 5, 2006, by and between the EASTERN MUNICIPAL WATER DISTRICT, a California municipal water district ("EMWD"), LAKE HEMET MUNICIPAL WATER DISTRICT, a California municipal water district ("LHMWD"), CITY OF HEMET, a California general law city ("Hemet"), and CITY OF SAN JACINTO, a California general law city ("San Jacinto"), (collectively referred to hereinafter as the "Parties"), based on the following facts:

RECITALS

A. The Parties previously entered into that "Memorandum of Understanding, Interim Water Supply Plan, Upper San Jacinto Sub-Basins" dated April 1, 2004 ("2004 MOU") and that "Memorandum of Understanding, 2005 Interim Water Supply Plan, Upper San Jacinto Sub-Basins" dated March 1, 2005 ("2005 MOU"). The purpose and rationale of the Interim Water Supply Plan ("IWSP") as reflected in the 2004 MOU and 2005 MOU is to purchase supplemental water for recharge into certain portions of the canyon and intake sub-areas of the San Jacinto Basin ("Upper San Jacinto Sub-Basins").

B. The IWSP was undertaken by the parties as an interim measure pending completion and adoption of a Water Management Plan and entry of a Stipulated Judgment (collectively "WMP") by a Court of competent jurisdiction, binding the Parties to a long term solution to managing and resolving the overdraft of the Hemet / San Jacinto Basin ("Management Area"). Although the Parties have been working earnestly toward completion of the WMP, it is anticipated that the WMP will not be finalized and adopted by all Parties sufficiently early in 2006 so as to supersede the need for the IWSP.

C. Based on this state of affairs, the Parties have determined that it is in their mutual best interests to continue the IWSP through calendar year 2006 and/or until such time as the WMP is finalized and adopted by all of the Parties. The Parties have also affirmed that continuation of the IWSP in this manner is consistent with their effort to engage in collective approaches to addressing the overdraft while the Parties work toward completion of the WMP.

D. In furtherance thereof, it is the purpose and intent of the Parties in entering into this MOU to assist in providing for interim stabilization of the Upper San Jacinto Sub-Basins through the application of approximately 6,000 acre feet of direct and indirect groundwater recharge during the calendar year 2006 and an equivalent or greater amount of water, adequate supply providing, in subsequent years. To implement this goal, the Parties pledge to undertake the following actions.

OPERATIVE PROVISIONS

NOW, THEREFORE, in consideration of the promises made and recited herein, the Parties do hereby enter into this Memorandum of Understanding setting forth their pledges, commitments, understandings and appropriate limiting conditions, as follows:

ARTICLE 1.0 - EMWD's PLEDGES AND CONDITIONS

1.1 **Pledges by EMWD**. Subject to the conditions set forth in Section 1.2, EMWD pledges the following:

1.1.1 Purchase and Recharge of Water. During the Term of this MOU, EMWD agrees to contribute funds, in the amounts provided for in this MOU, for the acquisition, transportation, operation, and recharge of imported water into the Upper San Jacinto Sub-Basins. EMWD will coordinate and cooperate with LHMWD and MWD regarding the acquisition of imported water. EMWD understands and agrees that it will implement the transportation and recharge of the purchased imported water into the Upper San Jacinto Sub-Basins using its existing conveyance and spreading facilities within the Management Area. For calendar 2006, EMWD agrees to contribute up to Six Hundred Seventy-Five Thousand Seven Hundred Dollars and No Cents ($675,700.00) for imported water under the MOU.

1.1.2 Restriction on Conveyances and Exports. EMWD will use its best efforts to eliminate flows from San Jacinto Basin to the Homeland and Juniper Flats area during July, August, and September 2006, and will eliminate the use of any conveyance water during the 2006 calendar year in the Menifee Area. EMWD will not otherwise export any water intended for groundwater recharge, or made available due to groundwater recharge, in the Upper San Jacinto Sub-Basins during the 2006 calendar year. In addition, EMWD will investigate water supply contingency plans.

1.1.3 Continued Participation in IWSP. Subject to Section 5.1 EMWD agrees that it will continue its participation in the Interim Water Supply Plan in the same manner and to the same extent as set forth in Article 1.0 of the MOU during each subsequent calendar year until the WMP has been finalized and adopted by all parties.

1.2 **EMWD's Conditions**. The pledges of EMWD stated in Section 1.1 are subject to the following conditions:

1.2.1 Optimizing Capacity. That the Parties cooperate with EMWD's efforts to optimize its delivery capacity during the months of July, August, and September 2006, by refraining, to the extent feasible, from exercising their rights to delivery of Entitlement Water and/or Excess Water ("Fruitvale Water") under EMWD's Improvement District No. 24 program as provided in those agreements between the Parties individually and EMWD ("Fruitvale Agreements"). It is understood and agreed that any Party's cooperation with such effort by EMWD will not result in a loss, waiver, abrogation or diminishment of their contract rights under the Fruitvale Agreements or such other rights the Party may have to purchase and receive Fruitvale Water.

1.2.2 Compliance by Other Parties. That each other Party use its best efforts in good faith to perform and fulfill their respective pledges as expressed in Sections 2.1, 3.1, and 4.1.

1.3 **Acceptance of Other Parties' Conditions**. EMWD hereby accepts each other Party's conditions on their respective pledges.

1.4 **Cooperation with Other Parties**. EMWD agrees to cooperate with the other Parties to reasonably facilitate each Party's performance of their pledge, to share information and to regularly meet and confer concerning implementation of this MOU as part of the regularly scheduled meetings of the Groundwater Policy Committee or such sub-committee as the Policy Committee shall designate from time to time.

ARTICLE 2.0 - LHMWD'S PLEDGES AND CONDITIONS

2.1 **Pledges by LHMWD**. Subject to the conditions set forth in Section 2.2, LHMWD pledges the following:

2.1.1 Purchase and Recharge of Water. During the Term of this MOU, LHMWD agrees to contribute funds, in the amounts provided for in this MOU, for the acquisition, transportation, operation, and recharge of imported water into the Upper San Jacinto Sub-Basins. LHMWD will coordinate and cooperate with EMWD and MWD regarding the acquisition of imported water. LHMWD understands and agrees that EMWD will implement the transportation and recharge of the purchased imported water into the Upper San Jacinto Sub-Basins using its existing conveyance and spreading facilities within the Management Area. For calendar 2006, LHMWD agrees to contribute up to Eight Hundred Forty-Two Thousand Four Hundred Dollars and No Cents ($842,400.00) for imported water under the MOU.

2.1.2 Optimizing Capacity. LHMWD will cooperate with EMWD's efforts to optimize EMWD's delivery capacity during the months of July, August, and September 2006, by refraining during such months, to the extent feasible, from exercising their rights to delivery of Entitlement Water and/or Excess Water ("Fruitvale Water") under EMWD's Improvement District No. 24 program as provided in those agreements between the Parties individually and EMWD. It is understood and agreed that LHMWD's cooperation with such effort by EMWD will not result in a loss, waiver, abrogation or diminishment of LHMWD's contract rights under the Fruitvale Agreements or such other rights as LHMWD may have to purchase and receive Fruitvale Water.

2.1.3 Continued Participation in IWSP. Subject to Section 5.1, LHMWD agrees that it will continue its participation in the Interim Water Supply Plan in the same manner and to the same extent as set forth in Article 2.0 of the MOU during each subsequent calendar year until the WMP has been finalized and adopted by all parties.

2.2 **LHMWD's Conditions**. The pledges of LHMWD stated in Section 2.1 are subject to the following conditions:

2.2.1 Emergency Production of Water. In the event LHMWD experiences an emergency loss of water production capacity or is otherwise unable to satisfy its municipal demand through the use of its own facilities, as determined by the LHMWD, LHMWD reserves the right to exercise its rights to delivery of Fruitvale Water during the months of July, August and September 2006 and shall pay EMWD the standard rate for Fruitvale Water, for amounts delivered within LHMWD's entitlement. For amounts required by LHMWD and delivered by EMWD over the entitlement amount, LHMWD shall pay EMWD's then current wholesale water rates.

2.2.2 Restriction on Conveyance Water and Exports. That EMWD use its best efforts to eliminate flows from San Jacinto Basin to the Homeland and Juniper Flats area during July, August, and September 2006, and to eliminate the use of any conveyance water during the 2005 calendar year in the Menifee Area. EMWD will not otherwise export any water intended for groundwater recharge, or made available due to groundwater recharge, in the Upper San Jacinto Sub-Basins during the 2006 calendar year.

2.2.3 Preservation of Fruitvale Water Rights. Notwithstanding LHMWD's pledge to not exercise its entitlements to purchase and receive Fruitvale Water during July, August and September 2006, such pledge and non-exercise shall not be construed by the Parties or any of them as a waiver, failure to exercise, or other abrogation of LHMWD's rights under the Fruitvale Agreements or Fruitvale Adjudication and such rights shall be preserved, survive without diminishment, and remain valid and in full force and effect.

2.2.4 Compliance by Other Parties. That each other Party use its best efforts in good faith to perform and fulfill their respective pledges as expressed in Sections 1.1, 3.1, and 4.1.

2.3 **Acceptance of Other Parties' Conditions**. LHMWD hereby accepts each other Party's conditions on their respective pledges.

2.4 **Cooperation with Other Parties**. LHMWD agrees to cooperate with the other Parties to reasonably facilitate each Party's performance of their pledge, to share information and to regularly meet and confer concerning implementation of this MOU as part of the regularly scheduled meetings of the Groundwater Policy Committee or such sub-committee as the Policy Committee shall designate from time to time.

ARTICLE 3.0 - HEMET'S PLEDGES AND CONDITIONS

3.1 **Pledges by Hemet**. Subject to the conditions set forth in Section 3.2, Hemet pledges the following:

3.1.1 Purchase and Recharge of Water. During the Term of this MOU, Hemet agrees to contribute funds, in the amounts provided for in this MOU, for the acquisition, transportation, operation, and recharge of imported water into the Upper San Jacinto Sub-Basins. Hemet will coordinate and cooperate with EMWD and MWD regarding the acquisition of imported water. Hemet understands and agrees that EMWD will implement the transportation and recharge of the purchased imported water into the Upper San Jacinto Sub-Basins using its

existing conveyance and spreading facilities within the Management Area. For calendar 2006, Hemet agrees to contribute up to One Hundred Ninety-Four Thousand Dollars and No Cents ($194,000.00) for imported water under the MOU.

3.1.2 Optimizing Capacity. Hemet will cooperate with EMWD's efforts to optimize EMWD's delivery capacity during the months of July, August, and September 2006, by refraining during such months, to the extent feasible, from exercising its rights to delivery of Entitlement Water and/or Excess Water ("Fruitvale Water") under EMWD's Improvement District No. 24 program as provided in those agreements between the Parties individually and EMWD ("Fruitvale Agreements"). It is understood and agreed that Hemet's cooperation with such effort by EMWD will not result in a loss, waiver, abrogation or diminishment of Hemet's contract rights under the Fruitvale Agreements or such other rights Hemet may have to purchase and receive Fruitvale Water.

3.1.3 Continued Participation in IWSP. Subject to Section 5.1, Hemet agrees that it will continue its participation in the Interim Water Supply Plan in the same manner and to the same extent as set forth in Article 3.0 of the MOU during each subsequent calendar year until the WMP has been finalized and adopted by all parties.

3.2 **Hemet's Conditions**. The pledges of Hemet stated in Section 3.1 are subject to the following conditions:

3.2.1 Emergency Production of Water. In the event Hemet experiences an emergency loss of water production capacity, or is otherwise unable to satisfy its municipal demand from its own facilities, as determined by the Hemet Water Department, Hemet shall be entitled to increase water production from any one or more of Hemet's wells located within the Upper San Jacinto Sub-Basins, or receive Fruitvale Water during the duration of the emergency for which Hemet shall pay EMWD the standard rate for Fruitvale Water, for amounts delivered within Hemet's entitlement. For amounts required by Hemet and delivered by EMWD over the entitlement amount, Hemet shall pay EMWD's then current wholesale water rates.

3.2.2 Preservation of Fruitvale Water Rights. Notwithstanding Hemet's pledge to not exercise its entitlements to purchase and receive Fruitvale Water during calendar year 2006, such pledge and non-exercise shall not be construed by the Parties or any of them as a waiver, failure to exercise, or other abrogation of Hemet's rights under the Fruitvale Agreements or Fruitvale Adjudication and such rights shall be preserved, survive without diminishment, and remain valid and in full force and effect.

3.2.3 Restriction on Conveyance Water and Exports. That EMWD use its best efforts to eliminate flows from San Jacinto Basin to the Homeland and Juniper flats area and to eliminate the use of any conveyance water during the 2006 calendar year in the Menifee Area. EMWD will not otherwise export any water intended for groundwater recharge in the Upper San Jacinto Sub-Basins during the 2006 calendar year.

3.2.4 Compliance by Other Parties. That each other Party use its best efforts in good faith to perform and fulfill their respective pledges as expressed in Sections 1.1, 2.1, and 4.1.

3.3 **Acceptance of Other Parties' Conditions**. Hemet hereby accepts each other Party's conditions on their respective pledges.

3.4 **Cooperation with Other Parties**. Hemet agrees to cooperate with the other Parties to reasonably facilitate each Party's performance of their pledge, to share information and to regularly meet and confer concerning implementation of this MOU as part of the regularly scheduled meetings of the Groundwater Policy Committee or such sub-committee as the Policy Committee shall designate from time to time.

ARTICLE 4.0 - SAN JACINTO'S PLEDGES AND CONDITIONS

4.1 **Pledges by San Jacinto**. Subject to the conditions set forth in Section 4.3, San Jacinto pledges the following:

4.1.1 Purchase and Recharge of Water. During the Term of this MOU, San Jacinto agrees to contribute funds, in the amounts provided for in this MOU, for the acquisition, transportation, operation, and recharge of imported water into the Upper San Jacinto Sub-Basins. San Jacinto will coordinate and cooperate with EMWD and MWD regarding the acquisition of imported water. San Jacinto understands and agrees that EMWD will implement the transportation and recharge of the purchased imported water into the Upper San Jacinto Sub-Basins using its existing conveyance and spreading facilities within the Management Area. For calendar 2006, San Jacinto agrees to contribute up to Eighty-Seven Thousand Nine Hundred Dollars and No Cents ($87,900.00) for imported water under the MOU.

4.1.2 Optimizing Capacity. San Jacinto will make a good faith effort to cooperate with EMWD's efforts to optimize EMWD's delivery capacity during the months of July, August, and September 2006, by refraining, to the extent feasible in its sole discretion, from exercising its rights to delivery of Entitlement Water and/or Excess Water ("Fruitvale Water") under EMWD's Improvement District No. 24 program as provided in those agreements between the Parties individually and EMWD ("Fruitvale Agreements"). It is understood and agreed that San Jacinto's cooperation with such effort by EMWD will not result in a loss, waiver, abrogation or diminishment of San Jacinto's contract rights under the Fruitvale Agreements or such other rights as San Jacinto may have to purchase and receive Fruitvale Water.

4.1.3 Continued Participation in IWSP. Subject to Section 5.1, San Jacinto agrees that it will continue its participation in the Interim Water Supply Plan in the same manner and to the same extent as set forth in Article 4.0 of the MOU during each subsequent calendar year until the WMP has been finalized and adopted by all parties.

4.2 **San Jacinto's Conditions**. San Jacinto's pledges as stated in Section 4.1 are subject to the following conditions:

4.2.1 Emergency Production of Water. In the event San Jacinto experiences an emergency loss of water production capacity or is otherwise unable to satisfy its municipal demand through the use of its own facilities, as determined by San Jacinto, San Jacinto reserves the right to exercise its rights to delivery of Fruitvale Water during the months of July, August and September 2006 and shall pay EMWD the standard rate for Fruitvale Water, for amounts

delivered within San Jacinto's entitlement. For amounts required by San Jacinto and delivered by EMWD over the entitlement amount, San Jacinto shall pay EMWD's then current wholesale water rates.

4.2.2 Preservation of Fruitvale Rights. Notwithstanding San Jacinto's pledge to not otherwise exercise its entitlements to purchase and receive Fruitvale Water during July, August and September 2006, such pledge and non-exercise shall not be construed by the Parties or any of them as a waiver, failure to exercise, or other abrogation of San Jacinto's rights under the Fruitvale Agreement or Fruitvale Adjudication and such rights shall be preserved, survive without diminishment, and remain valid and in full force and effect.

4.2.3 Restriction on Conveyances and Exports. That EMWD use its best efforts to eliminate flows from San Jacinto Basin to the Homeland and Juniper flats area and will eliminate the use of any conveyance water during the 2006 calendar year in the Menifee Area. EMWD will not otherwise export any water intended for groundwater recharge in the Upper San Jacinto Sub-Basins during the 2006 calendar year.

4.2.4 Compliance by Other Parties. That each other party use its best efforts in good faith to perform and fulfill their respective pledges as expressed in Sections 1.1, 2.1, and 3.1.

4.3 **Acceptance of Other Parties' Conditions**. San Jacinto hereby accepts each other Party's conditions on their respective pledges.

4.4 **Cooperation with Other Parties**. San Jacinto agrees to cooperate with the other Parties to reasonably facilitate each Party's performance of their pledge, to share information and to regularly meet and confer concerning implementation of this MOU as part of the regularly scheduled meetings of the Groundwater Policy Committee or such sub-committee as the Policy Committee shall designate from time to time.

ARTICLE 5.0 - MISCELLANEOUS PROVISIONS

5.1 **Term and Continuation of the IWSP**. This MOU shall terminate, unless extended by the mutual agreement of the Parties memorialized in writing, on the earlier of the following dates: (i) the date upon which two or more Parties mutually agree to terminate the MOU; (ii) the date upon which all Parties have adopted the WMP; or (ii) December 31, 2008. During the Term of this MOU, all of the obligations of the Parties shall be continued and carried over to the next calendar year, subject to adjustment for the amount of water to be recharged in any subsequent year. The Parties acknowledge that the amount of water to be recharged may fluctuate year to year depending upon conditions within the Management Area, the availability of Imported Water, and the ability to receive and recharge such water. The Parties agree that the goal is to purchase and recharge between 6,000 to 8,000 acre feet of Imported Water each year during the Term. The Parties shall meet and confer during the last quarter of the preceding year to determine the amount of water and the anticipated cost to be apportioned among the Parties for the forthcoming year and memorialized in a statement signed by the managers of all Parties. In any year subsequent to 2006, no Party shall be obligated to contribute more than one hundred

twenty-five percent (125%) of its contribution assigned for the prior year without approval of its Board or Council.

5.2 **Invoicing**. The Parties agree that EMWD shall invoice each Party for its contribution to the 2006 IWSP and subsequent years, either in one lump sum during the year, or in installments over the year as is agreed upon by the Party being invoiced and arranged by that Party with EMWD.

5.3 **Costs & Expenses**. The Parties shall bear the costs of implementing their own pledges, and shall bear their own costs and expenses of otherwise participating in this MOU.

5.4 **Authority**. The individuals executing this Agreement on behalf of the Parties and the instruments referenced on behalf of the Parties represent and warrant that they have the legal power, right and actual authority to bind the Parties to the terms and conditions hereof and thereof.

5.5 **Counterpart Originals**. This Agreement may be executed in duplicate originals, each of which is deemed to be an original

5.6 **Effective Date**. This MOU has become effective among and between the Parties on the date by which each Party's governing board or council has approved the MOU and the authorized representative of each Party has executed the MOU.

IN WITNESS WHEREOF, the Parties hereto have executed this Memorandum of Understanding on the date and year first above written.

