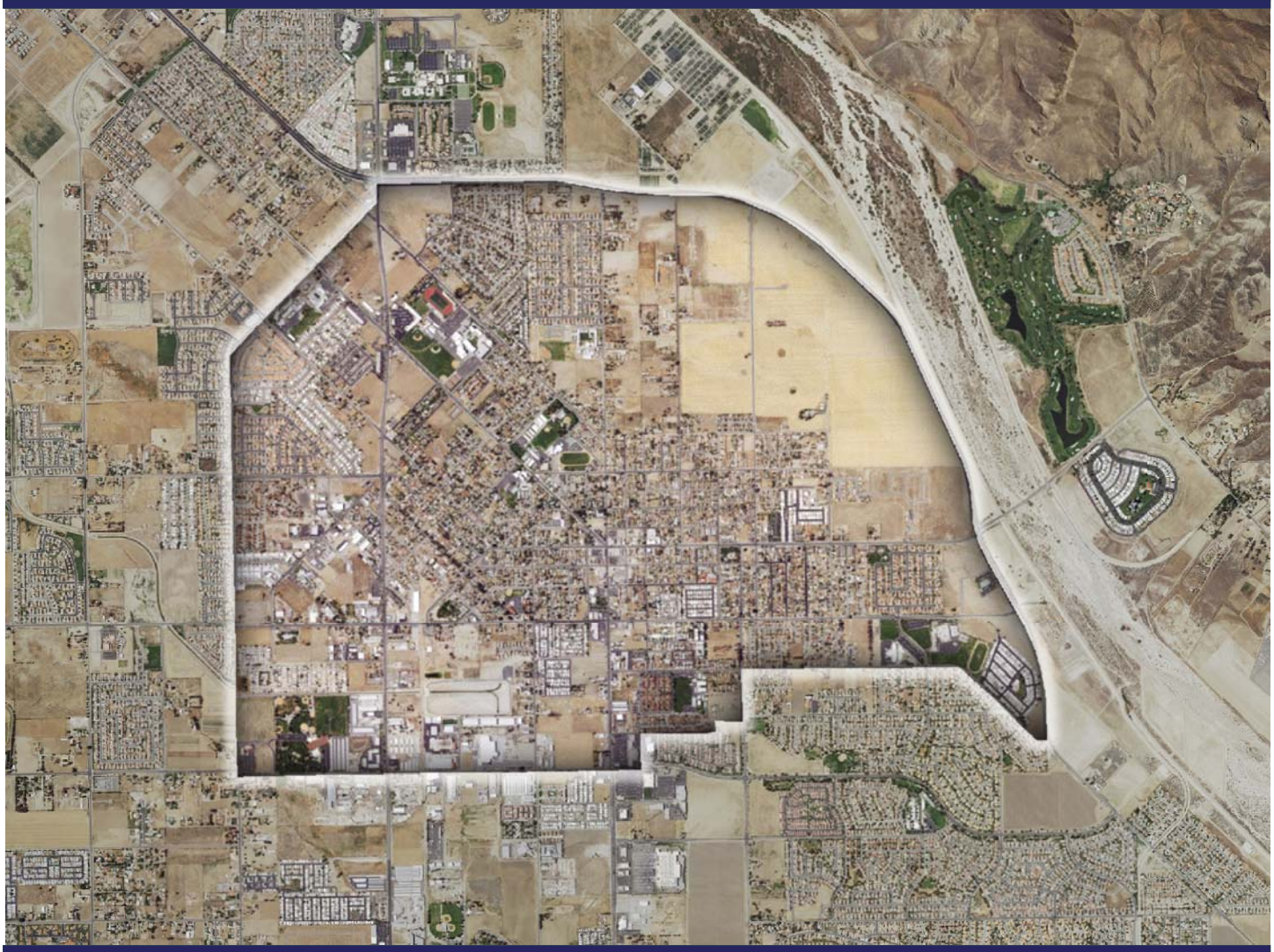
# City of San Jacinto

## 2015 Urban Water Management Plan

May 2016



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# CHAPTER 1
# INTRODUCTION AND OVERVIEW

## 1.1 BACKGROUND AND PURPOSE

The City of San Jacitno (City) is a water supplier and is required to prepare an Urban Water Management Plan (Plan) in accordance with the California Urban Water Management Planning Act (UWMP Act) which was established in 1983. The Act requires every "urban water supplier" to prepare and adopt a Plan, periodically review its Plan at least once every five years and make any amendments or changes which are indicated by the review. Pursuant to California Water Code Section 10617, an "Urban Water Supplier" is defined as 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." The primary objective of the UWMP Act is to direct urban water suppliers to evaluate their existing water conservation efforts and, to the extent practicable, review and implement alternative and supplemental water conservation measures. The UWMP Act is directed primarily at retail water purveyors where programs can be immediately affected upon the consumer**.** The UWMP Act, originally known as Assembly Bill (AB) 797, is included in Appendix A.

Section 10621(a) of the California Water Code states, "Each water supplier shall update its plan at least once every five years on or before December 31, in years ending in five and zero." However, due to recent changes in Urban Water Management Plan requirements, California State law has extended the deadline for the 2015 Plans to July 1, 2016. The City's 2015 Plan is an update to the City's 2010 Plan.

## 1.2 URBAN WATER MANAGEMENT PLANNING AND THE CALIFORNIA WATER CODE

### 1.2.1 URBAN WATER MANAGEMENT PLANNING ACT OF 1983

The City is a water supplier and is required to prepare a Plan in accordance with the UWMP Act established in 1983. The UWMP Act is included in the California Water Code (CWC) under Sections 10610 through 10656. A copy of the UWMP Act is provided in Appendix A. The UWMP Act requires water agencies to develop UWMPs which provide a framework for long-term water planning as well as information regarding long-term resource planning to ensure sufficient water supplies are available to meet existing and future demands. Urban water suppliers are required to report, describe, and evaluate water deliveries and uses, water supply sources, efficient water uses, demand management measures, and water shortage contingency planning.

### 1.2.2 APPLICABLE CHANGES TO THE WATER CODE SINCE 2010

In compliance with the UWMP Act, the City last updated its Urban Water Management Plan in 2010. There have been new amendments added and some reorganization of the California Water Code sections since the City's last update. The following tabulation is a summary of the new requirements which were incorporated in the City's 2015 Plan, as applicable:

| Change Number | Topic | CWC Section | Legislative Bill | Summary | Guidebook Section |
|---|---|---|---|---|---|
| 1 | Demand Management Measures | 10631 (f)(1) and (2) | AB 2067, 2014 | Requires water suppliers to provide narratives describing their water demand management measures, as provided. Requires retail water suppliers to address the nature and extent of each water demand management measure implemented over the past 5 years and describe the water demand management measures that the supplier plans to implement to achieve its water use targets. | Chapter 9 |
| 2 | Submittal Date | 10621 (d) | AB 2067, 2014 | Requires each urban water supplier to submit its 2015 plan to the Department of Water Resources by July 1, 2016. | Chapter 10 |
| 3 | Electronic Submittal | 10644 (a) (2) | SB 1420, 2014 | Requires the plan, or amendments to the plan, to be submitted electronically to the department. | Chapter 10 |
| 4 | Standardized Forms | 10644 (a) (2) | SB 1420, 2014 | Requires the plan, or amendments to the plan, to include any standardized forms, tables, or displays specified by the department. | CH 1, Section 1.4 |
| 5 | Water Loss | 10631 (e) (1) (J) and (e) (3) (A) and (B) | SB 1420, 2014 | Requires a plan to quantify and report on distribution system water loss. | Appendix L |
| 6 | Estimating Future Water Savings | 10631 (e) (4) | SB 1420, 2014 | Provides for water use projections to display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans, when that information is available and applicable to an urban water supplier. | Appendix K |
| 7 | Voluntary Reporting of Energy Intensity | 10631.2 (a) and (b) | SB 1036, 2014 | Provides for an urban water supplier to include certain energy-related information, including, but not limited to, an estimate of the amount of energy used to extract or divert water supplies. | Appendix O |
| 8 | Defining Water Features | 10632 | AB 2409, 2010 | Requires urban water suppliers to analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas. | CH 8, Section 8.2.4 |

Source: Department of Water Resources' Final Draft "Guidebook for Urban Water Suppliers, 2015

### 1.2.3 WATER CONSERVATION ACT OF 2009 (SB X7-7)

The Water Conservation Act of 2009 (SB X7-7) required retail urban water suppliers to report the following conservation goals in their 2010 UWMPs:

- Base Daily per Capita Water Use;
- 2015 Interim Urban Water Use Target;
- 2020 Urban Water Use Target; and
- Compliance Daily per Capita Water Use

A discussion addressing the requirements of the Water Conservation Act is found in Chapter 5 of the City's 2015 Plan.

## 1.3 URBAN WATER MANAGEMENT PLANNING IN RELATION TO OTHER PLANNING EFFORTS

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 and for preventative maintenance. The City has not purchased imported water from EMWD since 2008. EMWD is a wholesale water agency that obtains imported water from the Metropolitan Water District Southern California (MWD). EMWD prepared a 2015 Plan which is incorporated in the City's 2015 Plan by reference. In addition, the City provided its water use projections identified in this 2015 Plan to EMWD in five-year increments for normal, single dry, and multiple dry year conditions over the next 25 years.

## 1.4 UWMP ORGANIZATION

The City's 2015 Plan was prepared consistent with the recommended organization provided in the Department of Water Resources' (DWR) Final Draft "Guidebook for Urban Water Suppliers", dated January 2016. The City's 2015 Plan consists of the following Chapters:

Chapter 1 - Introduction and Overview
Chapter 2 - Plan Preparation
Chapter 3 - System Description
Chapter 4 - System Water Use
Chapter 5 - Baselines and Targets
Chapter 6 - System Supplies

Chapter 7 - Water Supply Reliability
Chapter 8 - Water Shortage Contingency Planning
Chapter 9 - Demand Management Measures
Chapter 10 - Plan Adoption, Submittal, and Implementation

Pursuant to California Water Code requirements, the City's 2015 Plan incorporates DWR's standardized tables for the reporting and submittal of UWMP data. The standardized tables are provided following the text. The City also submitted the UWMP data (standardized tables) electronically to DWR on May 20, 2016.

The City's 2015 Plan also provides supporting documents (appendices) including notification letters of the UWMP update, public notice of the UWMP hearing, adoption resolution from the City's governing body, and the City's Water Shortage Contingency Plan. Further discussions regarding these supporting documents are provided within the individual Chapters of the City's 2015 Plan.

## 1.5 UWMP AND GRANT OR LOAN ELIGIBILITY

Pursuant to DWR's Final Draft "Guidebook for Urban Water Suppliers," "in order for an urban water supplier to be eligible for any water management grant or loan administered by DWR, the agency must have a current UWMP on file that has been determined by DWR to address the requirements of the CWC. A current UWMP must also be maintained by the water supplier throughout the term of any grant or loan administered by DWR…An UWMP may also be required in order to be eligible for other State funding, depending on the conditions that are specified in the funding guidelines." The City's 2015 Plan has been prepared in order to meet eligibility requirements for grants and loans administered by the State and/or DWR.

## 1.6 TIPS FOR UWMP PREPARERS

The City's 2015 Plan is considered an update to the City's 2010 Plan. However, the 2015 Plan is considered a stand-alone document. As discussed in Section 1.4, the City's Plan was prepared consistent with the recommended organization provided in DWR's Final Draft "Guidebook for Urban Water Suppliers," dated January 2016. A checklist of specific UWMP requirements is included in Appendix B. The checklist includes the page number where the required elements are addressed to assist in DWR's review of the submitted Plan.

# CHAPTER 2
## PLAN PREPARATION

### 2.1 BASIS FOR PREPARING A PLAN

*CWC 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.*

*CWC 10620.*

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

*CWC 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, except as provided in subdivision (d).*

*(d) Each urban water supplier shall update and submit its 2015 plan to the department by July 1, 2016.*

This Urban Water Management Plan (Plan) was prepared in accordance with the UWMP Act which was established in 1983. The UWMP Act requires every "urban water supplier" to prepare and adopt a Plan, to periodically review its Plan at least once every five years and make any amendments or changes which are indicated by the review. An "Urban Water Supplier" is defined as 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 (AF) of water annually. The primary

objective of the UWMP Act is to direct urban water suppliers to prepare a plan that describes and evaluates sources of supply, reasonable and practical efficient uses, reclamation, and demand management activities. **The UWMP Act is directed primarily at retail water purveyors where programs can be immediately applied to the consumers.** Sections 10610 through 10656 of the California Water Code, Urban Water Management Planning Act, were enacted in 1983. The UWMP Act, originally known as Assembly Bill (AB) 797, is included in Appendix A.

Section 10621(a) of the California Water Code states, "Each water supplier shall update its plan at least once every five years on or before December 31, in years ending in five and zero." However, because of recent changes in Urban Water Management Plan requirements, California State law has extended the deadline for the 2015 Plans to July 1, 2016.

The City of San Jacinto is an "urban water supplier" pursuant to Section 10617 of the California Water Code and directly serves potable water to more than 3,000 customers and supplies more than 3,000 acre-feet per year (AFY) at retail for municipal purposes. The City does not provide water at wholesale for municipal purposes. This 2015 Plan is an update to the City's 2010 Plan.

### 2.1.1 PUBLIC WATER SYSTEMS

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*CWC 10644.*

*(a)(2) The plan, or amendments to the plan, submitted to the department … shall include any standardized forms, tables, or displays specified by the department.*

*CWC 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… The form shall accommodate reporting by urban water suppliers on an individual or regional basis as provided in subdivision (a) of Section 10608.28.*

*California Health and Safety Code 116275.*

*(h) "Public water system" means a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year.*

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Pursuant to California Water Code requirements, the City's 2015 Plan incorporates DWR's standardized tables for the reporting and submittal of UWMP data. The standardized tables are provided following the 2015 Plan text. The City also submitted the UWMP data (standardized tables) electronically through DWR's Online Submittal Tool. In addition, the City is a Public Water System and is regulated by the State Water Resources Control Board - Division of Drinking Water (SWRCB-DDW). The SWRCB-DDW requires that water agencies report provide the number of connections, water usage, and other information annually. The information provided to SWRCB-DDW indicates the City serves potable water to more than 3,000 customers and supplies more than 3,000 AFY.

### 2.1.2 AGENCIES SERVING MULTIPLE SERVICE AREAS / PUBLIC WATER SYSTEMS

The City serves only a single Public Water System. The City operates under the Public Water System (PWS) Identification Number CA3310032, as shown in Table 2-1.

## 2.2 REGIONAL PLANNING

The City has developed its 2015 Plan reporting solely on its service area to address all requirements of the California Water Code. The City's 2015 Plan was not developed as a Regional Plan.

## 2.3 INDIVIDUAL OR REGIONAL PLANNING AND COMPLIANCE

As shown in Table 2-2, the City's 2015 Plan is an "Individual UWMP". The City has developed its 2015 Plan reporting solely on its service area to address all requirements of the California Water Code. The City notified and coordinated with appropriate regional agencies and constituents (See Section 2.5).

### 2.3.1 REGIONAL UWMP

*CWC 10620.*

*(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.*

As indicated in Table 2-2, the City's 2015 Plan was developed as an "Individual UWMP" and not part of a Regional Plan.

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### 2.3.2 REGIONAL ALLIANCE

*CWC 10608.20.*

*(a)(1) …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…*

*CWC 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.*

As indicated in Table 2-2, the City's 2015 Plan was developed as an "Individual UWMP" and not part of a Regional Alliance.

## 2.4 FISCAL OR CALENDAR YEAR AND UNITS OF MEASURE

*CWC 10608.20.*

*(a)(1) Urban retail water suppliers…may determine the targets on a fiscal year or calendar year basis.*

### 2.4.1 FISCAL OR CALENDAR YEAR

The data provided in the City's 2015 Plan is reported on a calendar year basis, unless noted otherwise, as shown in Table 2-3.

### 2.4.2 REPORTING COMPLETE 2015 DATA

The data provided in the City's 2015 Plan is provided on a calendar year basis through December 31, 2015.

### 2.4.3 UNITS OF MEASURE

As shown in Table 2-3, the data provided in the City's 2015 Plan is reported in units of acre-feet (AF), unless noted otherwise.

## 2.5 COORDINATION AND OUTREACH

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*CWC 10631.*

*(j) An urban water supplier that relies 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).*

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### 2.5.1 WHOLESALE AND RETAIL COORDINATION

The City is within the boundaries of EMWD and has historically purchased minor amounts of treated imported water on an emergency basis to supplement groundwater supplies and for preventative maintenance. The City has not purchased imported water from EMWD since 2008. EMWD is a water agency that obtains imported water from MWD. As indicated in Table 2-4 and Appendix C, the City has provided its water use projections identified in this 2015 Plan to EMWD in five-year increments for normal, single dry, and multiple dry year conditions over the next 25 years.

### 2.5.2 COORDINATION WITH OTHER AGENCIES AND THE COMMUNITY

*CWC 10620.*

*(d)(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.*

*CWC 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.*

The City of San Jacinto is a retail water supplier that serves a portion of the residents within the City of San Jacinto. The remaining portion of the City is served by EMWD and Lake Hemet Municipal Water District (LHMWD). The City is required to coordinate the preparation of the Plan with appropriate agencies in the area, including appropriate water suppliers that share a common source. Therefore, the City coordinated the preparation of the Urban Water Management Plan with EMWD, the

County of Riverside, and the City of San Jacinto, as shown in Appendix D. As discussed in Section 10.2, the City notified these agencies, as well as to the cities and county within which the City provides water supplies, at least sixty (60) days prior to the public hearing of the preparation of the 2015 Plan and invited them to participate in the development of the Plan. A copy of the notification letters sent to these agencies is provided in Appendix D.

### 2.5.3 NOTICE TO CITIES AND COUNTIES

*CWC 10621.*

*(b) Every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days before 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.*

As discussed in Section 10, notification was provided to the cities and county within which the City provides water supplies that the City was reviewing and considering amendments (updates) to the 2010 Plan, and as a result prepare the 2015 Plan Update. Notification was provided at least 60 days prior to the public hearing (see Appendix D).

