2015 URBAN WATER MANAGEMENT PLAN

City of El Monte

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DRAFT

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CHAPTER 1

INTRODUCTION AND OVERVIEW

1.1 BACKGROUND AND PURPOSE

This report was prepared in accordance with the California Urban Water Management Planning Act (UWMP Act)[1] which became effective on January 1, 1985. The UWMP Act requires each urban water supplier, proving water to more than 3,000 customers or supplying more than 3,000 acre-feet of water per year, to prepare and adopt an Urban Water Management Plan (UWMP) and to review and update its UWMP every five years. The primary objective of the UWMP is to demonstrate conservation and efficient use of urban water supplies to ensure sufficient water supplies will be available for future beneficial use.

This UWMP is an update of the City of El Monte Water Department's (City) 2010 UWMP and reviews the activities of the City of El Monte as a retail water supplier. This UWMP describes the operations of the City's management in achieving the maximum practicable conservation and efficient use of local water resources.

The UWMP Act has been modified over the years in response to the State's water shortages, droughts, and other factors. A significant amendment was made in 2009, after the drought of 2007-2009 and as a result of the governor's call for a statewide 20 percent reduction in urban water use by the year 2020. This was the Water Conservation Act of 2009, also known as SB X7-7. This Act required agencies to establish water use targets for 2015 and 2020 that would result in statewide savings of 20 percent by 2020.

[1] California Water Code Sections 10610 through 10656

1.2 URBAN WATER MANAGEMENT PLANNING AND THE CALIFORNIA WATER CODE

The UWMP Act requires water agencies to develop UWMPs. The UWMPs provide a framework for long term water planning and inform the public of a supplier's plans for long-term resource planning that ensures adequate water supplies for existing and future demands.

This part of California Water Code (CWC) requires urban water suppliers to report, describe, and evaluate:

- Water deliveries and uses;
- Water supply sources;
- Efficient water uses;
- Demand management measures; and
- Water shortage contingency planning

The Water Conservation Act of 2009 (SB X7-7) required retail urban water suppliers to report in their UWMPs their Base Daily per Capita Water Use, their 2015 Interim Urban Water Use Target, their 2020 Urban Water Use Target, and their Compliance Daily per Capita Water Use.

1.3 CHANGES TO THE PLAN

There are new amendments added to the Plan and some reorganization of the water code sections since the City's last UWMP update in 2010. The additions and changes for 2015 are as follows:

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' March 2016 Final "Guidebook for Urban Water Suppliers"

In accordance with Water Code Section 10621, the City has reviewed its UWMP and appropriate changes were included.

1.4 UWMP ORGANIZATION

The City's 2015 Plan was prepared consistent with the recommended organization provided in the Department of Water Resources' (DWR) "Guidebook for Urban Water Suppliers", dated March, 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 DWR tables are provided in in this Plan. The City also submitted the UWMP data (standardized tables) electronically through DWR's Online Submittal Tool. The City's 2015 Plan also provides supporting documents (appendices) including notification letters of the UWMP update, public notice of the UWMP hearing, and the adoption resolution from El Monte's City Council.

CHAPTER 2

PLAN PREPARATION

2.1 BASIS FOR PREPARING A PLAN

CWC Section 10617
"Urban Water Supplier" means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. An urban water supplier includes a supplier or contractor for water, regardless of the basis of right, which distributes or sells for ultimate resale to customers.

The UWMP Act requires every "urban water supplier" to prepare and adopt a Plan, to periodically review its UWMP 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.

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

The data provided in the City's Plan is provided on a calendar year basis through December 31, 2015 unless otherwise indicated. As shown in Table 2-3, the data provided in the City's 2015 Plan is reported in units of million gallons (MG), unless noted otherwise.

2.2 COORDINATION AND OUTREACH

CWC Section 10620
Each urban supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.

The City is a sub-agency of the Upper San Gabriel Valley Municipal Water District (Upper District). Upper District, a wholesale water agency, is a member of the Metropolitan Water District of Southern California (Metropolitan). As a member-agency, Upper District delivers imported Metropolitan water to its sub-agencies for direct use and groundwater recharge. Both Upper District and Metropolitan developed an UWMP for 2015 and those Plans are incorporated by reference in this UWMP.

As required by Section 10621 (b) of the CWC, the City notified the Los Angeles County Department of Public Works 60 days prior to the public hearing on the UWMP of its intent to update the Plan. Upper District and Main San Gabriel Basin Watermaster were similarly notified. Even though the City provides water only to customers within its service area boundary, notifications were sent to other water suppliers within the City of El Monte boundaries: California-American Water Company, Golden State Water Company, San Gabriel Valley Water Company, Del Rio Mutual Water Company, Hemlock Mutual Water Company, Rurban Homes Mutual Water Company, and Sterling Mutual Water. In addition, the City participated in a staff review and comments from that review were incorporated in the finalization of this UWMP.

A public notice regarding an update to the UWMP and upcoming public hearing was posted on the City's website on February 7, 2017 and noticed in the *San Gabriel Valley Tribune* on February 7, 2017 and February 13, 2017. Draft copies of the UWMP were made available for review and comment at the El Monte City Hall and on the City's website on February 7, 2017. The 2015 UWMP was adopted by resolution of the El Monte City Council on February 21, 2017,

following a public hearing on that same date. The adopted UWMP was submitted to the California DWR within 30 days of Council approval. A copy of the adopted 2017 resolution for this UWMP is located in Appendix A. Within 30 days following submittal to DWR, copies of the adopted UWMP were submitted to the California State Library and to each city or county within or containing the water supplier's boundary. Additionally, copies of the adopted UWMP are also available for public review on the City's website.

CHAPTER 3

SYSTEM DESCRIPTION

CWC Section 10631

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

3.1 GENERAL DESCRIPTION

The City of El Monte is located in the south central portion of Los Angeles County in Southern California. It is bordered to the north by the City of Arcadia and Temple City, to the west by the City of Rosemead, to the east by the San Gabriel River and to the south by the City of south El Monte. The City of El Monte occupies an area of 9.69 square miles (6,200 acres) and has a current population of approximately 115,000, in which the City's water department serves about 16 percent. The current population of the City's service area is approximately 17,839[1].

The service area is divided into three districts: the Central District, the Northwestern District, and the Sothern District, as shown in Figure 3.1-1. The Central District lies north of the San Bernardino Freeway, east of the Rio Hondo Channel and contains the principal business and shopping areas. The Northwestern District lies west of the Rio Hondo Channel and contains the heavier industries. The southern district, which lies south of the San Bernardino Freeway, is predominantly residential.

The City's customers are a mix of primarily single and multi-family residence with numerous commercial and industrial services. Water service is provided to customers for domestic, irrigation, fire protection and manufacturing process use.

[1] Calculated using DWR's Population Tool

The City's water department delivers potable water through a pressurized distribution system, which has approximately 40 miles of pipeline ranging from 2 inches to 12 inches in diameter. The city's water system is also comprised of a one million gallon storage tank with three booster pumps, a 200,000 gallon elevated storage tank, four active water wells with sodium hypochlorite disinfection, Granulated Activated Carbon (GAC) filters on three of the active wells, and three emergency connections with neighboring water purveyors.

All of the water supplied by the City is produced from the Main San Gabriel Groundwater Basin (Main Basin), which is an adjudicated basin controlled by the Main San Gabriel Basin Watermaster (Watermaster)

3.2 SERVICE AREA BOUNDARY MAP

The City's current service area covers approximately 1,142 acres or almost one fifth of the City's 6,200 acres. A service area boundary map is provided in Figure 3.2-1. For estimating population within the service area, a service area map was created using Google Earth and submitted online through DWR's Population Tool in a "KML" file format.

3.3 CLIMATE

The City's service area is located in the San Gabriel Valley which provides a generally dry climate. Winter temperatures are generally between the low 40's and the mid 70's. Summer temperatures are generally between low 60's and the high 80's. The average rainfall in the San Gabriel Valley is approximately 18 inches per year. Table 3.4-1 shows the average monthly ETo, rainfall, and temperature for the City of El Monte area.

3.4 SERVICE AREA POPULATION AND DEMOGRAPHICS

The City provides water service to an area with a current population of about 18,000. Table 3-1 presents the current and projected population of the service area from 2015 to 2035. The population was calculated using DWR's Population Tool. The tool allows a service area boundary map to be layered onto 1990, 2000 and 2010 census maps. Where the boundaries of the census and service area maps do not coincide, the tool allows extraction of partial census block data to determine the population within the service area boundary for those census years. Population per service connections is calculated for the census years. Population for non-census years, like 2015, is calculated by multiplying that persons/service connection by the number of service connections for any given year. The DWR Population Tool Confirmation Information is attached to Table 3-1.

The City does not expect significant growth within its service area in the next 20 years; the area is essentially "built out" with little or no room for expansion. The City projects that much of the growth within its service area will result from an increase in the number of persons per dwelling unit and from re-development of existing property into residences; i.e. densification. The one exception is planned Transit Oriented Development (TOD), particularly the Gateway project, which is being developed on previously vacant land. The El Monte Transit Village Specific Plan anticipates increased demand in the vicinity of the intersection of Santa Anita Avenue and Ramona Boulevard by 470 acre feet (AF) over the next 20 years for domestic and irrigation purposes, which equates to an annual increase of 23.5 AF through 2030[1]. The 23.5 AF per year is equivalent to 7.7 million gallons (MG) per year, which is approximately 1 % of the City's current usage. An annual growth rate of 0.2%, as projected by the Southern California Association of Governments (SCAG), was added to the 1% growth rate to account for other development and densification within the service area to arrive at a total annual growth rate of 1.2%.

[1] 2010 Water Master Plan Update

CHAPTER 4

SYSTEM WATER USE

4.1 WATER USE BY SECTOR

CWC *Section 10631*

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

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

The City of El Monte currently supplies a population of approximately 18,000 with water through 3,545 service connections. The historic and projected water demand by customer type within the City is shown on Tables 4-1 and 4-2. The average historic water demand from 2001 to 2010 was approximately 901 MG per year, while the average demand for the last five years was approximately 703 MG. The decreased demand can be largely attributed to water conservation efforts and loss of industry in the City. The City's water users include single family residential, multi-family residential, commercial, institutional, and irrigation. The City's single-family residential sector and commercial sector make up the majority of the water users. The City's single-family sector uses about 44 percent of the city's water demand and the City's commercial sector uses about 35 percent of the City's water demand. The remainder of the City's water demand is broken down by multi-family residential sector use of about 18 percent, irrigation use of about 2 percent, and industrial sector use of less than 1 percent.

2015 water demand was used as the starting point for estimating projected use. The same 1.2% annual growth rate used to estimate population was applied to the single family and

multi-family demand to estimate projected use in 2020, 2025, 2030, and 2035. A more modest annual growth rate of 0.5% was applied to commercial demand. Industrial and irrigation use were assumed to remain unchanged in the future.

Unaccounted water loss within the United States typically ranges from 3 to 10 percent. The amount of unaccounted-for water is determined by subtracting the amount of water billed to the City's customers from the total amount of water produced from City's wells. Based on a comparison of data from 1993, an estimate of unaccounted-for water loss in the city's service area averaged about 5 percent. Projected water loss is taken as 5% of demand, which is a reasonable and realistic goal especially considering the 2016 meter replacement program.