[SIGNATURE ON FOLLOWING PAGES]

EASTERN MUNICIPAL WATER DISTRICT

By: _____
Anthony J. Pack
General Manager

ATTEST:

By: _____
Rosemarie V. Howell
Board Secretary

Approved as to Form:

By: _____
Gerald R. Shoaf
General Counsel

LAKE HEMET MUNICIPAL WATER DISTRICT

By: _____
Tom Wagoner, General Manager

ATTEST:

By: _____
Assistant Secretary
Karen Hornbarger

Approved as to Form:

By: _____
Arthur Littleworth, General Counsel

CITY OF SAN JACINTO

By: _____
Barry McClellan, City Manager

ATTEST:

By: _____
Dorothy Chouinard, City Clerk

Approved as to Form:

By: _____
Robert Hargreaves, Special Counsel

CITY OF HEMET

By: _____
Steve Temple, City Manager

ATTEST:

By: _____
Stephen Clayton, City Clerk

Approved as to Form:

By: _____
Eric S. Vail, City Attorney

(This Page Left Blank Intentionally)

APPENDIX I SB1938 GROUNDWATER MANAGEMENT PLAN COMPLIANCE CHECKLIST

Water Management Plan GWMP Components

Description	Section(s)
SB 1938 Mandatory Components	
1. Documentation of public involvement	2.2.4, 11.10
2. BMO(s)	3.1
3. Monitoring and management of groundwater elevations, groundwater quality, inelastic land subsidence, and changes in surface water flows and quality that directly affect groundwater levels or quality	3.1.7, 3.2.7, 11.2
4. Plan to involve other agencies located in the groundwater basin	2
5. Adoption of monitoring protocols	11.2
6. Map of groundwater basin boundary, as delineated by DWR Bulletin 118, with agencies boundaries that are subject to GWMP	2.2, 4.1
7. For agencies not overlying groundwater basins, prepare the GWMP using appropriate geologic and hydrogeologic principles	N/A
AB 3030 and SB 1938 Voluntary Components	
1. Control of saline water intrusion	3.2.3
2. Identify and manage well protection and recharge areas	3.2, 11.2
3. Regulate the migration of contaminated groundwater	3.2
4. Administer well-abandonment and destruction program	11.2, 11.9
5. Control and mitigate groundwater overdraft	3.2, 5.3
6. Replenish groundwater	3.2, 5.3
7. Monitor groundwater levels	3.2, 11.2
8. Develop and operate conjunctive use projects	3.2, 5.3
9. Identify well-construction policies	11.9
10. Develop and operate groundwater contamination cleanup, recharge, storage, conservation, water-recycling, and extraction projects	3.2, 5.3
11. Develop relationships with state and federal regulatory agencies	1.1, 3.2, 4.10
12. Review land use plans and coordinate with land use planning agencies to assess activities that create reasonable risk of groundwater contamination	5.1
DWR Bulletin 118 Suggested Components	
1. Manage with guidance of advisory committee	2.4, 9
2. Describe area to be managed under GWMP	2.1
3. Create links between BMOs and goals and actions of GWMP	3, 11.6
4. Describe GWMP monitoring programs	3.2, 11.2
5. Describe integrated water–management planning efforts	3.2, 4.8.3, 5.3.3.1, 5.3.3.6

Description	Section(s)
6. Report of implementation of GWMP	11.2, 11.5
7. Evaluate GWMP periodically	11.5, 9.6.2

(This Page Left Blank Intentionally)

APPENDIX D

City of San Jacinto's Water and Sewer Rates

05/07/2009 15:45 FAX

City of San Jacinto
Fees, Charges & Rates
Fiscal Year 2008-09

Water and Sewer	Unit	Fee	Proposed
Deposits:			
Residential/Multi-family Residential	per Unit	$ 0 to $180	
Based on the creditworthiness of the applicant			
Commercial		Min. $180	
Two times the average monthly bill for similar locations			
Construction/Temporary Meters		$450	
Deposit increased to equivalent of two (2) months average billing upon any delinquent payment.			
Delinquent Penalty		10% of Total Utility Bill	
48-hour Disconnect Notice		$ 25	
Fire Flow Test		$ 25	
Meter Installation	¾" Meter	$ 400	
	1" Meter	$ 500	
	1 ½ " Meter	$ 750	
	2" Meter	$ 1000	
	4" Meter	$ 2000	
Meter Re-installation		$ 50	
Meter Relocation (Construction Meters)		$ 25	
Meter Testing (Customer Request)		$ 25	
Meter Valve Replacement		$ 75	
Sewer Dye Test		$ 25	
Tampering & Damages		$ 50 (plus actual cost of repairs)	
Water Reconnect		$ 50	
Water Shut-off (Emergency)		$ 25	
Water Turn-on (Emergency)		$ 50	
Applies to same-day service requests received after 2:30 pm.			

FINANCE

010/010

RESIDENTIAL & COMMERCIAL METERS

2008/2009

Rate	Meter Size	Flat Rate	Per Unit	0-5 Unit	6-15 Unit	16+ Unit	0-20 Unit	21+ Unit
BW	Bulk Water		$ 1.89					
CM	Construction	$ 61.35	$ 1.89					
I1, O1	5/8"	$ 14.63			$ 1.46	$ 2.02		
I2, O2	3/4"	$ 14.63			$ 1.46	$ 2.02		
I3, O3	1"	$ 22.89					$ 1.46	$ 2.02
I4, O4	1 1/2"	$ 43.96					$ 1.46	$ 2.02
I5, O5	2"	$ 65.95					$ 1.46	$ 2.02
I6, O6	3"	$ 70.55	$ 1.56					
I7, O7	4"	$ 120.93	$ 1.56					
I8, O8	6"	$ 219.86	$ 1.56					
I9, O9	8"	$ 318.81	$ 1.56					
FS	Fire	$ 14.63						

Energy Surcharge

$2.00 per account

1 Unit = 748 gallons

Table

Summary of Wastewater Collection Rates for City of San Jacinto

Type of Use	Monthly Charge
Residential (Single Family)	$3.50 per month
Multiple Residential Units	$3.00 per unit per month
Commercial/Industrial Accounts	$3.50 per month per 1,100 cu ft of water consumed

APPENDIX E

2009 Annual Water Quality Report

City of San Jacinto
2009 Annual Water Quality Report

The City of San Jacinto is pleased to provide our customers with its Annual Water Quality Report

This report contains information about the sources and quality of drinking water we deliver to our customers. This includes details about where the City of San Jacinto water originates, what it contains, and how it compares to standards set by regulatory agencies. In 2009, your drinking water has met all U.S. Environmental Protection Agency (USEPA) and California Department of Public Health (CDPH) standards. The City of San Jacinto's source of water for 2009 is from four deep wells. These wells are located in the San Jacinto Groundwater Basin.

Information on City of San Jacinto Water Quality Monitoring

The City of San Jacinto routinely monitors for contaminants in your drinking water in accordance with USEPA and State CDPH. This table shows the results of our monitoring results for the year 2009. Although we have learned through our monitoring and testing that some contaminants have been detected, **the USEPA has determined that your water IS SAFE at these levels.** All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline: **(1-800-426-4791)**

The sources of drinking water

Sources for both tap water and bottled water include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material. The water can also pick up substances resulting from the presence of animal or human activity.

What causes the brownish discoloration in our water?

IRON & MANGANESE: These natural minerals are found in the water that is produced by the City's three well sites. Although these minerals produce no known health concerns, they are aesthetically unpleasant and can cause unwanted color, taste and odors. Iron and Manganese at high concentrations can also stain clothing and fixtures at home. The City operates two groundwater treatment plants for removal of Iron and Manganese, and we have implemented a comprehensive water flushing program to keep any build up in our Water Distribution System to a minimum.

Water Disinfection

All City of San Jacinto wells are chlorinated to insure that we are providing the safest water for our customers. All sites are monitored daily to maintain a system residual. The 2009 average chlorine residual was 1.10 mg/L. There were 235 bacteriological samples taken in 2009. Zero samples tested for positive.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, that can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining.
- In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the California Department of Public Health (CDPH) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. CDPH regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Educational Information

Ground water is protected from many infectious organisms, such as the parasite **Cryptosporidium,** by the natural filtration action of water percolating through soils. There is no indication that **Cryptosporidium** has breached this natural soil filter and entered the San Jacinto water supply.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by **Cryptosporidium** and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Water Is A Precious Resource
Please Practice Water Conservation

2009 WATER QUALITY DATA TABLE

AL –	Regulatory action level
MCL –	Maximum contaminant level
MCLG –	Maximum contaminant level goal
MIROMHO –	A measure of conductivity (electric current in water)
NC –	Not collected
ND –	Not detected
NS –	No standard
NTU –	Nephelometric turbidity Unit (a measure of water cloudiness)
pCi/L –	Picocuries per liter
PHG –	Public health goal
ppb –	Parts per billion
ppm –	Parts per million

IMPORTANT DRINKING WATER DEFINITIONS

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): The level of contaminant in drinking water below which there is no known or expected risk of health. MCLGs are set by the U.S. Environmental Protection Agency.

Public Health Goal (PHG): The level of contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Primary Drinking Water Standard (PDWS): MCLs for contaminants that effect health along with their monitoring and reporting requirements, and water treatment requirements.

Regulatory Action Level (AL): The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow.

CONTAMINANT	STATE STANDARDS		CITY OF SAN JACINTO WATER UTILITIES		VIOLATION	TYPICAL SOURCE OF CONTAMINANT
	MCL	PHG	AVERAGE	RANGE		
PRIMARY STANDARDS – Mandatory Health Related Standards						
MICROBIOLOGICAL						
Total Coliform	5%	0%	0 samples positive		NO	Naturally present in environment
CLARITY						
Turbidity	.5 NTU	NS	.4 NTU	.2 NTU-.7 NTU	NO	Naturally present in environment
REGULATED ORGANIC						
Total Trihalomethanes	80 ppb	NS	Average 7.3 ppb		NO	Byproduct of drinking water disinfection
Halocetic Acids	60 ppb	NS	Average 5.9 ppb		NO	Byproduct of drinking water disinfection
Chlorine	4 ppm	4 ppm	1.1 ppm	.9 ppm – 1.3 ppm	NO	Drinking water disinfectant added for treatment
REGULATED INORGANIC						
Fluoride	2 ppm	1 ppm	0.2 ppm	0.2 ppm-0.2 ppm	NO	Naturally present in environment
Nitrate (NO3)	45 ppm	45 ppm	< 2.0 ppm	< 2.0 ppm	NO	Naturally present in environment
Perchlorate	6 ppm	6 ppm	< 4.0 ppm	< 4.0 ppm	NO	Inorganic chemical used in variety of industrial operations
Chromium	50 ppb	NS	1.2 ppb	N/D- 2.4 ppb	NO	Discharge from steel and pulp mills, chrome plating, and erosion of natural deposits
RADIOLOGICAL						
Gross Alpha	15 pCi/L	NS	1.072 pCi/L	.18 pCi/L-2.93 pCi/L	NO	Erosion of natural deposits
LEAD/COPPER						
Copper	1.3 ppm	.17ppm	0.640 ppm 90th Percentile		NO	Internal corrosion of home plumbing
Lead	15 ppm	2 ppm	N/D ppm 90th Percentile		NO	Internal corrosion of home plumbing
SECONDARY STANDARDS – Aesthetic Standards						
Iron	300	NS	101	0-110	NO	Leaching from natural deposits
Manganese	50	NS	32	0-87	NO	Leaching from natural deposits.
Color	15 color units	NS	1.15 color units	N/D-5 color units	NO	Naturally occurring organic materials
Odor	3 TON	NS	N/D	N/D	NO	Naturally present in environment
Specific Conductance	1600	NS	425	370-480	NO	Substances that form ions when in water
Sulfate	500 ppm	NS	32 pm	17 ppm- 47 ppm	NO	Naturally present in environment
TDS	1,000 ppm	NS	295 ppm	290 ppm – 300 ppm	NO	Naturally present in environment
Chloride	500 ppm	NS	9.7 ppm	9.4 pp – 10 ppm	NO	Naturally present in environment
Hardness	NS	NS	155	140-170	N/A	Naturally present in environment
PH	NS	NS	7.2	7.0-7.6	N/A	Naturally present in environment
Potassium	NS	NS	3.4 ppm	3.3 ppm-3.5 ppm	N/A	Naturally present in environment
Sodium	NS	NS	27 ppm	25 ppm-29 ppm	N/A	Naturally present in environment
Total Alkalinity	NS	NS	170 ppm	160ppm-180 ppm	N/A	Naturally present in environment

City of San Jacinto 2009 Water Sampling Data

235 - Samples collected to test for bacteria
39 - Samples collected for source and system monitoring
54 - Samples collected for treatment plant compliance and monitoring
326 - Total samples collected

CONTACT INFORMATION

City of San Jacinto Water Department
Water Utilities Supervisor: Dan Mudrovich
270 Bissell Place San Jacinto
CA. 92583 (951) 487-7381

Bacteriological Information All City of San Jacinto wells are chlorinated to insure that we are providing the safest water for our customers. **Total Coli-form** Coli-forms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful bacteria may be present. **Fecal coliform and E.coli** Fecal coliforms and E.coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these waters can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems.

Public Participation Opportunity The San Jacinto City Council meets the first and third Thursday of each month in the Council Chambers at 625 S Pico Ave., San Jacinto, CA.

APPENDIX F

Emergency Response Plan

Crosswalk for the
City of San Jacinto
Emergency Operations Plan

Purpose: A quick reference for determining whether an emergency plan has addressed critical elements.

Limitations: Plans must reflect the needs of the jurisdiction, in Particular the hazards that will likely impact them and their capabilities. The jurisdiction may use this document or another checklist.

Instructions: **Please take careful note of the following -**
Enter the reference (page number, paragraph, chapter, and section) or Not Applicable (N/A) in the space provided at the beginning of each item – if this is a city plan, make reference to the county plan if applicable. Many of the elements described below may be in documents separate from the primary emergency plan; if so, indicate placement in another document by (AD), and the name of the document. If the element is in multiple areas of the plan, provide sections with page numbers.

Potential Emergency Elements

Reference(s) (page number, paragraph, chapter, and section)	**Element**
Part 1– pg i – iv	**1. Table of Contents** Listing of where significant Parts of the plan are located by page number and subsection of the plan.
PART 1 – pg 1-1	**2. Foreword/Preface/Introduction** Provide a foreword, preface or introduction that explains why the plan was developed and how the plan is to be used.
PART 1 – pg i	**3. Letter of Approval** A dated letter of promulgation or resolution from the governing board.
PART 1 – pg 1-3 to 1-7	**4. Legal Rationale of Plan** Provide authorities for the plan and its development.
PART 1 – pg 1-6, 3-11 to 3-12 PART 2 – pg 1-2 to 1-5, 2-1, 2-2, 3-1, 4-1, 4-2, 5-1, and 6-1	**5. Standardized Emergency Management System (SEMS) based Emergency Organization** Identify agency roles and responsibilities during disaster situation; include an emergency organization chart. Indicate how the jurisdiction fulfills the five SEMS sections (Management, Plans/Intelligence, Operations, Logistics, Finance/Administration).

Reference(s) (page number, paragraph, chapter, and section)	Element
PART 1 – pg 1-6, 3-11 to 3-12, PART 2 – pg 3-11 to 3-12	**6. SEMS** Indicate how the jurisdiction coordinates between the different SEMS levels (field, local, operational areas, region, state), how information is exchanged, how and when multi/inter-agency coordination and unified command are used. The Operational Area agreement should also be referenced; and the plan should indicate who performs the Operational Area responsibilities.
PART 1 – pg 5-1 to 5-7	**7. Mutual Aid** General description of mutual aid.
PART 1 – pg 1-1 to 1-7	**8. Standard Operating Procedures (SOP) Development** Ensure emergency response agencies develop and maintain SOPs. Indicate in the plan the relationship and purpose of SOPs to the plan.
PART 1 – Section 6 pg 6-7 to 6-9	**9. Summarize the Jurisdictional Hazard Analysis.** A description of potential hazards. This could be in a narrative with maps, schematic, or matrix indicating severity potential, affected population estimates, frequency, and geographical characteristics of the jurisdiction. This and other relevant information should be included to provide a rationale for prioritizing emergency preparedness actions for specific hazards.
N/A, PART 1 – pg 6-4 to 6-6, 6-8	**10. Dam Safety Concerns** If there are dams in the area, the plan should have, or reference inundation maps that indicate what areas could flood, the time the flood wave arrives at specific locations and when the water will recede. Operational information necessary to carry-out an evacuation of all potentially flooded areas should be indicated for each dam. This information required for each dam should include shelter locations, location of critical facilities such as government center hospitals, nursing homes, schools, day care centers, etc. Each dam evacuation plan should also indicate other facilities with large concentrations of disabled persons or persons that lack their own transportation, or requiring special assistance.
PART 1 – Section 6 pg 6-2 to 6-9	**11. Other Hazards Specific to the Jurisdiction** Since the Oklahoma City bombing the threat of domestic terrorism has gained the interest of emergency managers. Most of the State is prone to damages from earthquakes. Some coastal jurisdictions could be affected by tsunamis. Some alpine areas of the State are prone to avalanches and some to volcanic activity. The EOP should address response activities that are specific to all hazards that pose a threat to the jurisdiction.

Reference(s) (page number, paragraph, chapter, and section)	Element
PART 1 – pg 4-1 to 4-2, pg 11-13 to 11-14	**12. Continuity of Government.** Provide persons by position to succeed key government officials and members of the emergency management organization. Also indicate the level and duration of authority these individuals would assume.
PART 1 – pg 4-2	**13. Alternate Government Facilities** Indicate an alternate seat of government to serve as government offices for performing day-to-day functions and a facility that could serve as an alternate emergency operations center (EOC)
PART 1 – pg 3-3, 4-3	**I4. Vital Record Retention** Indicate how vital records are to be protected in the event of a disaster. Most data storage systems have a back-up system. Identify the system, archiving schedules, and who has responsibility for its maintenance.
PART 1 – pg iv-v, 1-8	**15. Emergency Plan Maintenance and Distribution** Who maintains the emergency plan? What is the process? Detail schedules for modifications, revision list, distribution list, and who has responsibility for ensuring the plan is kept up-to-date.
Part 2 – Section 3; 3.2.7, pg.	**16. Americans with Disabilities Act** Identify in the plan how shelter facilities, evacuation/movement, warning, etc. procedures accommodate the provisions of the Americans with Disabilities Act.
PART 1 – pg 3-2, 3-5, pg 7-1 to 7-2,	**17. Training and Exercises** Briefly describe the training and exercise programs for the jurisdiction, including who has personal responsibility for the programs. Training should include EOP orientation, SEMS training, a full-scale exercise, and other training as deemed necessary.
PART 1 – pg i to iii	**18. Plan Concurrence** Provide evidence that the assigned emergency agencies are in agreement with how the plan describes their tasks. This may be in the form of a letter of concurrence or a sign-off sheet.
Initial Response Features	
PART 1 – pg 3-12,	**19. Field (ICS)/EOC Interface** Describe the direction and control relationship between the field responders (ICS) and the EOC. This should include the reporting of pertinent information.
PART 1 – pg 8-8 to 8-14, Part 2 – pg 1-3	**20. Emergency Responder Notifications** Include methods to contact emergency response personnel during normal and after-hours. This may be in the form of an alert list.
PART 1 – pg 3-12,	**21. Use of the field Incident Command System (ICS)** The plan must indicate how ICS will be used in the field. This

Reference(s) (page number, paragraph, chapter, and section)	Element
	should include the interface between the field Incident Command Post and the EOC. It should also indicate methods of integrating state and federal field activities into local emergency management operations.
PART 1 – pg 8-3, Part 2 – pg	**22. Involvement of special districts, private and non-profit agencies** Identify emergency responsibilities of special districts, private and volunteer agencies, and their roles in the EOC, REOC, Incident Command Post, or other emergency facility.
PART 1 – pg 3-12,	**23. Field coordination with Department Operations Centers (DOCs) and EOCs** The plan should include the use, and coordination, of DOCs and how they fit into the emergency management organization.
Emergency Operations Centers	
PART 1 – pg 3-13 to 3-16, pg 8-1,	**24. Activation/Deactivation of EOC** Indicate how, when, and by whom, the Emergency Operations Center will be activated and deactivated.
PART 1 – pg 4-2	**25. Primary and Alternate EOC** Indicate the location of both the primary and alternate EOC and what conditions would cause the alternate EOC to be activated.
PART 1 – pg 3-12 to 3-15 PART 2 – pg 1-1 to 1-5	**26. Emergency Operations Center Organization** Describe the roles and responsibilities of agencies and departments in the EOC, including who is responsible for ensuring the readiness of the EOC.
PART 1 – pg 8-3,	**27. EOC Coordination** Indicate how the EOC will coordinate and communicate with field units, operational areas, regions, and other entities, including the use of the Response Information Management System (RIMS).
PART 1 – pg 3-17 to 3-19	**28. Emergency Declarations** Indicate the purpose and process of emergency declarations (include samples).