# CHAPTER 3
## SYSTEM DESCRIPTION

### 3.1 GENERAL DESCRIPTION

*CWC 10631.*

*(a) Describe the service area of the supplier.*

The City owns and operates a water distribution system serving a portion of the City of San Jacinto municipal boundary, as shown on Plate 1. The remaining portion of the City municipal boundary is served by EMWD and 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 4,139 service connections serving a population of approximately 18,000 people. Following is a breakdown of the City's service connections by customer type.

- Single-Family Residential – 2,863 service connections
- Multi-Family Residential – 312 service connections
- Commercial – 767 service connections
- Industrial – 0 service connections
- Irrigation – 193 service connections
- Other – 4 service connections

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 City relies almost exclusively on groundwater pumped by four wells. The wells produce groundwater from the San Jacinto Groundwater Basin (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. In addition, the Basin has a Groundwater Replenishment Program which uses treated imported water to recharge the Basin.

## 3.2 SERVICE AREA BOUNDARY MAP

### 3.2.1 MAP FORMAT RECOMMENDATIONS

A map showing only the City's service area boundary is provided in Plate 3. The City's service area map (Plate 3) was submitted online through DWR's Population Tool in a "KML" file format (i.e. Google Earth format). The KML file was originally created in a Geographical Information Systems (GIS) shape file format and converted into a KML format. To the extent information was available, metadata was included in the KML file (including map projection, contact information, start and end dates for which the map is valid, constraints, attribute table definitions, and digitizing base).

## 3.3 SERVICE AREA CLIMATE

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*CWC 10631.*

*(a) Describe the service area of the supplier, including… climate…*

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The monthly historical average temperatures (including minimum and maximum), monthly historical average rainfall, and monthly evapotranspiration (ETo) in the vicinity of the City's service area is summarized in the tabulation below. Historical climate information was obtained from the Western Regional Climate Center (WRCC) and from DWR's California Irrigation Management Information System (CIMIS).

## Service Area Climate Information

| Month | Average Temperature (F) | Average Min. Temperature (F) | Average Max. Temperature (F) | Average Total Precipitation (Inches) | ETo (Inches) |
|---|---|---|---|---|---|
| **January** | 52.7 | 37.9 | 67.0 | 2.56 | 2.28 |
| **February** | 53.8 | 39.6 | 67.6 | 2.56 | 2.61 |
| **March** | 57.1 | 42.4 | 70.6 | 1.93 | 4.20 |
| **April** | 61.8 | 45.8 | 77.2 | 0.82 | 4.98 |
| **May** | 67.3 | 51.0 | 83.2 | 0.41 | 6.68 |
| **June** | 73.0 | 55.2 | 90.9 | 0.08 | 7.17 |
| **July** | 79.3 | 60.6 | 97.1 | 0.19 | 7.88 |
| **August** | 80.2 | 61.5 | 98.4 | 0.21 | 7.55 |
| **September** | 75.9 | 57.8 | 93.3 | 0.28 | 6.09 |
| **October** | 67.5 | 50.2 | 84.0 | 0.61 | 4.12 |
| **November** | 58.1 | 41.6 | 73.9 | 0.91 | 2.64 |
| **December** | 51.7 | 36.1 | 67.2 | 1.64 | 1.94 |
| **Annual** | 66.0 | 48.3 | 80.9 | 11.5 | 58.14 |

**Source:**

Historical average monthly precipitation and temperature information was obtained from the Western Regional Climate Center (http://www.wrcc.dri.edu/) and is based on data collected from Station 047813 (San Jacinto Ranger Station, California) from 1948 through 2015. Historical monthly average ETo information was obtained from the California Irrigation Management Information Systems (http://wwwcimis.water.ca.gov) and is based on data collected from Station 239 (Hemet).

The climate in the City of San Jacinto is moderate. Summers are warm and winters are mild. The average temperature ranges from 51.7 degrees Fahrenheit ($^{o}$F) in

December to 80.2 ºF in August. The average rainfall ranges from 0.08 inches in June to 2.56 inches in January and February. The Evapotranspiration ranges from 1.94 inches December to 7.88 inches July. There are no other demographic factors affecting water management.

### 3.3.1 CLIMATE CHANGE (OPTIONAL)

DWR had deemed Section 3.3.1 as optional. The City is not required by DWR to complete this section.

## 3.4 SERVICE AREA POPULATION AND DEMOGRAPHICS

*CWC 10631.*

*(a) Describe the service area of the supplier, including current and projected population... 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.*

The City provides water service to an area with a population of about 18,000 as of 2015. Table 3-1 presents the current and projected population of the area encompassed by the City from 2015 to 2040. Projected populations in the City's service area were based on projections obtained from the Southern California Association of Governments (SCAG). The SCAG data incorporates demographic trends, existing land use, general plan land use policies, and input and projections from the Department of Finance (DOF) and the US Census Bureau. In addition, the City used "Appendix A: Alternative Methodology for Service Area Population" to calculate the projected service

area population from 2020 to 2040. The population within the City water service area is estimated to be built out by 2040 at about 6,000 meters or about 23,000 people. Using Appendix A: Alternative Methodology for Service Area Population, the City used its service area population in calendar year 2015 and the number of residential connections in calendar year 2015 to calculate the "Persons per Residential Connections" for calendar year 2015. Based on DWR's Population Tool, the year 2015 population is 17,961. From the City's data, the City's number of residential connections during 2015 was 3,175 meters. The "Persons per Residential Connections" is 5.66 (17,961 / 3,175). The "Persons per Residential Connections" number is used to calculate the population for each year from 2020 through 2040 by multiplying by the number of projected residential connections in 2020 through 2040. It is assumed the City's residential connections will increase one percent per year. The City is projected to have a population of approximately 23,000 people by 2040. The population estimate for 2015 in Table 3-1 is consistent with DWR requirements discussed in Section 5.4.1.

### 3.4.1 OTHER DEMOGRAPHIC FACTORS

*CWC 10631.*

*(a) Describe the service area of the supplier, including… other demographic factors affecting the supplier's water management planning.*

No other demographic factors affect the City's water management planning. However, increased population will have an impact on water demand.

# CHAPTER 4
## SYSTEM WATER USE

### 4.1 RECYCLED VERSUS POTABLE AND RAW WATER DEMAND

Chapter 4 addresses the City's potable water demands. Recycled water demands are addressed separately in Section 6.5; however, a summary is provided in Table 4-3. Raw water is not served by the City and is not applicable.

### 4.2 WATER USES BY SECTOR

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*CWC 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).*

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The City's current and projected water demands are provided in five-year increments through 2040 in Tables 4-1 and 4-2. Water demand sectors are also identified (see Section 4.2.1). The City's total water demand projections are based on the SB X7-7 calculations prepared in Section 5.7. The water demands for each individual water demand sector were projected based on the percentage breakdown of water demands from each individual water demands sector in 2015 (the percentages were then applied to the projected total water demands).

### 4.2.1 DEMAND SECTORS LISTED IN WATER CODE

As shown in Table 4-1, the City's service area includes the following water demand sectors listed in the California Water Code:

- Single-family residential
  (A single-family dwelling unit is a lot with a free-standing building containing one dwelling unit that may include a detached secondary dwelling. Single-family residential water demands are included in retail demands.)

- Multi-family
  (Multiple dwelling units are contained within one building or several buildings within one complex. Multi-family residential water demands are included in retail demands.)

- Commercial
  (Commercial users are defined as water users that provide or distribute a product or service. Commercial water demands are included in retail demands.)

- Institutional (and governmental)
  (Institutional users are defined as water user dedicated to public service. Institutional users include, among other users, higher education institutions, schools, courts, churches, hospitals, government facilities, and nonprofit research institutions. Institutional water demands are included in retail demands.)

- Landscape
  (Landscape connections supply water solely for landscape irrigation. Landscapes users may be associated with multi-family, commercial, industrial, or institutional/governmental sites, but are considered a separate water use sector if the connection is solely for landscape irrigation. Landscape water demands are included in retail demands.)

- Distribution system losses
  (Distribution system losses are discussed in Section 4.3 and Appendix E.)

### 4.2.2 DEMAND SECTORS IN ADDITION TO THOSE LISTED IN THE WATER CODE

There are "other" water demand sectors that are not specifically listed in, nor required by the California Water Code, such as exchanges, surface water augmentation, transfers, wetlands or wildlife habitat, firefighting, line flushing, or other unbilled uses. Some agencies account for the entirety of their demand. The water use in these sectors is to be reported as records are available. The City's service area includes an "other" water demand sector which is not listed in the California Water Code. The City includes the following under the "other" water demand sector:

- Firefighting
- Construction
- Misc.

## 4.3 DISTRIBUTION SYSTEM WATER LOSSES

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*CWC 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:…*
*(J) Distribution system water loss*

*CWC 10631(e)(3).*

*(A) For the 2015 urban water management plan update, the distribution system water loss shall be quantified for the most recent 12-month period available. For all subsequent updates, the distribution system water loss shall be quantified for each of the five years preceding the plan update.*

*(B) The distribution system water loss quantification shall be reported in accordance with a worksheet approved or developed by the department through a public process. The water loss quantification worksheet shall be based on the water system balance methodology developed by the American Water Works Association.*

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The City estimated its distribution system water loss over the most recent 12-month period from January 2015 to December 2015 using the methodology developed by the American Water Association (AWWA). The City's distribution system water loss over the most recent 12-month period available, from January 2015 to December 2015, was 2 acre-feet, as shown in Table 4-4. This is about a 0.4 percent water loss from

water supplied from the wells. A copy of the AWWA water system balance calculation for the City's distribution system water loss is provided in Appendix E.

## 4.4 ESTIMATED FUTURE WATER SAVINGS

*CWC 10631(e)(4).*

*(A) If available and applicable to an urban water supplier, water use projections may display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans identified by the urban water supplier, as applicable to the service area.*

*(B) To the extent that an urban water supplier reports the information described in subparagraph (A), an urban water supplier shall do both of the following: (i) Provide citations of the various codes, standards, ordinances, or transportation and land use plans utilized in making the projections.(ii) Indicate the extent that the water use projections consider savings from codes, standards, ordinances, or transportation and land use plans. Water use projections that do not account for these water savings shall be noted of that fact.*

The City's projections include future water savings based on the City's Ordinance No. 09-16 for establishing Water Conservation and Water Supply Shortage Program and Regulations. The City instituted Ordinance No. 09-16 as a way to carefully manage its water supply with active water conservation measures not only in times of drought, but at all times, in order to ensure a reliable minimum supply of water to meet current and future water supply needs. The purpose of the Water Conservation and Water Supply Shortage Program is to reduce water consumption 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 to avoid and minimize the effects of water shortages. Historically, the City's gallons per capita per day (GPCD) was about 184 GPCD. Due to Ordinance No. 09-16, the City's 2015 GPCD was about 113 GPCD.

## 4.5 WATER USE FOR LOWER INCOME HOUSEHOLDS

*CWC 10631.1.*

*(a) The water use projections required by Section 10631 shall include projected water use for single-family and multifamily residential housing needed for lower income households, as defined in Section 50079.5 of the Health and Safety Code, as identified in the housing element of any city, county, or city and county in the service area of the supplier.*

*California Health and Safety Code 50079.5.*

*(a) "Lower income households" means persons and families whose income does not exceed the qualifying limits for lower income families… In the event the federal standards are discontinued, the department shall, by regulation, establish income limits for lower income households for all geographic areas of the state at 80 percent of area median income, adjusted for family size and revised annually.*

The City's water use projections (See Section 7.3) through 2040 include projected water demands for lower income single-family and multi-family households. The total number of lower income households within the City's service area was estimated based on billing records provided by the City, a review of the City's General Plan, and a review of GIS maps of Disadvantaged Communities[1] (DACs), including block groups, tracts, and places, provided by DWR. The City's projections in Tables 4-2 and 4-3 includes lower income households. As of December 2015, the City's records indicate that the City currently provides service to approximately 41 lower income households, which is approximately 1 percent of its total current number of residential meters. Based on a 5.66 persons per connections factor and 113 GPCD (calculated and discussed in Section 5.8.1), the estimated demand is about 29 acre-feet for 2015. Assuming lower income households will increase 1 percent per year and 147 GPCD

[1] GIS information for DACs is based on data from the US Census showing census block groups, tracts, and places identified as disadvantaged communities (less than 80 percent of the State's median household income) or severely disadvantaged communities (less than 60 percent of the State's median household income)

(calculated and discussed in Section 5.7.2) by 2040, the projected water demand for lower income households is about 49 acre-feet per year by the year 2040.

## 4.6 CLIMATE CHANGE (OPTIONAL)

DWR had deemed Section 4.5 as optional. The City is not required by DWR to complete this section.

# CHAPTER 5
## SB X7-7 BASELINE AND TARGETS

The Water Conservation Act of 2009 (or SB X7-7) required retail urban water suppliers to determine target water use for the years 2015 and 2020 in order to help the State achieve a 20 percent reduction in urban water use by the year 2020. Methodologies for calculating baseline and compliance daily urban per capita water use for the consistent implementation of the Water Conservation Act of 2009 were previously published by DWR's "Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use", dated October 1, 2010. DWR provided updated methodologies in its Final Draft "Guidebook for Urban Water Suppliers," dated January 2016. DWR's guidance documents were used by the City to determine the required water use parameters which are discussed below. The City developed the baselines and targets individually and not regionally. A copy of the Water Conservation Act of 2009 is provided in Appendix F.

### 5.1 GUIDANCE FOR WHOLESALE AGENCIES

*CWC 10608.12(r).*

*Urban wholesale water suppliers 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.*

*CWC 10608.36.*

*Urban wholesale water suppliers shall include in the urban water management plans… 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 a wholesale agency and is not required by DWR to complete Section 5.1.

## 5.2 UPDATING CALCULATIONS FROM 2010 UWMP

*CWC 10608.20.*

*(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).*

*Methodologies DWR 2010, Methodology 2 Service Area Population.*

*Page 27 - Water suppliers may revise population estimates for baseline years between 2000 and 2010 when 2010 census information becomes available. DWR will examine discrepancy between the actual population estimate and DOF's projections for 2010; if significant discrepancies are discovered, DWR may require some or all suppliers to update their baseline population estimates.*

### 5.2.1 TARGET METHOD

The methodology selected in the City's 2010 Plan to determine the City's 2015 and 2020 urban water use targets was:

- "Method 1" and was based on eighty percent of the urban water supplier's baseline water use over a specific 10-year period.

- "Method 3" and was based on ninety-five percent of the applicable state hydrologic region target as stated in the State's April 30, 2009, draft 20x2020 Water Conservation Plan.

Because 2010 U.S. Census data was not available during the preparation of the City's 2010 Plan, the City is required to recalculate its "baseline population" (See Section 5.2.2) as well as its target water use for the 2015 Plan (See Section 5.7.1). However, "Target Method 1" (as discussed in Section 5.7.1) is incorporated in this 2015 Plan.

### 5.2.2 REQUIRED USE OF 2010 U.S. CENSUS DATA

The City has incorporated 2010 U.S. Census data into baseline population calculations in this 2015 Plan (See Section 5.4). As a result, the City updated its baseline population as well as its water use targets (See Section 5.7).

### 5.2.3 SB X7-7 VERIFICATION FORM

The City has updated its baseline and water use target calculations from 2010 (See Section 5.7). The required standardized tables in the SB X7-7 Verification Form are provided in Appendix G.

## 5.3 BASELINE PERIODS

*CWC 10608.20.*

*(e) An urban retail water supplier shall include in its urban water management plan due in 2010...the baseline daily per capita water use…along with the bases for determining those estimates, including references to supporting data.*

*(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).*

The Baseline Daily Per Capita Water Use is defined as the average water use, expressed in GPCD, for a continuous, multi-year baseline period. There were two different baseline periods (including a 10-year baseline period[2] and a 5-year baseline period[3]) for calculating Baseline Daily Per Capita Water Use in the the City's 2010 Plan. The baseline periods applicable for the City's 2015 Plan have been reviewed and are presented below.

### 5.3.1 DETERMINATION OF THE 10-15 YEAR BASELINE PERIOD (BASELINE GPCD)

*CWC 10608.12.*

*(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.*

The California Water Code allows an urban water supplier to calculate up to a 15-year baseline period if at least 10 percent of its 2008 retail water demands were met

[2] Pursuant to CWC 10608.12(b)(1), the 10-year baseline period is based on "a continuous 10-year period ending no earlier than December 31, 2004, and no later than December 31, 2010"

[3] Pursuant to CWC 10608.12(b)(3), the 5-year baseline period is based on "a continuous five-year period ending no earlier than December 31, 2007, and no later than December 31, 2010"

through recycled water deliveries within its service area, otherwise calculation of a 10-year baseline period is required. The City did not receive any recycled water deliveries during 2008. Consequently, a 10-year baseline period water use of 184 GPCD for the City was determined and incorporated into this 2015 Plan and is based on a continuous 10-year period between 1995 through 2004 (See SB X7-7 Table 1, Appendix G). A further discussion of determining water use targets based on the 10-year baseline period water use is discussed further in Section 5.7.

### 5.3.2 DETERMINATION OF THE 5 YEAR BASELINE PERIOD (TARGET CONFIRMATION)

*CWC 10608.12.*

*(b)(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.*

According to Section 10608.22 of the California Water Code, if an urban retail water supplier's 5-year baseline period water use is greater than 100 GPCD, the calculated 2020 water use target (See Section 5.7) must be greater than or equal to 95 percent of the 5-year baseline period water use. A 5-year baseline period water use of 182 GPCD for the City was determined and incorporated into this 2015 Plan and is based on a continuous 5-year period between 2003 through 2007 (See SB X7-7 Table 1, Appendix G). A further discussion of the 2020 water use target confirmation based on the 5-year baseline period water use is discussed further in Section 5.7.2.

## 5.4 SERVICE AREA POPULATION

*CWC 10608.20.*

*(e) An urban retail water supplier shall include in its urban water management plan due in 2010...the baseline 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.*

*CWC 10644.*

*(a)(2) The plan… shall include any standardized forms, tables, or displays specified by the department.*

For the purposes of projecting water use targets (See Section 5.7), agencies must determine the population that they served for each baseline year in both of the baseline periods (identified in Section 5.3) and for the 2015 compliance year (calendar year 2015). The City has incorporated U.S. Census data through 2010 into baseline population calculations in this 2015 Plan (See Section 5.4.1). According to DWR, the full 2010 U.S. Census data was not available until 2012. As a result, the City updated its baseline population as well as its water use targets (See Section 5.7), previously calculated in its 2010 Plan.