4.2 DISTRIBUTION SYSTEM WATER LOSSES

CWC Section10631(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.

Table 4-1 shows the 2015 water loss as 82 MG, which is 11.8% of the 696 MG of water produced from the City's wells in 2015. The loss was calculated by subtracting the billed consumption from the water produced according to meters at the well heads. This percentage of loss is high compared to previous years. The reasons for the higher rate of loss are not fully known. However, recent meter testing revealed several 2" and smaller meters to be under-recording flow by up to 10%. This is one reason a meter replacement project was initiated in 2016. All City meters 2" and smaller were replaced from January to April 2016.

Table 4-4 shows the calculated water loss from FY 15/16, which is the most recent 12 month period available. The loss was determined using the American Water Works Association Method. City staff has gone through the Water Loss Technical Assistance Program training offered by the California Water Loss Control Collaborative to meet the requirement of SB 555 of submitting a validated water audit by October 1, 2017. The water loss of 54 MG for FY 15/16 is a marked improvement over the 82 MG for calendar year 2015. At least part of FY 15/16 captured billed consumption after the new meters were installed. This may explain the decreased water loss.

4.3 ESTIMATING 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.

2015 water demand was used as the starting point for determining projected use. The 2015 water demand included savings of 15.6% for the last six months of 2015, due to conservation efforts, when compared to 2013 use for the same months. Applied to the entire 2015 demand, this would be an annual savings of 7.8%, which will be reflected in projected use. It is a reasonable estimate of long term water savings. Beyond that, no future water savings are included in the projected demands. (See Table 4-5)

CHAPTER 5

SB X7-7 BASELINES AND TARGETS

5.1 BASELINE PERIODS

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.

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.

The City currently has no recycled water deliveries, so a continuous 10 year period was used in determining base daily per capita water use: 2001 TO 2010. The five year baseline period was selected as 2006 to 2010. (See SB X7-7 Table 2)

5.2 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 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.

CWC10644
(a)(2) The plan…shall include any standardized forms, tables or displays specified by the department.

The population was calculated using DWR's Population Tool. The tool allows a service area boundary map to be layered onto 1990, 2000 and 2010 census maps. Where the boundaries of the census and service area maps do not coincide, the tool allows extraction of partial census block data to determine the population within the service area boundary for

those census years. Population per service connections is calculated for the census years. Using the number of service connections, the tool calculates the population for the non-census years. SB X7-7 Table 3 shows the baseline year populations from 2001 to 2010 and the 2015 population.

5.3 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.

Tables SB X7-7 4 and 4A present the historical gross water use, which in the City's case is the same as the volume of water entering the distribution system from its water wells.

5.4 BASELINE DAILY PER CAPITA WATER USE AND 2015 AND 2020 TARGETS

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.

CWC 10608.20
(g) An urban retail water supplier may update its 2020 urban water use target in its 2015 urban water management plan…

The Water Conservation Bill of 2009 (SBX7-7) set forth requirements for each water supplier to include in the 2010 UWMP a baseline daily per capita water use, an urban water use target for 2020, an interim urban water use target for 2015, and compliance daily per capita water use. The goal of SBX7-7 is to achieve a 20 percent reduction in water use per capita, statewide, by 2020. DWR provided technical methodologies to aid in the determination of baseline and target per capita water uses.

For the 2015 UWMP, the City's 10-year baseline daily per capita water use was 140 gallons per capita per day (GPCD) and the City's 5-year baseline daily per capita water use was 141 GPCD (see SB X7-7 Tables 5 and 6). Note that these numbers utilize overall usage in the service area and not just residential usage. These numbers are revised upwards from the 2010 UMWP because the DWR Population Tool, which uses direct census data to determine the service area population, was not available in 2010. The Population Tool allows for a more accurate service area population and hence more accurate daily per capita water use number. SB X7-7 Table 5 shows the daily per capita water use from 2001 to 2010 and for 2015.

After evaluating the four methodologies for determining per capita water use target, the City determined Method 3, Hydrologic Region, would be the best fit (see SB X7-7 Table 7). This is the same method that was used in the 2010 UWMP. Using Method 3, the per capita water use target is based on 95 percent of the applicable state hydrologic region target. The City is located in the South Coast hydrologic region. The 2020 target for the South Coast region is 149 GPCD. Following Method 3, 95 percent of the regional target results in a per capita water use target of 142 GPCD (see SB X7-7 Table 7-E). However, the UWMP Act also requires that the urban retail water supplier's minimum per capita water use reduction for the 2020 target shall be no less than 5 percent of 5 year baseline daily per capita water use. With a 5-year baseline of 141 GPCD, the maximum 2020 target then becomes 134 GPCD (see SB X7-7 Table 7-F). The 2015 interim water use target is the value halfway between the 10-year baseline GPCD and the 2020 target GPCD. The half way point between 140 GPCD (the 10-year baseline) and 134 GPCD (the 2020 target) is 137 GPCD (see SB X7-7 Table 8 and Table 5-1). The City's 2015 compliance per capita water use of 107 GPCD easily meets the 2015 interim target (see SB X7-7 Table 9 and Table 5-2).

CHAPTER 6

SYSTEM SUPPLLIES

6.1 PURCHASED OR IMPORTED WATER

The City relies exclusively on local groundwater and does not purchase imported water. If the City ever does exceed their groundwater allocation from Watermaster, Metropolitan replenishment water is available for purchase from Watermaster.

6.2 GROUNDWATER

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.

The San Gabriel Valley is located in southeastern Los Angeles County and is bounded on the north by the San Gabriel Mountains; on the west by the San Rafael and Merced Hills, on the south by the Puente Hills and the San Jose Hills, and on the east by a low divide between the San Gabriel River system and the Upper Santa Ana River system, as shown on Figure 6.2-1.

The San Gabriel River and its distributary, the Rio Hondo, drain an area of about 490 square miles upstream of Whittier narrows. Whittier Narrows is a low gap between the Merced and Puente Hills, just northwest of the City if Whittier, through which the San Gabriel River and Rio Hondo flow to the coastal plain of Los Angeles County. Whittier Narrows is a natural topographic divide and a subsurface restriction to the movement of groundwater between the Main San Gabriel Basin and the Coastal Plain. Of the approximately 490 square

miles of drainage area upstream of Whittier Narrows, about 167 square miles are valley lands, and about 323 square miles are mountains and foothills.

The Main Basin includes essentially the entire valley floor of San Gabriel Valley with the exception of the Raymond Basin and Puente Basin. The boundaries of the Main Basin are Raymond Basin on the northwest, the base of the San Gabriel Mountains on the north, the groundwater divide between San Dimas and La Verne and the lower boundary of the Puente Basin on the east, and the common boundaries between Upper District and Central Basin Municipal through Whittier Narrows on the southwest. The common water supply of the Main Basin does not include the Raymond Basin, the area northerly of Raymond Hill Fault, which was adjudicated in the Pasadena v. Alhambra case, described above. The Puente Basin although tributary to the Main Basin, is not included in the Main Basin administered by the Main Basin Watermaster.

The Main Basin is a large groundwater basin replenished by stream runoff from the adjacent mountains and hills, by rainfall directly on the surface of the Valley floor, subsurface inflow from the Raymond Basin and Puente Basin, and by return flow from water applied for overlaying uses. Additionally, the Main Basin is replenished with imported water. The Main Basin serves as a natural storage reservoir, transmission system and filtering medium for wells constructed therein.

Urbanization of the San Gabriel Valley began in the early part of the twentieth century, but until the 1940's, agricultural land use occupied more area than residential and commercial land use. After World War II agricultural areas tend to be located in the easterly portion of the Main Basin and along power transmission rights of way adjacent to the San Gabriel River. Agricultural plots are discontinuous and relatively small. There are several major industrial areas adjacent to the San Gabriel River and within other portions of the Valley. The greatest area of land use in the Valley is for residential and commercial purposes. The Department of Water Resources Bulletin 118 does not identity the Basin as being in overdraft.

6.2.2 GEOLOGY

The Main Basin consists of a roughly bowl-shaped depression in the bedrock, filled over millions of years with alluvial deposits. This bowl-shaped depression is relatively deep; the elevation of the base of the groundwater reservoir declines from about 800 feet above mean sea level (MSL) in the vicinity of San Dimas at the northeast corner of the Main Basin to about 2,200 feet below MSL in the vicinity of South El Monte (California Department of Water Resources, 1966).

Most of the alluvium deposited within this depression is debris from the San Gabriel Mountains, washed and blown from the side of the mountains over time. This process has also resulted in the materials within the Main Basin varying in size with relatively coarse gravel nearer the mountains. The principal water-bearing formations of the Main Basin are unconsolidated and semi-consolidated sediments which vary in size from coarse gravel to fine-grained sands. The interstices between these alluvial particles throughout the Main Basin fill with water and transmit water readily to wells. The thickness of the water-bearing materials in the Main Basin ranges from 200 to 300 feet in the northeaster portion of the Main Basin near the Mountains to nearly 4,000 feet in the South El Monte area (California Department of Water Resources, 1966).

The soils overlying the Main Basin average about 6 feet in depth. Soil depths are generally greater at the perimeter of the Valley and decrease toward the center along the San Gabriel River. These soils are residual, formed in place through chemical, mechanical and plant weathering processes. The infiltration rates of these soils are greater along the natural channels and their adjacent flood plains. Lower infiltration rates are found in the perimeter areas of the Valley. Since the Valley is mostly urbanized, a significant portion of its area has been paved and many miles of stream channel have been lined for flood control purposes, thus decreasing infiltration of water through streambeds. More detailed Main Basin geology is

discussed in the report entitled "Planned Utilization of Ground Water Basins, San Gabriel Valley, Appendix A: Geohydrology" (California Department of Water Resources, 1966).

6.2.3 HYDROGEOLOGY

The total fresh water storage capacity of the Main Basin is estimated to be about 9.5 million acre-feet. Of that, about 1.1 million acre-feet has been used historically in Main Basin operations. The change in groundwater elevation at the Baldwin Park Key Well (Key Well) is representative of changes in groundwater in the Main Basin. One foot of elevation change at the Key Well is roughly the equivalent of about 8,000 acre-feet of water storage. The location of the Key Well is shown on Figure 6.2-2 and hydrograph of the Key Well is shown on Figure 6.2-3. The historic high groundwater elevation was recorded at over 329.1 feet in April 1916, at which time Main Basin storage was estimated to be about 8,700,000 acre-feet. The historic low was recorded in December 2004 at 195.5 feet, at which time Main Basin storage was estimated to be about 7,600,000 acre-feet. The Key Well hydrograph shown on Figure 6.2-4 illustrates the dramatic recharge capability of the Main Basin during wet periods.

Generally, water movement in the Main Basin is from the San Gabriel Mountains on the north to Whittier Narrows of the southwest. The simulated 2018-2019 groundwater contour map is shown on Figure 6.2-5. Groundwater movement in the northern and northeastern regions of the Main Basin is affected by faulting. The Raymond Fault located in the north westerly portion of the Main Bain separates the Raymond Basin from the Main Basin, for example.