Reference(s) (page number, paragraph, chapter, and section)	Element
SEMS Functional EOC Checklists (include page number, paragraph, chapter, and section for **each** of the bulleted items in Elements number 29 to 33)	
PART 1 – pg 3-11 to 3-12, PART 2 – pg 2-1 to 2-24	**29. Management Section** Checklist should include the following activities and responsibilities: • Overall EOC management • Public Information assignment • Identification of a media center • Rumor control • Public inquires • Provision for public safety communications and policy • Identification of a Safety Officer • Facility security • Agency liaison • State/federal field activity coordination
PART 1 – pg 3-11 to 3-12, PART 2 – pg 3-1 to 3-47	**30. Operations Section** Checklist should include the following activities and responsibilities: • General warning • Special population warning • Authority to activate Emergency Alert System • Inmate evacuation • Traffic direction and control • Debris removal • Evacuation • Evacuation and care for pets and livestock • Access control • Hazardous materials management • Coroner operations • Emergency medical care • Transportation management • Crisis counseling for emergency responders • Urban search and rescue • Disease prevention and control • Utility restoration • Flood operations • Initial damage assessments • Safety assessments • Shelter and feeding operations • Emergency food and water distribution

Reference(s) (page number, paragraph, chapter, and section)	Element
PART 1 – pg 3-11 to 3-12, PART 2 – pg 4-1 to 4-26	**31. Planning/Intelligence Section** Checklist should include the following activities and responsibilities: • Situation status • Situation analysis • Information display • Documentation • Advance planning • Technical services • Action planning • Demobilization
PART 1 – pg 3-11 to 3-12, PART 2 – pg 5-1 to 5-28	**32. Logistics Section** Checklist should include the following activities and responsibilities: • Field incident support • Communications support • Transportation support • Personnel • Supply and procurement • Resource tracking • Sanitation services • Computer support
PART 1 – pg 3-11 to 3-12 PART 2 – pg 6-1 to 6-17	**33. Finance/Administration Section** Checklist should include the following activities and responsibilities: • Fiscal management • Time-keeping • Purchasing • Compensation and claims • Cost recovery • Travel request, forms, claims
Recovery Operations	
PART 1 – pg 9-1 to 9-2,	**34. General Overview** Include a general recovery concept of operations.
PART 1 – pg 1-7, 3-7, Section 9, PART 2 – pg 1-2, 4-2, 4-17 to 4-18.	**35. Organization** Provide a description of the recovery organization along with a diagram.
PART 1 – pg 9-3 t0 9-4,	**36. Damage Assessment** Describe the damage assessment organization and responsibilities.
PART 1 – pg 8-6 to 8-7, 9-3 to 9-6, PART 2 – pg 4-11 to 4-13	**37. Documentation** Describe the documentation process.

Reference(s) (page number, paragraph, chapter, and section)	Element
PART 1 – pg 9-4,	**38. After-action Reports** Include the OES After-Action Questionnaire.
PART 1 – Section 9 (Recovery Phase Ops) – pg 9-1 to 9-6	**39. Disaster Assistance** Describe the different programs, their purpose, restrictions, and application process. Include Public Assistance, Individual Assistance, and Hazard Mitigation Grant programs.
Hazardous Materials Area Plan	
PART 1 – pg 6-8 to 6-9 (Ref: RivCo LHMP), and PART 2 – pg 3-14 to 3-16.	**40.** Incorporate or reference the Hazardous Materials Area Plan requirements into the emergency plan.
	Area Plan Requirements - Emergency Response Procedures
PART 1 – pg 1-1 to 1-2, Figure 1.	***a.*** In the hazardous materials response plan include procedures and protocols for emergency rescue personnel which address: guidelines for approach, recognition, and evaluation of releases.
PART 1 – pg 1-1 to 1-2, Figure 1.	***b.*** Identify in the plan monitoring and decontamination guidelines for emergency response personnel and equipment.
PART 1 – pg 1-1 to 1-2, Figure 1.	***c.*** Document pre-incident surveys of business sites by first responders, if necessary.
PART 1 – pg 1-1 to 1-2, Figure 1.	***d.*** Include in the area plan procedures to access local, state, and federal, funding and emergency response assistance.
PART 1 – pg 1-1 to 1—2, Figure 1.	***e.*** Provide in plans methods to access state approved and permitted hazardous waste disposal facilities and emergency response contractors.
PART 1 – pg 1-1 to 1-2, Figure 1.	***f.*** Document the use of an integrated response management system providing standardized organizational structure, terminology, and procedures for use during any release or threatened release of hazardous materials.
PART 1 – pg 1-1 to 1-2, Figure 1.	***g.*** Identify in the plan procedures for notification of and coordination with emergency response personnel, such as, but not limited to, law enforcement, fire service, medical and public health services, poison control centers, hospitals, and resources for the evacuation, reception and care of evacuated persons.
PART 1 – pg 1-1 to 1-2, Figure 1.	***h.*** Provide in the plan procedures for utilizing alternative forms of emergency communications (such as amateur radio services) in the event of a loss of primary communications.
PART 1 – pg 1-1 to 1-2, Figure 1.	***i.*** Include a responsibility matrix or listing of specific emergency responsibilities of responding organizations. This matrix or listing

Reference(s) (page number, paragraph, chapter, and section)	Element
	shall be developed in coordination with the listed responding organizations.
PART 1 – pg 1-1 to 1-2, Figure 1.	***j.*** Include procedures for notifying the Office of Emergency Services of any incidents.
	Area Plan Requirements - Training
PART 1 – pg 1-1 to 1-2, Figure 1, and pg 7-1 to 7-4.	***k.*** Identify in the plan procedures for training emergency responders in the following areas: • First responder • Health and safety • Use of emergency response equipment and supplies • Accessing mutual aid • Hospital care of contaminated persons • Monitoring and decontamination of personnel and equipment • First-aid procedures for hazardous materials releases • Public notification • Critical incident stress briefings • Personnel training documentation • Exercises with business representatives and emergency responders
	Area Plan Requirements - Public Safety Information
PART 1 – pg 1-1 to 1-2, Figure 1.	***l.*** Include site security during releases of hazardous materials.
PART 1 – pg 1-1 to 1-2, Figure 1.	***m.*** Include provisions for informing business personnel and the affected public of safety procedures to follow during a release or threat of release.
PART 1 – pg 1-1 to 1-2, Figure 1, and pg 8-8 to 8-10.	***n.*** Include procedures for public releases over the local Emergency Alert System.
PART 1 – pg 1-1 to 1-2, Figure 1.	***o.*** Document methods for notifying medical and health facilities of the nature of the incident, and the substance(s) involved should be documented.
PART 1 – pg 1-1 to 1-2, Figure 1.	***p.*** Identify procedures for assessing the need for evacuation, to include plume models.
PART 1 – pg 1-1 to 1-2, Figure 1.	***q.*** Indicate how centralized coordination of emergency response occurs, to include all disciplines.
PART 1 – pg 1-1 to 1-2, Figure 1.	***r.*** Identify public notification procedures with safety instructions to be used in the event of a threatened or actual release of hazardous materials.
PART 1 – pg 1-1 to 1-2, Figure 1.	***s.*** Plans should include properties of hazardous materials, such as quantity, concentration, vapor pressure, density, and potential health affects for each site.
PART 1 – pg 1-1 to 1-2, Figure 1, and	***t.*** Provide for each site possible release scenarios.

Reference(s) (page number, paragraph, chapter, and section)	Element
pg 6-8 to 6-9	
PART 1 – pg 1-1 to 1-2, Figure 1.	***u.*** Provide for each site: facility characteristics, topography, meteorology, and demography of potentially affected areas.
PART 1 – pg 1-1 to 1-2, Figure 1.	***v.*** Indicate for each site ingress and egress routes with alternatives.
PART 1 – pg 1-1 to 1-2, Figure 1.	***w.*** Provide for each site location of medical resources trained for hazardous material response, mass care facilities, reception areas, sheltering and procedures for post-emergency population recovery.
	Area Plan Requirements - Supplies and Equipment
PART 1 – pg 1-1 to 1-2, Figure 1.	***x.*** Area plans shall contain a listing and description of available emergency response equipment specific to hazardous materials response. This shall include a program for testing this equipment on a regular basis.
	Area Plan Requirements - Incident Critique and Follow-up
PART 1 – pg 1-1 to 1-2, Figure 1.	***y.*** Area plans need to describe critique and follow-up procedures for major incidents of hazardous materials release or threat of release.
Appendices	
PART 1 – pg 1-3 to 1-4, PART 2 pg 7-1 to 7-16	**41. References** Identify the references used in developing the plan.
PART 1 – pg 8-4, PART 2 – pg 5-1, 5-18 to 5-25	**42. Resources** Identify sources for materials and supplies internally and externally.
PART 1 – Appendix A, pg A-1 to A-2	**43. Glossary of Terms** Provide a glossary that includes all the terms used throughout the plan.
PART 1 – pg 1-8 (Reference PART 4)	**44. Contact List** Include a list of agencies and personnel not internal to the organization but critical to emergency operations.
PART 1 – pg 7-2, (Reference: RivCo Training & Documentation Plan).	**45. SEMS Supporting Documentation** Include material necessary to self-certify compliance with SEMS. This should include evidence of training, planning, exercises, and performance.

APPENDIX G

Ordinance for Water Conservation and Water Supply Shortage Program and Regulations

STATE OF CALIFORNIA)
COUNTY OF RIVERSIDE)ss
CITY OF SAN JACINTO)

ORDINANCE NO. 09-16

AN ORDINANCE OF THE CITY COUNCIL OF SAN JACINTO AMENDING SECTION 13.04.070 OF CHAPTER 13.04 OF THE CITY OF SAN JACINTO MUNICIPAL CODE ESTABLISHING WATER CONSERVATION AND WATER SUPPLY SHORTAGE PROGRAM AND REGULATIONS

WHEREAS, water is Riverside County's most precious natural resource; and

WHEREAS, a reliable minimum supply of potable water is essential to the public health, safety and welfare of the people and economy of the southern California region; and

WHEREAS, Southern California is a semi-arid region and is largely dependent upon imported water supplies. A growing population, climate change, environmental concerns, and other factors in other parts of the State and western United States, make the region highly susceptible to water supply reliability issues; and

WHEREAS, residents, governments, businesses, and agriculture must work together to ensure the efficient use of water in homes, landscapes, public facilities and businesses; and

WHEREAS, Riverside County, water agencies and municipal governments are committed to the development and implementation of water conservation and supply shortage guidelines; and

WHEREAS, the City of San Jacinto has developed and adopted water conservation and water supply shortage program and regulations.

THE CITY COUNCIL OF THE CITY OF SAN JACINTO DOES HEREBY ORDAIN AS FOLLOWS:

Section 1. Section 13.04 .70 of Chapter 13.04 of the San Jacinto Municipal Code is hereby amended in its entirety to read as follows:

"13.04 .070

A. Findings

1. A reliable minimum supply of potable water is essential to the public health, safety and welfare of the people and economy of the southern California region.
2. Southern California is a semi-arid region and is largely dependent upon imported water supplies. A growing population, climate change, environmental concerns,

and other factors in other parts of the State and western United States, make the region highly susceptible to water supply reliability issues.

3. Careful water management that includes active water conservation measures not only in times of drought, but at all times, is essential to ensure a reliable minimum supply of water to meet current and future water supply needs.
4. Article X, Section 2 of the California Constitution declares that the general welfare requires that water resources be put to beneficial use, waste or unreasonable use or unreasonable method of use of water be prevented, and conservation of water be fully exercised with a view to the reasonable and beneficial use thereof.
5. Article XI, Section 7 of the California Constitution declares that a city or county may make and enforce within its limits all local, police, sanitary, and other ordinances and regulations not in conflict with general laws.
6. California Water Code section 375 authorizes water suppliers to adopt and enforce a comprehensive water conservation program to reduce water consumption and conserve supplies.
7. The adoption and enforcement of a water conservation and supply shortage program is necessary to manage the City of San Jacinto's potable water supply in the short and long-term and to avoid or minimize the effects of drought and shortage within the City of San Jacinto. Such program is essential to ensure a reliable and sustainable minimum supply of water for the public health, safety and welfare.

B. Declaration of Purpose and Intent.

1. The purpose of this chapter is to establish a water conservation and supply shortage program that will reduce water consumption within the City of San Jacinto through conservation, enable effective water supply planning, assure reasonable and beneficial use of water, prevent waste of water, and maximize the efficient use of water within the City of San Jacinto to avoid and minimize the effect and hardship of water shortage to the greatest extent possible.

2. This chapter establishes permanent water conservation standards intended to alter behavior related to water use efficiency at all times and further establishes three levels of water supply shortage response actions to be implemented during times of declared water shortage or declared water shortage emergency, with increasing restrictions on water use in response to worsening drought or emergency conditions and decreasing supplies.

C. Definitions.

1. The following words and phrases whenever used in this chapter have the meaning defined in this section:

"Billing unit" means the unit of water used to apply water rates for purposes of calculating water charges for a persons water usage.

"Landscape irrigation system" means an irrigation system with pipes, hoses, spray heads, or sprinkling devices that are operated by hand or through an automated system.
"Large landscape areas" means a lawn, landscape, or other vegetated area, or combination thereof, equal to more than one (1) acre of irrigable land.
"Person" means any natural person or persons, corporation, public or private, governmental agency or institution, including all agencies and departments of City of San Jacinto, or any other user of water provided by the City of San Jacinto.
"Potable water" means water which is suitable for drinking.
"Recycled water" means the reclamation and reuse of non-potable water for beneficial use as defined in Title 22 of the California Code of Regulations.
"Single pass cooling systems" means equipment where water is circulated only once to cool equipment before being disposed.

D. Application

1. The provisions of this section apply to any person in the use of any potable water provided by the City of San Jacinto.

2. The provisions of this chapter do not apply to uses of water necessary to protect public health and safety or for essential government services, such as police, fire and other similar emergency services.

3. The provisions of this chapter do not apply to the use of recycled water.

4. The provisions of this section do not apply to the use of water by commercial nurseries and commercial growers to sustain plants, trees, shrubs, crops or other vegetation intended for commercial sale.

5. This section is intended solely to further the conservation of water. It is not intended to implement any provision of federal, State, or local statutes, ordinances, or regulations relating to protection of water quality or control of drainage or runoff. Refer to the local jurisdiction or Regional Water Quality Control Board for information on any stormwater ordinances and stormwater management plans.

E. Permanent Water Conservation Requirements – Prohibition Against Waste

The following water conservation requirements are effective at all times and are permanent. Violations of this section will be considered waste and an unreasonable use of water.

1. Limits on Watering Hours: Watering or irrigating of lawn, landscape or other vegetated area with potable water is prohibited between the hours of 9:00 a.m. and 5:00 p.m., Pacific Standard Time on any day, except by use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-

closing water shut-off nozzle or device, or for very short periods of time for the express purpose of adjusting or repairing an irrigation system.

2. Limit on Watering Duration: Watering or irrigating of lawn, landscape or other vegetated area with potable water using a landscape irrigation system or a watering device that is not continuously attended is limited to no more than fifteen (15) minutes of watering per day per station. This subsection does not apply to landscape irrigation systems that exclusively use very low-flow drip type irrigation systems when no emitter produces more than two (2) gallons of water per hour and weather based controllers or stream rotor sprinklers that meet a 70% efficiency standard.

3. No Excessive Water Flow or Runoff: Watering or irrigating of any lawn, landscape or other vegetated area in a manner that causes or allows excessive water flow or runoff onto an adjoining sidewalk, driveway, street, alley, gutter or ditch is prohibited.

4. No Washing Down Hard or Paved Surfaces: Washing down hard or paved surfaces, walls, roofs, including but not limited to sidewalks, walkways, driveways, parking areas, tennis courts, patios or alleys, is prohibited except when necessary to alleviate safety or sanitary hazards, and then only by use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off device, a low-volume, high-pressure cleaning machine equipped to recycle any water used, or a low-volume high-pressure water broom.

5. Obligation to Fix Leaks, Breaks or Malfunctions: Excessive use, loss or escape of water through breaks, leaks or other malfunctions in the water user's plumbing or distribution system for any period of time after such escape of water should have reasonably been discovered and corrected and in no event more than 72 hours of receiving notice from the City of San Jacinto, is prohibited.

6. Re-circulating Water Required for Water Fountains and Decorative Water Features: Operating a water fountain or other decorative water feature that does not use re-circulated water is prohibited.

7. Limits on Washing Vehicles: Using water to wash or clean a vehicle, including but not limited to any automobile, truck, van, bus, motorcycle, boat or trailer, whether motorized or not is prohibited, except by use of a hand-held bucket or similar container or a hand-held hose equipped with a positive self-closing water shut-off nozzle or device. This subsection does not apply to any commercial car washing facility.

8. Drinking Water Served Upon Request Only: Eating or drinking establishments, including but not limited to a restaurant, hotel, cafe, cafeteria, bar, or other public place where food or drinks are sold, served, or offered for sale, are prohibited from providing drinking water to any person unless expressly requested.

9. Commercial Lodging Establishments Must Provide Guests Option to Decline Daily Linen Services: Hotels, motels and other commercial lodging establishments must provide customers the option of not having towels and linen laundered daily. Commercial lodging establishments must prominently display notice of this option in each bathroom using clear and easily understood language.

10. No Installation of Single Pass Cooling Systems: Installation of single pass cooling systems is prohibited in buildings requesting new water service.

11. No Installation of Non-re-circulating in Commercial Car Wash and Laundry Systems: Installation of non-re-circulating water systems is prohibited in new commercial conveyor car wash and new commercial laundry systems.

12. Restaurants Required to Use Water Conserving Dish Wash Spray Valves: Food preparation establishments, such as restaurants or cafes, are prohibited from using non-water conserving dish wash spray valves.

13. Commercial Car Wash Systems: Effective on January 1, 2010 all commercial conveyor car wash systems must have installed operational re-circulating water systems, or must have secured a waiver of this requirement from the City of San Jacinto.

F. Level 1 Water Supply Shortage

1. A Level 1 Water Supply Shortage exists when the City Manager of the City of San Jacinto determines, in his/her sole discretion, that due to drought or other water supply conditions, a water supply shortage or threatened shortage exists and a consumer demand reduction is necessary to make more efficient use of water and appropriately respond to existing water conditions. Upon the declaration by the City of San Jacinto of a Level 1 Water Supply Shortage condition, the City of San Jacinto will implement the mandatory Level 1 conservation measures identified in this section.

2. Additional Water Conservation Measures: In addition to the prohibited uses of water identified in Section E, the following water conservation requirements apply during a declared Level 1 Water Supply Shortage:

a. Limits on Watering Days: Watering or irrigating of lawn, landscape or other vegetated area with potable water is limited to three days per week on a schedule established and posted by the City of San Jacinto. During the months of November through March, watering or irrigating of lawn, landscape or other vegetated area with potable water is limited to no more than one day per week on a schedule established and posted by the City of San Jacinto. This provision does not apply to landscape irrigation zones that exclusively use very low flow drip type irrigation systems when no emitter produces more than two (2) gallons of water per hour. This provision also does not apply to watering or irrigating by use of a hand-

held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off nozzle or device, or for very short periods of time for the express purpose of adjusting or repairing an irrigation system.

b. Obligation to Fix Leaks, Breaks or Malfunctions: All leaks, breaks, or other malfunctions in the water user's plumbing or distribution system must be repaired within seventy-two (72) hours of notification by the City of San Jacinto unless other arrangements are made with the City of San Jacinto.

G. Level 2 Water Supply Shortage

1. A Level 2 Water Supply Shortage exists when the City Manager of the City of San Jacinto determines, in his/her sole discretion, that due to drought or other water supply conditions, a water supply shortage or threatened shortage exists and a consumer demand reduction is necessary to make more efficient use of water and appropriately respond to existing water conditions. Upon the declaration by the City of San Jacinto of a Level 2 Water Supply Shortage condition, the City of San Jacinto will implement the mandatory Level 2 conservation measures identified in this section.

2. Additional Conservation Measures: In addition to the prohibited uses of water identified in Section E and F the following additional water conservation requirements apply during a declared Level 2 Water Supply Shortage:

a. Watering Days: Watering or irrigating of lawn, landscape or other vegetated area with potable water is limited to two days per week on a schedule established and posted by the City of San Jacinto. During the months of November through March, watering or irrigating of lawn, landscape or other vegetated area with potable water is limited to no more than one day per week on a schedule established and posted by the City of San Jacinto. This provision does not apply to landscape irrigation zones that exclusively use very low flow drip type irrigation systems when no emitter produces more than two (2) gallons of water per hour. This provision also does not apply to watering or irrigating by use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off nozzle or device, or for very short periods of time for the express purpose of adjusting or repairing an irrigation system.

b. Obligation to Fix Leaks, Breaks or Malfunctions: All leaks, breaks, or other malfunctions in the water user's plumbing or distribution system must be repaired within forty-eight (48) hours of notification by the City of San Jacinto unless other arrangements are made with the City of San Jacinto.

c. Limits on Filling Ornamental Lakes or Ponds: Filling or re-filling ornamental lakes or ponds is prohibited, except to the extent needed to sustain aquatic life, provided that such animals are of significant value and have been actively managed within the water feature prior to declaration of a supply shortage level under this ordinance.

d. Limits on Washing Vehicles: Using water to wash or clean a vehicle, including but not limited to, any automobile, truck, van, bus, motorcycle, boat or trailer, whether motorized or not, is prohibited except by use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off nozzle or device, by high pressure/low volume wash systems, or at a commercial car washing facility that utilizes a re-circulating water system to capture or reuse water.

e. Limits on Filling Residential Swimming Pools & Spas: Re-filling of more than one foot and initial filling of residential swimming pools or outdoor spas with potable water is prohibited.