### 5.4.1 POPULATION METHODOLOGY

The annual populations within the City's service area for each year during the baseline periods (identified in Section 5.3) and for the 2015 compliance year (calendar year 2015) were estimated by DWR's online Population Tool (See SB X7-7 Table 2,

Appendix G). As discussed in Section 3.2.1, the City's service area boundary was submitted to the Population Tool in a "KML" file format (i.e. Google Earth format). The submitted KML file represents the City's service area boundary from 1990 to present (2015). The Population Tool utilized U.S. Census data from 1990, 2000, and 2010, along with the City's service area boundary, to estimate the population served by the City in calendar years 1990, 2000, and 2010. The annual amounts of residential service connections within the City's service area for each year from 1990 through 2015 were also entered into the Population Tool. Based on the actual population data (1990, 2000, and 2010) as well as the annual residential service connections (from 1990 through 2015), DWR's Population Tool estimated the annual population within the City's service area for each year from 1990 to 2015. The City's estimated populations during the baseline periods are provided in SB X7-7 Table 3, Appendix G.

## 5.5 GROSS WATER USE

*CWC 10608.12.*

*(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.*

*California Code of Regulations Title 23 Division 2 Chapter 5.1 Article 1, Section 596.*

*(a) An urban retail water supplier that has a substantial percentage of industrial water use in its service area is eligible to exclude the process water use of existing industrial water customers from the calculation of its gross water use to avoid a disproportionate burden on another customer sector.*

Annual gross water use amounts within the City for each year of the 10-year baseline year (1995 to 2004) identified in Section 5.3.1, for each year of the 5-year baseline year (2003 to 2007) identified in Section 5.3.2, and for calendar year 2015, are provided in SB X7-7 Table 4 (Appendix G) and are based on the total amount of water entering the City's distribution system from its water supply sources (groundwater production wells and imported water connections).

### 5.5.1 GROSS WATER TABLES

Annual gross water use amounts within the City for each for each year of the 10-year baseline year (1995 to 2004), identified in Section 5.3, and for calendar year 2015, are provided in SB X7-7 Table 4 (Appendix G).

The City currently does not use indirect recycled water within its service area. The City is not required by DWR to complete SB X7-7 Table 4-B (Appendix G).

Industrial process water is not included in the City's gross water use provided in SB X7-7 Table 4 (Appendix G). The City is not required by DWR to complete SB X7-7 Table 4-C.1, SB X7-7 Table 4-C.2, SB X7-7 Table 4-C.3, SB X7-7 Table 4-C.4, and SB X7-7 Table 4-D (Appendix G).

## 5.6 BASELINE DAILY PER CAPITAL WATER USE

The "daily per capita water use" is based on the water used per person per day (GPCD) within the City. The daily per capita water use is estimated by dividing gross water use (See Section 5.5 and Appendix G, SB X7-7 Table 4) by the service area population (See Section 5.4 and Appendix G, SBX 7-7 Table 3). The City's baseline

daily per capita water uses were determined for each baseline year (1995 to 2004) for 2015 and are provided in SB X7-7 Table 5 (Appendix G).

## 5.7 2015 AND 2020 TARGETS

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*CWC 10608.20.*

*(e) An urban retail water supplier shall include in its urban water management plan due in 2010… urban water use target, interim urban water use target,… along with the bases for determining those estimates, including references to supporting data.*

*(g) An urban retail water supplier may update its 2020 urban water use target in its 2015 urban water management plan….*

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As discussed in Section 5.2.1, "Target Method 1" has been incorporated in the City's 2015 Plan to determine the City's 2015 and 2020 urban water use targets. A further discussion regarding the selected target method is provided below.

### 5.7.1 SELECT AND APPLY A TARGET METHOD

Calculation of the 2020 Urban Water Use Target includes adoption of one of four available methods (pursuant to California Water Code Section 10608.20(b). The City reviewed the following available methods.

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

Using this target method, the Urban Water Use Target for the City was calculated as **147 GPCD**, based on 80 percent of the City's Baseline Per Capita Daily Water Use of 184 GPCD (See SB X7-7 Table 7-A, Appendix G).

*Target Method 2:* *Estimate using the sum of the specified three performance standards specified in California Water Code Section 10608.20(b)(2).*

Due to insufficient data, this target method was not considered.

*Target Method 3:* *Ninety-five percent of the applicable state hydrologic region target, as set forth in the state's 20x2020 Water Conservation Plan.*[4]

The City's service area lies entirely within the "South Coast" Hydrologic Region. According to SB X7-7 Table 7-E (Appendix G), the 2020 regional water use target for the South Coast Hydrologic Region is 149 GPCD. The Target Method 3 regional use target for the South Coast Hydrologic Region (or 95 percent of the 2020 regional water use target) is 142 GPCD.

*Target Method 4:* *Water Savings (DWR Provisional Method 4)*

Due to insufficient data, this target method was not considered.

The City's Urban Water Use Target was initially determined to be **147 GPCD** for 2020 and is based on Target Method 1 above, as indicated in SBX7-7 Table 7 (Appendix G).

[4] 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.

### 5.7.2 5-YEAR BASELINE – 2020 TARGET CONFIRMATION

*CWC 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.*

As discussed in Section 5.3.2, , if an urban retail water supplier's 5-year baseline period water use is greater than 100 GPCD, the calculated 2020 Urban Water Use Target (See Section 5.7.1) must be reduced to 95 percent of the 5-year baseline period water use (unless it is already below 95 percent of the 5-year baseline period). The City's calculated 5-year baseline period water use was 182 GPCD (See Section 5.3.2). The value calculated for 95 percent of the 5-year baseline period water use is **173 GPCD**. The City's 2020 Urban Water Use Target was initially determined using Target Method 1 above to be 147 GPCD, which is less than the value calculated in this step (173 GPCD). Therefore, no adjustment is needed to the City's 2020 Urban Water Use Target of **147 GPCD** (See SB X7-7 Table 7-F, Appendix G).

### 5.7.3 CALCULATE THE 2015 INTERIM URBAN WATER USE TARGET

The City's 2015 Interim Target is based on the value mid-point between the 10-year baseline period water (184 GPCD, See Section 5.3.1 and SB X7-7 Table 5, Appendix G,) and the confirmed 2020 Urban Water Use Target (147 GPCD, See Section 5.7.2 and SB X7-7 Table 7, Appendix G). The City's 2015 Interim Target is **166 GPCD** as indicated in SB X7-7 Table 8 (Appendix G).

### 5.7.4 BASELINE AND TARGETS SUMMARY

A summary of the City's baseline water use and targets is provided in Table 5-1 (Appendix G).

## 5.8 2015 COMPLIANCE DAILY PER CAPITA WATER USE (GPCD)

*CWC 10608.12.*

*(e) "Compliance daily per capita water use" means the gross water use during the final year of the reporting period…*

*CWC 10608.24.*

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

*CWC 10608.20.*

*(e) An urban retail water supplier shall include in its urban water management plan due in 2010 … compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.*

### 5.8.1 MEETING THE 2015 TARGET

As discussed in Section 5.7.3, the City's 2015 Interim Target is **166 GPCD**. The City's actual water use during 2015 was **113 GPCD**. The City is currently in compliance with the 2015 Interim Target, as show in SB X7-7 Table 9 (Appendix G).

### 5.8.2 2015 ADJUSTMENTS TO 2015 GROSS WATER USE

*CWC 10608.24(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.*

*Methodology Document, Methodology 4.*

*This section discusses adjustments to compliance-year GPCD because of changes in distribution area caused by mergers, annexation, and other scenarios that occur between the baseline and compliance years.*

As discussed in Section 5.8.1, the City is currently in compliance with its 2015 Interim Target. As a result, adjustments to the City's 2015 gross water use were not incorporated into the City's 2015 Plan (See Table 5-2, Appendix G).

## 5.9 REGIONAL ALLIANCE

As discussed in Section 2.3.2, the City's 2015 Plan was not developed as part of a Regional Alliance. Information from the City's 2015 Plan is not required to be reported in a Regional Alliance report.

# CHAPTER 6
## SYSTEM SUPPLIES

The City has two sources of water supply: groundwater from the San Jacinto Basin and treated imported water from EMWD. Historically, 100 percent of the City's water supply is from groundwater and uses treated imported water for emergency purposes only or to meet peak demands due to mechanical failure at one of the City's wells. 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.

### 6.1 PURCHASED OR IMPORTED WATER

The City has three service connections to EMWD. 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, due to mechanical failure at one of the City's wells and for preventative maintenance. The City has not purchased imported water from EMWD since 2008. The City's current and projected volumes of purchased water are provided in Tables 6-8 and 6-9.

## 6.2 GROUNDWATER

The Grand Well is located in the westerly portion of the City's service area. 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 1,000 gallons per minute (gpm).

The Bath Well is located in the easterly portion of the City's service area. The Bath Well is 1,320 feet deep, is perforated from 340 feet to 1,300 feet bgs and has a capacity of 1,500 gpm.

The Artesia Well is located in the easterly portion of the City's service area. The Artesia Well is 1,210 feet deep, is perforated from 390 feet to 1,000 feet bgs and has a capacity of 1,500 gpm.

The Lake Park Well is located east of the City's service area. The Lake Park Well is 1,200 feet deep, is perforated from 625 feet to 1,180 feet bgs and has a capacity of 2,500 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 1,200 gpm and the treatment facility at the Bath Well site has a maximum capacity of about 1,300 gpm.

### 6.2.1 BASIN DESCRIPTION

*CWC 10631.*

*(b) 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:*

*(2) A description of any groundwater basin or basins from which the urban water supplier pumps groundwater.*

**San Jacinto Basin - Description**

The City water system is primarily reliant on four wells which pump from the San Jacinto Groundwater Basin. The City's 2010 Plan notes the general boundaries of the Basin are the Casa Loma Fault on the southwest, which separates it from 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.

## San Jacinto Basin - Hydrology

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.

### 6.2.2 GROUNDWATER MANAGEMENT

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*CWC 10631(b).*

*(b) 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 … or any other specific authorization for groundwater management.*

*(2) …For basins that 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.*

**San Jacinto Basin – Groundwater Management Plan and Stipulated Judgment**

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 H. In April 2013, a Stipulated Judgment (Judgment), Case Number RIC 1207274, was entered with the Superior Court of the State of California for the County of Riverside adopting the Management Plan and creating the Watermaster, as shown in Appendix I. The Watermaster Board is the governing body for the Management Area and is comprised of elected officials representing the Cities of Hemet and San Jacinto, LHMWD, EMWD, and a representative for the private groundwater producers.

The Judgment declares individual water rights of EMWD, LHMWD, Cities of Hemet and San Jacinto, and other private groundwater pumpers to groundwater in the Canyon Sub-basin, the San Jacinto Upper Pressure Sub-basin downstream to Bridge Street and the Hemet Sub-basin. These basins are collectively called the Management Area and are located in the San Jacinto Valley. EMWD and the City of Hemet possess permitted and pre-1914 Surface Water Rights to store, divert, and recharge surface water from the San Jacinto River and its tributaries. The Judgment also recognizes the Tribal Water Rights of the Soboba Band of Luiseno Indians determined through a separate settlement among Soboba Tribe, the United States, EMWD, LHMWD, and MWD. The City of San Jacinto's Base Production Rights are 4,031 acre-feet per year. The Judgment estimates the groundwater safe yield of the Management Area to be

approximately 45,000 acre-feet per year. The Judgment estimates the long-term basin overdraft to be approximately 10,000 acre-feet per year.

The powers and duties of the Watermaster includes making rules and regulations necessary for its own operations as well as for the operation of the Management Plan and the Judgment; the implementation of the Physical Solution; development and implementation of a Water Management Plan; planning and constructing facilities to accomplish the goals of the Judgment; purchase of water for recharge; data collection; levying, billing and collection of all assessments provided for under the Judgment; record keeping; and reporting to the Court.

Section 6 of the Judgment adopts a "…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…" The following are plans and programs to enforce and implement the Physical Solution (all under Section 6 of the Judgment):

1. Water Management Plan - "The Watermaster will approve and implement a Water Management Plan…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."
2. Groundwater Replenishment Program - The Watermaster will administer the Groundwater Replenishment Program. "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 subsurface percolation and injection facilities."

3. Storage Rights - Unused storage capacity will be managed by the Watermaster conjunctively with natural and available Supplemental Water supplies.
4. Recycled Water - "The use of Recycled Water produced by Eastern can be of substantial benefit in providing additional water in the Management Area…Such Recycled Water may be used for Recharge or direct use within the Management Area."
5. 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…"

**California Statewide Groundwater Elevation Monitoring Program**

The 2014 Sustainable Groundwater Management Act (SGMA) directed DWR to establish initial groundwater basin priorities for the basins identified and defined in DWR's Bulletin 118. DWR finalized the basin prioritization in June 2014 through the California Statewide Groundwater Elevation Monitoring (CASGEM)[5] program. The CASGEM basin prioritization program is being used by DWR to focus resources towards implementing legislation to require all groundwater basins be monitored for seasonal and long-term groundwater elevation trends. DWR plans to evaluate the status of groundwater level monitoring in "High" or "Medium" priority groundwater basins. If DWR determines that groundwater levels in all or part of a High or Medium Priority basin are not being monitored, DWR will work cooperatively with local entities to establish a monitoring program. Compliance with DWR requirements allows the basin monitoring entities to be eligible to receive State water grants or loans. The San Jacinto (Basin 8-5) groundwater basin is identified through CASGEM as a "high" priority basin.

[5] http://www.water.ca.gov/groundwater/casgem/basin_prioritization.cfm

### 6.2.3 OVERDRAFT CONDITIONS

*CWC 10631(b).*

*(2) 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.*

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

### 6.2.4 HISTORICAL GROUNDWATER PUMPING

*CWC 10631(b).*

*(b) 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:*

*(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.*

The City water system is primarily reliant on four wells which pump from the San Jacinto Groundwater Basin. The City along with EMWD, LHMWD, the City of Hemet and private producers rely on the Basin for groundwater supplies. Table 6-1 shows the City's groundwater pumped during the past five years (2011 to 2015), which averaged about 2,773 AF. During the same five-year period, the City experienced a multiple dry

year drought, as shown in Figure 1, and was able to supply groundwater to meet its demands, as shown in Figure 2. The City's Ordinance No. 09-16 (which establishes the Water Conservation and Water Supply Shortage Program and Regulations), the Stipulated Judgment and the Groundwater Replenishment Program helped keep water levels in the San Jacinto Basin from decreasing even during the multiple dry year drought (2011-2015), as shown in Figure 3. During 2012, 2013 and 2014, imported water was used to recharge the Basin, as shown in Figure 4, and helped keep water levels from decreasing. Consequently, the City is expected to have water supply from the San Jacinto Groundwater Basin to meet its demands within the next 25 years during a normal year (discussed more in detail in Section 7). In addition, the City is expected to have water supply from the San Jacinto Groundwater Basin to meet its demands within the next 25 years during a single dry year and multiple dry year sequence (discussed more in detail in Section 7).

## 6.3 SURFACE WATER

The City does not use surface water supplies to meet its water demands.

## 6.4 STORMWATER

The City does not use stormwater to meet its water demands.

## 6.5 WASTEWATER AND RECYCLED WATER

### 6.5.1 RECYCLED WATER COORDINATION

*CWC 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…*

The City does not utilize recycled water because the infrastructure is not available in order to use this type of water supply as of February 2016. EMWD owns, operates and controls all recycled water use in EMWD's service area. All available recycled water production is used for agricultural use, landscape, wildlife habitat, wetlands/lake, and industrial use.

If construction of a recycled water distribution system in the City's service area occurs and additional recycled water becomes available, the potential uses for recycled water within the City's service area 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.

### 6.5.2 WASTEWATER COLLECTION, TREATMENT, AND DISPOSAL

*CWC 10633(a).*

*(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.*

*CWC 10633(b).*

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

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 and located outside the City's service area. A more thorough discussion of the RWRF is included in EMWD's 2015 Plan, which is shown in Appendix J. In 2011, EMWD began a $157 million expansion project. Work on the facility was completed in early 2015. The facility's maximum capacity increased from 7.5 million gallons per day to 14 million gallons per day. During 2015, the total wastewater generated, collected and treated within the City's service area was 869 acre-feet, as shown in Table 6-2. Treated wastewater is not disposed of within the City's service area, as shown in Table 6-3.

Recycled Water

As of February 2016, there is no recycled water available to the City for a reuse program at this time and is not anticipated to be in the future, as shown in Table 6-4. The City will look at the possibility of using recycled water in the future when supplies

may be available. As of February 2016, the potential use of recycled water in the future by the City is not technically or economically feasible.

### 6.5.3 RECYCLED WATER SYSTEM

*Section 10633*

*(c) (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*

There is no recycled water available to the City for a reuse program at this time as of February 2016.

### 6.5.4 RECYCLED WATER BENEFICIAL USES

*Section 10633*

*(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, indirect potable reuse, 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*

*Section 10633*

*(e) (Provide) a description of the actual use of recycled water in comparison to uses previously projected pursuant to this subdivision.*

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.

If construction of a recycled water distribution system in the City's service area occurs, the potential uses for recycled water within the City's service area 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.

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. As of February 2016, the potential use of recycled water by the City is not technically or economically feasible. Recycled water is estimated to be zero for 2015 to 2035, as shown in Table 6-4. The City's 2010 UWMP projected recycled water to be zero for 2010 to 2030, as shown in Table 6-5.

### 6.5.5 ACTIONS TO ENCOURAGE AND OPTIMIZE FUTURE RECYCLED WATER USE

*Section 10633*

*(f) (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.*

*(g) (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.*

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. As of February 2016, the potential use of recycled water by the City is not technically or economically feasible, as shown in Table 6-6.

## 6.6 DESALINATED WATER OPPORTUNITIES

*Section 10631(h)*

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

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 2014 Annual Water Quality Report", which is provided in Appendix K, the average TDS value for the City's active wells is about 240 parts per million (ppm) and ranges from 190 ppm to 320 ppm.