The Main Basin is an unconfined aquifer. Although clay deposits appear mixed with the solid in several locations in the Main Basin and there are various clay lenses throughout the Main Basin, they do not coalesce to form a single impermeable barrier to the movement of subsurface water. The Main Basin therefore operates as a single, unconfined aquifer. As

previously mentioned, a thorough discussion of Main Basin hydrogeology is contained in the report "Planned utilization of Ground Water Basins, San Gabriel Valley, Appendix A: Geohydrology" (California Department of Water Resources, 1966).

6.2.4 HYDROLOGY

The major sources of recharge to the Main Basin are direct penetration of rainfall on the Valley floor, percolation of runoff from the Mountains, percolation of imported water and return flow from applied water. Table 6.2-1 shows historic annual rainfall in the San Gabriel Valley. Rainfall occurs predominately in the winter months and is more intense at higher elevations and closer to the San Gabriel Mountains. Rainfall can also be highly variable from year to year. In water year 1960-61 the total rainfall (four-station average) was less than 6 inches, while in 1982-83 the total rainfall (four-station average) was nearly 40 inches.

The magnitude of annual recharge from direct penetration of local rainfall and return flow from applied water is not easily quantifiable. Percolation of runoff from the mountains and valley floor along with percolation of imported water has been estimated by River Watermaster. The DWP maintains records on the amount of local imported water conserved in water spreading facilities and stream channels.

The Main Basin is bisected by the San Gabriel River. The San Gabriel River originates at the confluence of its west and east forks in the San Gabriel Mountains. It flows through the San Gabriel Canyon and enters the Main Basin at the mouth of the canyon north of the City of Azusa, see Figure 6.2-6. The San Gabriel River flows southwesterly across the Valley to Whittier Narrows, a distance of about 15 miles. It exits the Valley at Whittier Narrows, and transverses the Coastal Plan in a southerly direction to reach the Pacific Ocean at Alamitos Bay near the City of Long Beach.

The San Gabriel River is joined and fed by tributary creeks and washes. In the Main Basin these include: Big Dalton Wash, which originates in the San Gabriel Mountains; Walnut Creek, which originates at the northwest end of the San Jose Hills; and San Jose Creek, which originates in the San Gabriel Mountains, but which travels around the southerly side of the San Jose Hills through the Puente Narrows before joining the San Gabriel River just above Whittier Narrows.

The channel of the San Gabriel bifurcates in the upper middle portion of the Main Basin, forming a channel to the west of and parallel to the San Gabriel River, known as the Rio Hondo. The Rio Hondo is fed by tributaries draining the westerly portion of the Main Basin, including Sawpit Wash, Santa Anita Wash, Easton Canyon Wash, Rubio Wash and Alhambra Wash, all of which originate in the San Gabriel Mountains or the foothills. The Santa Anita Wash, Eaton Canyon Wash, Rubio Wash and Alhambra Wash all cross the Raymond Basin area before entering the Main Basin. The channel of the Rio Hondo passes through Whittier Narrows westerly of the San Gabriel River, and then flows southwesterly to join Los Angeles River on the Coastal Plain.

To protect residents of the San Gabriel Valley from flooding that can result during periods of intensive rainfall, the DPW and the U.S. Army Corps of Engineers (Corps of Engineers) have constructed as extensive system of dams, debris basins, reservoirs and flood control channels. The dams and reservoirs that control the flow of the San Gabriel River and the Rio Hondo include: Cogswell Reservoir on the west fork of the San Gabriel River, San Gabriel Reservoir at the confluence of the west and east forks of the San Gabriel River, Morris Reservoir near the mouth of the San Gabriel Canyon, Santa Fe Reservoir in the northerly portion of the Basin and Whittier Narrows Reservoir at the southwestern end of the Valley.

Many of the stream channels tributary to the San Gabriel River have been improved with concrete banks (wall) and concrete-lined bottoms. These stream channel improvements have significantly reduced the area of previous stream channels and reduced Main Basin

recharge. A number of odd-stream groundwater replenishment facilities have been established along these stream channels to offset such reductions in recharge. The locations of these water spreading facilities are shown on Figure 6.2-2. Some of these facilities are accessible to import water supplies, while some facilities receive only local runoff.

The paths of the surface streams are mirrored in the solid and in the direction of groundwater movement in the Main Basin. The tributary creeks and washes, carrying smaller mouths of water, generally flow toward the center of the Valley, while the direction of flow of the major streams, the San Gabriel River and the Rio Hondo, is from the mountains in the north to Whittier Narrows in the southwest. In similar fashion, the primary direction of groundwater movement in the Main Basin is from the north to the southwest, with contributing movement in the Main Basin is from the north to the center of the Main Basin as shown on Figure 6.2-5. The greatest infiltration and transmissivity rates of solid in the Main Basin are form north to south, with the maximum rates found in the center of the Valley along the stream channels. Generally, the Main Basin directs groundwater to the southwest through Whittier Narrows.

6.3 GROUNDWATER MANAGEMENT

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:

(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.

6.3.1 GROUNDWATER MANAGEMENT IN THE MAIN SAN GABRIEL BASIN

Management of the water resources in the Main Basin is based upon Watermaster Services under two court judgements: San Gabriel River Watermaster (River Watermaster) and

Main San Gabriel Basin Watermaster (Main Basin Watermaster). The City of El Monte was a defendant in Long Beach Judgment and Main Basin Judgment and as such had participation.

The City also participates in the Main Basin management described in the Main Basin Watermaster document entitled "Five year Water Quality and Supply Plan". These three basin management documents are described in the following sections.

6.3.2 LONG BEACH JUDGMENT

On May 12, 1959, the Board of Water Commissioners of the City of Long Beach, Central Badin Municipal Water District (Central basin Municipal), and the City of Compton, as plaintiffs, filed an action against the San Gabriel Valley Water Company and 24 other producers of groundwater from San Gabriel Valley, including The City, as a defendant. This action sought a determination of the rights of the defendants in and to the waters of the San Gabriel Rivers system and to restrain the defendants from an alleged interference with the rights of plaintiffs and persons represented by the Central Basin Municipal in such waters. After six years of study and negotiation a Stipulation for Judgment was filed on February 10, 1965. Under the terms of the Long Beach Judgment, the water supply of the San Gabriel River system was divided at Whittier Narrows, the boundary between San Gabriel Valley upstream and the coastal plain of Los Angeles County downstream. A copy of the Long Beach Judgment is located in Appendix B.

Under the terms of the Long Beach Judgment, the area downstream from Whittier Narrows (Lower Area), the plaintiffs and those they represent, are to receive a quantity of usable water annually from the San Gabriel River system comprised of usable surface flow, subsurface flow at Whittier Narrows and water exported to the Lower Area. This annual entitlement is guaranteed by the area upstream of Whittier Narrows (Upper Area), the defendants, and provision is made for the supply of Make-up Water by the Upper Area for years in which the guaranteed entitlement is not received by the Lower Area.

Make-up water is imported water purchased by the Main San Gabriel Basin Watermaster (Main Basin Watermaster) and delivered to agencies in Central Basin Municipal to satisfy obligations under the Long Beach judgment. The entitlement of the Lower Area varies annually, dependent upon the 10-year average annual rainfall in the Valley for the 10 years ending with the year for which entitlement is calculated.

The detailed operations described in the Long Beach Judgment are complex and require continuous compilation of data so that annual determinations can be made to assure compliance with the Long Beach Judgment. In order to do this, a three-member Watermaster was appointed by the Court, one representing the Upper Area parties, including the City, nominated by and through Upper district, one representing the Lower Area partied nominated by and through Central Basin Municipal Water District (Central Basin Municipal), and one jointly nominated by Upper District and Central Basin Municipal. This three-member board is known as the San Gabriel River Watermaster (River Watermaster).

The River Watermaster meets periodically during the year to adopt a budget, to review activities affecting water supply in the San Gabriel River system area, to compile and review data, to make its determinations of usable water received by the Lower Area, and to prepare its annual report to the Court and to the parties. The River Watermaster has rendered annual reports for the water years 1963-64 through 2009-10 and operations of the river system under Long Beach Judgment and through the administration by the River Watermaster have been very satisfactory since its inception.

One major result of the Long Beach Judgment was to leave the Main Basin free to manage its water resources as long as it meets its downstream obligation to the Lower Area under the terms of the Long Beach Judgment.

6.3.3 MAIN BASIN JUDGMENT

The Upper Area then turned to the task of developing a water resources management plan to optimize the conservation of the natural water supplies of the area. Studies were made of various methods of management of the Main Basin as an adjudicated area and a report thereon was prepared for the Upper San Gabriel Valley Water Association, an association of water producers in the Main Basin, including the City. After consideration by the Association membership, Upper District was requested to file as plaintiff, and did file, an action on January 2, 1968, seeking an adjudication of the water rights of the Main Basin and its relevant Watershed. In addition, the City was included as a defendant. After several years of study (including verification of annual water production) and negotiations, a stipulation for entry of Judgment was approved by majority of the parties, by both the number of parties and the quantity of rights to be adjudicated. Trial was held in late 1972 and Judgment (Main Basin Judgment) was entered on January 4, 1973. A Copy of the Main Basin Judgment is located in Appendix C.

Under the terms of the Main Basin Judgment all rights to the diversion of surface water and production of groundwater within the Main Basin and its relevant Watershed were adjudicated. The Main Basin Judgment provides for the administration of the provisions of the Main Basin Judgment by nine-member Watermaster. Six of those members are nominated by water producers (producer members) and three members (public members) are nominated by Upper District and the San Gabriel Valley Municipal Water District which overlie most of the Main Basin. The nine-member board employs a staff, an attorney and a consulting engineer. The Main Basin Watermaster holds public meetings on a regular monthly basis through the year. A copy of the Main San Gabriel Basin Watermaster's Rules and Regulations is located in Appendix D.

The Main Basin Judgment does not restrict the quantity of water which Parties may extract from the Main Basin. Rather, it provides a means for replacing with Supplemental

Water all annual extractions in excess of a Party's annual right to extract water. The Main Basin Watermaster annually established an Operating Safe Yield for the Main Basin which is then used to allocate to each Party its portion of the Operating Safe Yield which can be produced free of a Replacement Water Assessment.

If the City extracts water in excess if it's right under the annual Operating Safe Yield, it must pay an assessment for Replacement water, which is sufficient to purchase 1 acre-foot of Supplemental Water to be spread in the Main Basin for each acre-foot of excess production.

In addition to Replacement Water Assessments, the Main Basin Watermaster levies an Administration Assessment to fund the administration of the Main Basin management program under the Main Basin Judgment and a Make-up Obligation Assessment in order to fulfill the requirements for any Make-up Obligation under the Lind Beach Judgment and to supply 50 percent of the administration costs of the River Watermaster service. The Main Basin Watermaster levies an In-lieu Assessment and may levy special Administration Assessments.

Water rights under the Main Basin Judgment are transferable by lease or purchase as long as such transfers meet the requirements of the Main Basin Judgment. There is also provision for Cyclic Storage Agreements by which Parties and non-parties may store imported supplemental water in the Main Basin under such agreements with the Main Basin Watermaster pursuant to uniform rules and conditions and Court approval.