H. Level 3 Water Supply Shortage – Emergency Condition

1. A Level 3 Water Supply Shortage condition is also referred to as an "Emergency" condition. A Level 3 condition exists when the City Manager of the of City of San Jacinto declares a water shortage emergency and notifies its residents and businesses that a significant reduction in consumer demand is necessary to maintain sufficient water supplies for public health and safety. Upon the declaration of a Level 3 Water Supply Shortage condition, the City of San Jacinto will implement the mandatory Level 3 conservation measures identified in this section.

2. Additional Conservation Measures: In addition to the prohibited uses of water identified in Section E, F, and G, the following water conservation requirements apply during a declared Level 3 Water Supply Shortage Emergency:

a. No Watering or Irrigating: Watering or irrigating of lawn, landscape or other vegetated area with potable water is prohibited. This restriction does not apply to the following categories of use, unless the City of San Jacinto has determined that recycled water is available and may be applied to the use:

(1) Maintenance of vegetation, including trees and shrubs, that are watered using a hand-held bucket or similar container, hand-held hose equipped with a positive self–closing water shut-off nozzle or device;

(2) Maintenance of existing landscape necessary for fire protection;

(3) Maintenance of existing landscape for soil erosion control;

(4) Maintenance of plant materials identified to be rare or essential to the well-being of protected species;

(5) Maintenance of landscape within active public parks and playing fields, day care centers, golf course greens, and school grounds, provided that such irrigation does not exceed two (2) days per week.

(6) Actively irrigated environmental mitigation projects.

b. Obligation to Fix Leaks, Breaks or Malfunctions: All leaks, breaks, or other malfunctions in the water user's plumbing or distribution system must be repaired within twenty four (24) hours of notification by the City of San Jacinto unless other arrangements are made with the City of San Jacinto.

c. No New Potable Water Service: Upon declaration of a Level 3 Water Supply Shortage Emergency condition, no new potable water service will be provided, no new temporary meters or permanent meters will be provided, and no statements of immediate ability to serve or provide potable water service (such as, will-serve letters, certificates, or letters of availability) will be issued, except under the following circumstances:

(1) A valid, unexpired building permit has been issued for the project; or
(2) The project is necessary to protect the public health, safety, and welfare; or
(3) The applicant provides substantial evidence of an enforceable commitment that water demands for the project will be offset prior to the provision of a new water meter(s) to the satisfaction of the City of San Jacinto.

This provision does not preclude the resetting or turn-on of meters to provide continuation of water service or the restoration of service that has been interrupted for a period of one year or less.

d. Limits on Building Permits: The City of San Jacinto will limit or withhold the issuance of building permits which require new or expanded water service, except to protect the public health, safety and welfare, or in cases which meet the City of San Jacinto's adopted conservation offset requirements.

e. Discontinue Service: The City of San Jacinto, in its sole discretion, may discontinue service to consumers who willfully violate provisions of this section.

f. No New Annexations: Upon the declaration of a Level 3 Water Supply Shortage condition, the City of San Jacinto will suspend consideration of annexations to its service area. This subsection does not apply to boundary corrections and annexations that will not result in any increased use of water.

I. Procedures for Determination / Notification of Water Supply Shortage

1. Declaration and Notification of Water Supply Shortage: The existence of Level 1, Level 2 or Level 3 Water Supply Shortage conditions may be declared by resolution of the City of San Jacinto adopted at a regular or special public meeting held in accordance with State law. The mandatory conservation requirements applicable to Level 1, Level 2 or Level 3 conditions will take effect on the tenth day after the date the shortage level is declared. Within five (5) days following the declaration of the shortage level, the City of San Jacinto must publish a copy of the resolution in a newspaper used for publication of official notices. If the City of San Jacinto activates a water allocation process, it must provide notice of the activation by including it in the regular billing statement or by any other mailing to the address to which the City of San Jacinto customarily mails the billing statement for fees or charges for on-going water service. A water allocation will be effective on the fifth day following the date of mailing or at such later date as specified in the notice.

2. Mandatory Percentage Use Reductions: During a Level 3 Water Supply Shortage condition, all customers will be required to reduce water consumption by a percentage determined by the City Manager of the City of San Jacinto.

J. Hardship Waiver

1. Undue and Disproportionate Hardship: If, due to unique circumstances, a specific requirement of this chapter would result in undue hardship to a person using water or to property upon which water is used, that is disproportionate to the impacts to water users generally or to similar property or classes of water users, then the person may apply for a waiver to the requirements as provided in this section.

2. Written Finding: The waiver may be granted or conditionally granted only upon a written finding of the existence of facts demonstrating an undue hardship to a person using water or to property upon which water is used, that is disproportionate to the impacts to water users generally or to similar property or classes of water use due to specific and unique circumstances of the user or the user's property.

a. Application: Application for a waiver must be on a form prescribed by the City of San Jacinto and accompanied by a non-refundable processing fee set by the fee schedule of the City of San Jacinto.

b. Supporting Documentation: The application must be accompanied by photographs, maps, drawings, and other information, including a written statement of the applicant.

c. Required Findings for Waiver: An application for a waiver will be denied unless the City of San Jacinto finds, based on the information provided in the application, supporting documents, or such additional information as may be requested, and on water use information for the property as shown by the records of the City of San Jacinto or its Agent, all of the following:

(1) That the waiver does not constitute a grant of special privilege inconsistent with the limitations upon other residents and businesses;

(2) That because of special circumstances applicable to the property or its use, the strict application of this chapter would have a disproportionate impact on the property or use that exceeds the impacts to residents and businesses generally;

(3) That the authorizing of such waiver will not be of substantial detriment to adjacent properties, and will not materially affect the ability of the City of San Jacinto to effectuate the purpose of this chapter and will not be detrimental to the public interest; and

(4) That the condition or situation of the subject property or the intended use of the property for which the waiver is sought is not common, recurrent or general in nature.

3. Approval Authority: The Finance Director, or appointed designee must act upon any completed application no later than ten (10) days after submittal and may approve, conditionally approve, or deny the waiver. The applicant requesting the waiver must be promptly notified in writing of any action taken. Unless specified otherwise at the time a waiver is approved, the waiver will apply too the subject property during the period of the mandatory water supply shortage condition. The decision of the Finance Director, or appointed designee is final.

K. Penalties and Violations

1. Misdemeanor: Any violation of this section may be prosecuted as a misdemeanor punishable by imprisonment in the county jail for not more than thirty (30) days, or by a fine not exceeding one thousand dollars ($1,000), or by both.

2. Penalties: Penalties for failure to comply with any provisions of the section are as follows:

a. First Violation: The City of San Jacinto will issue a written warning and deliver a copy of this section by mail.

b. Second Violation: A second violation within the preceding twelve (12) calendar months is punishable by a fine not to exceed twenty five dollars ($25).

c. Third Violation: A third violation within the preceding twelve (12) calendar months is punishable by a fine not to exceed one hundred dollars ($100).

d. Fourth and Subsequent Violations: A fourth and any subsequent violation is punishable by a fine not to exceed five hundred dollars ($500).

(1) Water Flow Restrictor: In addition to any fines, the City of San Jacinto may install a water flow restrictor device of approximately one gallon per minute capacity for services up to one and one-half inch size and comparatively sized restrictors for larger services after written notice of intent to install a flow restrictor for a minimum of forty eight (48) hours.

e. Discontinuing Service: In addition to any fines and the installation of a water flow restrictor, the City of San Jacinto may disconnect a customer's water service for willful violations of this section and adequate notice to the customer.

3. Cost of Flow Restrictor and Disconnecting Service: A person or City of San Jacinto that violates this ordinance is responsible for payment of the City of San Jacinto's charges for installing and/or removing any flow restricting device and for disconnecting and/or reconnecting service per the City of San Jacinto's schedule of charges then in effect. The charge for installing and/or removing any flow restricting device must be paid to the *City of San Jacinto* before the device is removed. Nonpayment will be subject to the same remedies as nonpayment of basic water rates.

4. Separate Offenses: Each day that a violation of this ordinance occurs is a separate offense.

5. Notice and Hearing:

a. The City of San Jacinto will issue a Notice of Violation by mail or personal delivery at least ten (10) days before taking enforcement action. Such notice must describe the violation and the date by which corrective action must be taken. A customer may appeal the Notice of Violation by filing a written notice of appeal with the City of San Jacinto no later than

the close of business on the day before the date scheduled for enforcement action. Any Notice of Violation not timely appealed will be final. Upon receipt of a timely appeal, a hearing on the appeal will be scheduled, and the City of San Jacinto will mail written notice of the hearing date to the customer at least ten (10) days before the date of the hearing.

b. Pending receipt of a written appeal or pending a hearing pursuant to an appeal, the City of San Jacinto may take appropriate steps to prevent the unauthorized use of water as appropriate to the nature and extent of the violations and the current declared water Level condition.

L. Severability

If any section, subsection, sentence, clause or phrase in this section is for any reason held invalid, the validity of the remainder of the chapter will not be affected. The City Council of the City of San Jacinto hereby declares it would have passed this chapter and each section, subsection, sentence, clause or phrase thereof, irrespective of the fact that one or more sections, subsections, sentences, clauses, or phrases or is declared invalid."

Section 2. Effective Date. This ordinance shall take effect and be in full force on the thirtieth day (30th) day from and after its second reading.

PASSED, APPROVED and ADOPTED at a regular meeting of the City Council on the 21st day of May, 2009, by the following vote:

Ayes:	Ayres, Di Memmo, Mansperger, Potts, Stubblefield
Nays:	None
Absent:	None
Abstain:	None

City of San Jacinto

By Dale Stubblefield, Mayor

ATTEST:

Barry McClellan, City Clerk

APPROVED AS TO FORM:
Best Best & Krieger LLP

Jeffrey S. Ballinger, City Attorney

CERTIFICATION

STATE OF CALIFORNIA)
COUNTY OF RIVERSIDE)ss
CITY OF SAN JACINTO)

I, Barry McClellan, City Clerk hereby certify that the attached is a true copy of Ordinance No. 09-16 introduced by the City Council of the City of San Jacinto, California, at a regular meeting held the 7th day of May, 2009. Ordinance 09-16 was approved, passed and adopted at a regular meeting of the San Jacinto City Council held the 21st day of May, 2009.

WITNESS my hand and official seal of the City of San Jacinto this 22nd day of May, 2009.

City of San Jacinto

Barry McClellan, City Clerk

APPENDIX H

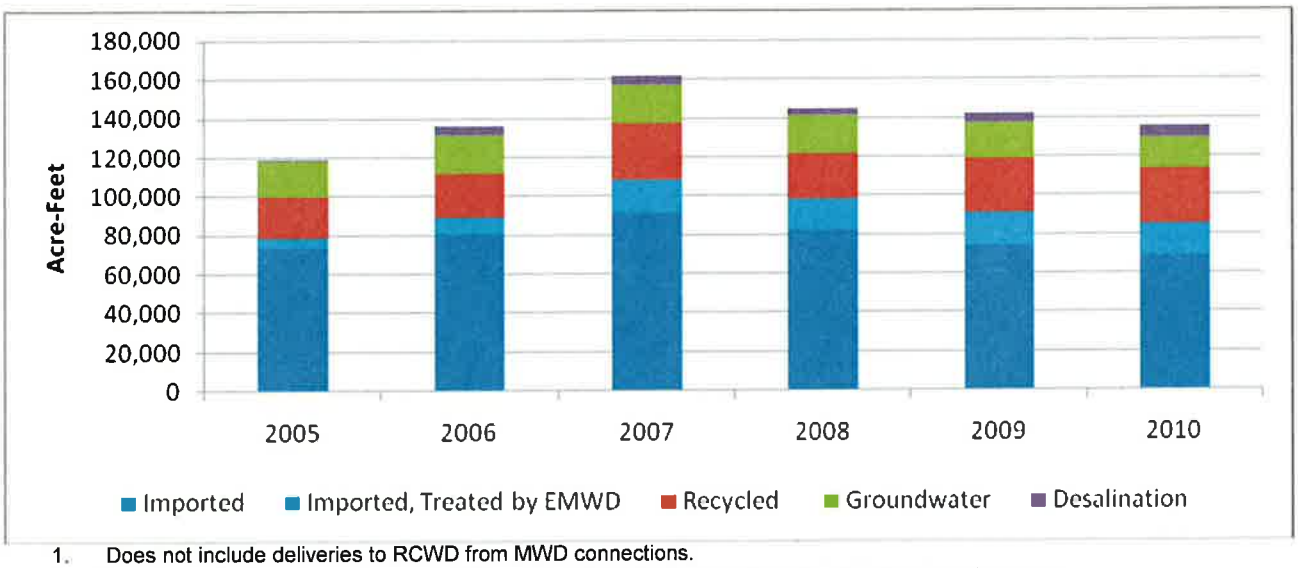
EMWD 2010 Draft Plan

Draft Section 3 - Existing Water Sources

3.1 Overview

EMWD has four existing sources of water supply: imported water from MWD, recycled water, local groundwater production and desalted groundwater. Imported water from MWD is either delivered directly or treated at two local filtration plants owned and operated by EMWD. Figure 3.1 quantifies the amount of water EMWD has received from each source annually in acre-feet from 2005 through 2010.

Figure 3.1 - Water Received by Source - 2005-2010, AFY



1. Does not include deliveries to RCWD from MWD connections.
2. Imported water includes water received at EMWD treatment plants and used in the treatment process.
3. Imported Treated by EMWD is water entering the distribution system after being treated at EMWD's filtration plants.
4. Recycled represents recycled water delivered water only, not total available supply.

For the past six years EMWD's reliance on imported water has remained proportionally consistent or decreased, even as EMWD added over 20,000 new water connections. This has been achieved through the expansion of desalination facilities, a commitment to increase recycled water use and decrease in demand through water efficiency. These efforts have increased the reliability of supplies and decreased the dependence on imported water sources. Information about water deliveries from each source is included in Table 3.1.

Table 3.1 - 2005-2010 Water Supply (AFY)

Type	Source	2005	2006	2007	2008	2009	2010
Imported	Metropolitan Water District	79,067	89,453	108,650	98,512	91,481	85,706
Groundwater	Hemet/ San Jacinto Management Area	4,098	14,261	13,939	13,671	12,653	11,599
Groundwater	West San Jacinto Management Area	13,966	5,383	5,551	6,372	5,405	4,149
Desalination	West San Jacinto Management Area	855	4,802	4,792	2,973	4,822	5,787
Recycled	EMWD Regional Water Reclamation Facilities	855	4,802	4,792	2,973	4,822	5,787
Total		**118,851**	**135,990**	**161,907**	**144,482**	**142,100**	**135,441**

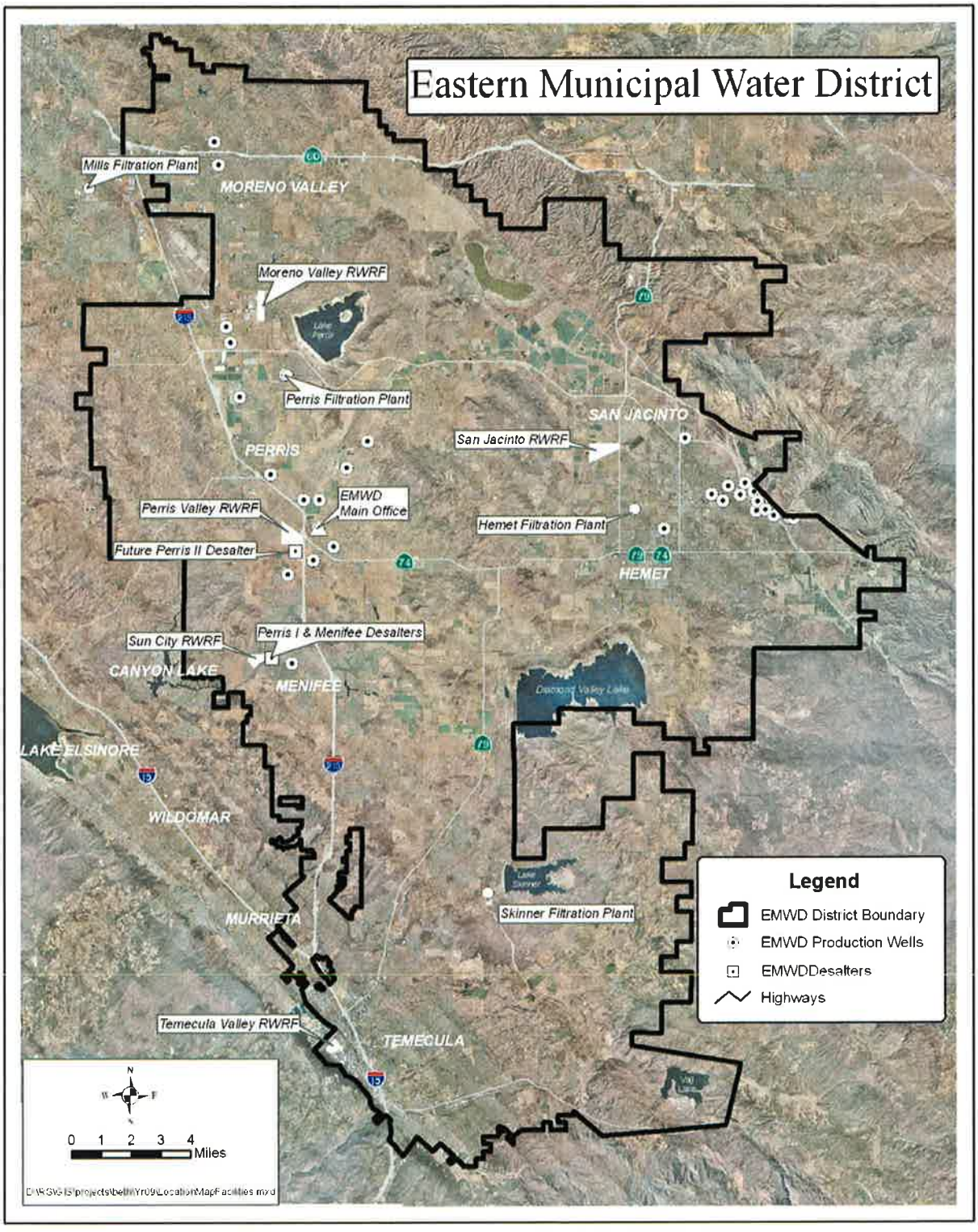
Delivery points for each source of water are located throughout EMWD service area. Groundwater wells are mostly located within the San Jacinto Watershed and serve the northern portion of EMWD area, with the largest amount of production taking place around the cities of Hemet and San Jacinto. Two desalination plants that treat brackish groundwater through reverse osmosis for drinking are located in Sun City.

Potable imported water is delivered directly from MWD's two large filtration plants. The Henry J. Mills Filtration Plant (Mills), owned and operated by MWD, treats water from northern California and provides it through two connection points located in the north east portion of EMWD. The Robert F. Skinner Filtration Plant (Skinner), also owned and operated by MWD, treats a blend of Colorado River Water (CRW) and water from northern California for potable use and provides water to EMWD through a connection point in the southwest portion of EMWD.

Microfiltration plants, owned and operated by EMWD, filtering water from the Colorado River and/or State Water Project (SWP) delivered by MWD through membranes to remove particulate contaminants to potable water standards are located in Hemet and Perris. Recharge water from MWD is used for groundwater replenishment in the eastern part of EMWD. This untreated water from MWD is percolated into the ground, adding water to the aquifer. EMWD and others can extract this water at a later date for beneficial uses. Untreated water from MWD used for agricultural purposes is delivered in the northeast portion of EMWD for use by EMWD retail and wholesale customers and in the south for RCWD agricultural customers.

Recycled water, highly treated wastewater, is used for many purposes including agriculture, landscape irrigation, and industrial use. An intricate web of pipelines connects EMWD's four Regional Water Reclamation Facilities (RWRF) as well as several storage ponds to deliver recycled water to appropriate customers through the service area of EMWD. The location of each water source can be seen in Figure 3.2.