## 6.7 TRANSFER OPPORTUNITIES

*Section 10631(d)*

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

### 6.7.1 LONG-TERM

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

### 6.7.2 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.

## 6.8 FUTURE WATER PROJECTS

*Section 10633*

*(g) …The urban water supplier shall include a detailed description of expected future projects and programs… 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.*

As of February 2016, the City does not expect to develop additional water supply projects or programs in the future.

## 6.9 SUMMARY OF EXISTING AND PLANNED SOURCES OF WATER

*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 10631(a).*

*(4) (Provide 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.*

As discussed in Section 6, the City's water supply sources include local groundwater and imported surface water supply sources. The actual quantities of the water supply sources available to the City during calendar year

2015 are summarized in Table 6-8. The reliable quantities of projected water supply sources available to the City in five-year increments through 2040 during average years are summarized in Table 6-9. The City's projected demand will be supplied by groundwater and does not expect to be supplied by imported surface water, as shown in Table 6-9.

## GROUNDWATER SOURCES IN SAN JACINTO BASIN

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. According to the rainfall data on Figure 1, the 66-year average rainfall within the City's service area is about 11.5 inches. Calendar year 2008 represents an average water year for the City in which the total amount of rainfall was about 11.3 inches. A single dry year for the City was experienced in 2009 in which the total amount of rainfall was about 7.4 inches. A multiple dry year sequence for the City is represented from 2011 to 2015. During those years, the total amount of rainfall was about 9.6, 8.0, 6.0, 10.2, and 7.3 inches respectively. During 2012, 2013 and 2014, imported water was used to recharge the Basin, as shown in Figure 4, and helped keep water levels from decreasing, as shown in Figure 3. Based on historical data, the City was able to supply water from the San Jacinto Groundwater Basin to meet its demands during normal, single-dry and multiple dry years and water levels in the San Jacinto Groundwater Basin remained constant, as shown in Figure 3. The City's Ordinance No. 09-16 (which establishes the Water Conservation and Water Supply Shortage Program and Regulations), the Stipulated Judgment and the Groundwater Replenishment Program will continue to keep water levels in the San Jacinto Basin from decreasing even during future multiple dry year drought periods. **Therefore, based on historical and on-going management practices, the City will be able to rely on the San Jacinto Basin for adequate supply over the next 25 years.**

## 6.10 CLIMATE CHANGE IMPACTS TO SUPPLY

DWR had deemed Section 6.10 as optional. The City is not required by DWR to complete this section.

# CHAPTER 7
# WATER SUPPLY RELIABILITY ASSESSMENT

## 7.1 CONSTRAINTS ON WATER SOURCES

*Section 10631(c)*

*(2) 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.*

*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.*

The City has not experienced water supply constraints or deficiencies in the past. Management of the City's primary groundwater supplies is based on the Stipulated Judgment, which are described in Section 6.2.2.

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 State Water Resources Control Board, Division of Drinking Water (DDW), as required. A copy of the City's 2014 Annual Water Quality Report is presented in Appendix K, 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 DDW

guidelines and is not expected to change over the next 25 years. Therefore, the water available to the City over the next 25 years will not be affected by the water quality.

## 7.2 RELIABILITY BY TYPE OF YEAR

*Section 10631(c)*

*(1) 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:*
*(a) an average water year,*
*(b) a single dry water year,*
*(c) multiple dry water years.*

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. According to the rainfall data on Figure 1, the 66-year average rainfall within the City's service area is about 11.5 inches. Calendar year 2008 represents an average water year for the City in which the total amount of rainfall was about 11.3 inches. A single dry year for the City was experienced in 2009 in which the total amount of rainfall was about 7.4 inches. A multiple dry year sequence for the City is represented from 2011 to 2015. During those years, the total amount of rainfall was about 9.6, 8.0, 6.0, 10.2, and 7.3 inches respectively. During an average year, single dry year and multiple dry years, the City's supplies met its customer's demands, as shown in Figure 2. 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.

Table 7-1 summarizes these "base years" for average, single dry, and multiple dry years and provides the total amount of water supplies available to the City during

those base years. The City's historical water supply tabulation provided in Table 6.1 and Figure 2 shows that during these base years (for average year, single dry year and multiple dry years), groundwater production remained stable. A single dry year or a multiple dry year period could compromise the City's ability to provide a reliable supply of water to its customers.

### 7.2.1 TYPES OF YEARS

The City's base years for average, single dry, and multiple dry years are provided in Section 7.2 and are summarized in Table 7-1. As indicated in Section 6.1, the City's groundwater supplies were sufficient in meeting the City's historical water demands under all base years, including during normal, single, and multiple dry years. A normal or average year was based on a year during the past 20 years with a total precipitation similar to the historical average precipitation in the vicinity of the City's service area. The single dry year was based on a single year of below average rainfall. The multiple dry year period was based on a period of three consecutive dry years during the past 20 years.

### 7.2.2 AGENCIES WITH MULTIPLE WATER SOURCES

The City primarily obtains its water supply from groundwater wells located in the San Jacinto Basin. As discussed in Section 7.3 and shown in Table 7-2, Table 7-3, and Table 7-4, a single dry year or a multiple dry year period will not compromise the City's ability to provide a reliable supply of water to its customers.

## 7.3 SUPPLY AND DEMAND ASSESSMENT

*Section 10635*

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

As previously discussed, the City's projected normal year water demands over the next 25 years in five-year increments were based on the City's 2020 Urban Water Use Target of 147 GPCD. The ratio of water supplies available to the City during a historical normal water year in 2008 (or 3,029 AF) and during a historical single dry year in 2009 (or 2,868 AF) was used to estimate the City's projected water demands during single dry years. The ratio of water supplies used by the City during a historical normal water year in 2008 (or 3,029 AF) and a historical multiple dry year period from 2011 to 2015 (or 2,781 AF, 3,031 AF, 2,963 AF, 2,824 AF, and 2,270 AF, respectively) was used to estimate the City's projected water demands during a multiple dry year period. The City's available water supplies is 4,031 AFY of Base Production Rights, which is more than its projected demand. Consequently, the City's projected dry year water supplies over the next 25 years were based on the minimum supplies needed by the City to meet projected single-dry year demands. Table 7-2, Table 7-3, and Table 7-4 summarize the City's projected water demands and supplies over the next 25 years in five-year increments, including during normal, single, and multiple dry years. These tables indicate the City can meet water demands during normal, single dry, and multiple dry years over the next 25 years.

## 7.4 REGIONAL SUPPLY RELIABILITY

*Section 10620*

*(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.*

Chapter 6 provides a description of the management of groundwater resources in the San Jacinto Basin, as well as information on basin management. Section 7.3 provides a description of the reliability of groundwater supply for the City during average, single-dry and multiple-dry water years.

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 and the drought period 2011 to 2015. As previously discussed in Chapter 6, during the drought period 2011 to 2015, the water levels at the Basin did not decrease, as shown in Figure 3, due to Ordinance No. 09-16, the Stipulated Judgment and Groundwater Replenishment Program. Consequently, the City does not anticipate any water supply problems over the next 25 years. In addition, the City has treated imported water connections with EMWD as backup water supply in the event of a mechanical failure at one of its wells. The City does not expect to use treated imported water from EMWD for the next 25 years.

# CHAPTER 8
## WATER SHORTAGE CONTINGENCY PLAN

*Section 10632*

*(a) 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.*

The City has developed Ordinance No. 09-16 for establishing Water Conservation and Water Supply Shortage Program and Regulations (Ordinance No. 09-16) in May 22, 2009 (attached in Appendix L) the City instituted Ordinance No. 09-16 as a way to carefully manage its water supply with active water conservation measures not only in times of drought, but at all times, in order to ensure a reliable minimum supply of water to meet current and future water supply needs. The adoption and enforcement of this Water Conservation and Water Supply Shortage Program is necessary to manage the City's potable water supply in the short-term and long-term and to avoid or minimize the effects of the drought and shortage within the City. The purpose of the Water Conservation and Water Supply Shortage Program is to reduce water consumption 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 to avoid and minimize the effects of water shortages. Ordinance No. 09-16 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 water supplies.

## 8.1 STAGES OF ACTION

*Section 10632(a)*

*(1) 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.*

Ordinance No. 09-16 includes 'four-stage' Water Conservation and Water Supply Shortage Program including up to 50 percent reduction in water supply if the City experiences a water supply shortage. The City's Water Conservation and Water Supply Shortage Program are all mandatory requirements. In the event of a prolonged and severe drought, "stages" will be implemented as shown in Table 8-1. For the purpose of this 2015 UWMP and to conform to DWR requirements, Section E of Ordinance No. 09-16, the "Permanent Water Conservation Requirements," are water conservation requirements that are effective at all times and are permanent and consequently, will be referred to as "Stage 0" for this 2015 UWMP. Section F of Ordinance No. 09-16 is "Level 1 Water Supply Shortage" will be referred to "Stage 1." Section G of Ordinance No. 09-16 is "Level 2 Water Supply Shortage" will be referred to "Stage 2." Section H of Ordinance No. 09-16 is "Level 3 Water Supply Shortage – Emergency Condition" will be referred to "Stage 3." As of February 2016, the City is in "Stage 2" of the Water Conservation and Water Supply Shortage Program. Table 8-1 and Appendix L show each levels/stages of the Water Conservation and Water Supply Shortage Program, the requirements and the percent reduction.

## 8.2 PROHIBITIONS ON END USES

*Section 10632(a)*

*(4) 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*

*(5) 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.*

The City's Ordinance No. 09-16 covers prohibitions on end uses, which can be found in Appendix L. Some of these prohibitions are effective at all times and are permanent. Other prohibitions are triggered by Stages including restrictive stages to achieve water use reductions of up to 50 percent. The following sections discusses prohibitions of Landscape Irrigation, Commercial/Industrial/Institutional, Water Features/Swimming Pools, Defining Water Features, and Other.

### 8.2.1 LANDSCAPE IRRIGATION

Section E of the City's Ordinance No. 09-16 includes water conservation requirements that are effective at all times and are permanent. Violations of this section will be considered waste and an unreasonable use of water. The following are a list of the Section E mandatory prohibitions for Landscape Irrigation. More details of each prohibitions can be found in Appendix L and Tables 8-2 and 8-3:

- 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 am and 5:00 pm

- Limit on Watering 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.

Section F of the City's Ordinance No. 09-16 is "Level 1 Water Supply Shortage" and exists when the City Manager determines 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 approximately respond to existing water conditions. Upon declaration of Level 1, the City will implement the mandatory Level 1 conservation measures in Section F. The following are a list of Section F mandatory prohibitions for Landscape Irrigation. More details of each mandatory prohibitions can be found in Appendix L and Tables 8-2 and 8-3:

- Measures listed in Section E
- Limits on Water 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. During the months of November through March, water 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 by the City.

Section G of the City's Ordinance No. 09-16 is "Level 2 Water Supply Shortage" and exists when the City Manager determines 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 approximately respond to existing water conditions. Upon declaration of Level 2, the City will implement the mandatory Level 2 conservation measures in Section G. The following are a list of Section G mandatory prohibitions for Landscape Irrigation. More details of each mandatory prohibitions can be found in Appendix L and Tables 8-2 and 8-3:

- Measures listed in Section E
- Limits on Water 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. During the months of November through March, water 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 by the City.

Section H of the City's Ordinance No. 09-16 is "Level 3 Water Supply Shortage – Emergency Condition" and exists when the City Manager 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 declaration of Level 3, the City will implement the mandatory Level 3 conservation measures in Section H. The following are a list of Section H mandatory prohibitions for Landscape Irrigation. More details of each mandatory prohibitions can be found in Appendix L and Tables 8-2 and 8-3:

- Measures listed in Section E
- No Watering or Irrigating: Watering or irrigating of lawn, landscape or other vegetated area with potable water is prohibited.

### 8.2.2 COMMERCIAL, INDUSTRIAL, AND INSTITUTIONAL (CII)

Section E of the City's Ordinance No. 09-16 includes water conservation requirements that are effective at all times and are permanent. Violations of this section will be considered waste and an unreasonable use of water. The following are a list of the Section E mandatory prohibitions for CII. More details of each prohibitions can be found in Appendix L and Tables 8-2 and 8-3:

- Drinking Water Served Upon Request Only

- Commercial Lodging Establishments Must Provide Guests Option to Decline Daily Linen Services

### 8.2.3 WATER FEATURES AND SWIMMING POOLS

Section E of the City's Ordinance No. 09-16 includes water conservation requirements that are effective at all times and are permanent. Violations of this section will be considered waste and an unreasonable use of water. The following are a list of the Section E mandatory prohibitions for Water Features. More details of each prohibitions can be found in Appendix L and Tables 8-2 and 8-3:

- Re-circulating Water Required for Water Fountains and Decorative Water Features. Not using re-circulating water is prohibited.

Section G of the City's Ordinance No. 09-16 is "Level 2 Water Supply Shortage" and exists when the City Manager determines 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 approximately respond to existing water conditions. Upon declaration of Level 2, the City will implement the mandatory Level 2 conservation measures in Section G. The following are a list of Section G mandatory prohibitions for Water Features and Swimming Pools. More details of each mandatory prohibitions can be found in Appendix L and Tables 8-2 and 8-3:

- Measures listed in Section E
- Limits on Filling Ornamental Lakes or Ponds: Filling or re-filling ornamental lakes or ponds is prohibited.
- Limits on Filling Residential Swimming Pools and Spas: Re-filling of more than one foot and initial filling of residential swimming pools or outdoor spas with potable water is prohibited.

### 8.2.4 DEFINING WATER FEATURES

*Section 10632*

*(b) Commencing with the urban water management plan update due July 1, 2016, for purposes of developing the water shortage contingency analysis pursuant to subdivision (a), the urban water supplier shall analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas, as defined in subdivision (a) of Section 115921 of the Health and Safety Code.*

*Health and Safety Code Section 115921*

*As used in this article the following terms have the following meanings: **(a)** "Swimming pool" or "pool" means any structure intended for swimming or recreational bathing that contains water over 18 inches deep. "Swimming pool" includes in-ground and aboveground structures and includes, but is not limited to, hot tubs, spas, portable spas, and non-portable wading pools.*

The City does not provide water supply directly to any water features. However, the City's Ordinance No. 09-16 includes water conservation requirements related to water features for its customers. Section E of the City's Ordinance No. 09-16, the City requires customers to use re-circulating water for water fountains and decorative water features. Water fountains and decorative water features that does not use re-circulated water is prohibited at all times. Under Section G of the City's Ordinance No. 09-16, if the City is in Level 2 of the Water Supply Shortage, filling or re-filling ornamental lakes or ponds is prohibited, except to the extent needed to sustain aquatic life. In addition, re-filling of more than one foot and initial filling of residential swimming pools or outdoor spas with potable water is prohibited. More details can be found in Appendix L and Tables 8-2 and 8-3.

### 8.2.5 OTHER

Section E of the City's Ordinance No. 09-16 includes water conservation requirements that are effective at all times and are permanent. Violations of this section will be considered waste and an unreasonable use of water. The following are a list of the Section E mandatory prohibitions for others not previously mentioned. More details of each prohibitions can be found in Appendix L and Tables 8-2 and 8-3:

- 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.
- No Washing Down Hard or Paved Surfaces. Doing so is prohibited.
- 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.
- Limits on Washing Vehicles: Using water to wash or clean a vehicle is prohibited.
- Installation of Single Pass Cooling Systems is prohibited.
- Installation of Non-re-circulating in Commercial Car Wash and Laundry Systems is prohibited.
- Commercial Car Wash Systems: Effective January 1, 2010 all commercial car wash systems must have installed operational re-circulating water systems.

Section G of the City's Ordinance No. 09-16 is "Level 2 Water Supply Shortage" and exists when the City Manager determines 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 approximately

respond to existing water conditions. Upon declaration of Level 2, the City will implement the mandatory Level 2 conservation measures in Section G. The following are a list of Section G mandatory prohibitions for others not previously mentioned. More details of each mandatory prohibitions can be found in Appendix L and Tables 8-2 and 8-3:

- Measures listed in Section E
- Limits on Washing Vehicles: Using water to wash or clean a vehicle is prohibited.

Section H of the City's Ordinance No. 09-16 is "Level 3 Water Supply Shortage – Emergency Condition" and exists when the City Manager 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 declaration of Level 3, the City will implement the mandatory Level 3 conservation measures in Section H. The following are a list of Section H mandatory prohibitions for others not previously mentioned. More details of each mandatory prohibitions can be found in Appendix L and Tables 8-2 and 8-3:

- Measures listed in Section E
- No New Potable Water Service
- Limits on Building Permits which require new or expanded water service
- Discontinue Service to customers who willfully violate provisions
- No New Annexations

## 8.3 PENALTIES, CHARGES, OTHER ENFORCEMENT OF PROHIBITIONS

*Section 10632(a)*

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

Section K of the City's Ordinance No. 09-16 identifies the penalties for violating the prohibitions of mandated Water Conservation and Water Supply Shortage measures. The following is a list of the penalties:

- 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.
- Penalties: Penalties for failure to comply with any provisions are as follows:
    - First Violation: The City will issue a written warning and deliver a copy of this section by mail.
    - Second Violation: A second violation within the preceding 12 calendar months is punishable by a fine not to exceed $25.
    - Third Violation: A third violation within the preceding 12 calendar months is punishable by a fine not to exceed $100.
    - Fourth and Subsequent Violations: A fourth and any subsequent violation is punishable by a fine not to exceed $500.
        - Water Flow Restrictor: In addition to any fines, the City 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 restrictions for larger

services after written notice of intent to install a flow restrictor for a minimum of 48 hours.

- Discontinuing Service: In addition to any fines and the installation of a water flow restrictor, the City may disconnect a customer's water service for willful violations of this section and adequate notice to the customer.

- Cost of Flow Restrictor and Disconnecting Service: A person or City that violates this Ordinance No. 09-16 is responsible for payment of the City's charges for installing and/or removing any flow restricting device and for discontinuing and/or reconnecting service per the City's schedule of charges then in effect. The charge for installing and/or removing any flow restricting device must be paid to the City before the device is removed. Nonpayment will be subject to the same remedies as nonpayment of basic water rates.
- Separate Offenses: Each day that a violation of this ordinance occurs is a separate offense.