The Main Basin Judgment requires that the Main Basin Watermaster will not allow imported water to be spread in the main part of the Main Basin when the ground-water elevation at the Baldwin Park Key Well[2] (Key Well) exceeds 250 feet; and that the Main Basin Watermaster will, insofar as practicable, spread imported water in the Main Basin to maintain the ground-water elevation at the Key Well above 200 feet. One of the principal reasons for

[2] The Baldwin Key Well is a water-level monitoring well located in the City of Baldwin Park used to determine when imported water may or may not be spread in the Basin.

the limitation on spreading imported water when the Key Well elevation exceeds 250 feet is to reserve ample storage space in the Main Basin to capture native surface water runoff when it occurs and to optimize the conservation of such local water. Under the terms of the Long Beach Judgment, any excess surface flows that pass through the Main Basin at Whittier Narrows to the Lower Area (which is then conserved in the Lower Area through percolation to groundwater storage) is credited to the Upper Area as Usable Surface Flow.

Through the Long Beach Judgment and the Main Basin Judgment, operations of the Main Basin are optimized to conserve local water to meet the needs of the parties of the Main Basin Judgment.

Typically, water producers within the Upper District rely upon groundwater from the Main Basin for their water supply. Imported water for groundwater replenishment is delivered to the flood control channels and diverted and spread at spreading grounds through Main Basin Watermaster's agreement with that Los Angeles County Department of Public Works (DPW). Groundwater replenishment, utilizing imported water, is Replacement Water under the terms of the Main Basin Judgment. It can be stored in the Main Basin through Cyclic Storage Agreements, authorized by terms of the Main Basin Judgment, but such stored water may be used only to supply Supplemental Water to the Main Basin Watermaster.

The Main Watermaster has entered into a Cyclic Storage Agreement with each of the three municipal water districts. One is with the Metropolitan and the Upper District, which permits Metropolitan to deliver and store imported water in the Main Basin in an amount not to exceed 100,000 acre-feet for future Replacement Water use. The second Cyclic Storage Agreement is with Three Valleys Municipal Water District and permits Metropolitan to deliver and store 40,000 acre-feet for future Replacement Water use. The third is with San Gabriel Valley Municipal Water District and contains generally the same conditions as the agreement with Metropolitan except that the stored quantity is not to exceed 40,000 acre-feet.

Imported Make-up Water is often delivered to lined stream channels and conveyed to the Lower Area. Make-up Water is required to be delivered to the Lower Area by the Upper Area when the Lower Area entitlement under the Long Beach Judgment exceeds the usable water received by the Lower Area. Imported water is used to fulfill the Make-up Water obligation when the amount of Make-up Water cannot be fulfilled by reimbursing the Lower Area interests for their purchase of recycled water. The amount of recycled water for which reimbursement may be made as a delivery of Make-up Water is limited by the terms of the Long Beach Judgment to the annual deficiency in Lower Area Entitlement water or to 14,735 acre-feet, whichever is the lesser quantity.

6.3.4 HISTORICAL GROUNDWATER PUMPING

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:

(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 depends only on ground water supplies from the Main Basin as its existing and planned source of water supply. Although there is no limit on the quantity of water that may be extracted by parties to the Main Basin adjudication, including the City of El Monte, groundwater production in excess of water rights, or the proportional share (pumper's share) of the Operating Safe Yield (OSY), requires purchase of imported replacement water to recharge the Main Basin. The City of El Monte has a pumper's share of 1.40888 percent of the OSY. For each of fiscal years (FY) 14/15, 15/16, and 16/16, the OSY was established at 150,000 AF. Therefore, the City of El Monte's pumping right was equal to 689 MG (2,113.32 AF). For FY 17/18 the OSY is preliminarily set at 130,000 AF, although Watermaster sets a final OSY in May of each year. If the 17/18 OSY remains at 130,000 AF, the City's pump's share will be reduced to 597 MG (1,831.54 AF). If the City pumps more than the allocated amount of water, replacement water must be purchased from Watermaster to offset demands in excess of the

City's water rights. The City does have 111 MG (339.85 AF) of carryover water available in FY 16/17. Any unused amount of the City's pumper's share for any given year can be "carried over" for use in the next FY. To date, it has never been necessary for the City to purchase replacement water.

The City produces groundwater from its four active wells (Well No. 2A, No. 10, No. 12, and No. 13) in the Main Basin, as shown on Figure 3.2-1. Well No. 3 is on the verge of being made active after completion of a nitrate blending project with Well No. 2A. Well No. 4 is inactive and permitted by the Department of Drinking Water (DDW) for "Standby" operation due to high levels of nitrates, and would only be used in an emergency. The City's wells have pumping capabilities ranging from about 900 gallons per minute (gpm) to about 3,000 gpm. The total capacity of the City's wells is about 9,500 gpm (or approximately 15,000 AF per year).

The average historic water produced from 2001 to 2010 was approximately 901 MG per year, while the average production for the last five years including 2016 was approximately 713 MG. For FY 14/15 and 15/16 the City produced 744 MG (2,282.17 AF) and 656 MG (2,012.34 AF) respectively, while their pumper's share was 689 MG. The City utilized some its carry over water in FY 14/15 to make up for its exceedance of the pumper's share. The City's groundwater use for the past five years is shown in Table 6-1, which is taken from the Watermaster Annual Reports. Fiscal year data in those annual reports was rearranged to reflect calendar years for this UWMP.

6.4 WASTEWATER AND RECYCLED WATER

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 currently use recycled water due to the lack of infrastructure and the cost to construct a pipeline from the treatment plants in the Whittier Narrows area to the City's service area. However, reclamation of wastewater in the Main Basin has been extensively

reviewed in both local and regional studies. In 1976, San Gabriel District and Upper District completed a study entitled "Potential use of Reclaimed Water groundwater Replenishment in the Main San Gabriel Basin." This study was updated at the request of the Main Basin Wastermaster in 1980 and again in 1987. This study along with others, concluded water reuse in the Main Bain could be feasible, however, the cost of utilizing recycled water varies widely with the quantity to be used and the distance required diverting the water from the treatment plan to the point of use. Due to this finding, the City could not directly benefit from a large scale recycling project due to its distance from the source of supply. However, the City could receive indirect benefits from a large-scale recycling project through the reduction on groundwater pumping in the Main Basin.

The Los Angeles County Sanitation District (LACSD) has two reclamation plants, which can be utilized by the Main Basin. The Whittier Narrows Water Reclamation Plant (WNWRP), which began operation in 1962, currently has a capacity of 15 million gallons per day (mgd) and provides coagulated, filtered, and disinfected tertiary treatment. All of the WMWRP effluent is reused as recycled water. The San Jose Creek Reclamation Plant (SJCWRP), which began operation in 1971, currently has a treatment capacity of 100 mgd and provides coagulated, filtered, and disinfected tertiary effluent. Approximately 42% percent of the effluent is reused as recycled water. The balance of effluent is discharged to the San Gabriel River and eventually flows to the ocean. As stated earlier, reclaimed water used by the Lower Area for groundwater recharged may be used to fulfill a portion of the Upper Area's Make-Up Water obligation to the Lower Area under the terms of the Long Beach Judgment.

In 1984, the LACSD released a Health Effects Study on the proposed use of reclaimed water groundwater replenishment. That report recommended that existing quantities of reclaimed water allowed for groundwater replenishment be increased. As a result, increased

uses of reclaimed water from the SJCWRP for groundwater replenishment are now being considered

6.4.1 RECYCLED WATER SYSTEM

Section 10633

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

Currently, recycled water is not being utilized within the City's service area. At this time, the City does not have an opportunity to incorporate recycled water into its supply.

6.4.2 RECYCLED WATER BENEFICIAL USES

cwc 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, ground water recharge, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.

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

The City does not use recycled water and anticipates there will probably be no recycled water use within the next 20 years due to the lack of economic feasibility of extending existing recycled water lines to the relatively small users in El Monte. During the calendar year 1994, Upper District participated in a study to determine potential direct users of recycled water. In October 1994, a draft report of the study entitled, "Direct Reuse Study" was released, which identified over 600 potential recycled water users within the Main Basin; 14 of the potential recycled water users are located within the City of El Monte's service area. The potential recycled water uses within the City's service area include parks, schools and businesses.

Figure 6.5.2-1 shows San Gabriel Valley Water Company's (SGVWC) Phase 5 map of their long term recycled water project. The time horizon for completion of Phase 5 is approximately 20 years. SGVWC did just complete Phase1 of their project, which extends recycled water distribution pipe in South El Monte to the intersection of Central Avenue and Rush Street,

which is the closet existing recycled water line to El Monte. This intersection is approximately two miles away from El Monte High School, which is one of El Monte's largest potential users of recycled water. The cost to install recycled water pipe is estimated at approximately one million dollars per mile plus the onsite retrofit costs for users to be able to utilize recycled water. The cost to extend the existing recycled water line in South El Monte to El Monte High School is estimated at approximately 3 million dollars, which cannot be justified given El Monte High School's relatively small potential recycled water use of 4 MG/year. Three other users – Arceo Park, New Lexington Elementary School, and Wilkerson Elementary School – could be served by the same line as shown in Figure 6.5.2-1. This would bring the overall recycled water usage up to approximately 10 MG/year or about 1.5% of El Monte's overall potable water usage. If SGVWC's recycled water rate of $2.4155 per 100 cubic feet ($1,052/AF) is used to conduct a cost/benefit analysis, it reveals that the recycled water revenue would be $10,500 per year. The "pay back" period for construction of the recycled water line to serve those four facilities would be 285 years. It would not be economically feasible for the City of El Monte to incur the cost of building the recycled water line themselves. As the cost of potable water continues to rise, the economics will become more attractive.

6.4.3 ACTIONS TO ENCOURAGE AND OPTIMIZE FUTURE RECYCLED WATER USE

CWC 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.

CWC 10633
(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.

While it may not be feasible for the City to build recycled water lines to serve the City in the near future, there are grants and loans available that could help pay for design and construction. Prop 1 grants can generally pay for a 50% match of the cost of recycled water

projects. Additionally, the State Revolving Fund has low interest loans available for water infrastructure projects.

Another challenge facing El Monte, especially if SGVWC is to eventually serve the City with recycled water, is that El Monte's rate for potable water is currently less than SGVWC's rate for recycled water. There would be no financial incentive to use recycled water. El Monte's potable rate will have to exceed SGVWC's recycled rate by at least 20% to make use of recycled water from SGVWC financially attractive. Recycled water rates are generally set at approximately 80% of a purveyor's potable rate.

6.5 DESALINATED WATER OPPORTUNITIES

CWC 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 water supply. Groundwater produced from the Main Basin is low in Total Dissolved (TDS) and does not require desalination. The average TDS value for the City wells is about 345 milligrams per liter (MG/L). Therefore, the City does not have the need to desalinate water at this time.

6.6 EXCHANGES OR TRANSFERS

CWC *10631*
(d) Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.

The City is a party to the Main Judgment and has adjudicated water rights. The Main Basin Judgment does not restrict the quantity of groundwater that can be produced, but provides for a Replacement Water Assessment for production in excess of water rights. The Main Basin Judgment also allows parties to enter into temporary transfers (leases) of water rights to acquire additional water rights on an annual basis to reduce the quantity of production that may be subject to a Replacement Water Assessment.

6.7 FUTURE WATER PROJECTS

CWC 10631
(f) …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
(g) 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.