Figure 3.2 - Locations of Supplies



Future resources will continue to be a blend of local supply and imported sources. Table 3.2 through 3.4 show EMWD's existing supply resources under normal, single dry and multi-dry years. Existing supplies are in place and currently operational. Imported water makes up the difference between existing local supplies and projected demand.

Table 3.2 - 2015-2035 Existing Water Supply Resources - Average Year Hydrology

	2015	2020	2025	2030	2035
Groundwater	13200	13200	13200	13200	13200
Existing Desalter	7500	7500	7500	7500	7500
Metropolitan Water District	149,200	161,600	180,000	197,400	212,100
EMWD Recycled Water System	43,900	50,000	53,900	54,900	55,300
Total Existing Supplies	**213,800**	**232,300**	**254,600**	**273,000**	**288,100**
Total Projected Demands	**213,800**	**232,300**	**254,600**	**273,000**	**288,100**
Shortfall/Surplus	**0**	**0**	**0**	**0**	**0**

Table 3.3 - 2015-2035 Existing Water Supply Resources - Dry Year Hydrology

	2015	2020	2025	2030	2035
Groundwater	13200	13200	13200	13200	13200
Existing Desalter	7500	7500	7500	7500	7500
Metropolitan Water District	155,300	170,900	191,000	208,400	220,500
EMWD Recycled Water System	45,480	52,551	56,847	57,663	57,289
Total Existing Supplies	**221,500**	**244,200**	**268,500**	**286,800**	**298,500**
Total Projected Demands	**221,500**	**244,200**	**268,500**	**286,800**	**298,500**
Shortfall/Surplus	**0**	**0**	**0**	**0**	**0**

Table 3.4 - 2015-2035 Existing Water Supply Resources - Multi - Dry Year

	2015	2020	2025	2030	2035
Groundwater	13,200	13,200	13,200	13,200	13,200
Existing Desalter	7,500	7,500	7,500	7,500	7,500
Metropolitan Water District	193,100	211,600	233,900	252,300	267,400
EMWD Recycled Water System	0	0	0	0	0
Total Existing Supplies	**213,800**	**232,300**	**254,600**	**273,000**	**288,100**
Total Projected Demands	**213,800**	**232,300**	**254,600**	**273,000**	**288,100**
Shortfall/Surplus	**0**	**0**	**0**	**0**	**0**

The majority of EMWD's current and projected water supplies are imported through the MWD. In the 2010 RUWMP, MWD concluded that with the storage and transfer programs developed, MWD will have a reliable source of water to serve its member agencies' needs through 2035 during normal, historic single-dry and historic multiple-dry years. Unprecedented shortage will be addressed through the water supply allocation plan

To supplement MWD sources and improve reliability, EMWD has several local resource programs. Production of local groundwater has been a source of supply for EMWD's service area for decades, but over production in groundwater basins required in the development, has lead to a need for groundwater management. Native production is expected to be limited but plans are in place to recharge local ground water basins with imported or recycled water to increase supply reliability. Desalination of high TDS groundwater also provides a reliable local supply of water.

Recycled water production and sales reduce the demand for imported water and provide a sustainable supply. EMWD's continued investment in improved facilities will continue to grow the market for recycled water and innovative planning and recycled water management will allow EMWD's recycled water supply to bring an even greater benefit to our service area.

In addition to the development of local resource, EMWD aggressively promotes the efficient use of water. Through the implantation of local ordinance, conservation programs and an innovative tiered pricing structure, EMWD is reducing demand by retail customers. Reducing demand allows existing and proposed water supplies to stretch farther and reduces the potential for water supply shortage.

Based on the information provided in the MWD 2010 RUWMP, EMWD has the ability to meet current and projected water demands through 2035 during normal, historic single-dry and historic multiple-dry years using existing supplies and imported water from MWD with existing

supply resources. Planned local supplies will supplement imported supplies and improve reliability for EMWD and the region.

3.2 Metropolitan Water District Overview

EMWD relies on MWD for the majority of its water supply. Although MWD only delivers water from two sources, the Colorado River Aqueduct and the State Water Project, it takes a comprehensive and proactive approach to planning for the future. Through coordination with member agencies, MWD has developed regional targets for imported water, local resources and conservation to accommodate for growth, and face the challenges to future supply reliability. Through the past decade, MWD has undertaken several planning initiatives including the Integrated Resources Plan (IRP), the Water Surplus and Drought Management Plan (WSDMP), and the Strategic Plan. These programs and plans provide a framework and guidelines for the future So. Cal. Water supply planning.

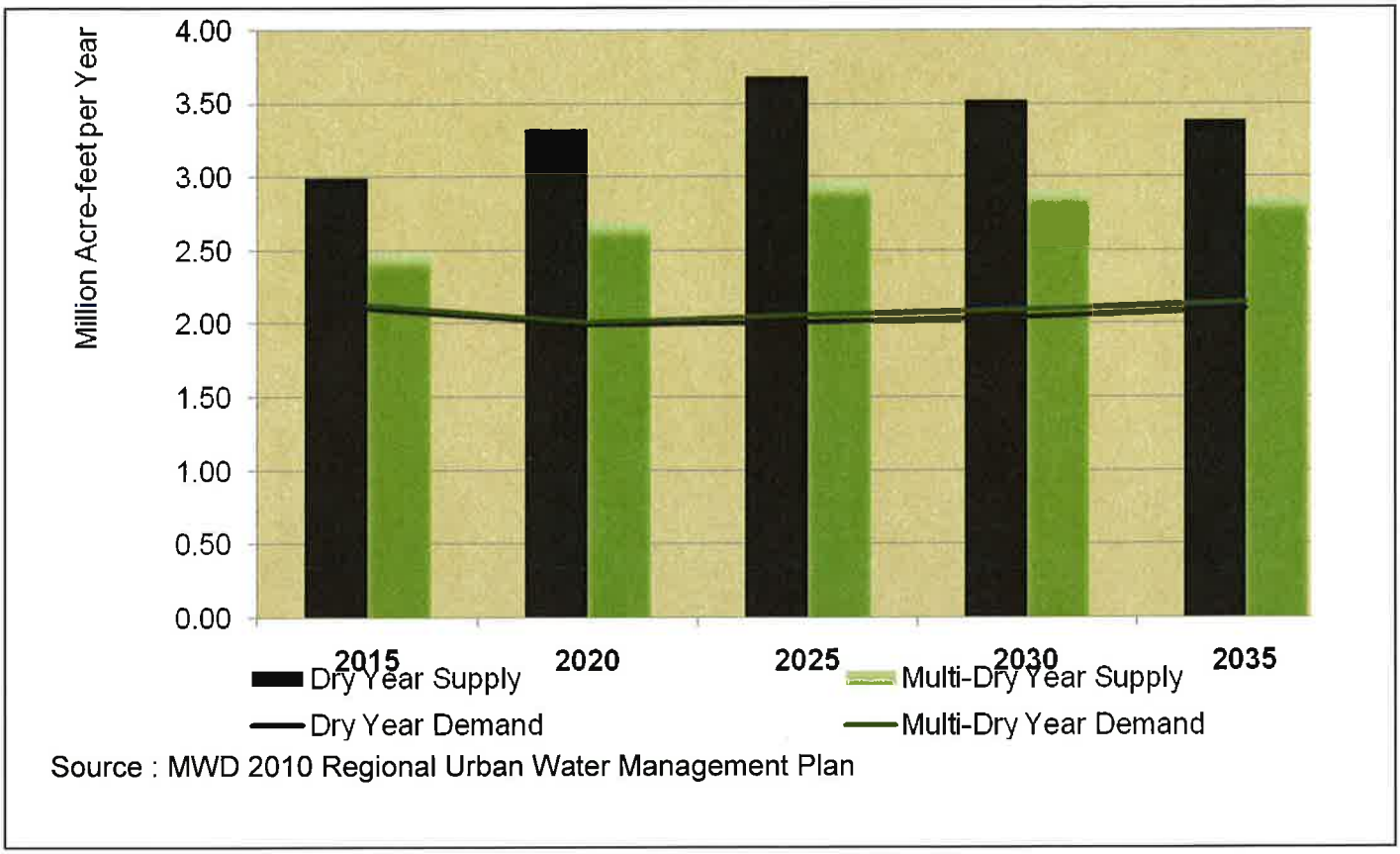
MWD's resource mix depends on a blend of improving the reliability and availability of imported water supplies into the region, increasing local storage and developing local resources. The 2010 IRP update demonstrated that MWD and its member agencies have moved the region toward the goal of long-term water reliability and major achievements have been made in:

- Conservation
- Water recycling and groundwater recovery
- Storage and groundwater management programs within the Southern California region
- Storage programs related to the SWP and the Colorado River
- Other water supply management programs outside of the region.

EMWD works closely with MWD staff and its leadership to coordinate planning efforts and quantify local supply resources.

The MWD 2010 Regional Urban Water Management Plan (2010 RUWMP), documents current challenges to supply reliability including drought conditions, environmental regulations, water quality concern, infrastructure vulnerable to natural disaster, and response to variations in water supply availability from year to year. RUWMP concludes that MWD has supply capabilities that would be sufficient to meet expected demands from 2015 through 2035 under the single dry-year and multiple dry-year conditions. MWD supply capabilities under single dry-year and multiple dry-year conditions are presented in Figure 3.3.

Figure 3.3 - 2015-2035 MWD Supply Capabilities under Single Dry and Multiple Dry-Year Hydrologies



Source : MWD 2010 Regional Urban Water Management Plan

3.2.1 The Metropolitan Water District of Southern California Existing Conditions

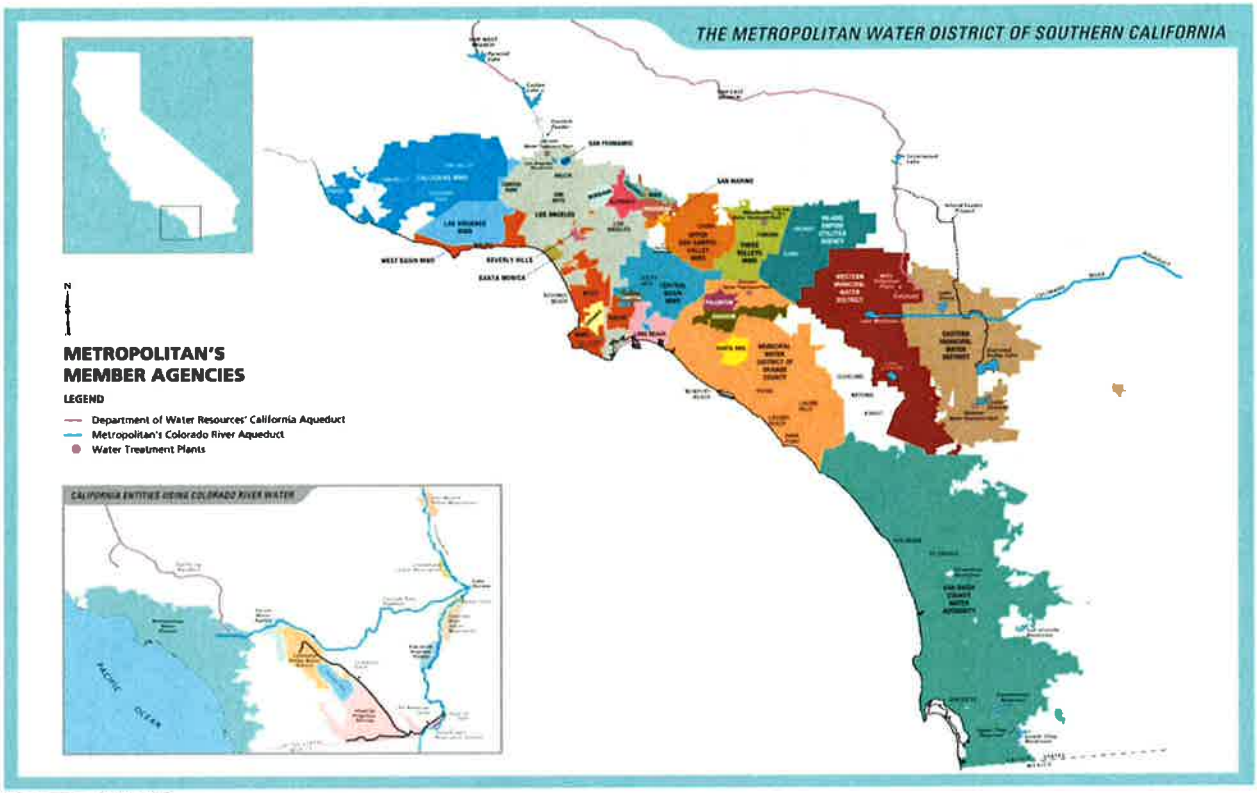
The Metropolitan Water District of Southern California (MWD) was formed in 1928 by thirteen Southern California cities to develop, store and distribute water for domestic and municipal purpose to the residents of Southern California. Today, MWD service area stretches across the Southern California coastal plain and includes portions of Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. In 2009, MWD's service area population was estimated to be 18,706,000 people, nearly 90% of the population in the six counties served by MWD.

MWD is a wholesale water provider, and has no retail customers. It provides treated and untreated water directly to its member agencies. The 26 member agencies then deliver to their customers a blend of groundwater, surface water, desalinated water, recycled water and imported water from MWD. MWD has provided between 45% and 60% of the municipal and agricultural water used in its nearly 5,200-square mile service area. The remaining water is provided through local resources and imported water from other sources.

EMWD is one of the 26 member agencies that make up MWD, including fourteen cities, ten other municipal water districts and one county water authority. The statutory relationship between MWD and its member agencies establishes the scope of EMWD's entitlements from

MWD. EMWD, like other member agencies, receives deliveries at different points in the system and pays for the service through a rate structure made up of multiple components. Each year member agencies advise MWD how much water they anticipate they will need during the next five years. MWD also works with member agencies to develop a forecast of long term future water supply. Figure 3.4 shows a map of MWD's service area and its member agencies. Additional information about MWD is summarized in Section I.2 of the 2010 RUWMP.

Figure 3.4 - MWD Member Agencies



Source: MWD

MWD delivers supply to member agencies from two sources, the Colorado River Aqueduct, which it owns and operates, and the State Water Project. Figure 3.5 shows MWD facilities in California.

Figure 3.5 - MWD Facilities in California

Source: MWD

3.2.2 EMWD and MWD

The first function of MWD was to build the Colorado Aqueduct bringing Colorado River water to Southern California. As MWD was constructing the San Jacinto Tunnel Portion of the project, a great amount of seepage was encountered. As the seepage began to affect local water resources within EMWD's region, residents began to organize to protect their water supply. About the same time, the region experienced years of dry weather and the underground basin began to experience overdraft. It became clear that a source of imported water was necessary. EMWD was formed in 1950 to bring imported water into the area. In 1951, it was annexed into MWD and the first major sale of Colorado River water within EMWD, began in July of 1952.

In 1960, MWD contracted for additional water supplies from the State Water Project (SWP) operated by the State of California Department of Water Resources (DWR). In 1972, the SWP began bringing water from the wet climate of northern California to the dry climate of Southern California. Through the 1980's, EMWD built facilities to take advantage of the SWP water available, and today, the largest portion of EMWD's water supply is provided from Northern California. Treated potable water is available in the North from the Henry J Mills Water Treatment Plant (Mills) and in the south through the Skinner Water Filtration Plant (Skinner). EMWD also owns and operates two water filtration plants that treat raw imported water: Perris Water Treatment Plant and Hemet Water Treatment Plant. Raw imported water is also used for recharge purposes and to meet agricultural demand.

MWD does not provide supply projections for each member agency. Instead MWD uses a regional approach to developing projections. MWD calculates the demand for the entire region as discussed in Appendix A.1 of the 2010 RUWMP and then using information about existing and proposed local projects, determines the amount of imported water. Throughout the preparation of the 2010 UWMP, EMWD has provided to MWD information about local supply and projects, clarification on boundary information and population projects. Based on this information and information provided by other member agencies, MWD has determined it is able to meet the demands of all member agencies through 2035. Table 3.1 shows the projected water supplies from MWD.

Figure 3.6 - MWD Facilities within EMWD's Service Area

Deliveries from MWD ranged between 75,000 AF and 91, 000 AF over the past several years. Deliveries decreased in recent years due to a decrease in demand resulting from several factors including conservation and economic down turn. Table 3.1 summarizes deliveries from MWD.

3.2.3 MWD Resources Planning

In the 1990's, several years of drought and regulation requirements began to affect the reliability of MWD water supply. In response to this challenge, MWD and its member agencies began an Integrated Resource Plan (IRP) process to assess supply reliability needed and to find a cost-effective way to meet the goals established. The IRP was a collective effort drawing input from several groups including MWD's Board of Directors, an IRP workgroup (comprised of MWD staff, member agencies and sub agency managers, as well as groundwater basin managers), and representatives from the environmental, agricultural, business and civic communities. It was important for the IRP process to be collaborative because its viability is contingent on the success of local projects and local plans in achieving their individual target goals for resource management and development.

The outcome of the IRP process was a "Preferred Resource Mix" which would ensure MWD and its member agencies' reliability through 2020. The MWD Board of Directors adopted the first IRP in January of 1996. In November 2001, the MWD Board of Directors adopted a plan to update the IRP. The update focused on changed conditions, updated resource targets, and extending the planning horizon to 2025 and beyond. Again, the process was a collaborative effort. The 2003 IRP Update was adopted in July of 2004.
In 2010, MWD completed an update to its Integrated Resource Plan (MWD 2010 IRP). This dynamic long-term water plan, developed through an open, collaborative process, provides a strategy for meeting MWD's mission of providing adequate and reliable supplies to member agencies to meet present and future water supply needs. Challenges addressed in the IRP include: limitations on State Water Project (SWP) and Colorado River Aqueduct (CRA) supplies due to environmental issues and drought, regulatory restrictions, economics and climate. The MWD 2010 IRP proposes a strategy that balances the potential risks to water supplies with the need to avoid unnecessary investment in resources. The proposed approach is made up of three components:

1. The Core Resource Strategy, an effort to manage supply and demand based on currently available resources. Under this approach MWD and member agencies will advance water use efficiency through conservation and recycled water, and continue to develop local supplies, including groundwater recovery and seawater desalination. MWD will also stabilize resources from the CRA and the SWP.

2. The Uncertainty Buffer, a set of goals for a range of potential buffer supplies to protect the region from shortages. This starts with expansion of water use efficiency and conservation. Future water conditions could fall short of current estimates due to any one of the numerous challenges facing water supplies. The buffer supplies will allow the region to adapt to future challenges through regional collaboration.

3. Foundation Actions are preliminary steps to determine the feasibility of alternative supply programs. These actions are lower-cost efforts including feasibility studies, technological

research and regulatory review, that will lay a foundation for implementation of alternative supplies if they are needed.

This adaptive planning approach provides MWD with a strategy for meeting the demands of the region under several different scenarios and mitigates supply uncertainties.

3.2.4 Colorado River Aqueduct Overview

MWD was established more than eighty years ago to obtain an allotment of Colorado River Water and today the Colorado River Aqueduct (CRA) continues to be a core supply for Southern California. The CRA, with a 1.25 MAF capacity, transports water from Lake Havasu, at the border of California and Arizona, approximately 242 miles to Lake Mathews in Riverside County. Since 1999, the Colorado River has been experiencing a prolonged drought. During 2005, 2008 and 2009, drought conditions eased somewhat with near or above average inflow conditions and net gains in storage. 2011 will be another above average inflow year so drought conditions are easing somewhat in the Colorado River Basin.

MWD has a legal right to receive water from the Colorado River under a permanent service agreement with the Secretary of the Interior and holds a basic apportionment of 550 TAF of water from the Colorado River. Over the years MWD has increased the reliable supply from the CRA through funding and implementing programs including: farm and irrigation district conservation programs, land management programs, improved reservoir system operations, and water transfers and exchanges through arrangements with agricultural water districts in Southern California and entities in Arizona and Nevada that use Colorado River delivered by the U.S. Department of the Interior, Bureau of Reclamation (USBR). Through these efforts MWD is able to obtain between 1.14 and 1.12 MAF of water during normal, historic single-dry and historic multiple-dry years. MWD also has an additional 186 TAF of supplies under development. In addition to MWD supplies, the CRA is also used to convey non-MWD supplies to other parties including over 200 TAF to the San Diego County Water Authority (SDCWA) as part of an agreement between SDCWA and the Imperial Irrigation District. Since the capacity of the CRA is limited to 1.25 MAF, the maximum supply MWD can deliver is limited to 1.25 MAF in any given year, including conveyance obligations. A detailed description of the limitations and management strategy for the CRA can be found in Section 3.1 of MWD's 2010 RUWMP included in Appendix D of this document.