## 8.4 CONSUMPTION REDUCTION METHODS

*Section 10632(a)*

*(5) 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.*

### 8.4.1 CATEGORIES OF CONSUMPTION REDUCTION METHODS

As discussed in Chapter 8, the City instated Ordinance No. 09-16 as a way to carefully manage its water supply with active water conservation measures not only in times of drought, but at all times, in order to ensure a reliable minimum supply of water to meet current and future water supply needs. Sections 8.1 and 8.2 discusses the types of consumption reduction methods used to reduce its overall consumption. Due to Ordinance No. 09-16, the City saved about 1,600 acre-feet of water, which will be discussed in detail in Section 8.5. Table 8-3 discusses the categories of consumption reduction methods used by the City.

## 8.5 DETERMINING WATER SHORTAGE REDUCTIONS

*Section 10632(a)*

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

As previously discussed, the City approved and adopted Ordinance No. 09-16 on May 21, 2009, as shown in Appendix L. Section E of Ordinance No. 09-16 discusses the methods of reducing water use. Sections F, G and H of Ordinance No. 09-16 discusses the three levels the City established during a water supply shortage. Ordinance No. 09-16 took effect on June 20, 2009. Before Ordinance No. 09-16, City demands were at 3,858 acre-feet in 2006, which is a 10-year historical high. After Ordinance No. 09-16, City demands averaged about 2,879 acre-feet between 2010 and 2014. At the Level 2 Water Supply Shortage, City demands during 2015 decreased to

2,270 acre-feet. Consequently, the City's reductions in water use was about 1,600 acre-feet since adoption of Ordinance No. 09-16.

## 8.6 REVENUE AND EXPENDITURE REPORTS

*Section 10632(a)*

*(7) An analysis of the impacts of each of the actions and conditions described in paragraphs (1) to (6), 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.*

### 8.6.1 DROUGHT RATE STRUCTURE AND SURCHARGES

The City is in the process of developing 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 of 2015, the City will develop a tiered rate structure that will conservatively and consistently generate sufficient fixed income, based on water connections, to fund fixed costs. 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 will regularly review its revenues and expenses. Therefore, the City can adjust its rates if needed in the future. 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. Surcharges can be added to the rates to ensure sufficient revenue to operate, manage and maintain infrastructure and services when water sales are low.

As of calendar year 2014, the City has a water rate schedule, which is provided in Appendix M. The 2014 water rate schedule shows water use of 0-15 units (1 unit = 748 gallons) is $1.53/unit and water use of more than 16 units is $2.12/unit. In addition, the City charges water adjudication surcharges and energy surcharges to its customers.

### 8.6.2 USE OF FINANCIAL RESERVES

The City has the flexibility to use operating reserve funds and/or capital reserve funds to cover fixed operating expenses until normal operating revenues could be reestablished and/or water rates are revised. Significant reductions in the City's operating and non-operating reserves could postpone or otherwise impact established water supply project and program schedules.

## 8.7 RESOLUTION OR ORDINANCE

*Section 10632(a)*

*(8) A draft water shortage contingency resolution or ordinance.*

As previously discussed, the City has developed Ordinance No. 09-16 for establishing Water Conservation and Water Supply Shortage Program and Regulations in May 22, 2009 (attached in Appendix L). As of February 2016, the City is in "Stage 2" of the Water Conservation and Water Supply Shortage Program.

## 8.8 CATASTROPHIC SUPPLY INTERRUPTION

*Section 10632(a)*

*(3) 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.*

The City has prepared an Emergency Operations Plan, as shown in Appendix N. 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.

## 8.9 MINIMUM SUPPLY NEXT THREE YEARS

*Section 10632(a)*

*(2) 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.*

### 8.9.1 THREE YEAR MINIMUM WATER SUPPLY

The City's driest three-year period was 2011, 2012, and 2013. During those years, the City's demand was 2,781, 3,031, and 2,963 acre-feet per year, respectively,

as shown on Table 8-4. The City had adequate water supply from groundwater to meet its demands, as shown on Figure 2. Based on Ordinance No. 09-16, Stipulated Judgment 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 2,900 acre-feet per year from groundwater. In addition, there will be imported water from EMWD available as an emergency supply. Consequently, the City will have adequate supply in an average, single-dry and multiple dry year sequence.

# CHAPTER 9
## DEMAND MANAGEMENT MEASURES

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 water Demand Management Measures (DMM) are addressed in the sections below. The City plans to coordinate with EMWD and MWD on the DMMs.

### 9.1 DEMAND MANAGEMENT MEASURES FOR WHOLESALE AGENCIES

*Section 10632(a)*

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

*(1)(B) The narrative pursuant to this paragraph shall include descriptions of the following water demand management measures:*
*(ii) Metering.*
*(iv) Public education and outreach.*
*(vi) Water conservation program coordination and staffing support.*
*(vii) Other demand management measures that have a significant impact on water use as measured in gallons per capita per day, including innovative measures, if implemented.*

*(2) For an urban wholesale water supplier, as defined in Section 10608.12, (provide) a narrative description of the items in clauses (ii), (iv), (vi), and (vii) of subparagraph (B) of paragraph (1), and a narrative description of its distribution system asset management and wholesale supplier assistance programs.*

The City is a retailer and not a wholesale agency. This program does not apply and the City is not required by DWR to complete this section.

## 9.2 DEMAND MANAGEMENT MEASURES FOR RETAIL AGENCIES

*Section 10631(f)*

*(A) The narrative shall describe the water demand management measure that the supplier plans to implement to achieve its water use targets pursuant to Section 10608.20.*

*(B) The narrative pursuant to this paragraph shall include descriptions of the following water demand management measures:*
*(i) Water waste prevention ordinances.*
*(ii) Metering.*
*(iii) Conservation pricing.*
*(iv) Public education and outreach.*
*(v) Programs to assess and manage distribution system real loss.*
*(vi) Water conservation program coordination and staffing support.*
*(vii) Other demand management measures that have a significant impact on water use as measured in gallons per capita per day, including innovative measures, if implemented.*

### 9.2.1 WATER WASTE PREVENTION ORDINANCES

[SECTION 10631 (f)(1)(b)(i)]

The City adopted an Ordinance for Water Conservation and Water Supply Shortage Program and Regulations on May 21, 2009, as shown in Appendix L, and have been implementing since then. Section E of the City's Water Conservation Ordinance No. 09-16 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 L.

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 No. 09-16 states the penalties and violations of any requirements listed in the City's Water Conservation Ordinance No. 09-16.

### 9.2.2 METERING

[SECTION 10631 (f)(1)(b)(ii)]

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*CWC 526*

*(a) Notwithstanding any other provisions of law, an urban water supplier that, on or after January 1, 2004, receives water from the federal Central Valley Project under a water service contract or subcontract... shall do both of the following:*
*(1) On or before January 1, 2013, install water meters on all service connections to residential and nonagricultural commercial buildings... located within its service area.*

*CWC 527*

*(a) An urban water supplier that is not subject to Section 526 shall do both the following:*
*(1) Install water meters on all municipal and industrial service connections located within its service area on or before January 1, 2025.*

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The City meters all water sales to its customers. The City has about 4,139 number of meters (accounts) during 2015. The City does not have any unmetered accounts. In addition, the City provides sewer service to its customers. However, EMWD owns and operates the wastewater treatment facility.

### 9.2.3 CONSERVATION PRICING

[SECTION 10631 (f)(1)(b)(iii)]

As previously discussed in Section 8.6, the City is in the process of developing a tiered rate structure which rewards water conservation with lower water rates. The new tiered rate structure creates an incentive to reduce water use.

### 9.2.4 PUBLIC EDUCATION AND OUTREACH

[SECTION 10631 (f)(1)(b)(iv)]

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. The City provides links on its website notifying customers of implementing Stage 2 of its Water Supply Shortage Measures and links on how to

conserve water. The City provides links to EMWD/MWD websites on water conservation programs.

EMWD implements school education programs. According to EMWD's 2015 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 environmental education.

### 9.2.5 PROGRAMS TO ASSESS AND MANAGE DISTRIBUTION SYSTEM REAL LOSS

[SECTION 10631 (f)(1)(b)(v)]

City staff regularly reviews water usage within the service area. If the City finds that a customer has 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. The City will endeavor to educate customers on how to find leaks and read meters.

The City established an Ordinance for Water Conservation and Water Supply Shortage Program and Regulations, as shown in Appendix L. Section E.5 of the City's Water Conservation Ordinance No. 09-16 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." The obligation to fix leaks, breaks or malfunctions are also included in Levels 1, 2 and 3 for Water Supply Shortages and Emergency Conditions.

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.

### 9.2.6 WATER CONSERVATION PROGRAM COORDINATION AND STAFFING SUPPORT

[SECTION 10631 (f)(1)(b)(vi)]

The City has designated its Public Works Director as the City's water conservation coordinator, which oversees conservation programs. The City will continue to coordinate with EMWD and MWD on expanding it's conservation programs.

### 9.2.7 OTHER DEMAND MANAGEMENT MEASURES

[SECTION 10631 (f)(1)(b)(vii)]

The City established a Water Conservation Ordinance, as shown in Appendix L. Section E of the City's Water Conservation Ordinance No. 09-16 prohibits waste of water at all times.

**Large Landscape Conservation Programs**

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.

**Conservation Programs for Commercial, Industrial, and Institutional Accounts**

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.

## 9.3 IMPLEMENTATION OVER THE PAST FIVE YEARS

*CWC 10631*

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

*(1)(A)*… a narrative description that addresses the nature and extent of each water demand management measure implemented over the past five years.

### 9.3.1 WATER WASTE PREVENTION ORDINANCES AND OTHER DMMS

The City adopted an Ordinance for Water Conservation and Water Supply Shortage Program and Regulations on May 21, 2009, as shown in Appendix L. Since the adoption of its Ordinance No. 09-16, the Ordinance addresses each of the DMMs including Water Waste Prevention, Metering, Programs to Assess and Manage System Losses, Landscape Conservation Programs, and Conservation Programs for CII. The City implemented Conservation Pricing, Public Education Programs, and Water Conservation Staff Support. Before Ordinance No. 09-16 in 2009, City demands were at 3,858 acre-feet in 2006, which is a 10-year historical high. After Ordinance No. 09-16, City demands averaged about 2,879 acre-feet between 2010 and 2014. City demands during 2015 decreased to 2,270 acre-feet. Consequently, the City's reductions in water use was about 1,600 acre-feet since adoption of its Ordinance No. 09-16 in 2009.

During calendar year 2015, the City participated in MWD's Turf Removal Rebate Program which included the removal of live turf which used potable water for irrigation and installation of drought tolerant plants and drip irrigation at the following locations:

- The City's Rancho Basins No. 2, 3, 8 and 9
- Three City parks: Hoffman Park, Sallee Park and Mistletoe Park

The area of this project totaled 416,966 square feet and the estimated rebate amount totaled about $708,000.

### 9.3.2 METERING

Over the past five years, the City continued to meter all water sales to its customers. The City does not have any unmetered accounts.

### 9.3.3 CONSERVATION PRICING

Over the past five years, the City has a water rate schedule which rewards water conservation with lower water rates. For example, the 2014 water rate schedule shows water use of 0-15 units (1 unit = 748 gallons) is $1.53/unit and water use of more than 16 units is $2.12/unit.

### 9.3.4 PUBLIC EDUCATION AND OUTREACH

Over the past five years, the City continued to inform its customers of EMWD and MWD's water conservation programs by providing links to its website. The City provided links on its website notifying customers of its Water Supply Shortage Measures and links on how to conserve water. In addition, EMWD implemented school education programs. EMWD offered water conservation programs to students in kindergarten through the twelfth grade.

### 9.3.5 PROGRAMS TO ASSESS AND MANAGE DISTRIBUTION SYSTEM REAL LOSS

Over the past five years, City staff continued to review water usage within the service area. If unusually high water consumption was detected, City staff conducted 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.

### 9.3.6 WATER CONSERVATION PROGRAM COORDINATION AND STAFFING SUPPORT

Over the past five years, the City continued to designate its Public Works Director or its Deputy as the City's water conservation coordinator, which oversees conservation programs.

## 9.4 PLANNED IMPLEMENTATION TO ACHIEVE WATER USE TARGETS

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*CWC 10631*

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

*(1)(A)* …The narrative shall describe the water demand management measures that the supplier plans to implement to achieve its water use targets pursuant to Section 10608.20.

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The City's 2015 Interim Target was 166 GPCD and the confirmed 2020 Target is 147 GPCD. The City's actual water use during 2015 was 113 GPCD. Consequently, the City is in compliance with the 2015 Interim Target and the confirmed 2020 Target. Although the City does not need to implement additional DMMs to achieve its confirmed 2020 Target, the City will continue to enforce its Ordinance No. 09-16 to prevent future water waste and continue to meet its water use targets.

## 9.5 MEMBERS OF THE CALIFORNIA URBAN WATER CONSERVATION COUNCIL

*CWC 10631*

*(i) For purposes of this part, urban water suppliers that are members of the California Urban Water Conservation Council shall be deemed in compliance with the requirements of subdivision (f) by complying with all the provisions of the "Memorandum of Understanding Regarding Urban Water Conservation in California," dated December 10, 2008, as it may be amended, and by submitting the annual reports required by Section 6.2 of that memorandum.*

The City is not a member of the CUWCC.

## 9.6 DEMAND MANAGEMENT MEASURES NOT IMPLEMENTED

*Section 10631*

*(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 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.*

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## WHOLESALE AGENCY PROGRAMS [10631(F)(1)(J)]

The City implements directly or indirectly all DMMs. However, under the CUWCC BMP "Foundational: Operations Practices – Wholesale Assistance Programs," the City is a retail water supplier, therefore wholesale agency programs are not applicable to the City.

# CHAPTER 10
# PLAN ADOPTION, SUBMITTAL, AND IMPLEMENTATION

## 10.1 INCLUSION OF ALL 2015 DATA

The data provided in the City's 2015 Plan is provided on a calendar year basis through December 31, 2015 (as discussed in Section 2.4.2).

## 10.2 NOTICE OF PUBLIC HEARING

### 10.2.1 NOTICE TO CITIES AND COUNTIES

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*CWC 10621.*

*(b) Every urban water supplier required to prepare a plan shall… at least 60 days prior to the public hearing on the plan … notify any city or county within which the supplier provides waters supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan.*

*CWC 10642.*

*…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…*

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As discussed in Section 2.5.2. the City of San Jacinto coordinated the preparation of the Urban Water Management Plan with EMWD, the County of Riverside, and the City of San Jacinto. The City notified these agencies and City residents at least sixty (60) days prior to the public hearing of the preparation of the 2015 Plan and invited

them to participate in the development of the Plan. A copy of the notification letters sent to these agencies is provided in Appendix D.

Additionally, a notice of public hearing was sent EMWD, the County of Riverside, and the City of San Jacinto. Copies of the notice of the public hearing are provided in Appendix O.

Table 10-1 summarizes the agencies which were provided notifications by the City.

### 10.2.2 NOTICE TO THE PUBLIC

*CWC 10642.*

*…Prior to adopting a plan, the urban water supplier shall make the plan available for public inspection…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…*

*Government Code 6066.*

*Publication of notice pursuant to this section shall be once a week for two successive weeks. Two publications in a newspaper published once a week or oftener, with at least five days intervening between the respective publication dates not counting such publication dates, are sufficient. The period of notice commences upon the first day of publication and terminates at the end of the fourteenth day, including therein the first day.*

The City of San Jacinto encouraged the active involvement of the population within its service area prior to and during the preparation of the Plan. Pursuant to Section 6066 of the Government Code, the City published a notice of public hearing in the newspaper during the weeks of April 1, 2016 and April 7, 2016. A notice of public

hearing was also provided to the City Clerk's office and was posted on the City's website. To ensure that the plan was available for review, the City placed a copy of the 2015 draft Plan at the City Community Development Department and made a copy available for review on its website.

## 10.3 PUBLIC HEARING AND ADOPTION

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*CWC 10642.*

*…Prior to adopting a plan, the urban water supplier shall hold a public hearing thereon.*

*CWC 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.*

---

Prior to adopting the 2015 Plan, the City held a public hearing on May 3, 2016 which included input from the community regarding the City's draft 2015 Plan. As part of the public hearing, the City made available to the public information on determination of its water use targets (see Section 5.7.1), economic impacts (see Section 8.6) and DMMs (see Chapter 9).

The City of San Jacinto is committed to the implementation of the 2015 Plan in accordance with Section 10643 of the Act, including the water demand management measures (DMMs) (see Section 9) and water conservation requirements of SBX7-7 (see Section 5). The City continues to be committed to the concept of good water management practice and intends to expand its water conservation program as budgets and staffing allow. The City's water conservation program will periodically be re-evaluated and modified to institute additional methods or techniques as the need arises. The City reviewed implementation of its 2010 Plan and incorporated changes to create the 2015 Plan.

### 10.3.1 ADOPTION

*CWC 10642.*

*…After the hearing, the plan shall be adopted as prepared or as modified after the hearing.*

Following the public hearing, the City adopted the draft Plan as its 2015 Plan. A copy of the resolution adopting the 2015 Plan is provided in Appendix P.

## 10.4 PLAN SUBMITTAL

*CWC 10621.*

*(d) An urban water supplier shall update and submit its 2015 plan to the department by July 1, 2016.*

*CWC 10644.*

*(a)(1) An urban water supplier shall submit to the department, the California State Library, and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption.*

*CWC 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 the submission of its urban water management plan.*

---

### 10.4.1 SUBMITTING A UWMP TO DWR

Within 30 days of adoption of the 2015 Plan by the City Council and by July 1, 2016, the City of San Jacinto will submit the adopted 2015 Plan to DWR. The 2015 Plan will be submitted through DWR's "Water Use Efficiency (WUE) Data Online Submittal Tool" website.

DWR developed a checklist for an Urban Water Management Plan to ensure it addresses the requirements of the California Water Code. The City has completed the DWR checklist by indicating where the required CWC elements can be found within the City's 2015 Plan (See Appendix B).