The City of El Monte has groundwater pumping rights in the Main Basin, which ensures a reliable water supply for the City's future water demand due to the Main Basin's management structure, which is described in Section 6.3. The City maximizes the use of its local water supply sources and can expect to utilize its groundwater production wells for future demand by performing routine maintenance on its water system. Therefore, the City has not needed to develop future water supply projects.

6.8 SUMMARY OF EXISTING AND PLANNED SOURCES OF WATER

CWC 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.

The actual volume of water available from Watermaster in 2015 was 794 MG (see Table 6-8). This is based on an OSY of 150,000 AF for 2015 plus available carryover water from previous years. The production rights (pumper's share plus carryover) from FY 14/15 and FY 15/16 in the Watermaster Annual Reports were averaged.

El Monte's current preliminary pumper's share for FY 20/21 based on a preliminary OSY of 130,000 AF is 597 MG. However, it is reasonable to expect that the pumper's share will be adjusted to no less than 689 MG based on the current FY 16/17 OSY of 150,000 AF. For years 2025 and beyond, the reasonable available pumper's share is based on the average OSY for the last five years of 182,000 AF, which included historically dry years. The amounts assume there will be no carryover water available, which is a conservative approach (see Table 6-9).

CHAPTER 7

WATER SUPPLY RELIABILITY ASSESSMENT

7.1 CONSTRAINTS ON WATER SOURCES

7.1.1 GROUNDWATER AVAILABILITY

CWC 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.

The City produces groundwater through its four active wells in the Main Basin. The groundwater supply from the Main Basin is pumped to the City's facilities and then delivered to the City's customers. In May of each year, Watermaster sets the OSY for the Basin. El Monte's annual allocation is 1.04888% of the OSY. Groundwater production in excess of those water rights requires purchase of imported replacement water to recharge the Main Basin. The City has never had to purchase replacement water. However, if the OSY continues at 150,000 AF like it has for the last three fiscal years (14/15, 15/16, and 16/17), it is conceivable replacement water will be needed.

The Main Basin is managed by the Main Basin Watermaster, which is further discussed in Section 6.3. Section 42 of the Main Basin Judgment (Basin Operating Criteria) states in part "…Watermaster shall not spread Replacement Water when the water level at the Key Well exceeds Elevation two hundred fifty (250), and Watermaster shall spread Replacement Water, insofar as practicable, to maintain the water level at the Key Well above Elevation two hundred (200)." Figure 6.2-3 shows the historic fluctuation of the Key Well since the Main Basin was adjudicated in 1973 and demonstrates that the Main Basin was generally operated between elevation 200 feet and 250 feet above msl. Furthermore, at elevation 200 feet msl at the Key Well, the Main Basin has about 7,600,000 acres-feet of available storage. During the period of management under the Main Basin Judgment, significant drought events have occurred from

1969 to 1977, 1983 to 1991, 1988 to 2004, and 2011 to 2016. In each drought cycle, the main Basin was managed to maintain its water levels. The exception has been the last four years when the level at the Key Well has stayed below 200 feet above msl. In July of 2016 the groundwater elevation at the well was 174 feet, which represents a historic low. The Main Basin Judgement provides that Watermaster should consider maintaining the OSY at no more than 150,000 AF until such time the operational elevation at the Key Well is significantly above 200 feet. It is unknown how long or if the Main Basin OSY may remain at 150,000 AF. But the longer the OSY is at or below 150,000 AF, the more likely it is the City will have to buy replacement water. The City's allocation of an OSY of 150,000 AF is 2,113 AF per year not including any carryover water. By comparison, the City pumped 2,282 AF in FY 14/15 and 2,012 AF in FY 15/16.

In addition to maintaining its existing reliable supply, the City may choose to enter into a Cyclic Storage Agreement so that it could store imported water in the Main Basin for a period of up to five years to be used to offset a future Replacement Water Requirement. Any entity that wishes to spread or store supplemental water within the basin for later recovery must have a cyclic storage agreement with Watermaster. These agreements have five-year terms. The City will evaluate the merits in participating in this program.

7.1.2 GROUNDWATER QUALITY

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

The California DDW categorizes wells as "active" or "inactive" according to the availability of using a well in a water systems normal operation. All four of the City's current production wells are considered active by the DDW. The city currently supplies water to its customers from its four active wells (Wells No. 2A, 10, 12, and 13), as described in Section 3.1. Historically, Volatile Organic Compounds (VOCs) have also been detected at Wells No. 2A, 10,

and 12 above the maximum contamination level (MCL). However, the City has a VOC treatment facility to manage the VOCs in its water supply at these wells. The City uses GAC filters to treat VOCs at the well heads. Under the existing VOC treatment approved by the DDW, all water delivered to the City's customers meets DDW guidelines. Well No. 3, which was shut down due to VOCs and high levels of nitrates, is about to become active after installation of GAC filters and completion of a nitrate blending project with Well No 2A. Well No. 4 is permitted by DDW for "Standby" operation due to high levels of nitrates and would only be used in an emergency.

The Main Basin Watermaster was created in 1973 to resolve water issues that had arisen among water users in the San Gabriel Valley. Watermaster's mission was to generally manage the water supply of the Main Basin. During the last 1970s and early 1980s, significant groundwater contamination was discovered in the Main Basin. The contamination was caused in part by past practices of local industries that had carelessly disposed of industrial solvents, referred to as Volatile Organic Compounds (VOCs), as well as by agriculture operations that infiltrated nitrates into the groundwater. Cleanup efforts were undertaken at the local, state, and federal level.

By 1989, local water agencies, including the City, adopted a joint resolution regarding water quality issues that stated that Main Basin Watermaster should coordinate local activities aimed at preserving and restoring the quality of groundwater in the Main Basin. The joint resolution also called for a cleanup plan. In 1991, the Court granted Main Basin Watermaster the authority to control pumping for water quality purposes. Accordingly, Main Basin Watermaster assed Section 28 to its Rules and Regulations regarding water quality management. The new responsibilities included development of a Five-Year Water Quality and Supply Plan, updating it annually, submitting it to the California Regional Water Quality Control Board, Los Angeles Region, and making it available for public review by November 1 of each year. A copy of the "Five-Year Water Quality and Supply Plan" is located in Appendix E.

The Main Basin Watermaster prepares and annually updates the Five-Year Water Quality and Supply Plan in accordance with the requirements of Section 28 of its Rules and Regulations. The objective is to coordinate groundwater-related activities so that both water supply and water quality in the Main Basin are protected and improved. Many important issues are detailed in the Five-Year Plan, including how the Main Basin Watermaster plans to:

1. monitor groundwater supply and quality;
2. develop projections of future groundwater and quality;
3. review and cooperate on cleanup projects, and provide technical assistance to other agencies;
4. assure that pumping does not lead to further degradation of water quality in Main Basin;
5. address Perchlorate, N-nitrosodimethylamine (NDMA), and other merging contaminants in the Main Basin;
6. develop a cleanup and water supply program consistent with the U.S. Environmental Protection Agency (USEPA) plans for its San Gabriel Basin Superfund sites; and
7. coordinate and manage the design, permitting, construction, and performance evaluation of the Baldwin Park Operable Unit (BPOU) cleanup and water supply plan.

The Main Basin Watermaster, in coordination with the Upper District, has worked with state and federal regulators, along with local water companies to clean up water supplies. Section 28 of the Main Basin Watermaster's Rules and Regulations require all producers (including the City) to submit an application to:

1. construct a new well,
2. modify an existing well,
3. destroy a well, or
4. construct a treatment facility.

Main Basin Watermaster prepares a report on the implications of the proposed activity. As a party to the Main Basin Judgment, the City reviews a copy of these reports and is provided the opportunity to submit comments on the proposed activity before Main Basin Watermaster Board takes its final action.

7.2 RELIABILITY BY TYPE OF YEAR

CWC 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.

Based on the 42 year historic management practices of the Main Basin, the City will have adequate water supply over the next 20 years under single and multiple dry years. However, it is possible the City will exceed its allocated amount of groundwater from Watermaster and will have to buy replacement water.

For the purposes of determining reliability of the groundwater supply, the average year was taken as the 42 year average of the OSY, 196,929 AF. The single driest year was in 91/92 when the OSY was 140,000 AF. The three driest multiple years were recently in 13/14, 14/15, and 15/16 when the OSY was 180,000 AF, 150,000 AF, and 150,000 AF respectively. Table 7-1 shows the volume of groundwater available in the average year as 904 MG, in the single dry year as 643 MG, and in the multiple dry years as 826 MG, 629 MG, and 629 MG respectively.

7.3 SUPPLY AND DEMAND ASSESSMENT

CWC 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.

Table 7-2 shows that for normal year supplies, the projected demand for the next 20 years can be met with available groundwater from Watermaster. However for the same demands, a single dry year (an OSY of 140,000 as the worst case historical example) will result in an available groundwater deficient of 134 MG in 2035 (see Table 7-3). This amounts a 20%

deficient in available groundwater. Table 7-4 shows that for multiple dry years, the groundwater deficient in 2035 for the second and third consecutive dry years is 88 MG (11% deficit.)

Replacement water is generally available for purchase from Watermaster to make up for any groundwater shortage. A discussion of management actions that the City may take in response to a groundwater shortage, if they do not want to pay for replacement water, is included in Chapters 8 and 9. However, a 20 % shortage can conceivably be accounted for through implementation of stages in the City's Drought Response Conservation Plan.

Additionally, the City may choose to enter into a Cyclic Storage Agreement so that it could store imported water in the Main Basin for a period of up to five years to be used to offset a future Replacement Water Requirement.

CHAPTER 8

WATER SHORTAGE CONTINGENCY PLANNING

8.1 STAGES OF ACTIONS

CWC 10632
The plan shall provide an urban water shortage contingency analysis that includes each of the following elements that are within the authority of the urban water supplier:
(a) Stages of action to be undertaken by the urban water supplier in response to water supply shortages, including up to 50 percent reduction in water supply, and an outline of specific water supply conditions which are applicable to each stage.

The City of El Monte passed and adopted Resolution No. 7045, in 1990; which established a voluntary water conservation program to reduce water consumption by ten percent.. In addition, in 2009 the City of El Monte passed and adopted Ordinance No. 2738; which established a multi-stage plan of action for addressing the ever-worsening water shortage challenges. The Ordinance developed a five-stage rationing plan including up to 50 percent reduction in water supply if the City experiences a water supply shortage. The City's Ordinance No. 2738 includes voluntary and mandatory stages. In the event of a prolonged and severe drought, the rationing programs could be implemented as shown in Table 8-1. The ordinance was amended and refined by Ordinance 2861 (Drought Response Conservation Plan), which was passed and adopted in 2015. Ordinance No. 2861 is included in the Appendix H.

A City Council resolution is required to implement any given stage. The City activated Stage II in 2009 and then activated Stage IV in July of 2015 through Resolution (see Appendix I).