3.2.5 State Water Project Overview

The State Water Project (SWP) is owned by the State of California and operated by the State Department of Water Resources (DWR). More than two thirds of California's resident's depend on the SWP for a portion of their drinking water. The SWP faces several environmental and water quality challenges as well as concerns about vulnerability to natural disasters.

The 600 mile SWP project delivers water to Southern California from Northern California through a series of pump station, reservoirs and aqueducts. At the hub of the SWP is the San Francisco Bay/Sacramento-San Joaquin Delta (Bay-Delta). The Bay-Delta's declining ecosystem, caused by a number of factors including agricultural runoff and operation of water pumps that can alter flow, has led to historic restriction on water supply deliveries from the SWP.

In 1960, MWD signed a contract with DWR to receive water from the SWP. MWD is one of the 29 agencies with long-term contracts for water service from DWR and the largest agency in terms of population served, its contracted amount of SWP water (46 percent), and the annual payments made to DWR. The original contract MWD held was for 1,911 TAF of SWP water. Before 1994 the SWP water reliability was rapidly deteriorating. MWD estimated its SWP delivery would be reduced to 171 TAF, about 8.9 percent of its SWP contract under a dry year scenario. After the 1994 Bay Delta Accord established new operating criteria DWR estimated that MWD's allocation under a dry year scenario would increase to 418 TAF. Although the accord improved conditions, MWD continues to address concerns that threaten reliability in the SWP.

The listing of several species as threatened or endangered in the Bay-Delta region have impacted operations and limited the flexibility of the SWP. Operations have been curtailed due to restrictions put into place to protect Delta Smelt, salmon, and other species that spawn in rivers flowing to the Bay-delta, which are federal and state-listed threatened fish species that inhabit the estuaries of the Bay-Delta region. Changes in SWP operation have affected the manner in which water is diverted from the Bay Delta, and limited deliveries. Based on the Water Allocation analysis released by the DWR on March 22, 2010, export restriction could reduce MWD deliveries by 150 to 200 TAF under mean hydrologic conditions, and operations could remain restricted until a long term solution is found to improve the stability of the Bay-Delta region.

SWP operations may also be restricted by the new biological opinions for listed species under the federal Endangered Species Act (ESA) or by the Department of Fish and Game's issuance of incidental take authorizations under the California ESA. Additional new litigation, listing of additional species or new regulatory requirements could also restrict operations and limit water supply. To address potential constraints on the SWP, MWD has developed near and long action plans to increase water supply reliability.

Part of the near term action developed to protect fish species includes the Two Gate System. This would provide movable barriers to modify flows and prevent vulnerable fish from being drawn toward pumping plants. This system is expected to help protect fish and allow an estimated 150 TAF of water to be exported from the Delta when SWP allocations exceed 35 percent. The Two Gate System is subject to operational studies, environmental documentation, acquisition of right of ways, completion of design, and construction. It is anticipated to be in place in 2013.

MWD is also working with stakeholders throughout the state to develop and implements long term solution to the problem in the Bay Delta. Delta Vision Process established by Governor Schwarzenegger was aimed at finding long term solutions for the Bay-Delta. In addition, State and federal resource agencies are working with non-governmental organizations and other Delta stakeholders on the development of the Bay Delta Conservancy Plan (BDCP) aimed at addressing ecosystem need and securing long term operating permits for the SWP. A working draft of the BDCP was released in November of 2010 and reflects significant progress toward consensus on a plan to restoring the Bay-Delta ecosystem and associated sensitive species and provide for improved water supply and reliability. In evaluating the supply reliability for the 2010 RUWMP, MWD assumed a new Delta conveyance would be fully operational by 2022, bringing supply reliability close to 2005 levels prior to supply restrictions imposed due to the Biological Opinions. This assumption is consistent with MWD's long-term Delta action plan approved in 2007, and supported by recently passed legislation that included a roadmap for

establishing governance structures and financing approaches to implement and manage a Delta solution.

In Section 3.2 of the 2010 RUWMP, MWD provides details about the planned actions and achievements to date in improving the reliability of the SWP. MWD also describes other challenges affecting the SWP including water quality and climate change.

3.2.6 MWD System Storage

Storage is an important element in MWD's dry-year water supply reliability. Over the past several decades MWD has increased storage significantly through projects like Diamond Valley Lake, located within EMWD's service area, in order to insure that water needs will be met during years of drought or during a catastrophic event such as an earthquake. The MWD Water Surplus and Drought Management Plan established long goals for in basin storage and provides guidance in managing supplies in years of surplus and drought. MWD had identified an in-region surface storage goal of 620 TAF of dry-year storage. MWD has achieved that goal and aims to sustain this level of storage in Diamond Valley Lake.

The probability of MWD meeting dry year demands is dependent on the amount of storage MWD has in its reserves. In developing the 2010 RUWMP, MWD assumed a simulated median storage level at the beginning of each five year supply and demand scenario. All storage capability figures in the 2010 RUWMP reflect the actual storage program conveyance constraints. Under some conditions MWD may choose to implement the Water Supply Allocation Plan, allocating water to member agencies, to preserve storage reserved for a future year.

3.2.7 MWD Supply Reliability

Tables 3.5 through 3.7 from the 2010 RUWMP list Metropolitan's Supply Capability and Projected demands from 2015 through 2035. Single dry year conditions are based on a repeat of 1977 hydrology. Multi dry year conditions are based on a repeat of 1990-1992 hydrology, and average year conditions are based on a average of 1922-2004 hydrology.

Table 3.5 - MWD Supply Capability and 2015-2035 Projected Demands, Single Dry-Year (AFY)

Forecast Year	2015	2020	2025	2030	2035
Current Programs					
In-Region Storage and Programs	637,000	892,000	1,046,000	931,000	796,000
California Aqueduct[2]	508,000	588,000	642,000	600,000	601,000
Colorado River Aqueduct					
Colorado River Aqueduct Supply[3]	1,407,000	1,815,000	1,675,000	1,425,000	1,425,000
Aqueduct Capacity Limit[4]	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000
Colorado River Aqueduct Capacity	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000
Capability of Current Programs	**2,395,000**	**2,730,000**	**2,938,000**	**2,781,000**	**2,647,000**
Demands					
Firm Demands of Metropolitan	1,922,000	1,719,000	1,726,000	1,767,000	1,818,000
IID-SDCWA Transfers and Canal Linings	180,000	273,000	280,000	280,000	280,000
Total Demands on MWD[5]	**2,102,000**	**1,992,000**	**2,006,000**	**2,047,000**	**2,098,000**
Surplus	**293,000**	**738,000**	**932,000**	**734,000**	**549,000**
Programs under Development					
In-Region Storage and Programs	34,000	34,000	34,000	34,000	34,000
California Aqueduct	556,000	556,000	700,000	700,000	700,000
Colorado River Aqueduct					
Colorado River Aqueduct Supply[3]	206,000	206,000	191,000	186,000	186,000
Aqueduct Capacity Limit[4]	*0*	*0*	*0*	*0*	*0*
Colorado River Aqueduct Capacity	0	0	0	0	0
Capability of Proposed Programs	**590,000**	**590,000**	**734,000**	**734,000**	**734,000**
Potential Surplus	**883,000**	**1,328,000**	**1,666,000**	**1,468,000**	**1,283,000**

Source: MWD 2010 RUWMP

1. Represents Supply Capability for resource programs under listed year types.
2. California Aqueduct includes Central Valley transfers and storage programs supplies conveyed by the aqueduct.
3. Colorado River Aqueduct includes water management programs, IID-SDCWA transfers and canal lining conveyed by the aqueduct.
4. Maximum CRA deliveries limited to 1.25 MAF including IID-SDCWA transfers and canal linings.
5. Firm demands are adjusted to include IID-SDCWA transfers and canal linings. These supplies are calculated as local supply, but needs to be shown for the purposes of CRA capacity limit calculations without double counting.

Table 3.6 - MWD Supply Capability and 2015-2035 Projected Demands, Multiple Dry-Year (AFY)

Forecast Year	2015	2020	2025	2030	2035
Current Programs					
In-Region Storage and Programs	224,000	348,000	425,000	387,000	342,000
California Aqueduct[2]	741,000	790,000	832,000	808,000	809,000
Colorado River Aqueduct					
Colorado River Aqueduct Supply[3]	1,282,000	1,591,000	1,423,000	1,422,000	1,407,000
Aqueduct Capacity Limit[4]	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000
Colorado River Aqueduct Capacity	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000
Capability of Current Programs	**2,215,000**	**2,388,000**	**2,507,000**	**2,445,000**	**2,401,000**
Demands					
Firm Demands of MWD	1,951,000	1,766,000	1,784,000	1,821,000	1,869,000
IID-SDCWA Transfers and Canal Linings	180,000	273,000	280,000	280,000	280,000
Total Demands on MWD[5]	**2,131,000**	**2,007,000**	**2,064,000**	**2,101,000**	**2,149,000**
Surplus	**84,000**	**381,000**	**443,000**	**344,000**	**252,000**
Programs Under Development					
In-Region Storage and Programs	34,000	34,000	34,000	34,000	34,000
California Aqueduct	242,000	273,000	419,000	419,000	419,000
Colorado River Aqueduct					
Colorado River Aqueduct Supply[3]	206,000	206,000	191,000	186,000	186,000
Aqueduct Capacity Limit[4]	*0*	*0*	*0*	*0*	*0*
Colorado River Aqueduct Capacity	0	0	0	0	0
Capability of Proposed Programs	**262,000**	**299,000**	**450,000**	**452,000**	**453,000**
Potential Surplus	**346,000**	**680,000**	**893,000**	**796,000**	**705,000**

Source: MWD 2010 RUWMP

1. Represents Supply Capability for resource programs under listed year types.
2. California Aqueduct includes Central Valley transfers and storage programs supplies conveyed by the aqueduct.
3. Colorado River Aqueduct includes water management programs, IID-SDCWA transfers and canal lining conveyed by the aqueduct.
4. Maximum CRA deliveries limited to 1.25 MAF including IID-SDCWA transfers and canal linings.
5. Firm demands are adjusted to include IID-SDCWA transfers and canal linings. These supplies are calculated as local supply, but needs to be shown for the purposes of CRA capacity limit calculations without double counting.

Table 3.7 - MWD Supply Capability and 2015-2035 Projected Demands (AFY)

Forecast Year	2015	2020	2025	2030	2035
Current Programs					
In-Region Storage and Programs	637,000	892,000	1,046,000	931,000	796,000
California Aqueduct[2]	1,536,000	1,663,000	1,754,000	1,724,000	1,725,000
Colorado River Aqueduct					
Colorado River Aqueduct Supply[3]	1,498,000	1,520,000	1,478,000	1,438,000	1,435,000
Aqueduct Capacity Limit[4]	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000
Colorado River Aqueduct Capacity	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000
Capability of Current Programs	**3,423,000**	**3,805,000**	**4,050,000**	**3,905,000**	**3,771,000**
Demands					
Firm Demands of MWD	1,728,000	1,524,000	1,526,000	1,566,000	1,615,000
IID-SDCWA Transfers and Canal Linings	180,000	273,000	280,000	280,000	280,000
Total Demands on MWD[5]	**1,908,000**	**1,797,000**	**1,806,000**	**1,846,000**	**1,895,000**
Surplus	**1,515,000**	**2,008,000**	**2,244,000**	**2,059,000**	**1,876,000**
Programs Under Development					
In-Region Storage and Programs	34,000	34,000	34,000	34,000	34,000
California Aqueduct	378,000	383,000	715,000	715,000	715,000
Colorado River Aqueduct					
Colorado River Aqueduct Supply[3]	206,000	206,000	191,000	186,000	186,000
Aqueduct Capacity Limit[4]	*0*	*0*	*0*	*0*	*0*
Colorado River Aqueduct Capacity	0	0	0	0	0
Capability of Proposed Programs	**412,000**	**417,000**	**749,000**	**749,000**	**749,000**
Potential Surplus	**1,927,000**	**2,425,000**	**2,993,000**	**2,808,000**	**2,625,000**

Source: MWD 2010 RUWMP

1. Represents Supply Capability for resource programs under listed year types.
2. California Aqueduct includes Central Valley transfers and storage programs supplies conveyed by the aqueduct.
3. Colorado River Aqueduct includes water management programs, IID-SDCWA transfers and canal lining conveyed by the aqueduct.
4. Maximum CRA deliveries limited to 1.25 MAF including IID-SDCWA transfers and canal linings.
5. Firm demands are adjusted to include IID-SDCWA transfers and canal linings. These supplies are calculated as local supply, but needs to be shown for the purposes of CRA capacity limit calculations without double counting.

It is anticipated that water demands within EMWD's jurisdiction caused by future development, will be met through additional water imports from MWD, recognizing the conditions described in this document. Imported sources will be supplemented by an increase in desalination of brackish groundwater, recycled water use and water use efficiency. MWD analyzed the reliability of water delivery through the State Water Project (SWP), the Colorado River Aqueduct, MWD's IRP, 2010 RUWMP and concluded that with the storage and transfer programs developed by MWD, MWD will have a reliable source of water to serve its member agencies' needs through 2035 during normal, historic single-dry and historic multiple-dry years within a 20-year projection. Unprecedented shortages will be addressed through Water Supply Allocation Plans.

3.2.8 MWD's Water Surplus and Drought Management Plan

In order to insure that water needs will be met during years of drought, surplus water must be managed during years of surplus. To accomplish this task, MWD developed the Water Surplus and Drought Management (WSDM) Plan. Adopted in April of 1999, this plan provides policy guidance for management of regional water to achieve the reliability goal of the IRP. The guiding principle of the WSDM plan is to "Manage Metropolitan's water resources and management programs to maximize adverse impacts of water shortage to retail customers." Should mandatory imported water allocations be necessary, those allocations would be calculated based on need, as opposed to any type of historical purchases.

MWD has identified several stages from surplus to shortage and a planned response for each stage. The following section discusses the management activities to be taken, depending on the level of available supplies, starting with a large amount of surplus to extreme shortage. Under MWD's current IRP, the measures listed for extreme shortage may be implemented to preserve storage.

Surplus Stages

Surplus Stage 5 - MWD makes deliveries to all available in-region and out of region storage resources.

Surplus Stage 4 - MWD may curtail or temporarily suspend deliveries under the Conjunctive Use and Cyclic Storage programs.

Surplus Stage 3 - MWD may curtail or temporarily suspend deliveries under the Conjunctive Use and Cyclic Storage programs; and deliveries to Semi tropic and Arvin-Edison groundwater storage programs.

Surplus Stage 2 - MWD may curtail or temporarily suspend deliveries under the Conjunctive Use and Cyclic Storage programs; deliveries to Semi tropic and Arvin-Edison groundwater storage programs and deliveries of SWP carryover water to SWP reservoirs.

Surplus Stage 1 - MWD may curtail or temporarily suspend deliveries under the Conjunctive Use and Cyclic Storage programs; deliveries to Semi tropic and Arvin-Edison groundwater storage programs; deliveries of SWP carryover water to SWP reservoirs and contractual groundwater storage deliveries.

Shortage Stages

Shortage Stage 1 - MWD may make withdrawals from Diamond Valley Lake.

Shortage Stage 2 - MWD will continue Shortage Stage 1 action and may draw from out-of-region groundwater storage.

Shortage Stage 3 - MWD will continue Shortage Stage 2 actions and may curtail or temporarily suspend deliveries to Long-term Seasonal and Replenishment programs in accordance with discount rates.

Shortage Stage 4 - MWD will continue Shortage Stage 3 actions and may draw from conjunctive use groundwater storage and the SWP terminal reservoirs.

Severe Shortage Stages

Shortage Stage 5 - MWD will continue Shortage Stage 4 actions. MWD's Board of Directors may call for extraordinary conservation, may curtail Interim Agricultural Water Program Deliveries.

Shortage Stage 6 - MWD will continue Shortage Stage 5 actions and may exercise any and all water supply option contracts and/or buy water on the open market for consumptive use or for delivery to regional storage facilities.

Section 2.4 of the RUWMP has additional information about the WSDM Plan.

Extreme Shortage

Shortage Stage 7 - MWD will allocate full service deliveries using the Water Supply Allocation Plan (WSAP).

Water Supply Allocation Plan

In February 2008, MWD's Board adopted the Water Supply Allocation Plan (WSAP). The WSAP contains a specific formula and methodology to determine member agency supply allocation. The plan takes into consideration:

a. The impact on retail customers and the economy

b. Population and growth

c. Changes and/or loss of local supply

d. Reclamation and recycling

e. Conservation

f. Investment in local resources

In the event allocation is required, MWD will establish base period demands and then adjust them for growth and changes in local supply. Regional shortages will be phased in 10 stages and credits are given for conservation and investment in local supplies. At each stage, member agencies will not experience shortages on the wholesale level that are greater than one-and-a-half times the percentage shortage of regional water supplies. The member agency will also not face a retail shortage more than the regional shortage.

3.3 Groundwater Overview

EMWD produces potable groundwater from two management plan areas within the San Jacinto Watershed, the West San Jacinto Groundwater Basin Management Plan area and the Hemet/San Jacinto Water Management Plan area. EMWD also owns and operates two desalination plants that convert brackish groundwater into potable water. These plants not only provide a reliable source of potable water, they also support EMWD's groundwater salinity management program.

EMWD is a key player in two cooperative efforts to protect groundwater quality and reliability. The West San Jacinto Groundwater Basin Management Plan area is subject to an existing groundwater management plan, and the Hemet/San Jacinto Water Management Plan area is final and will be implemented sometime in 2011. Native potable ground water production is limited or will be limited according to management plan provisions to prevent continued overdraft. EMWD is anticipating limitations on native groundwater production and has developed alternatives to assure reliability including an Integrated Recharge and Recovery Program (IRRP), filtration plants to treat and deliver imported water to areas dependent on groundwater and recycled water use for irrigation of landscape and agriculture.

Portions of EMWD also overlay the Santa Margarita Watershed. EMWD does not extract groundwater from the Santa Margarita Watershed and has no plans to do so.

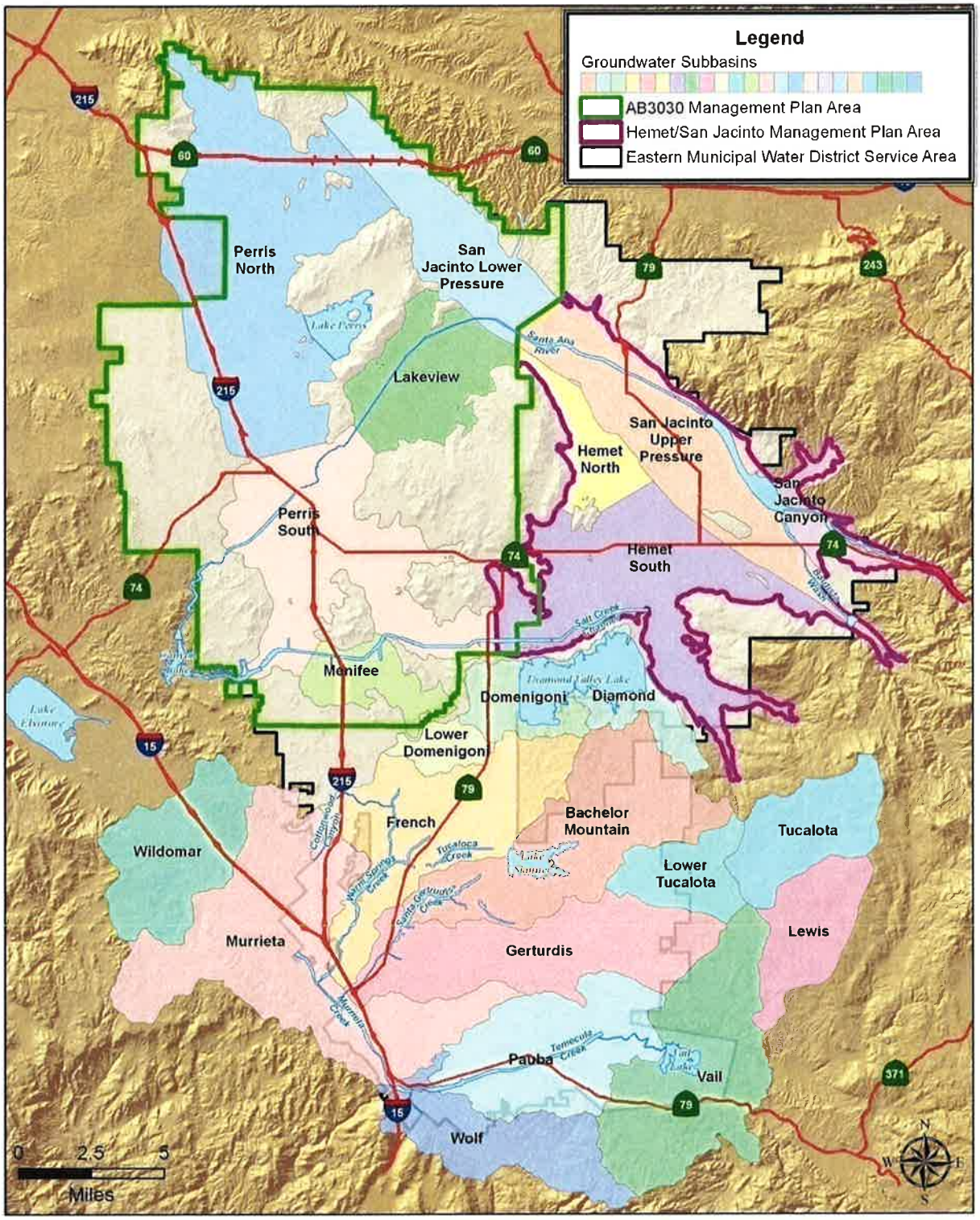
3.3.1 Groundwater Existing Conditions

The West San Jacinto Groundwater Basin Management Plan area and the Hemet/San Jacinto Water Management Plan area are both located within the San Jacinto Watershed. Within the watershed, groundwater management zones were delineated based on major impermeable boundaries, constrictions in impermeable bedrock, groundwater divides, and internal flow systems. The eight-groundwater management zones in the San Jacinto Watershed within EMWD's service area are shown on Figure x.x.