### 10.4.2 ELECTRONIC DATA SUBMITTAL

Within 30 days of adoption of the 2015 Plan, the City will also submit all data tables associated with the 2015 Plan through DWR's "Water Use Efficiency (WUE) Data Online Submittal Tool" website.

### 10.4.3 SUBMITTING A UWMP TO THE CALIFORNIA STATE LIBRARY

Within 30 days of adoption of the 2015 Plan by the City Council, a copy (CD or hardcopy) of the 2015 Plan will be submitted to the State of California Library. A copy of the letter to the State Library will be maintained in the City's file. The 2015 Plan will be mailed to the following address if sent by regular mail:

California State Library
Government Publications Section
P.O. Box 942837
Sacramento, CA 94237-0001
Attention: Coordinator, Urban Water Management Plans

The 2015 Plan will be mailed to the following address if sent by courier or overnight carrier:

California State Library
Government Publications Section
914 Capitol Mall
Sacramento, CA 95814

### 10.4.4 SUBMITTING A UWMP TO CITIES AND COUNTIES

Within 30 days of adoption of the 2015 Plan by the City Council, a copy of the 2015 Plan will be submitted to the County of Riverside Registrar / Recorders office and the City Clerk's Office. A copy of the letter to the County of Riverside will be maintained in the City's file.

## 10.5 PUBLIC AVAILABILITY

*CWC 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.*

Within 30 days after submittal of the 2015 Plan to DWR, the City will make the 2015 Plan available at the City Clerk's Office located at City Hall during normal business hours and on the City's website.

## 10.6 AMENDING AN ADOPTED UWMP

*CWC 10621.*

*(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).*

*CWC 10644.*

*(a)(1) Copies of amendments or changes to the plans shall be submitted to the department, the California State Library, and any city or county within which the supplier provides water supplies within 30 days after adoption.*

If DWR requires significant changes to the City's 2015 Plan before it determines the Plan to be "complete," the City will submit an amended or revised Plan. The amendment or revised Plan will undergo adoption by the City's

governing board. Within 30 days of adoption, the amendment or revised Plan will then be submitted to DWR, the State of California Library, the County of Riverside Registrar / Recorders office, and the City Clerk's Office.

# TABLES

| Table 2-1 Retail Only: Public Water Systems | | | |
|---|---|---|---|
| Public Water System Number | Public Water System Name | Number of Municipal Connections 2015 | Volume of Water Supplied 2015 |
| 3310032 | City of San Jacinto | 4,139 | 2,270 |
| | | | |
| | | | |
| | **TOTAL** | 4,139 | 2,270 |
| NOTES: | | | |

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

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

| Table 2-4 Retail: Water Supplier Information Exchange |
| --- |
| The retail supplier has informed the following wholesale supplier(s) of projected water use in accordance with CWC 10631. |
| Wholesale Water Supplier Name *(Add additional rows as needed)* |
| Eastern Municipal Water District |
| |
| |
| NOTES: |

| Table 3-1 Retail: Population - Current and Projected | | | | | | |
|---|---|---|---|---|---|---|
| Population Served | 2015 | 2020 | 2025 | 2030 | 2035 | 2040*(opt)* |
| | 17,961 | 18,877 | 19,840 | 20,852 | 21,916 | 23,000 |
| NOTES: | | | | | | |

| Table 4-1 Retail: Demands for Potable and Raw Water - Actual | | | |
|---|---|---|---|
| Use Type<br>*(Add additional rows as needed)* | 2015 Actual | | |
| ***Drop down list***<br>*May select each use multiple times*<br>*These are the only Use Types that will be recognized by the WUEdata online submittal tool* | Additional Description<br>*(as needed)* | Level of Treatment When Delivered<br>*Drop down list* | Volume |
| Single Family | | Drinking Water | 825 |
| Multi-Family | | Drinking Water | 526 |
| Commercial | Commercial/Institutional | Drinking Water | 321 |
| Industrial | | Drinking Water | 5 |
| Landscape | | Drinking Water | 333 |
| Other | | Drinking Water | 258 |
| Losses | | Drinking Water | 2 |
| | | **TOTAL** | 2,270 |
| NOTES: | | | |

| Table 4-2 Retail: Demands for Potable and Raw Water - Projected | | | | | | |
|---|---|---|---|---|---|---|
| Use Type *(Add additional rows as needed)* | Additional Description *(as needed)* | Projected Water Use *Report To the Extent that Records are Available* | | | | |
| ***Drop down list*** *May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool* | | 2020 | 2025 | 2030 | 2035 | 2040-opt |
| Single Family | | 1,133 | 1,190 | 1,251 | 1,315 | 1,380 |
| Multi-Family | | 722 | 758 | 797 | 838 | 879 |
| Commercial | Commercial/Institutional | 440 | 463 | 486 | 511 | 537 |
| Industrial | | 7 | 8 | 8 | 8 | 9 |
| Landscape | | 457 | 480 | 505 | 531 | 557 |
| Other | | 352 | 370 | 389 | 409 | 429 |
| Losses | | 2 | 2 | 2 | 2 | 2 |
| **TOTAL** | | 3,113 | 3,271 | 3,438 | 3,614 | 3,793 |
| NOTES: | | | | | | |

| Table 4-3 Retail: Total Water Demands | | | | | | |
|---|---|---|---|---|---|---|
| | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 *(opt)* |
| Potable and Raw Water *From Tables 4-1 and 4-2* | 2,270 | 3,113 | 3,271 | 3,438 | 3,614 | 3,793 |
| Recycled Water Demand* *From Table 6-4* | 0 | 0 | 0 | 0 | 0 | 0 |
| **TOTAL WATER DEMAND** | 2,270 | 3,113 | 3,271 | 3,438 | 3,614 | 3,793 |
| **Recycled water demand fields will be blank until Table 6-4 is complete.* | | | | | | |
| NOTES: | | | | | | |

| Table 4-4 Retail: 12 Month Water Loss Audit Reporting | |
|---|---|
| Reporting Period Start Date (mm/yyyy) | Volume of Water Loss* |
| 01/2015 | 2.000 |
| ** Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet.* | |
| NOTES: | |

| Table 4-5 Retail Only: Inclusion in Water Use Projections | |
|---|---|
| Are Future Water Savings Included in Projections?<br>(Refer to Appendix K of UWMP Guidebook)<br>*Drop down list (y/n)* | Yes |
| If "Yes" to above, state the section or page number, in the cell to the right, where citations of the codes, ordinances, etc... utilized in demand projections are found. | Sections 7.3, 8.2, 8.3 |
| Are Lower Income Residential Demands Included In Projections?<br>*Drop down list (y/n)* | Yes |
| NOTES: | |

**Table 5-1 Baselines and Targets Summary**

*Retail Agency or Regional Alliance Only*

| Baseline Period | Start Year | End Year | Average Baseline GPCD* | 2015 Interim Target * | Confirmed 2020 Target* |
|---|---|---|---|---|---|
| 10-15 year | *1995* | *2004* | *184* | *166* | *147* |
| 5 Year | *2003* | *2007* | *182* | | |

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

NOTES:

**Table 5-2: 2015 Compliance**

*Retail Agency or Regional Alliance Only*

| Actual 2015 GPCD* | 2015 Interim Target GPCD* | Optional Adjustments to 2015 GPCD<br>Enter "0" if no adjustment is made *From Methodology 8* | | | | | 2015 GPCD* *(Adjusted if applicable)* | Did Supplier Achieve Targeted Reduction for 2015? Y/N |
|---|---|---|---|---|---|---|---|---|
| | | Extraordinary Events* | Economic Adjustment* | Weather Normalization* | TOTAL Adjustments* | Adjusted 2015 GPCD* | | |
| 113 | 166 | 0 | 0 | 0 | 0 | 113 | 113 | Yes |

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

NOTES:

| Table 6-1 Retail: Groundwater Volume Pumped | | | | | | |
|---|---|---|---|---|---|---|
| ☐ | Supplier does not pump groundwater.<br>The supplier will not complete the table below. | | | | | |
| Groundwater Type<br>***Drop Down List***<br>*May use each category multiple times* | Location or Basin Name | 2011 | 2012 | 2013 | 2014 | 2015 |
| *Add additional rows as needed* | | | | | | |
| Alluvial Basin | San Jacinto Groundwater Basin | 2,779 | 3,031 | 2,963 | 2,824 | 2,270 |
| | | | | | | |
| | | | | | | |
| | **TOTAL** | 2,779 | 3,031 | 2,963 | 2,824 | 2,270 |
| NOTES: | | | | | | |

| Table 6-2 Retail: Wastewater Collected Within Service Area in 2015 | | | | | | |
|---|---|---|---|---|---|---|
| ☐ | There is no wastewater collection system. The supplier will not complete the table below. | | | | | |
| 100 | Percentage of 2015 service area covered by wastewater collection system *(optional)* | | | | | |
| 100 | Percentage of 2015 service area population covered by wastewater collection system *(optional)* | | | | | |
| **Wastewater Collection** | | | **Recipient of Collected Wastewater** | | | |
| Name of Wastewater Collection Agency | Wastewater Volume Metered or Estimated? *Drop Down List* | Volume of Wastewater Collected from UWMP Service Area 2015 | Name of Wastewater Treatment Agency Receiving Collected Wastewater | Treatment Plant Name | Is WWTP Located Within UWMP Area? *Drop Down List* | Is WWTP Operation Contracted to a Third Party? *(optional)* *Drop Down List* |
| *Add additional rows as needed* | | | | | | |
| Eastern Municipal Water District | Estimated | 869 | Eastern Municipal Water District | San Jacinto Valley Regional Water Reclamation Facility | No | No |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| **Total Wastewater Collected from Service Area in 2015:** | | 869 | | | | |
| NOTES: | | | | | | |

| Table 6-3 Retail: Wastewater Treatment and Discharge Within Service Area in 2015 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ☑ | No wastewater is treated or disposed of within the UWMP service area.<br>The supplier will not complete the table below. | | | | | | | | | |
| Wastewater Treatment Plant Name | Discharge Location Name or Identifier | Discharge Location Description | Wastewater Discharge ID Number *(optional)* | Method of Disposal<br>***Drop down list*** | Does This Plant Treat Wastewater Generated Outside the Service Area? | Treatment Level<br>***Drop down list*** | 2015 volumes<br>Wastewater Treated | Discharged Treated Wastewater | Recycled Within Service Area | Recycled Outside of Service Area |
| *Add additional rows as needed* | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | **Total** | 0 | 0 | 0 | 0 |
| NOTES: | | | | | | | | | | |

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

| | |
|---|---|
| ☑ | Recycled water is not used and is not planned for use within the service area of the supplier. The supplier will not complete the table below. |
| Name of Agency Producing (Treating) the Recycled Water: | |
| Name of Agency Operating the Recycled Water Distribution System: | |
| Supplemental Water Added in 2015 | |
| Source of 2015 Supplemental Water | |

| Beneficial Use Type | General Description of 2015 Uses | Level of Treatment *Drop down list* | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 (opt) |
|---|---|---|---|---|---|---|---|---|
| Agricultural irrigation | | | | | | | | |
| Landscape irrigation (excludes golf courses) | | | | | | | | |
| Golf course irrigation | | | | | | | | |
| Commercial use | | | | | | | | |
| Industrial use | | | | | | | | |
| Geothermal and other energy production | | | | | | | | |
| Seawater intrusion barrier | | | | | | | | |
| Recreational impoundment | | | | | | | | |
| Wetlands or wildlife habitat | | | | | | | | |
| Groundwater recharge (IPR)* | | | | | | | | |
| Surface water augmentation (IPR)* | | | | | | | | |
| Direct potable reuse | | | | | | | | |
| Other *(Provide General Description)* | | | | | | | | |
| | | **Total:** | 0 | 0 | 0 | 0 | 0 | 0 |

**IPR - Indirect Potable Reuse*

NOTES:

| Table 6-5 Retail: 2010 UWMP Recycled Water Use Projection Compared to 2015 Actual | | | |
|---|---|---|---|
| ☑ | Recycled water was not used in 2010 nor projected for use in 2015.<br>The supplier will not complete the table below. | | |
| **Use Type** | | **2010 Projection for 2015** | **2015 Actual Use** |
| Agricultural irrigation | | | |
| Landscape irrigation (excludes golf courses) | | | |
| Golf course irrigation | | | |
| Commercial use | | | |
| Industrial use | | | |
| Geothermal and other energy production | | | |
| Seawater intrusion barrier | | | |
| Recreational impoundment | | | |
| Wetlands or wildlife habitat | | | |
| Groundwater recharge (IPR) | | | |
| Surface water augmentation (IPR) | | | |
| Direct potable reuse | | | |
| Other | *Type of Use* | | |
| **Total** | | 0 | 0 |
| NOTES: | | | |

| Table 6-6 Retail: Methods to Expand Future Recycled Water Use | | | |
|---|---|---|---|
| ☑ | Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation. | | |
| Sec. 6.5 (pg 6-10 to 6-14) | Provide page location of narrative in UWMP | | |
| Name of Action | Description | Planned Implementation Year | Expected Increase in Recycled Water Use |
| *Add additional rows as needed* | | | |
| | | | |
| | | | |
| | | | |
| | | **Total** | 0 |
| NOTES: | | | |

| Table 6-7 Retail: Expected Future Water Supply Projects or Programs | | | | | | |
|---|---|---|---|---|---|---|
| ☑ | No expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Supplier will not complete the table below. | | | | | |
| ☐ | Some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format. | | | | | |
| Sec. 6.8 (pg 6-16) | Provide page location of narrative in the UWMP | | | | | |
| Name of Future Projects or Programs | Joint Project with other agencies? | | Description (if needed) | Planned Implementation Year | Planned for Use in Year Type *Drop Down List* | Expected Increase in Water Supply to Agency *This may be a range* |
| | *Drop Down List (y/n)* | *If Yes, Agency Name* | | | | |
| *Add additional rows as needed* | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| NOTES: | | | | | | |

| Table 6-8 Retail: Water Supplies — Actual | | | | |
|---|---|---|---|---|
| Water Supply | Additional Detail on Water Supply | 2015 | | |
| ***Drop down list*** *May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool* | | Actual Volume | Water Quality *Drop Down List* | Total Right or Safe Yield *(optional)* |
| *Add additional rows as needed* | | | | |
| Groundwater | | 2,270 | Drinking Water | 4,031 |
| Purchased or Imported Water | | 0 | Drinking Water | |
| | | | | |
| | | | | |
| | **Total** | 2,270 | | 4,031 |
| NOTES: | | | | |

| Table 6-9 Retail: Water Supplies — Projected | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Supply | Additional Detail on Water Supply | Projected Water Supply *Report To the Extent Practicable* | | | | | | | | | |
| ***Drop down list*** *May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool* | | **2020** | | **2025** | | **2030** | | **2035** | | **2040** *(opt)* | |
| | | Reasonably Available Volume | Total Right or Safe Yield *(optional)* | Reasonably Available Volume | Total Right or Safe Yield *(optional)* | Reasonably Available Volume | Total Right or Safe Yield *(optional)* | Reasonably Available Volume | Total Right or Safe Yield *(optional)* | Reasonably Available Volume | Total Right or Safe Yield *(optional)* |
| *Add additional rows as needed* | | | | | | | | | | | |
| Groundwater | 100% on Groundwater | 3,113 | | 3,271 | | 3,438 | | 3,614 | | 3,792 | |
| Purchased or Imported Water | Only use for emergencies or to meet summer peak demands | 0 | | 0 | | 0 | | 0 | | 0 | |
| | | | | | | | | | | | |
| **Total** | | 3,113 | 0 | 3,271 | 0 | 3,438 | 0 | 3,614 | 0 | 3,792 | 0 |
| NOTES: | | | | | | | | | | | |

**Table 7-1 Retail: Basis of Water Year Data**

| Year Type | Base Year<br>*If not using a calendar year, type in the last year of the fiscal, water year, or range of years, for example, water year 1999-2000, use 2000* | Available Supplies if Year Type Repeats | |
|---|---|---|---|
| | | ☐ Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location _____ | |
| | | ☑ Quantification of available supplies is provided in this table as either volume only, percent only, or both. | |
| | | **Volume Available** | **% of Average Supply** |
| Average Year | 2008 | 3,029 | 100% |
| Single-Dry Year | 2009 | 2,868 | 95% |
| Multiple-Dry Years 1st Year | 2011 | 2,781 | 97% |
| Multiple-Dry Years 2nd Year | 2012 | 3,031 | 109% |
| Multiple-Dry Years 3rd Year | 2013 | 2,963 | 98% |
| Multiple-Dry Years 4th Year *Optional* | 2014 | 2,824 | 95% |
| Multiple-Dry Years 5th Year *Optional* | 2015 | 2,270 | 80% |
| Multiple-Dry Years 6th Year *Optional* | | | |

Agency may use multiple versions of Table 7-1 if different water sources have different base years and the supplier chooses to report the base years for each water source separately. If an agency uses multiple versions of Table 7-1, in the "Note" section of each table, state that multiple versions of Table 7-1 are being used and identify the particular water source that is being reported in each table.