8.2 PROHIITIONS ON END USERS

In May 1990, the El Monte City council passed and adopted Resolution No. 7045, a resolution incorporating a program of voluntary water Conservation to reduce water consumption by ten percent. The Resolution committed to the City, and urged for customer to voluntarily adopt, the following measures:

1. Adjust sprinklers and irrigation systems to avoid overspray, run-off and waste.
2. Avoid watering during the hot part of the day and/or during morning and evening peak hours and avoid watering on windy days;
3. Install new landscaping, low-water-using trees and plants and efficient irrigation system;
4. Shut-off decorative fountains unless a water recycling system is used;
5. Do not hose down driveways, sidewalks, and other paved surfaces, except for health or sanitary reasons;
6. Install pool and spa covers to minimized water loss due to evaporation;
7. Do not allow the hose to run while washing the car and to use a bucker or hose with an automatic cut off valve;
8. Retrofit indoor plumbing fixtures with low flow devices;
9. Check faucets, toilets, and pipes, both indoor and outdoor, for leaks and repair immediately.

The resolution also had provisions for the adoption of a mandatory conservation program in the case that the voluntary program was ineffective on meeting the goal of a ten percent consumption reduction. The City took action on these provisions in March 2009 through Ordinance No. 2738. This ordinance was refined in 2015 by adoption of Ordinance 2861.

Ordinance No. 2738 (and 2861) established a multi-stage plan of action for addressing the ever-worsening water shortage challenges, as shown in Appendix H. The Ordinance developed a five-stage rationing plan including up to 50 percent reduction in water supply if the City experiences a water supply shortage. The City's ordinance includes voluntary and mandatory stages of action. In the event of a prolonged and severe drought, the rationing programs could be implemented as shown in Table 8.2. The Ordinance adopted these five-stages of action:

- Stage I – Drought Preparedness Condition

- Stage II – Drought Watch Conditions – Emerging Shortage Stage
- Stage III – Drought Alert Conditions – Moderate Shortage Stage
- Stage IV – Drought Critical Conditions – High Shortage Stage
- Stage V – Drought Emergency Conditions – Severe Shortage Stage

The five-stages are set up in a progressive manner, Stage I having a voluntary reduction action to Stage V having mandatory reduction from 31 percent to 50 percent. Table 8-2 and Ordinance 2861 list the particulars of the prohibitions on end users. The restrictions on irrigation, which provide the key savings are as follows:

- Stage III – limited to two days/week
- Stage IV – limited to every other day
- Stage V – limited to one day/week

For further information on Ordinance No. 2861, refer to Appendix H. The City will continue to support and promote water conservation measures to ensure an adequate supply of water to its customers.

8.3 PENALTIES, CHARGES, OTHER ENFORCEMENT OF PROHIBITIONS

Ordinance No. 2861 also includes penalties of between $100 to $500 for the El Monte Water Department customers who knowingly use, or permit the use of water contrary to the ordinances provisions.

8.4 CONSUMPTION REDUCTION METHODS

CWC 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.

Table 8-3 shows the consumption reduction methods anticipated for each stage of the Drought Response Conservation Plan. Regarding implementation or modification of a drought rate structure or surcharge, the City's water rate structure includes a "pass through" provision for purchase of replacement water. This allows the cost of needed replacement water purchased from Watermaster to be passed on to rate payers. Beyond that provision, there is no drought surcharge currently in place.

8.5 DETERMINING WATER SHORTAGE REDUCTIONS

CWC 10632

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

All of the City's water production is metered at the well heads. Since June of 2015, the City has been required to report monthly water savings as compared to the City's 2013 water production to the Water Board. The City reports their monthly water production and savings to the DRINC portal using the Urban Water Supplier Reporting Tool.

Essentially all of the City's water consumption is metered and is compared monthly to the production from the wells.

8.6 REVENUE AND EXPENDITURE IMPACTS

CWC 10632

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

The City of El Monte Water Department annual income comes from the sales of water to its customers. Customer billings make up over 94 percent of the Water Department's total revenue. Miscellaneous sources of income include interest, penalties, customer application charges and fees. The City of El Monte Water Department's current rate schedule is shown in Appendix I.

Reduced water sales due to conservation will obviously impact revenues. One mechanism that helps offset revenue shortfalls is the "pass through" provision in the City's water rate structure. In the event the City exceeds its groundwater allocation from Watermaster and purchases replacement water, the cost of needed replacement water purchased from Watermaster can be passed on to rate payers.

The City currently has no drought surcharge in their rate structure to help offset decreased revenues during times of lower water consumption. The City will evaluate implementing drought surcharge in their rate structure.

8.7 CASTASTROPHIC SUPPLY INTERRUPTION

CWC 10632

(d) 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 of El Monte Water Department has an Emergency Response Plan (ERP) that includes an emergency responses communication network.

The City's ERP was developed and implemented in 1997 an updated in 2005, as shown in Appendix F. The key elements of the ERP have been identified as the following:

- Design and implement an effective emergency response communication system.
- Develop an interagency mutual aid program.
- Prepare an emergency response plan, which will include section on water supply, water quality, emergency response plan, which will include section on water supply, water quality, emergency operations center (EOC), and an information resource list, which will include telephone numbers and supplies.

Also included in the ERP is information that defines the type of emergencies that initiate the Plan into action, define the procedures and protocol for communication, automatic

notification procedures, EOC staffing, EOC supply lists, damage assessment procedures and boil water notification procedures.

In addition, the City may purchase water through three emergency interconnections with local water purveyors, if needed. The locations of the City's emergency interconnections are shown on Figure 3.2-1. The city's three emergency interconnections have a total capacity of 5,200 gpm. The City has an emergency interconnection with the San Gabriel Valley Water Company, which is a six-inch connection that has a capacity of 1,200 gpm. The City has an emergency interconnection with the California – American Water Company, which is an eight-inch connection that has a capacity of 2,000 gpm. In addition, the City has two-way eight-inch connection with the Golden State Water Company, which has a capacity of 2,000 gpm.

8.8 MINIMUM SUPPLY NEXT THREE YEARS

CWC 10632

(e) 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.

In May of each year, Watermaster projects the OSY for the next five years. The projected OSYs were used to estimate the minimum water supply for the next three years. The most recent projected OSYs are 150,000 AF for FY 15/16 and 16/17 and 130,000 AF for FY 17/18. Those amounts converted to MG, plus any available carryover water, are listed in Table 8-4. These amounts are actually more conservative than the historical multi-dry year sequence used in Chapter 7 and Table 7-1. This is because that while Watermaster has projected an OSY of 130,000 in 17/18, the OSY has never been that low in Watermaster's history. It is typical for Watermaster to use low preliminary OSYs in its 5 year projection and then increase the final OSY for the coming FY in May of each year.

CHAPTER 9

DEMAND MANAGEMENT MEASURES

9.1 WATER DEMAND MANAGEMENT MEASURES FOR RETAIL AGENCIES

CWC 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.

9.1.1 WATER WASTE PREVENTION ORDINANCES

The City of El Monte is active in creating public awareness about recent water shortages and the necessity of water conservation. The City currently makes staff available as speakers, upon request, for presentations at schools, clubs and civic organizations within the City's service area. The City also uses literature to inform its customers of water conservation. The literature is usually in the form of inserts in the customer's water bills and articles in the City's local quarterly newsletter.

As discussed in Chapter 8, Ordinance 2861, El Monte's Drought Response Conservation Plan, was adopted in July 2015. The following provisions of the ordinance are in effect at all times throughout El Monte:

1. The application of potable water to outdoor landscapes in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures;

2. The use of a hose that dispenses potable water to wash a motor vehicle, except where the hose is fitted with a shut-off nozzle or device attached to it that causes it to cease dispensing water immediately when not in use;
3. The application of potable water to driveways and sidewalks;
4. The use of potable water in a fountain or other decorative water feature, except where the water is part of a recirculating system;
5. The application of potable water to outdoor landscapes during and up to forty-eight (48) hours after measurable rainfall; and
6. The serving of drinking water other than upon request in eating or drinking establishments, including but not limited to restaurants, hotels, cafes, cafeterias, bars, or other public places where food or drink are served and/or purchased.

Ordinance 2861 includes increasingly restrictive prohibitions in five stages as discussed in Chapter 8. Those prohibitions apply only to customers of the El Monte Water Department. A copy of the ordinance is in Appendix H.

9.1.2 METERING

All of the City's residential, commercial and industrial customers are metered. From January to April 2015, all of the City's 2-inch and smaller meters (approximately 2,800 meters) were replaced with Metron-Farnier AMR (automatic meter reading) meters. It is anticipated that the new meters will increase metered water by 5% to 10% over what was previously under-recorded or unrecorded by the old meters.

Well head production meters are required to be calibrated at least every two years by Watermaster. The City's large consumption meters for commercial and industrial establishments are calibrated periodically. Although they are new, the City will implement a meter testing program for their residential meters in the coming years.

9.1.3 CONSERVATION PRICING

Included in the City's water schedule is a two-tiered commodity rate for water based upon volume of use. Water use above 125 units (100 gallon units) per bi-monthly billing period is charged at a higher rate. Users thereby have a financial incentive to conserve water. The City's water rate schedule is in Appendix I.

9.1.4 PUBLIC EDUCATION AND OUTREACH

For implementation of the various stages of the City's Drought Response Conservation Plan (Ordinance 2861), the outreach has included individual mailers, signage and banners throughout the City, announcements in the City's quarterly newsletter, and public meetings.

City's staff reviews water usage bills to determine if "excessive water use" occurred and based on their review, the City can help each customer individually determine the reason for the excessive use. If a customer requests, the City will inform the customer of water-wise practices that help conserve water through habit changing and the retrofit of water fixtures. This program effectively informs the City's customer about its high consumption use in which the customer can evaluate its water use.

The City's largest landscaping services are Parks, Recreation and its Transportation division, consisting of eight parks, and some of the median planters and green belts at City-owned buildings. The city has implemented water audits on its irrigation as part of a large landscape water conservation program.

In addition, as a member agency of Upper District, the City's customers can participate in classes in landscape water management. Upper District's landscape management classes address:

1. Irrigation Principles,
2. Irrigation System Troubleshooting,
3. Controller Programming, and
4. Irrigation Scheduling.

The City participates in public information programs sponsored by Upper District and Metropolitan. Region-wide water conservation is promoted through various public information programs organized by Upper District, including but not limited to conservation brochures and posters, activity booklets, public outreach displays, oral presentations, and workshops to inform the public of conservation efforts. The City, as a member agency of Upper District, also raises awareness about the water conservation through paid advertising, press releases, news ads, media events, and the Speaker's Bureau. Upper District hosts an annual water awareness festival (Water Fest) to raise public awareness about water conservation, water quality and other water-related issues.

Additionally, through a programs sponsored by Upper District and/or Metropolitan, City residences and businesses can receive rebates for high efficiency toilets, high efficiency clothes washers, weather based irrigation controllers, soil moisture sensor systems, ultra-low flush urinals, flush valve kits, cooling tower conductivity controllers, coin or card operated high-efficiency clothes washers, automatic faucet shut-off valves and other devices.

9.1.5 PROGRAMS TO ASSESS AND MANAGE DISTRIBUTION SYSTEM REAL LOSSES

City crews generally repair known water leaks shortly after they are discovered. The City closely monitors its water production and consumption to calculate water loss. Water loss is calculated by subtracting the amount of water sold to its customers for consumption from the amount of water produced from the City's wells. The City's water loss has historically averaged about 5 percent of the City's water production. If the City notices an increase in

unaccountable water loss the City will investigate the cause and make modifications as necessary.