The Hemet/San Jacinto Water Management Plan area covers the Hemet South, Canyon, and San Jacinto Upper Pressure Management Zones, and the Hemet North portion of the Lakeview/Hemet North Management Zone. The Perris North, Perris South, San Jacinto Lower Pressure, and Menifee Management Zones, and the Lakeview portion of the Lakeview/Hemet North Management Zone, are included in the West San Jacinto Groundwater Basin Management Plan. EMWD produces water for potable use or blending in four management zones; Perris North, Hemet South, San Jacinto Upper Pressure and Canyon. Desalter production wells are located in the Perris South and Lakeview/Hemet North management zones. Groundwater Management Zones are included in Figure 3.1.

A detailed description of the physical characteristics of the management plan can be found in Appendix E.

Figure 3.7 - Groundwater Management Zones



Eastern Municipal Water District
Groundwater Subbasin

EMWD has an existing potable well capacity of 54.2 cubic feet per second (CFS). In the Hemet/San Jacinto Water Management Plan area, well capacity is 46.5 CFS including three wells dedicated to the future IRRP. The IRRP will recharge surplus imported water into the basin for future extraction. In the West San Jacinto Groundwater Basin Management Plan area, there is 7.7 CFS of well capacity. Potable wells deliver water to EMWD's distribution system.

Table 3.8 - Existing Potable Groundwater Production Capability

Facility	Capacity
Potable Groundwater Production by Management Zone	
San Jacinto Upper Pressure	
EMWD Wells	25.4
IRRP Wells	11.1
Hemet South	2.1
Canyon	7.9
Perris North	7.7
Total	**52.4**

As seen in Table 4.1, EMWD's potable groundwater extraction varied from a low of 15,759 acre-feet per year (AFY) up to 20,043 AFY from 2005 through 2010. Potable groundwater in the West San Jacinto Groundwater Basin is monitored limited by the basin management plan, but there are not restrictions on the amount of water that can be extracted. Current production in the Hemet/San Jacinto Water Management Plan area is limited by existing facilities if water is used within the management area. In the future, production will be limited by a management plan and administered by a water master. Production in recent years is reflective of a reduction in demand due to conservation, economic conditions and weather patterns and not a reflection of supply reliability.

3.3.2 Groundwater Rights

In the Hemet/San Jacinto Water Management Plan area, EMWD's groundwater production is currently constrained by the 1954 Fruitvale Judgment and Decree. Under that Judgment and Decree, EMWD, as successor-in-interest to the Fruitvale Mutual Water Company, may extract the subsurface waters of the Canyon Basin for use over or outside the entire basin without restriction as long as the static water level in a specific well is not over 25 feet below a specific elevation. If the water level in the well is more than 25 feet below the specified elevation, EMWD's extraction is limited to 4,500 AFY. The District may extract from the Entire Basin, a total of not more than 12,000 AFY from the Entire Basin for use outside the basin, subject to the 4,500 AFY Canyon Basin extraction limit. The perimeters of the Canyon Basin and Entire Basin are defined in the Judgment and Decree. The Hemet/San Jacinto area contains good quality water and is a major source of municipal as well as private production, although water levels are in serious decline. Once the Stipulated Judgment for the Hemet/San Jacinto Water Management Plan is in effect, it will supersede the Fruitvale Judgment and Decree.

Since 2001, the Cities of Hemet and San Jacinto, Lake Hemet Municipal Water District (LHMWD), EMWD, and representatives of the private groundwater producers, with DWR acting as an impartial mediator, have been working on a groundwater management plan for the Hemet/San Jacinto Water Management Plan area. Over the past several years, the group has discussed and resolved several controversial issues, including San Jacinto Tunnel seepage water, the Fruitvale Judgment and Decree, export of groundwater from the basins, and how to

maximize the use of recycled water. As a result of their efforts, a final Hemet/San Jacinto Water Management Plan (HSJWMP) was completed in 2007 and a Stipulated Judgment is scheduled to be submitted to the courts in May of 2011. The final plan is included in Appendix F of this document.

The Hemet/San Jacinto Water Management Plan:

- Limits the amount of water being extracted from the basin to a sustainable yield.
- Implements continued recharge of the basin using imported water through the Integrated Recharge and Recovery Project.
- Insures settlement claims by the Soboba Band of Luiseño Indians are facilitated and accommodated.
- Expands existing water production and water services system to meet future urban growth through the use of imported water recharged into the basin.
- Protects and/or enhances water quality in the management plan area.
- Supports cost-effective water supplies and treatment by the public agencies.
- Eliminates groundwater overdraft and enhances basin yield.
- Continues the monitoring program to promote and provide for best management and engineering principles to protect water resources.

Long term groundwater management includes plans for artificial recharge using Metropolitan Water District of Southern California (MWD) replenishment water using permanent facilities through the Integrated Recharge and Recovery Program. An agreement with the Soboba Band of Luiseño Indians requires that, on average, an annual delivery of 7,500 acre-feet of water from MWD for the next 30 years to EMWD, LHMWD, and the Cities of Hemet and San Jacinto as part of an effort to recharge groundwater in the Hemet/San Jacinto area, fulfilling the Soboba Tribe's water rights and addressing chronic groundwater overdrafts.

EMWD's rights under the Hemet/San Jacinto Water Management Plan will be a base groundwater production right of 10,869 AFY. Any pumping above that amount is subject to replenishment fees.

In the West San Jacinto area, a cooperative groundwater management plan is already in place to insure the reliability and quality of the water supply. In June 1995, EMWD adopted the West San Jacinto Groundwater Basin Management Plan (WSJGBMP) in accordance with the statutes in the State Water Code Sections 10750 through 10755 resulting from the passage of Assembly Bill 3030 (AB 3030). The plan was adopted after extensive public outreach and meetings with interested individuals and agencies. A copy of the Management Plan is included in Appendix F.

Implementation of the WSJGBMP began directly after its adoption. Initial efforts to implement the WSJGBMP included establishing an advisory committee; prioritizing the management zones; evaluating groundwater resources including establishing groundwater quality, level, and extraction monitoring programs; and conducting hydro-geophysical investigations. The West San Jacinto Groundwater Basin Management Plan Annual Report, documenting the implementation of the plan and activities in the groundwater management zones, has been published annually since 1996.

3.3.3 Surface Water Diversion Rights

License No. 10667

EMWD holds a right to divert up to 5,760 AFY of San Jacinto River flows for recharge and subsequent use from September 1 through June 30 each year. EMWD's diversion and recharge of San Jacinto River surface water to the Canyon Management Zone takes place at EMWD's Grant Avenue Ponds in the Valle Vista area. EMWD's diverted water is recharged into the groundwater aquifer of the Canyon Management Zone and is not used for direct use or sale. The San Jacinto River is an ephemeral river and, consequently, river flows may be insufficient for any diversion at all.

3.3.4 Soboba Settlement Act

On June 7, 2006, after eleven years of negotiations, the Soboba Band of Luiseno Indians (Soboba Tribe), Metropolitan Water District of Southern California (MWD), EMWD, and LHMWD signed the *Soboba Band of Luiseño Indians Water Settlement Agreement (Soboba Settlement Agreement)* at a 4:00 pm ceremony at The Country Club at Soboba Springs in San Jacinto. Tribal Chairman Robert Salgado, Jr., signed the Settlement Agreement for the Soboba Tribe.

On March 1, 2007, Congresswoman Mary Bono (CA-45) introduced *The Soboba Band of Luiseño Indians Settlement Act of 2007 (Soboba Settlement Act)* which was co-sponsored by Congressmen Jerry Lewis (R, CA-41), Joe Baca (D, CA-43), and Dale Kildee (D, MI-5), and codifies the agreement between the Soboba Tribe, MWD, EMWD, and LHMWD.

In 2008, Congress passed and the President signed the Soboba Settlement Act that will provide to the Soboba Tribe an annual water supply of 9,000 acre-feet, 128 acres of land near Diamond Valley Lake for commercial development, and approves and ratifies the Soboba Settlement Agreement that set forth $17 million from the local water districts for economic development. Additionally, the United States government will provide the Soboba Tribe with $11 million for water development.

The agreement will terminate litigation against MWD and EMWD, which was filed by the Soboba Tribe in April 2000 *(Soboba Band of Luiseño Indians v. MWD)*. That lawsuit sought damages and injunctive relief for the continuing drainage of water from the Soboba Reservation into MWD's nearby San Jacinto Tunnel which was constructed in the 1930s.
The bill mandates, on average, an annual delivery of 7,500 acre-feet of water by MWD for the next 30 years to EMWD, LHMWD, and the cities of Hemet and San Jacinto, as part of an effort to recharge the San Jacinto groundwater basin, fulfilling the Soboba Tribe's water rights and addressing chronic groundwater overdrafts.

As outlined in the Soboba Settlement Act, the cities and agencies will also receive $10 million in federal funds to build the facilities to recharge the aquifer with the imported water, and up to 4,900 acre-feet per year of Soboba Tribe water for 50 years to be used towards basin replenishment. The Soboba Tribe will also make 98 acres of Soboba Reservation land available for endangered species habitat, on an acre for acre basis, to replace EMWD land found to be not suitable for mitigation.

On March 8, 2007, the bill was referred to the House Natural Resources Subcommittee on Water and Power. (Subcommittee hearing held on March 13, 2008). Ratified by the U.S.

House of Representatives and the Senate, and signed by the President, the pact will bring to an end decades of conflict between the Soboba Tribe, the U.S. Government, MWD, and EMWD.

3.3.5 Groundwater Replenishment

Through pilot programs and using temporary facilities, EMWD has recharged groundwater in the Hemet/San Jacinto area with imported surplus water from MWD since 1990. In April of 2004, EMWD, LHMWD, and the Cities of Hemet and San Jacinto executed a Memorandum of Understanding (MOU) for an Interim Water Supply Plan. The purpose of the plan was to address the deteriorating situation in the Hemet/San Jacinto area by providing recharge of imported water from the State Water Project (SWP) into the aquifer at two sites – the Conjunctive Use Ponds in the Intake portion of the San Jacinto Upper Pressure Management Zone, and the Grant Avenue Ponds in the Canyon Management Zone. From 2004 through 2007, 20,819 AF of imported water from the SWP was recharged into the aquifer. Due to dry conditions, environmental restriction, and the level of demands in its service area, MWD curtailed Replenishment Service effective as of May 1, 2007. Since then, permits to recharge water at the two sites have expired. To replace the temporary recharge facilities, long term facilities are being designed and built as part of the Integrated Recharge and Recovery Program (IRRP), an integral piece of the water management plan and the Soboba settlement. The IRRP initially consists of 35 acres of basins or ponds for recharging State Project Water; three extraction wells; three monitoring wells; modification to two existing pump stations; and pipelines within, and adjacent to, the San Jacinto River.

EMWD is also contributing to the replenishment of the basin by providing recycled water in lieu of groundwater production. The Recycled In-Lieu Program supplies recycled water for agricultural irrigation in-lieu of pumping native groundwater. The project can deliver up to 8,540 acre-feet per year to local agricultural water producers. The project costs are jointly funded by EMWD, LHMWD, and the Cities of Hemet and San Jacinto. Agreements that set limits on groundwater production, and provide for a payment of a portion of the operation and maintenance costs have been in place since 2008.

3.3.6 Supply Reliability

Protecting the available groundwater supply is an important part of EMWD's planning efforts. EMWD is actively working with other agencies and groups to insure that groundwater will be a reliable resource far into the future. Part of managing groundwater responsibly requires the replacement of water produced beyond the basin's safe yield. Production in the Hemet/San Jacinto area will be supplemented with recharged imported water as the Hemet/San Jacinto Water Management Plan is implemented. Groundwater extraction in the West San Jacinto Groundwater Basin Management Plan area will remain static in compliance with the basin management plan.

3.4 Groundwater Desalination Overview

The West San Jacinto Groundwater Basin Management Plan was adopted in 1995. This 250 square mile area is experiencing increasing water levels due to high TDS groundwater and decreased production. The high TDS groundwater is migrating into the Lakeview portion of the Lakeview/Hemet North management zone, an area of good quality groundwater. Lowering groundwater levels and removal of saline groundwater is an integral element in the West San Jacinto Groundwater Basin Management Plan. To address these concerns, EMWD implemented a Groundwater Salinity Management Program. This program currently consists of

two desalination facilities owned and operated by EMWD. These facilities recover high TDS groundwater from the Menifee and Perris South Management Zones, and the Lakeview portion of the Lakeview/Hemet North Management Zone, for potable use. In addition to being a source of potable water, the main role of the desalter is to play a part in managing the groundwater management zones by addressing the migration of brackish groundwater into areas of good quality groundwater.

3.4.1 Groundwater Desalination Existing Condition

Desalter wells deliver water to an integrated raw water system that delivers water to the desalination plants where it is treated prior to entering the distribution system. The Menifee Desalter was the first of three desalters to be built. This facility began producing potable water in 2003. The second desalter, the Perris I Desalter, is located next to the Menifee Desalter at the Sun City Regional Water Reclamation Facility. This plant began production in 2006. Plant production capacity is 10.5 CFS. Groundwater extraction for use in the desalter program has not caused a decline in water levels to date. Table 4.1? list supply from the desalination plants from 2005 through 2010.

3.4.2 Groundwater Desalination Reliability

Groundwater extracted from desalter wells is limited by existing facilities and not groundwater supplies. Desalination helps manage increasing water levels due to high total dissolved solids (TDS) groundwater and decreased production, and prevents migration of brackish water. Extraction from the existing desalter wells has not caused a decline in water levels historically. Table 5.2? shows EMWD's past groundwater production.

High iron and manganese concentrations will irreversibly impacted the desalter membranes, and have resulted in several brackish groundwater extraction wells remaining off-line. In 2004, an effort was initiated to evaluate alternative technologies for removal of iron and manganese prior to desalination. A removal process was selected and final design was completed in 2009. Completion of construction is scheduled for September 2011 that will increase extraction capacity.

3.5 Recycled Water Overview

Recycled water is extensively used in EMWD's service area to meet non potable demands. The supply of recycled water will continue to increase with EMWD's population size. The four (4) regional water reclamation facilities that EMWD is currently operating are all either in the process of expansion or have an expansion planned in the near future. Recycled water is currently used for both municipal and agricultural purposes. Municipal customers use recycled water for landscape irrigation and industrial process water. Agricultural customers use recycled water for irrigation of crops. A portion of agricultural demand of recycled water is in-lieu of using groundwater. Currently the use of recycled water is limited by the amount available to serve during peak demands and with discharge occurring in off peak periods. EMWD has developed plans to eliminate discharge and use all of the recycled water available within EMWD and to offset demand of existing potable customers including retrofit of potable water landscape customers and indirect potable recharge.

3.5.1 Recycled Water Existing Conditions

As a full-spectrum provider of water, wastewater collection, and treatment and recycled water services, EMWD has been active in developing local and regional plans for expanded water recycling in its service area. EMWD's first Recycled Water Facilities Master Plan was developed in 1990 and formally updated in 2010. In 2009, EMWD completed a Recycled Water System Strategic Plan that provides guidelines for moving forward with recycled water projects. Information from the strategic plan was incorporated into the EMWD Integrated Resource Plan to evaluate potential recycled water projects. EMWD's local water recycling plan is also incorporated into the Integrated Regional Water Management Plan developed by the Santa Ana Watershed Planning Authority for the San Jacinto and Santa Ana Watersheds.

EMWD has worked closely with the Santa Ana Regional Water Quality Control Board in updating local basin plans and developing a long-term salinity management plan to support and ensure compliance with local basin objectives for salinity and nitrogen. EMWD is also participating in the development of a Total Maximum Daily Load (TMDL) analysis for impacted surface waters in the Santa Ana Watershed.

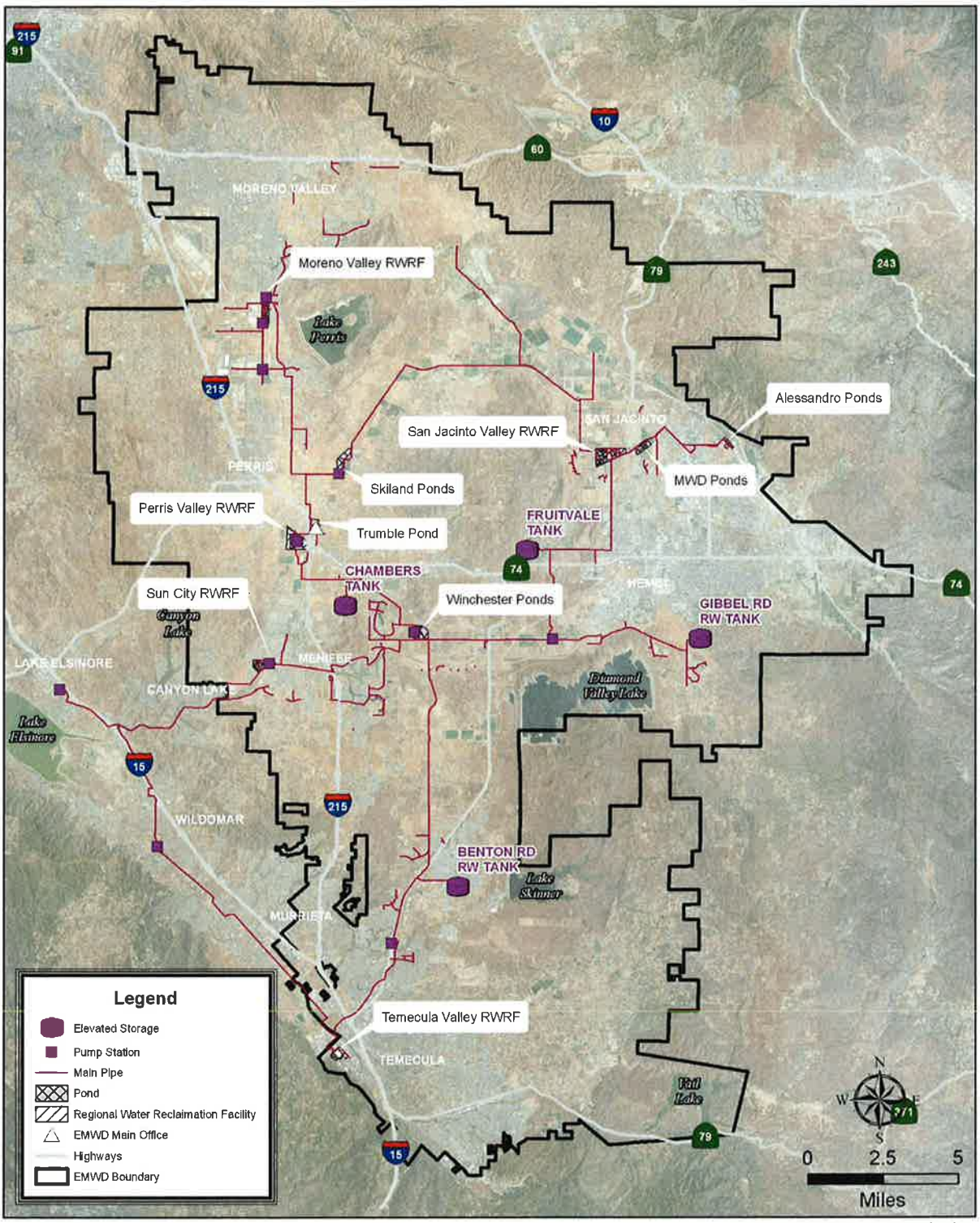
EMWD is involved with a variety of local agencies and public interest groups in recycled water planning efforts. Table 3.9 lists agencies participating in recycled water planning.