NOTES:

| Table 7-2 Retail: Normal Year Supply and Demand Comparison | | | | | |
|---|---|---|---|---|---|
| | 2020 | 2025 | 2030 | 2035 | 2040 *(Opt)* |
| Supply totals *(autofill from Table 6-9)* | 3,113 | 3,271 | 3,438 | 3,614 | 3,792 |
| Demand totals *(autofill from Table 4-3)* | 3,113 | 3,271 | 3,438 | 3,614 | 3,792 |
| Difference | 0 | 0 | 0 | 0 | 0 |
| NOTES: | | | | | |

| Table 7-3 Retail: Single Dry Year Supply and Demand Comparison | | | | | |
|---|---|---|---|---|---|
| | 2020 | 2025 | 2030 | 2035 | 2040 (Opt) |
| Supply totals | 2,947 | 3,097 | 3,255 | 3,422 | 3,590 |
| Demand totals | 2,947 | 3,097 | 3,255 | 3,422 | 3,590 |
| Difference | 0 | 0 | 0 | 0 | 0 |
| NOTES: | | | | | |

| Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison | | | | | | |
|---|---|---|---|---|---|---|
| | | 2020 | 2025 | 2030 | 2035 | 2040 (Opt) |
| First year | Supply totals | 3,018 | 3,171 | 3,333 | 3,504 | 3,677 |
| | Demand totals | 3,018 | 3,171 | 3,333 | 3,504 | 3,677 |
| | Difference | 0 | 0 | 0 | 0 | 0 |
| Second year | Supply totals | 3,393 | 3,565 | 3,747 | 3,938 | 4,031 |
| | Demand totals | 3,393 | 3,565 | 3,747 | 3,938 | 4,031 |
| | Difference | 0 | 0 | 0 | 0 | 0 |
| Third year | Supply totals | 3,043 | 3,197 | 3,361 | 3,533 | 3,707 |
| | Demand totals | 3,043 | 3,197 | 3,361 | 3,533 | 3,707 |
| | Difference | 0 | 0 | 0 | 0 | 0 |
| Fourth year *(optional)* | Supply totals | 2,967 | 3,117 | 3,276 | 3,444 | 3,614 |
| | Demand totals | 2,967 | 3,117 | 3,276 | 3,444 | 3,614 |
| | Difference | 0 | 0 | 0 | 0 | 0 |
| Fifth year *(optional)* | Supply totals | 2,502 | 2,629 | 2,763 | 2,905 | 3,048 |
| | Demand totals | 2,502 | 2,629 | 2,763 | 2,905 | 3,048 |
| | Difference | 0 | 0 | 0 | 0 | 0 |
| Sixth year *(optional)* | Supply totals | | | | | |
| | Demand totals | | | | | |
| | Difference | 0 | 0 | 0 | 0 | 0 |
| NOTES: | | | | | | |

| Table 8-1 Retail<br>Stages of Water Shortage Contingency Plan | | |
|---|---|---|
| Stage | Complete Both | |
| | Percent Supply Reduction[1]<br>*Numerical value as a percent* | Water Supply Condition<br>(*Narrative description)* |
| *Add additional rows as needed* | | |
| 0 | 10% | Mandatory |
| 1 | 20% | Mandatory |
| 2 | 30% | Mandatory |
| 3 | 50% or greater | Mandatory |
| [1] *One stage in the Water Shortage Contingency Plan must address a water shortage of 50%.* | | |
| NOTES: | | |

| Table 8-2 Retail Only: Restrictions and Prohibitions on End Uses | | | |
|---|---|---|---|
| Stage | Restrictions and Prohibitions on End Users<br>***Drop down list***<br>*These are the only categories that will be accepted by the WUEdata online submittal tool* | Additional Explanation or Reference<br>*(optional)* | Penalty, Charge, or Other Enforcement?<br>*Drop Down List* |
| *Add additional rows as needed* | | | |
| 0 | Landscape - Limit landscape irrigation to specific times | Effective at all times and permanent requirement | Yes |
| 0 | Landscape - Other landscape restriction or prohibition | Limt on Watering Duration. Limited to 15 minutes per day. Effective at all times and permanent requirement. | Yes |
| 0 | Landscape - Restrict or prohibit runoff from landscape irrigation | Effective at all times and permanent requirement | Yes |
| 0 | Other - Prohibit use of potable water for washing hard surfaces | Effective at all times and permanent requirement | Yes |
| 0 | Other - Customers must repair leaks, breaks, and malfunctions in a timely manner | Effective at all times and permanent requirement | Yes |
| 0 | Water Features - Restrict water use for decorative water features, such as fountains | Re-circulating Water Required for Water Fountains and Decorative Water Features. Not having re-circulated water is Prohibited | Yes |
| 0 | Other - Prohibit vehicle washing except at facilities using recycled or recirculating water | Using water to wash or clean a vehicle is Prohibited | Yes |
| 0 | CII - Restaurants may only serve water upon request | Effective at all times and permanent requirement | Yes |
| 0 | CII - Lodging establishment must offer opt out of linen service | Effective at all times and permanent requirement | Yes |
| 0 | CII - Other CII restriction or prohibition | No Installation of Single Pass Cooling Systems | Yes |
| 0 | CII - Other CII restriction or prohibition | No Installation of Non-re-circulating in Commercial Car Wash and Laundry Systems | Yes |

| Table 8-2 Retail Only: Restrictions and Prohibitions on End Uses | | | |
|---|---|---|---|
| Stage | Restrictions and Prohibitions on End Users<br>***Drop down list***<br>*These are the only categories that will be accepted by the WUEdata online submittal tool* | Additional Explanation or Reference<br>*(optional)* | Penalty, Charge, or Other Enforcement?<br>*Drop Down List* |
| *Add additional rows as needed* | | | |
| 0 | CII - Commercial kitchens required to use pre-rinse spray valves | Effective at all times and permanent requirement | Yes |
| 0 | CII - Other CII restriction or prohibition | All Commercial Car Wash Systems must have installed operational re-circulating water systems | Yes |
| 1 | Landscape - Limit landscape irrigation to specific days | During Nov-Mar, limited to one day per week on a schedule established by the City | Yes |
| 1 | Other - Customers must repair leaks, breaks, and malfunctions in a timely manner | Must be repaired within 72 hours of notification by City | Yes |
| 2 | Landscape - Limit landscape irrigation to specific days | During Nov-Mar, limited to one day per week on a schedule established by the City | Yes |
| 2 | Other - Customers must repair leaks, breaks, and malfunctions in a timely manner | Must be repaired within 48 hours of notification by City | Yes |
| 2 | Other | Filling or re-filling Ornamental Lakes or Ponds is Prohibited except to sustain aquatic life | Yes |
| 2 | Other - Prohibit vehicle washing except at facilities using recycled or recirculating water | Using water to wash or clean a vehicle is Prohibited | Yes |
| 2 | Other water feature or swimming pool restriction | Re-filling of more than one foot and initial filling of residential swimming pools or outdoor spas with potable water is Prohibited | Yes |
| 3 | Landscape - Prohibit all landscape irrigation | | Yes |

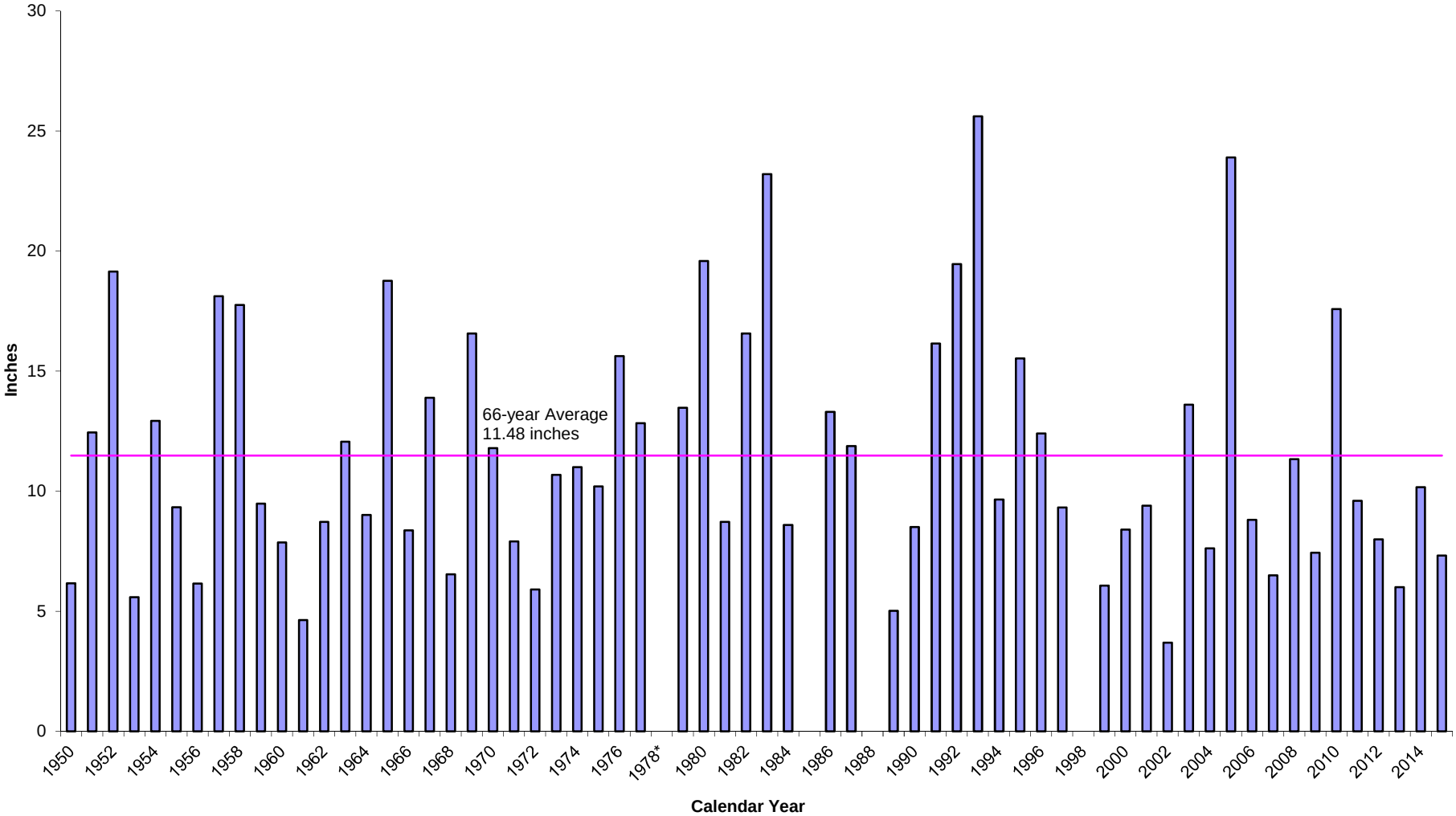
| Table 8-2 Retail Only: Restrictions and Prohibitions on End Uses | | | |
|---|---|---|---|
| Stage | Restrictions and Prohibitions on End Users<br>***Drop down list***<br>*These are the only categories that will be accepted by the WUEdata online submittal tool* | Additional Explanation or Reference<br>*(optional)* | Penalty, Charge, or Other Enforcement?<br>*Drop Down List* |
| *Add additional rows as needed* | | | |
| 3 | Other - Customers must repair leaks, breaks, and malfunctions in a timely manner | Must be repaired within 24 hours of notification by City | Yes |
| 3 | Other | No New Potable Water Service | Yes |
| 3 | CII - Other CII restriction or prohibition | Limits on Building Permits | Yes |
| 3 | Other | The City may discontinue service to customers who willfully violate provisions | Yes |
| 3 | Other | No New Annexations | Yes |
| | | | |
| NOTES: | | | |

| Table 8-3 Retail Only:<br>Stages of Water Shortage Contingency Plan - Consumption Reduction Methods | | |
|---|---|---|
| Stage | Consumption Reduction Methods by Water Supplier<br>***Drop down list***<br>*These are the only categories that will be accepted by the WUEdata online submittal tool* | Additional Explanation or Reference<br>*(optional)* |
| *Add additional rows as needed* | | |
| 3 | Moratorium or Net Zero Demand Increase on New Connections | 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 will be issued |
| 3 | Moratorium or Net Zero Demand Increase on New Connections | The City 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. |
| 3 | Other | Discontinue Service to customers who willfully violate provisions in the Water Conservation and Supply Shortage Program and Regulations |
| 3 | Moratorium or Net Zero Demand Increase on New Connections | City will suspend consideration of annexations to its service area. |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| NOTES: | | |

| Table 8-4 Retail: Minimum Supply Next Three Years | | | |
|---|---|---|---|
| | 2016 | 2017 | 2018 |
| Available Water Supply | 2,781 | 3,031 | 2,963 |
| NOTES: | | | |

| Table 10-1 Retail: Notification to Cities and Counties | | |
|---|---|---|
| City Name | 60 Day Notice | Notice of Public Hearing |
| *Add additional rows as needed* | | |
| San Jacinto | ☑ | ☑ |
| | ☐ | ☐ |
| | ☐ | ☐ |
| County Name<br>*Drop Down List* | 60 Day Notice | Notice of Public Hearing |
| *Add additional rows as needed* | | |
| Riverside County | ☑ | ☑ |
| | ☐ | ☐ |
| | | |

# FIGURES




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

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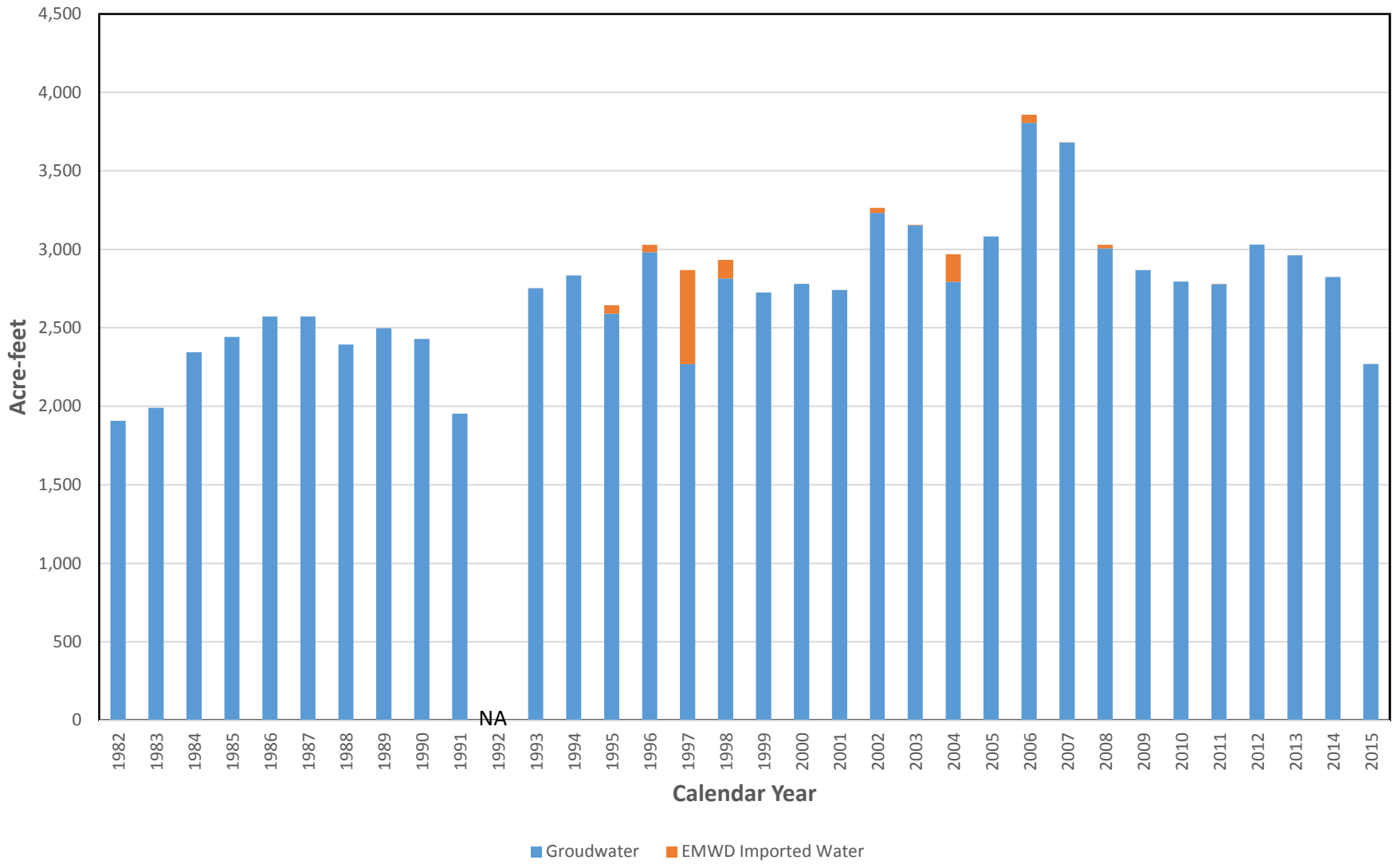
# CITY OF SAN JACINTO

## ANNUAL RAINFALL

Figure 1

Z:\Jobs\2570\2570-01-2015 (San Jacinto)\03 Plates and Figures\Figure 1 - Historical Rainfall

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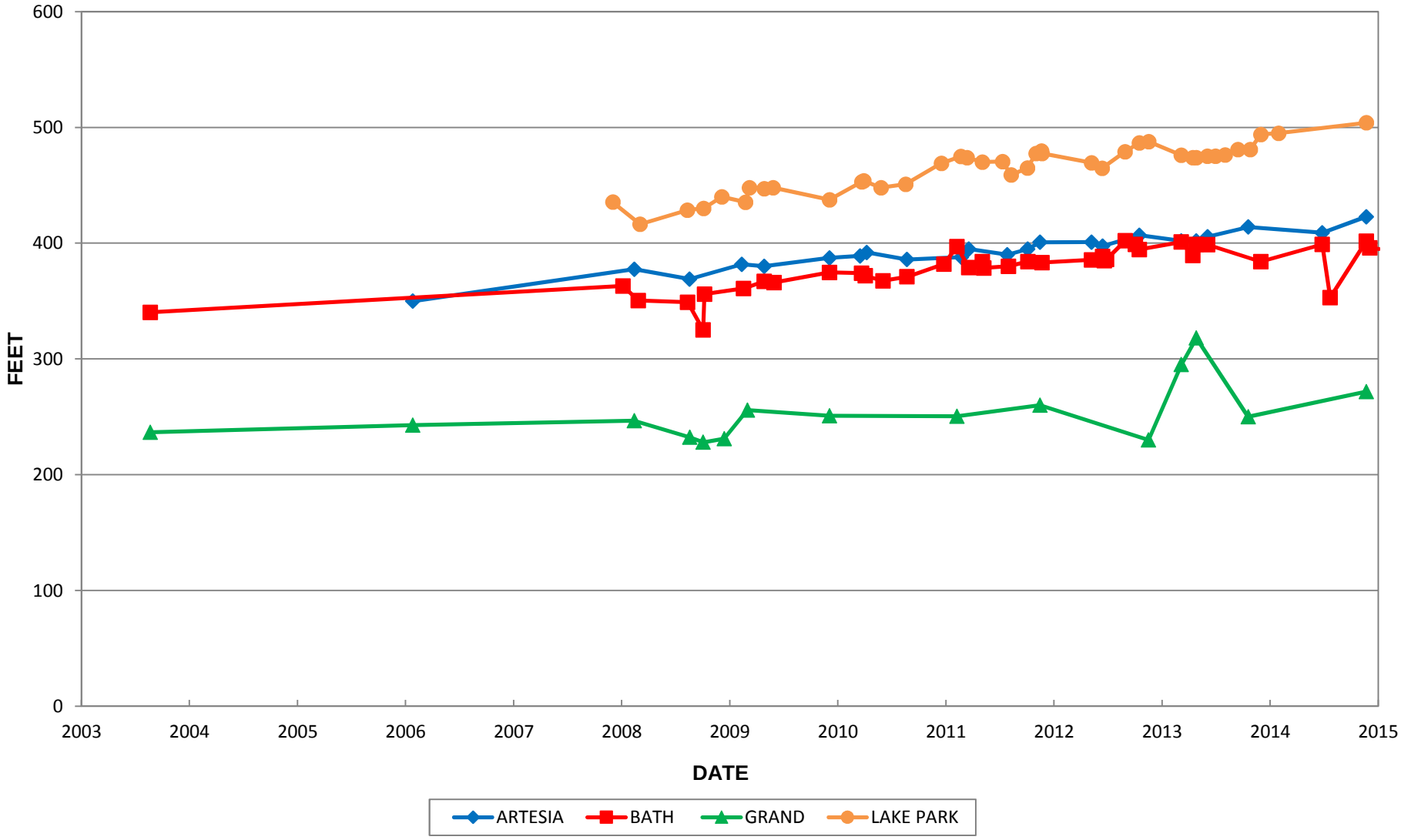
## CITY OF SAN JACINTO