The City has a computerized billing system that, along with its AMR meters, monitors customer's water use and flags unusual variations in consumption. When a customer's bill is flagged for high consumption, a customer can make a request to have a service representative inspect their system. If a problem is found within its customer's water system, the City will recommend the customer to make the necessary repairs. If a problem is found within the City's water system, the City will make the necessary repairs.

City staff has gone through the Water Loss Technical Assistance Program training offered by the California Water Loss Control Collaborative to meet the requirement of SB 555 of submitting a validated water audit by October 1, 2017.

9.1.6 WATER CONSERVATION PROGRAM COORDINATION STAFFING SUPPORT

The City of El Monte does not employ a specific position titled Water Conservation Coordinator; however the City's Utility Manager currently handles most the duties of a Water Conservation Coordinator with assistance from other Public Works Department staff. In addition, as a member agency of Upper District, the City receives assistance on implementing conservation programs through Upper District's Water Conservation Coordinator.

9.2 IMPLEMENTATION OVER THE LAST 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.

The City has used all of the Demand Management Measures listed above in the last five years. The rebate program was administered by Upper District and Metropolitan. Of particular importance for the City was adoption of a revised Drought Response Conservation Plan through adoption of Ordinance 2861, replacement of all of the City's residential and commercial meters with new AMR meters.

9.3 PLANNED IMPLEMENTATION TO ACHIEVE WATER USE TARGETS

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.

The City met its 2015 Water Use Target of 137 GPCD by achieving actual water use of 107 GPCD as described in Chapter 5. Given the City's water use pattern in recent years, it is predicted that it will meet its 2020 Water Use Target of 134 GPCD. However, the City will continue to implement the Demand Management Measures described in this Chapter.

CHAPTER 10

PLAN ADOPTION, SUBMITTAL, AND IMPLEMENTATION

10.1 NOTICE OF PUBLIC HEARING

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...

As required, the County of Los Angeles was notified 60 days prior to the public hearing that the City would be reviewing and updating the UWMP and would consider any input from the County.

10.2 NOTICE OF PUBLIC HEARING

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 published notification of the public hearing in the Sab Gabriel Valley Tribune once a week for two consecutive weeks. The first notification was published 14 days prior to the public hearing. The notice is included in Appendix J.

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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
CA1910038	City of El Monte Water Department	3,545	696
	TOTAL	3,545	696
NOTES:			

Table 2-2: Plan Identification		
Select Only One	**Type of Plan**	
☑	**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	MG
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)*
Not Applicable
NOTES:

Table 3.3-1
City of El Monte Area Climate

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total or Average
Monthly Average ETo[1]		1.59	2.20	3.66	5.08	6.83	7.80	8.67	7.81	5.67	4.03	2.13	1.59	57.06
Average Temperature (Fahrenheit)[2]	Max	68	71	71	75	77	82	88	88	87	82	74	68	78
	Min	41	44	45	48	54	57	61	62	58	54	46	41	51
Average Rainfall (inches)[3]		3.7	3.8	3.3	1.3	0.3	0.1	0.0	0.1	0.5	0.5	2.3	2.3	18.2

[1] California Irrigation Management Information System, Department of Water Resources, Office of Water Use Efficiency, Monthly Average ETo Report for Station 159, Monrovia, Los Angeles Basin – closest active station; [on-line] http://www.cimis.water.ca.gov/cimis/frontMonthlyEToReport.do

[2, 3] [on-line] http://countrystudies.us/united-states/weather/California/el-monte.htm

Table 3-1 Retail: Population - Current and Projected						
Population Served	2015	2020	2025	2030	2035	2040*(opt)*
	17,839	18,935	20,099	21,334	22,645	
NOTES: The 2015 population is taken from the DWR Population Tool (see attached Confirmation Information). Future population is based on an anticipated annual growth rate of 1.2%.						

WUEdata - El Monte City Of

Please print this page to a PDF and include as part of your UWMP submittal.

Confirmation Information

Generated By	Water Supplier Name	Confirmation #	Generated On
Richard Ruyle	El Monte City Of	8413266837	1/29/2017 11:19:53 AM

Boundary Information

Census Year	Boundary Filename	Internal Boundary ID
1990	Water Dept Service Boundary.kml	1307
2000	Water Dept Service Boundary.kml	1307
2010	Water Dept Service Boundary.kml	1307

Baseline Period Ranges

10 to 15-year baseline period

Number of years in baseline period: 10

Year beginning baseline period range: 2001

Year ending baseline period range[1]: 2010

5-year baseline period

Year beginning baseline period range: 2006

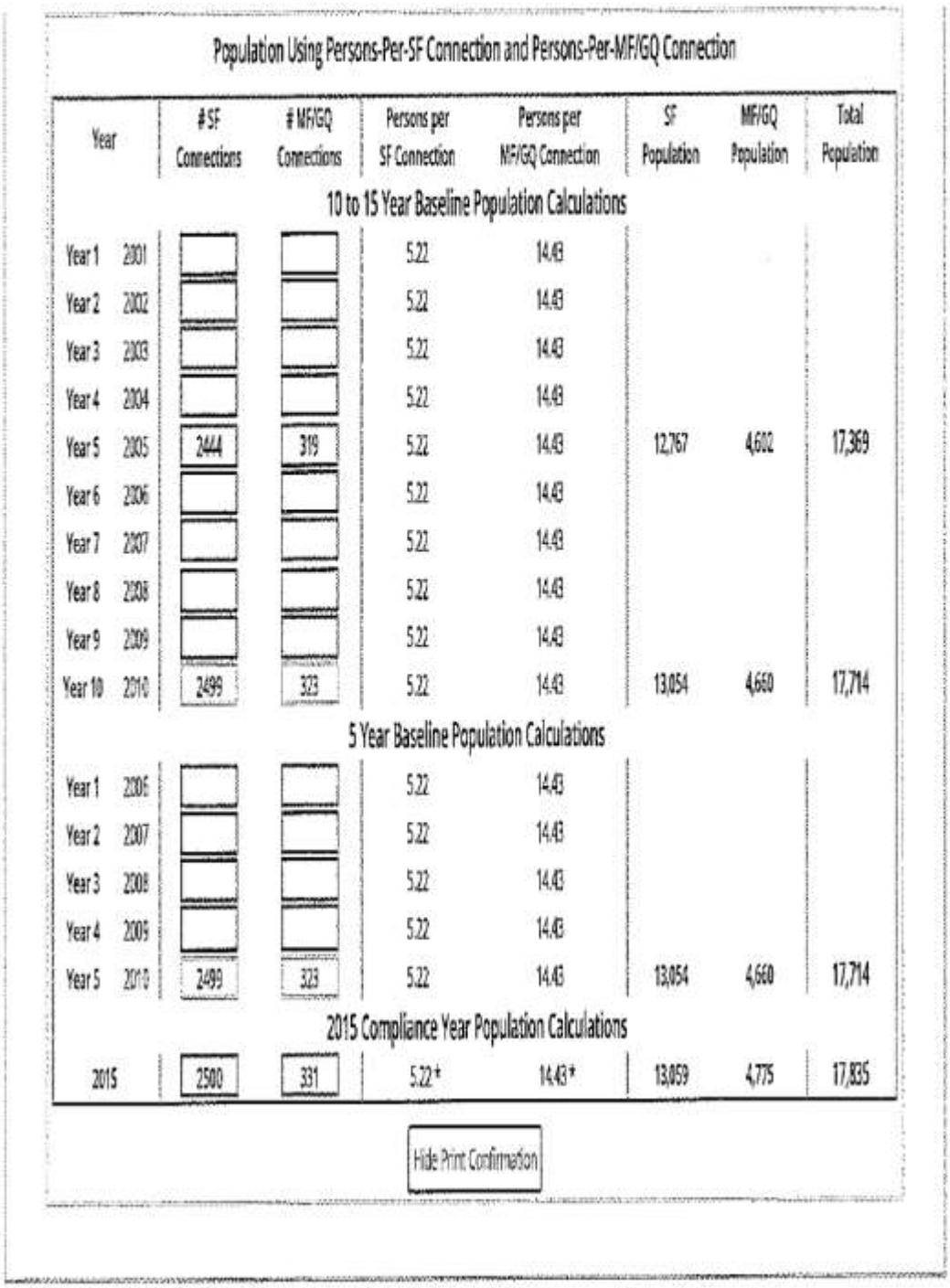
Year ending baseline period range[2]: 2010

[1] The ending year must be between December 31, 2004 and December 31, 2010.
[2] The ending year must be between December 31, 2007 and December 31, 2010.

Persons-Per-SF Connection and Persons-Per-MF/GQ Connection

	Census Block Group Level	Census Block Level						
Year	% Population in SF Housing	Service Area Population	Population in SF Housing (calculated)	Population in MF/GQ Housing (calculated)	# SF Connections	# MF/GQ Connections	Persons per SF Connection	Persons per MF/GQ Connection
1990	69.21%	17,360	12,014	5,346			5.22	14.43
1991	-	-	-	-	-	-	5.22	14.43
1992	-	-	-	-	-	-	5.22	14.43
1993	-	-	-	-	-	-	5.22	14.43
1994	-	-	-	-	-	-	5.22	14.43
1995	-	-	-	-	-	-	5.22	14.43
1996	-	-	-	-	-	-	5.22	14.43
1997	-	-	-	-	-	-	5.22	14.43
1998	-	-	-	-	-	-	5.22	14.43
1999	-	-	-	-	-	-	5.22	14.43
2000	76.81%	17,628	13,541	4,087			5.22	14.43
2001	-	-	-	-	-	-	5.22	14.43
2002	-	-	-	-	-	-	5.22	14.43
2003	-	-	-	-	-	-	5.22	14.43
2004	-	-	-	-	-	-	5.22	14.43
2005	-	-	-	-	-	-	5.22	14.43
2006	-	-	-	-	-	-	5.22	14.43
2007	-	-	-	-	-	-	5.22	14.43
2008	-	-	-	-	-	-	5.22	14.43
2009	-	-	-	-	-	-	5.22	14.43
2010	73.70%	17,714	13,054	4,660	2499	323	5.22	14.43
2015	-	-	-	-	-	-	5.22 *	14.43 *

WUEdata Main Menu



Population Using Persons-Per-SF Connection and Persons-Per-MF/GQ Connection

Year		# SF Connections	# MF/GQ Connections	Persons per SF Connection	Persons per MF/GQ Connection	SF Population	MF/GQ Population	Total Population
10 to 15 Year Baseline Population Calculations								
Year 1	2001			5.22	14.43			
Year 2	2002			5.22	14.43			
Year 3	2003			5.22	14.43			
Year 4	2004			5.22	14.43			
Year 5	2005	2444	319	5.22	14.43	12,767	4,602	17,369
Year 6	2006			5.22	14.43			
Year 7	2007			5.22	14.43			
Year 8	2008			5.22	14.43			
Year 9	2009			5.22	14.43			
Year 10	2010	2499	323	5.22	14.43	13,054	4,660	17,714
5 Year Baseline Population Calculations								
Year 1	2006			5.22	14.43			
Year 2	2007			5.22	14.43			
Year 3	2008			5.22	14.43			
Year 4	2009			5.22	14.43			
Year 5	2010	2499	323	5.22	14.43	13,054	4,660	17,714
2015 Compliance Year Population Calculations								
2015		2500	331	5.22*	14.43*	13,059	4,775	17,835

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QUESTIONS / ISSUES? CONTACT THE WUEDATA HELP DESK

Table 4-1 Retail: Demands for Potable and Raw Water - Actual			
Use Type *(Add additional rows as needed)*	2015 Actual		
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*	Additional Description *(as needed)*	Level of Treatment When Delivered *Drop down list*	Volume
Single Family		Drinking Water	271
Multi-Family		Drinking Water	112
Commercial		Drinking Water	214
Industrial		Drinking Water	3
Landscape		Drinking Water	14
Losses		Drinking Water	82
		TOTAL	696
NOTES: Losses are all inclusive - they are taken as the volume of water supplied listed in Table 2-1 minus the demands listed in this table.			