Table 3.9 - Recycled Water Coordinating Agencies

Group/Agency	Role
1) Santa Ana Watershed Project Authority	Regional Cooperative Planning
2) Santa Ana Regional Water Quality Control Board	Basin Planning/Salinity Mgmt.
3) Rancho California Water District	Facility Planning/Market Dev.
4) West San Jacinto Groundwater Management Plan Advisory Board	Plan Review/Public Oversight
5) Hemet/San Jacinto Groundwater Management Plan Policy Committee (Cities of Hemet, and San Jacinto and Lake Hemet Municipal Water District)	Plan Review/Public Oversight
6) Elsinore Valley Municipal Water District	Facility Planning/Market Dev.
7) EMWD Recycled Water Advisory Committee	Plan Review/public Oversight
8) San Jacinto Watershed Council	Plan Review/Public Oversight
9) Lake Elsinore/San Jacinto Watershed Authority	Plan Review/Water Quality
10) Metropolitan Water District of Southern California	Regional Urban Water Mgmt. Planning, Funding

EMWD is responsible for all wastewater collection and treatment in its service area. It has four operational regional water reclamation facilities (RWRF) located throughout EMWD and in 2010 treated 46,500 AFY. Inter-connections between the local collections systems serving each treatment plant allow for operational flexibility, improved reliability, and expanded deliveries of recycled water. All of EMWD's RWRF's produce tertiary effluent, suitable for all Department of

Figure 3.8 - Key Recycled Water Facilities



Eastern Municipal Water District
Key Facilities - Recycled Water

Health Services permitted uses, including irrigation of food crops and full-body contact. Table 3.10 summarizes existing and planned treatment capacities.

Table 3.10 - RWRF Treatment Capacity (AFY)

	Existing	Future	Year of Expansion
Moreno Valley	17,900	26,000	2012
Perris Valley	16,800	38,000	2011
San Jacinto	12,300	14,000	2014
Temecula Valley	20,200	20,100	NA

In addition to treatment facilities, EMWD has several recycled water storage ponds throughout EMWD. Using existing storage ponds, EMWD is able to sell more than the recycled water produced by its treatment plants during the peak demand months (June – September). During the cooler, wetter parts of the year, surplus recycled water is stored in unlined surface impoundments, resulting in extensive groundwater recharge. If storage capacity is full, surplus recycled water is disposed through a regional outfall pipeline to Temescal Creek and the Santa Ana River.

EMWD treats all of the wastewater collected in its service area to tertiary standards and disposes of its recycled water in one of three ways; 1) customer sales 2) discharge to Temescal Creek, or, 3) through percolation and evaporation while stored in pond throughout EMWD. Table provides the amount of wastewater collected, treated and disposed from 2005 through 2010.

Table 3.11 - 2006-2010 Wastewater Collection, Treatment and Disposal

	2006	2007	2008	2009	2010
Wastewater Collected/ Treated to Tertiary Standards	45,062	47,711	44,544	45,505	46,451
Discharge	16,261	9,134	9,430	6,259	4,902
Total Sales	21,406	27,739	27,994	32,536	28,246
Peculated/Evaporated Water	7,395	10,837	7,119	6,710	13,303

EMWD has sold up to 32,500 AF annually of recycled water to retail and whole sale customers throughout its service area. The majority of recycled water sold is used for agricultural irrigation. A portion of the water sold for agriculture is used in lieu of groundwater preserving the groundwater basin and improving water supply reliability. In addition to meeting agricultural demand, recycled sales to municipal customers are increasing rapidly as residential and urban development replaces irrigated farmland. Landscape irrigation is an emerging market and in 2008, EMWD started selling recycled water to a large industrial customer for cooling towers in a power generation plant. EMWD also sells recycled water to the California Department of Fish and Game for environmental use within the San Jacinto Wildlife Area. EMWD uses existing storage facilities to store water during off peak periods for delivery in peak months and maximize the amount of recycled water sold.

Table 3.12 - Summary of Recycled Water Sales (2006-2010)

	2006	2007	2008	2009	2010
Agricultural	14,150	19,434	19,652	18,168	13,796
Construction	819	633	88	19	27
Environmental	1,232	2,393	3,068	2,805	1,999
Agricultural In Lieu				4,630	4,785
Landscape	4,200	4,860	4,661	4,337	4,041
Industrial Process Water	6	8	331	1,650	2,949
Wholesale	999	412	193	926	649
Total Sales	**21,406**	**27,739**	**27,994**	**32,536**	**28,246**

3.5.2 2010 Recycled Water Use

Wastewater collected and treated in 2010 was 46,500 AF, approximately 15,000 AF less than projected in 2005. Several factors contributed to the reduction in wastewater flows including economic forces and conservation efforts. Between 2005 and 2010 EMWD experienced a slowdown in development and new connections. Thousands of planned new homes have been deferred and many homes remain vacant due to foreclosure. Public outreach and news media reports focused on water shortage and mandatory restrictions in place through 2010 have resulted in increased conservation.

In addition to reducing the amount of wastewater available to treat, economic conditions depressed new demand for recycled water due to new development. Landscape demand did not reach the anticipated 7,700 AF projected by 2010 and may not for several years as new development is delayed. New industrial customer demand did not materialize in the quantity projected in 2005. Only one of two power plants proposed in 2005 was constructed and to date has not required its full allotment of projected recycled water. In addition, the California Department of Fish and Game did not use its full projected demand for recycled water at the San Jacinto Wildlife Area or increase its use of recycled water as projected.

Even with the decrease in demand, EMWD has increased the percentage of recycled water sold and decreased the amount of recycled water discharged. This was achieved through implementing operational practices that encourage the storage of water in the winter for use during peak periods. Recycled water was also used to recharge groundwater basins through an in lieu agricultural program. EMWD is aggressively pursuing recycled water policies and programs that reduce discharge and increase recycled water use.

Table 3.13 - Proposed vs. Actual Recycled Water Use in 2010 (AF)

	Projected 2010	Actual 2010
Wastewater Collected and Treated	61,051	46,451
Quantity Meeting Tertiary Recycled Standards	61,051	46,451
Agricultural Sales	13,400	13,796
Construction Sales		27
Environmental Sales	4,300	1,999
Agricultural In Lieu Sales		4,785
Wetlands/Lakes/Supply Augmentation Sales	2,000	
Landscape Sales	7,700	4,041
Industrial Process Water Sales	5,000	2,949
Wholesale Sales		649
Total Sales	**32,400**	**28,246**
% Sold	**53%**	**61%**
Livestream Discharge	13,651	4,902
Groundwater Recharge	15,000	13,303

3.5.3 Recycled Water Reliability

Recycled water is a sustainable and reliable water supply. Available supplies increase with an increase in population and EMWD has been successful in encouraging the use of recycled water by appropriate customers. Although full utilization of the existing recycled water system will require a project that can balance seasonal demands shifts, the existing recycled water system can meet the demands of agricultural, landscape and environmental customers. Table 3.14 summarizes the projected existing recycled water supply and use.

Table 3.14 - 2051 -2035 Supply and Use of Recycled Water by Type (AF)

	2015	2020	2025	2030	2035
Recycled Water Supply					
Tertiary Treated Recycled Water	56,100	63,500	70,300	77,100	83,500
Recycled Water Use Existing System					
Agriculture Irrigation	18,600	20,500	25,100	23,800	22,400
Landscape Irrigation	5,000	6,300	11,500	13,900	14,300
Wildlife Habitat	2,400	2,600	2,600	2,600	2,600
Industrial	5,000	5,000	5,000	5,000	5,000
Storage Pond Recharge/Evaporation	11,000	11,000	11,000	11,000	11,000
Total Existing System	**43,900**	**50,000**	**53,900**	**54,900**	**55,300**

Balance	**12,200**	**13,500**	**16,400**	**22,200**	**28,200**

To ensure that recycled continues to be used to the fullest extent possible, EMWD uses five methods to expand the use of recycled water within its service area. These methods are:

Mandatory Recycled Water Use Ordinance – EMWD has adopted an ordinance requiring new and existing customers to use recycled water for appropriate permitted uses when it is available. This ordinance provides a basis for denying potable water service and providing recycled water for permitted uses.

Rate Incentives – Recycled water is currently priced below the cost of potable water for both municipal and agricultural use.

Water Supply Assessments – EMWD's Water Supply Assessments condition all major new developments to use recycled water as a condition of service where it is available and permitted.

Public Education – EMWD actively promotes the use of recycled water its water education program. EMWD also places prominent signage at public recycled water use sites promoting the benefits of water recycling.

Facilities Financing – EMWD will work with private parties to arrange or provide financing for construction of facilities needed to convert potable demands to recycled water.

EMWD does not have any data to support a projection of how much increased recycled water sales will result from each of the listed methods of encouraging recycled water use. Historically, the low cost of recycled water was the primary inducement for agricultural customers to use recycled water in-lieu of groundwater. However, as municipal customers continue to replace agriculture, it is reasonable to assume that the mandatory provisions of the District's Recycled Water Use Ordinance will play a major role in program expansion.

APPENDIX I

City Resolution Adopting 2010 Plan

DRAFT

APPENDIX J

Urban Water Management Plan Checklist

DRAFT

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

No.	UWMP requirement [a]	Calif. Water Code reference	Additional clarification	UWMP location
CONTINGENCY [b]				
35	Provide an urban water shortage contingency analysis that specifies stages of action, including up to a 50-percent water supply reduction, and an outline of specific water supply conditions at each stage	10632(a)		Chapter 7 Section 7.2
36	Provide an estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency's water supply.	10632(b)		Chapter 7 Section 7.3
37	Identify actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster.	10632(c)		Chapter 7 Section 7.4
38	Identify additional, mandatory prohibitions against specific water use practices during water shortages, including, but not limited to, prohibiting the use of potable water for street cleaning.	10632(d)		Chapter 7 Section 7.5
39	Specify consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.	10632(e)		Chapter 7 Section 7.1
40	Indicated penalties or charges for excessive use, where applicable.	10632(f)		Chapter 7; Section 7.5
41	Provide an analysis of the impacts of each of the actions and conditions described in subdivisions (a) to (f), inclusive, on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments.	10632(g)		Chapter 7 Section 7.6
42	Provide a draft water shortage contingency resolution or ordinance.	10632(h)		Chapter 7; Section 7.7
43	Indicate a mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.	10632(i)		Chapter 7 Section 7.8
DMMs				
26	Describe how each water demand management measures is being implemented or scheduled for implementation. Use the list provided.	10631(f)(1)	Discuss each DMM, even if it is not currently or planned for implementation. Provide any appropriate schedules.	Chapter 5

No.	UWMP requirement [a]	Calif. Water Code reference	Additional clarification	UWMP location
27	Describe the methods the supplier uses to evaluate the effectiveness of DMMs implemented or described in the UWMP.	10631(f)(3)		Chapter 5
28	Provide an estimate, if available, of existing conservation savings on water use within the supplier's service area, and the effect of the savings on the ability to further reduce demand.	10631(f)(4)		Chapter 5
29	Evaluate each water demand management measure that is not currently being implemented or scheduled for implementation. The evaluation should include economic and non-economic factors, cost-benefit analysis, available funding, and the water suppliers' legal authority to implement the work.	10631(g)	See 10631(g) for additional wording.	Chapter 5
32	Include the annual reports submitted to meet the Section 6.2 requirements, if a member of the CUWCC and signer of the December 10, 2008 MOU.	10631(j)	Signers of the MOU that submit the biannual reports are deemed compliant with Items 28 and 29.	Not Applicable
EXTERNAL COORDINATION AND OUTREACH				
4	Coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	10620(d)(2)		Chapter 1 Section 1.4
6	Notify, at least 60 days prior to the public hearing on the plan required by Section 10642, any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. Any city or county receiving the notice may be consulted and provide comments.	10621(b)		Chapter 1 Section 1.4
7	Provide supporting documentation that the UWMP or any amendments to, or changes in, have been adopted as described in Section 10640 et seq.	10621(c)		Appendix I, Chapter 1
54	Provide supporting documentation that the urban water management plan has been or will be provided to any city or county within which it provides water, no later than 60 days after the submission of this urban water management plan.	10635(b)		Appendix B.5, Chapter 1
55	Provide supporting documentation that the water supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan.	10642		Chapter 1 Section 1.4 Appendix B.3
56	Provide supporting documentation that the urban water supplier made the plan available for public inspection and held a public hearing about the	10642		Chapter 1; Section 1.4 Appendices B.3 and I

No.	UWMP requirement [a]	Calif. Water Code reference	Additional clarification	UWMP location
	plan. For public agencies, the hearing notice is to be provided pursuant to Section 6066 of the Government Code. The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water. Privately-owned water suppliers shall provide an equivalent notice within its service area.			
57	Provide supporting documentation that the plan has been adopted as prepared or modified.	10642		Appendix I
58	Provide supporting documentation as to how the water supplier plans to implement its plan.	10643		Chapter 1 Section 1.4
59	Provide supporting documentation that, in addition to submittal to DWR, the urban water supplier has submitted this UWMP to the California State Library and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption. This also includes amendments or changes.	10644(a)		Appendix B.5
60	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the urban water supplier has or will make the plan available for public review during normal business hours	10645		Chapter 1 Section 1.4
RECYCLED WATER				
44	Provide information on recycled water and its potential for use as a water source in the service area of the urban water supplier. Coordinate with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area.	10633		Chapter 8 Section 8.2
45	Describe the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.	10633(a)		Chapter 8 Section 8.1
46	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	10633(b)		Appendix H
47	Describe the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.	10633(c)	DOES NOT USE RECYCLED WATER	Chapter 8
48	Describe and quantify the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, indirect potable reuse, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.	10633(d)		Chapter 8 Section 8.2

No.	UWMP requirement [a]	Calif. Water Code reference	Additional clarification	UWMP location
49	The projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected.	10633(e)	DOES NOT USE RECYCLED WATER	
50	Describe the actions, including financial incentives, which may be taken to encourage the use of recycled water, and the projected results of these actions in terms of acre-feet of recycled water used per year.	10633(f)		NOT APPLICABLE
51	Provide a plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.	10633(g)	NO OPTIMIZATION PLAN AVAILABLE	
RELIABILITY				
22	Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage and provide data for (A) an average water year, (B) a single dry water year, and (C) multiple dry water years.	10631(c)(1)		Chapter 3 Section 3.5
23	For any water source that may not be available at a consistent level of use - given specific legal, environmental, water quality, or climatic factors - describe plans to supplement or replace that source with alternative sources or water demand management measures, to the extent practicable.	10631(c)(2)		Chapter 3 Section 3.5
53	Assess the water supply reliability during normal, dry, and multiple dry water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years. Base the assessment on the information compiled under Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.	10635(a)		Chapter 10 Tables 8, 9, and 10
SERVICE AREA				
8	Describe the water supplier service area.	10631(a)		Chapter 2; Section 2.2
9	Describe the climate and other demographic factors of the service area of the supplier	10631(a)		Chapter 2 Section 2.2
10	Indicate the current population of the service area	10631(a)	Provide the most recent population data possible. Use the method described in	Chapter 2 Section 2.3

No.	UWMP requirement [a]	Calif. Water Code reference	Additional clarification	UWMP location
			"Baseline Daily Per Capita Water Use". See Section M.	
11	Provide population projections for 2015, 2020, 2025, and 2030, based on data from State, regional, or local service area population projections.	10631(a)	2035 and 2040 can also be provided to support consistency with Water Supply Assessments and Written Verification of Water Supply documents.	Chapter 2 Section 2.3
12	Describe other demographic factors affecting the supplier's water management planning.	10631(a)		Chapter 2 Section 2.2
WATER CONSERVATION				
1	Provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.	10608.20(e)		Chapter 10
	Include an assessment of present and proposed future measures, programs, and policies to help achieve the water use reductions.	10608.36		Chapter 10 Section 10.4
3	Report progress in meeting urban water use targets using the standardized form.	10608.40		Chapter 10 Section 10.5
WATER DEMANDS				
25	Quantify past, current, and projected water use, identifying the uses among water use sectors, for the following: (A) single-family residential, (B) multifamily, (C) commercial, (D) industrial, (E) institutional and governmental, (F) landscape, (G) sales to other agencies, (H) saline water intrusion barriers, groundwater recharge, conjunctive use, and (I) agriculture.	10631(e)(1)	Consider 'past' to be 2005, present to be 2010, and projected to be 2015, 2020, 2025, and 2030. Provide numbers for each category for each of these years.	Chapter 4 Table 5
34	Include projected water use for single-family and multifamily residential housing needed for lower income households, as identified in the housing element of any city, county, or city and county in the service area of the supplier.	10631.1(a)		Chapter 4 Table 5
WATER SUPPLY				
5	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	10620(f)		Chapter 1 Section 1.3
13	Identify and quantify the existing and planned sources of water available for 2015, 2020, 2025, and 2030.	10631(b)	The 'existing' water sources should be for the same year as the "current population" in line	Chapter 3; Section 3.1 Tables 2 and 3

No.	UWMP requirement [a]	Calif. Water Code reference	Additional clarification	UWMP location
			10. 2035 and 2040 can also be provided.	
14	Indicate whether groundwater is an existing or planned source of water available to the supplier. If yes, then complete 15 through 21 of the UWMP Checklist. If no, then indicate "not applicable" in lines 15 through 21 under the UWMP location column.	10631(b)	Source classifications are: surface water, groundwater, recycled water, storm water, desalinated sea water, desalinated brackish groundwater, and other.	Chapter 3 Section 3.1
15	Indicate whether a groundwater management plan been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	10631(b)(1)		Chapter 3; Section 3.2 Appendix C
16	Describe the groundwater basin.	10631(b)(2)		Chapter 3; Section 3.3
17	Indicate whether the groundwater basin is adjudicated? Include a copy of the court order or decree.	10631(b)(2)		NOT ADJUDICATED
18	Describe the amount of groundwater the urban water supplier has the legal right to pump under the order or decree. If the basin is not adjudicated, indicate "not applicable" in the UWMP location column.	10631(b)(2)		NOT APPLICABLE
19	For groundwater basins that are not adjudicated, provide information as to whether DWR has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to eliminate the long-term overdraft condition. If the basin is adjudicated, indicate "not applicable" in the UWMP location column.	10631(b)(2)		Chapter 3 Section 3.3 Appendix C
20	Provide a detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years	10631(b)(3)		Chapter 3 Section 3.4
21	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	10631(b)(4)	Provide projections for 2015, 2020, 2025, and 2030.	Chapter 3 Section 3.4
24	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	10631(d)		Chapter 3 Section 3.6
30	Include a detailed description of all 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, excluding demand management programs addressed in (f)(1). Include specific projects,	10631(h)		Chapter 6 Section 6.1

No.	UWMP requirement [a]	Calif. Water Code reference	Additional clarification	UWMP location
	describe water supply impacts, and provide a timeline for each project.			
31	Describe desalinated water project opportunities for long-term supply, including, but not limited to, ocean water, brackish water, and groundwater.	10631(i)		Chapter 6 Section 6.2
33	Provide documentation that either the retail agency provided the wholesale agency with water use projections for at least 20 years, if the UWMP agency is a retail agency, OR, if a wholesale agency, it provided its urban retail customers with future planned and existing water source available to it from the wholesale agency during the required water-year types	10631(k)	Average year, single dry year, multiple dry years for 2015, 2020, 2025, and 2030.	Chapter 1 Section 1.4 Appendices B.1 and B.2
52	Provide information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments, and the manner in which water quality affects water management strategies and supply reliability	10634	For years 2010, 2015, 2020, 2025, and 2030	Chapter 9

a The UWMP Requirement descriptions are general summaries of what is provided in the legislation. Urban water suppliers should review the exact legislative wording prior to submitting its UWMP.

b The Subject classification is provided for clarification only. A water supplier is free to address the UWMP Requirement anywhere with its UWMP, but is urged to provide clarification to DWR to facilitate review for completeness.