## HISTORICAL SUPPLIES USED TO SATISFY DEMAND

Figure 2

Z:\Jobs\2570\2570-01-2015 (San Jacinto)\03 Plates and Figures\Figure 2 - Historical Demand

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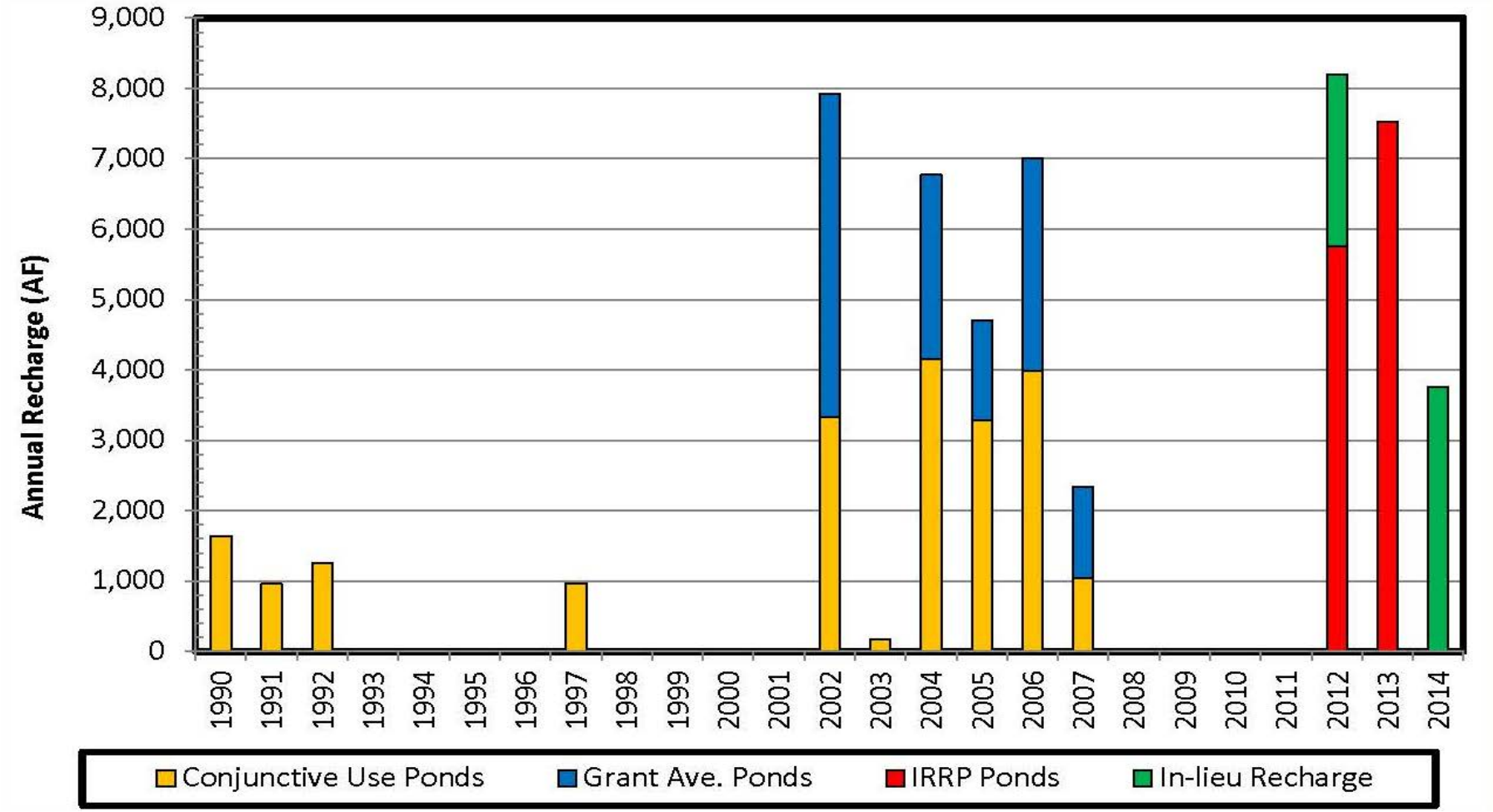
## CITY OF SAN JACINTO

## GROUNDWATER ELEVATIONS

FIGURE 3

Z:\Jobs\2570\2570-01-2015 (San Jacinto)\03 Plates and Figures\Figure 3 - Water Level




**Source: Hemet/San Jacinto Groundwater Management Area 2014 Annual Report; Figure 10-12**

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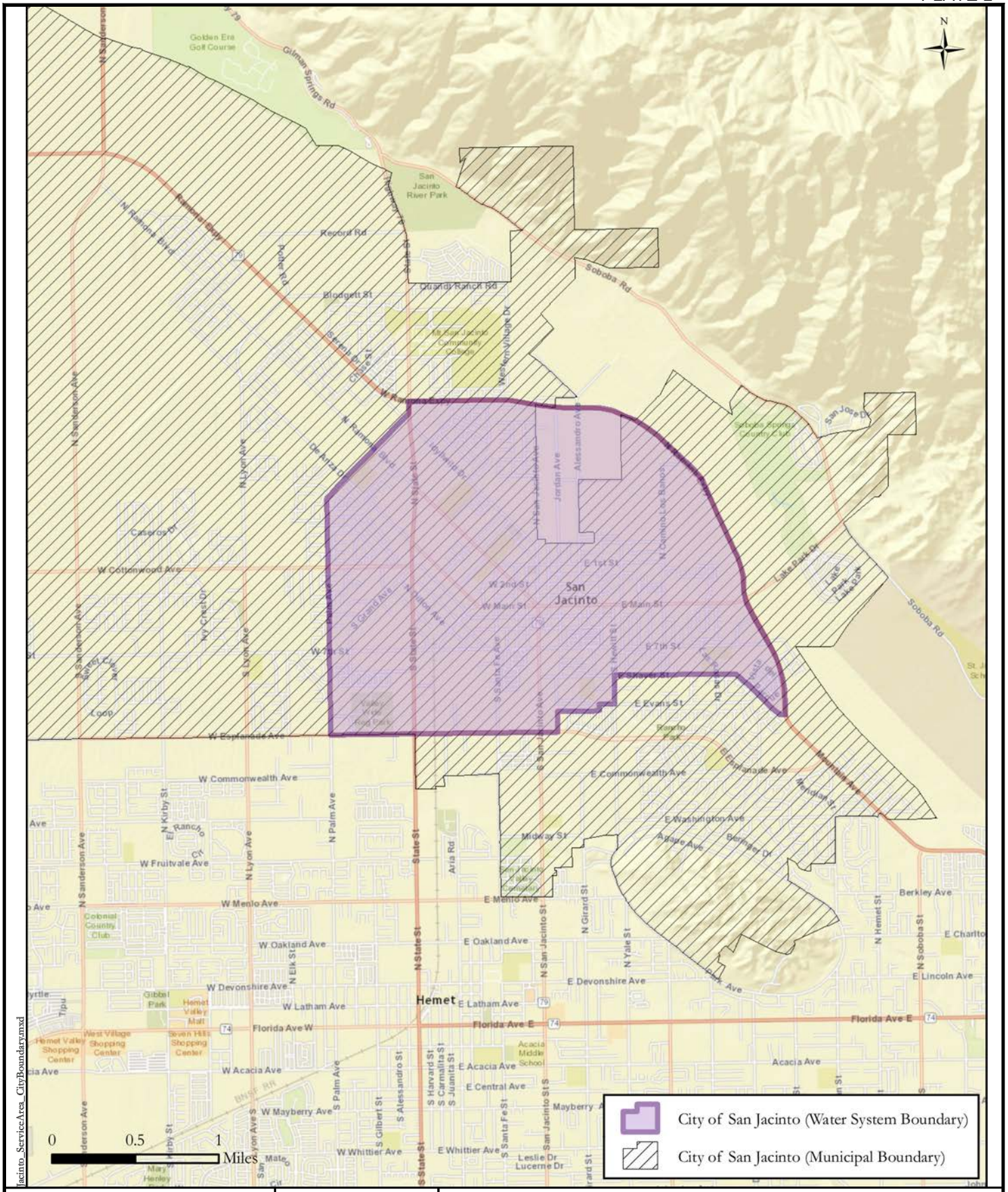
## CITY OF SAN JACINTO

## HISTORICAL IMPORTED WATER RECHARGE IN THE MANAGEMENT AREA

Figure 4

# PLATES




Jacinto_ServiceArea_CityBoundary.mxd

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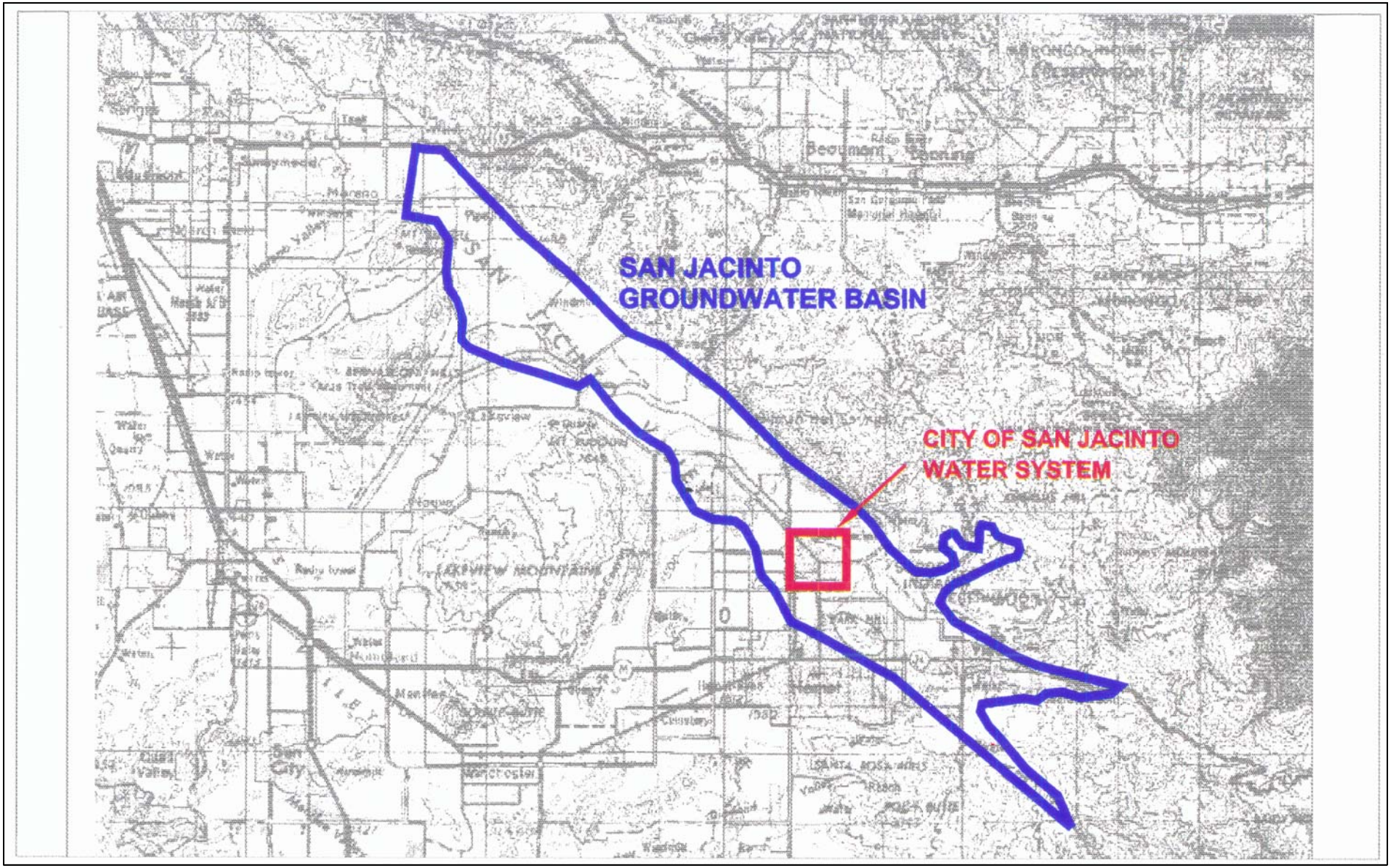
2651 W Guadalupe Rd., Suite A209
Mesa Arizona 85202

CITY OF SAN JACINTO

# WATER SERVICE AREA AND MUNICIPAL BOUNDARIES

J:\2570\2570-01-2015 (San Jacinto)\03 Plates and Figures\PLATE 1.dwg
NONE

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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
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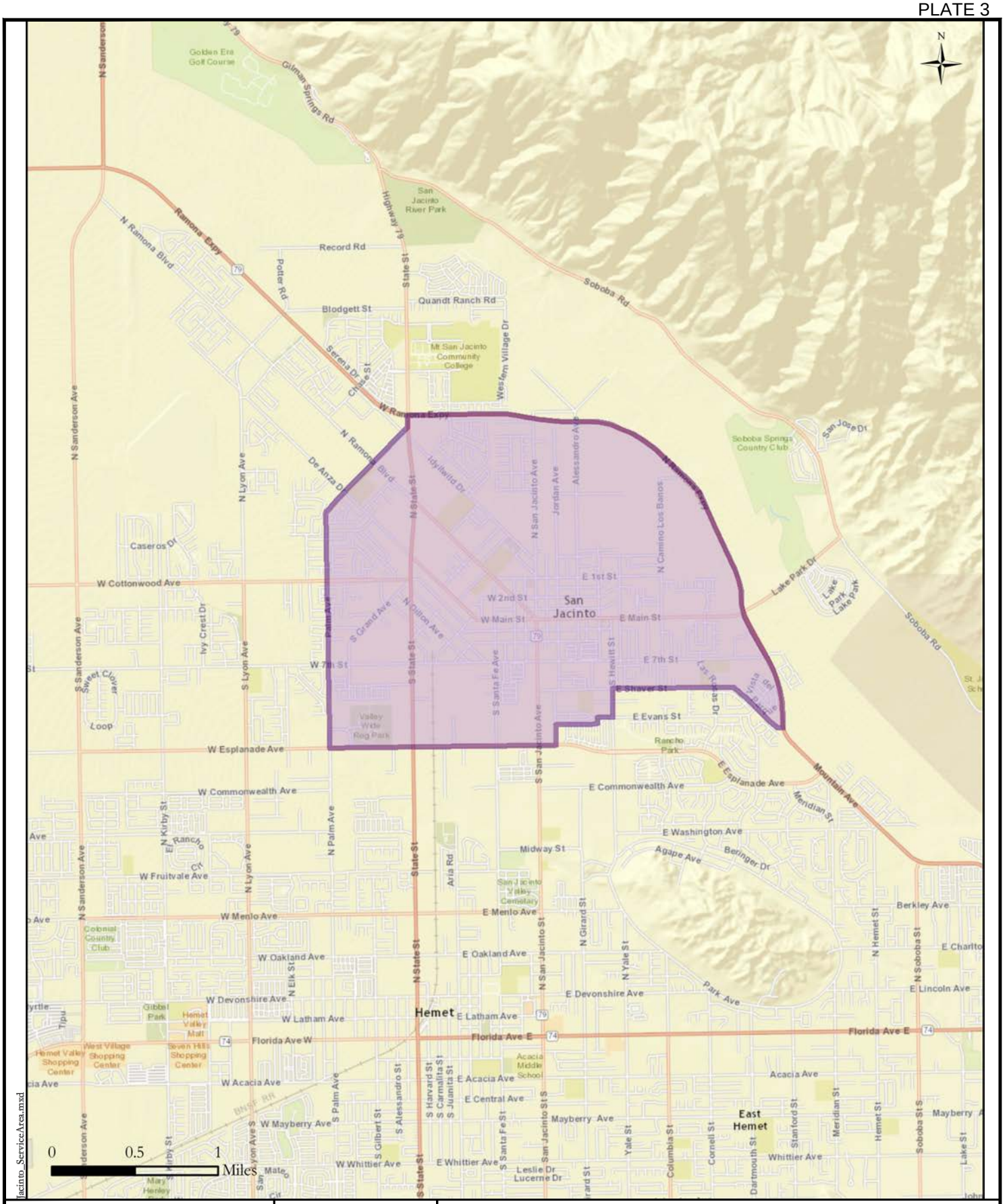


jacinto_ServiceArea.mxd

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# WATER SERVICE AREA

J:\2570\2570-01-2015 (San Jacinto)\03 Plates and Figures\PLATE 3.dwg
NONE