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

Use Type *(Add additional rows as needed)* ***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*	Additional Description *(as needed)*	Projected Water Use *Report To the Extent that Records are Available*				
		2020	2025	2030	2035	2040 -opt
Single Family		288	305	324	344	
Multi-Family		119	126	134	142	
Commercial		219	225	231	236	
Industrial		3	3	3	3	
Landscape		14	14	14	14	
Losses		32	34	35	37	
TOTAL		675	707	741	777	0

NOTES: 2015 water demand was used as the starting point for projected use. The same 1.2% annual growth rate used for the population was applied to the single family and multi-family demand to estimate projected use. A more modest annual growth rate of 0.5% was applied to commercial demand. Industrial and irrigation use were assumed to remain unchanged in the future. Projected water loss is taken as 5% of demand, which is a reasonable and realistic goal considering the 2016 meter replacement program.

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*	696	675	707	741	777	0
Recycled Water Demand* *From Table 6-4*	0	0	0	0	0	0
TOTAL WATER DEMAND	696	675	707	741	777	0
**Recycled water demand fields will be blank until Table 6-4 is complete.*						

Table 4-4 Retail: 12 Month Water Loss Audit Reporting	
Reporting Period Start Date (mm/yyyy)	Volume of Water Loss*
07/2015	54.197
** Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet.*	
NOTES: Loss is for FY 15/16. New 2" and smaller meters for the entire system were installed beginning in January 2016. This would account at least in part for why the FY 15/16 loss is smaller than the CY 2015 loss.	

Table 4-5 Retail Only: Inclusion in Water Use Projections	
Are Future Water Savings Included in Projections? (Refer to Appendix K of UWMP Guidebook) *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.	
Are Lower Income Residential Demands Included In Projections? *Drop down list (y/n)*	Yes
NOTES: 2015 water demand was used as the starting point for determining projected use, which included savings of 15.6% for the last six months of 2015 compared to 2013 due to conservation efforts. Applied to the entire 2015 demand, this would be a savings of 7.8%, which will be reflected in projected use. It is a reasonable estimate of long term water savings.	

SB X7-7 Table-1: Baseline Period Ranges			
Baseline	**Parameter**	**Value**	**Units**
10- to 15-year baseline period	2008 total water deliveries	874	Million Gallons
	2008 total volume of delivered recycled water	-	Million Gallons
	2008 recycled water as a percent of total deliveries	0.00%	Percent
	Number of years in baseline period[1, 2]	10	Years
	Year beginning baseline period range	2001	
	Year ending baseline period range[3]	2010	
5-year baseline period	Number of years in baseline period	5	Years
	Year beginning baseline period range	2006	
	Year ending baseline period range[4]	2010	

[1]If the 2008 recycled water percent is less than 10 percent, then the first baseline period is a continuous 10-year period. If the amount of recycled water delivered in 2008 is 10 percent or greater, the first baseline period is a continuous 10- to 15-year period.

[2] The Water Code requires that the baseline period is between 10 and 15 years. However, DWR recognizes that some water suppliers may not have the minimum 10 years of baseline data.

[3]The ending year must be between December 31, 2004 and December 31, 2010.

[4]The ending year must be between December 31, 2007 and December 31, 2010.

NOTES:

SB X7-7 Table 2: Method for Population Estimates	
Method Used to Determine Population (may check more than one)	
☐	**1. Department of Finance** (DOF) DOF Table E-8 (1990 - 2000) and (2000-2010) and DOF Table E-5 (2011 - 2015) when available
☐	**2. Persons-per-Connection Method**
☑	**3. DWR Population Tool**
☐	**4. Other** DWR recommends pre-review
NOTES:	

SB X7-7 Table 3: Service Area Population		
Year		**Population**
10 to 15 Year Baseline Population		
Year 1	2001	17,636
Year 2	2002	17,645
Year 3	2003	17,654
Year 4	2004	16,663
Year 5	2005	17,672
Year 6	2006	17,681
Year 7	2007	17,690
Year 8	2008	17,699
Year 9	2009	17,708
Year 10	2010	17,714
Year 11		
Year 12		
Year 13		
Year 14		
Year 15		
5 Year Baseline Population		
Year 1	2006	17,681
Year 2	2007	17,690
Year 3	2008	17,699
Year 4	2009	17,708
Year 5	2010	17,714
2015 Compliance Year Population		
2015		17,839
NOTES: Extrapolated between census years 2000 and 2010. Number of connections not available for all years.		

SB X7-7 Table 4: Annual Gross Water Use *								
			Deductions					
Baseline Year *Fm SB X7-7 Table 3*		**Volume Into Distribution System** *This column will remain blank until SB X7-7 Table 4-A is completed.*	**Exported Water**	**Change in Dist. System Storage** (+/-)	**Indirect Recycled Water** *This column will remain blank until SB X7-7 Table 4-B is completed.*	**Water Delivered for Agricultural Use**	**Process Water** *This column will remain blank until SB X7-7 Table 4-D is completed.*	**Annual Gross Water Use**
10 to 15 Year Baseline - Gross Water Use								
Year 1	2001	902			-		-	902
Year 2	2002	908			-		-	908
Year 3	2003	891			-		-	891
Year 4	2004	862			-		-	862
Year 5	2005	899			-		-	899
Year 6	2006	900			-		-	900
Year 7	2007	901			-		-	901
Year 8	2008	908			-		-	908
Year 9	2009	915			-		-	915
Year 10	2010	922			-		-	922
Year 11	0	-			-		-	-
Year 12	0	-			-		-	-
Year 13	0	-			-		-	-
Year 14	0	-			-		-	-
Year 15	0	-			-		-	-
10 - 15 year baseline average gross water use								**901**
5 Year Baseline - Gross Water Use								
Year 1	2006	900			-		-	900
Year 2	2007	901			-		-	901
Year 3	2008	908			-		-	908
Year 4	2009	915			-		-	915
Year 5	2010	922			-		-	922
5 year baseline average gross water use								**909**
2015 Compliance Year - Gross Water Use								
2015		696	-		-		-	**696**

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)
Complete one table for each source.

Name of Source	El Monte water wells

This water source is:

☑ The supplier's own water source

☐ A purchased or imported source

Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	2001	902		902
Year 2	2002	908		908
Year 3	2003	891		891
Year 4	2004	862		862
Year 5	2005	899		899
Year 6	2006	900		900
Year 7	2007	901		901
Year 8	2008	908		908
Year 9	2009	915		915
Year 10	2010	922		922
Year 11	0			-
Year 12	0			-
Year 13	0			-
Year 14	0			-
Year 15	0			-
5 Year Baseline - Water into Distribution System				
Year 1	2006	900		900
Year 2	2007	901		901
Year 3	2008	908		908
Year 4	2009	915		915
Year 5	2010	922		922
2015 Compliance Year - Water into Distribution System				
2015		696		696

** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*

SB X7-7 Table 5: Gallons Per Capita Per Day (GPCD)				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Annual Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use (GPCD)
10 to 15 Year Baseline GPCD				
Year 1	2001	17,636	902	140
Year 2	2002	17,645	908	141
Year 3	2003	17,654	891	138
Year 4	2004	16,663	862	142
Year 5	2005	17,672	899	139
Year 6	2006	17,681	900	139
Year 7	2007	17,690	901	140
Year 8	2008	17,699	908	141
Year 9	2009	17,708	915	142
Year 10	2010	17,714	922	143
Year 11	0	-	-	
Year 12	0	-	-	
Year 13	0	-	-	
Year 14	0	-	-	
Year 15	0	-	-	
10-15 Year Average Baseline GPCD				**140**
5 Year Baseline GPCD				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use
Year 1	2006	17,681	900	139
Year 2	2007	17,690	901	140
Year 3	2008	17,699	908	141
Year 4	2009	17,708	915	142
Year 5	2010	17,714	922	143
5 Year Average Baseline GPCD				**141**
2015 Compliance Year GPCD				
2015		17,839	696	**107**
NOTES:				

SB X7-7 Table 6: Gallons per Capita per Day *Summary From Table SB X7-7 Table 5*	
10-15 Year Baseline GPCD	140
5 Year Baseline GPCD	141
2015 Compliance Year GPCD	107
NOTES:	

SB X7-7 Table 7: 2020 Target Method *Select Only One*		
Target Method		Supporting Documentation
☐	Method 1	SB X7-7 Table 7A
☐	Method 2	SB X7-7 Tables 7B, 7C, and 7D *Contact DWR for these tables*
☑	Method 3	SB X7-7 Table 7-E
☐	Method 4	Method 4 Calculator
NOTES:		

SB X7-7 Table 7-E: Target Method 3				
Agency May Select More Than One as Applicable	Percentage of Service Area in This Hydrological Region	Hydrologic Region	"2020 Plan" Regional Targets	Method 3 Regional Targets (95%)
☐		North Coast	137	130
☐		North Lahontan	173	164
☐		Sacramento River	176	167
☐		San Francisco Bay	131	124
☐		San Joaquin River	174	165
☐		Central Coast	123	117
☐		Tulare Lake	188	179
☐		South Lahontan	170	162
☑		South Coast	149	142
☐		Colorado River	211	200
Target *(If more than one region is selected, this value is calculated.)*				**0**
NOTES:				

SB X7-7 Table 7-F: Confirm Minimum Reduction for 2020 Target			
5 Year Baseline GPCD *From SB X7-7 Table 5*	Maximum 2020 Target[1]	Calculated 2020 Target[2]	**Confirmed 2020 Target**
141	134	142	**134**

[1]Maximum 2020 Target is 95% of the 5 Year Baseline GPCD except for suppliers at or below 100 GPCD.
[2]2020 Target is calculated based on the selected Target Method, see SB X7-7 Table 7 and corresponding tables for agency's calculated target.

NOTES:

SB X7-7 Table 8: 2015 Interim Target GPCD		
Confirmed 2020 Target *Fm SB X7-7 Table 7-F*	10-15 year Baseline GPCD *Fm SB X7-7 Table 5*	**2015 Interim Target GPCD**
134	140	**137**
NOTES:		

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

Baseline Period	Start Year	End Year	Average Baseline GPCD*	2015 Interim Target *	Confirmed 2020 Target*
10-15 year	*2001*	*2010*	*140*	*137*	*134*
5 Year	*2006*	*2010*	*141*		

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

NOTES:

SB X7-7 Table 9: 2015 Compliance

Actual 2015 GPCD	2015 Interim Target GPCD	Optional Adjustments *(in GPCD)* Enter "0" if Adjustment Not Used			TOTAL Adjustments	Adjusted 2015 GPCD	2015 GPCD *(Adjusted if applicable)*	**Did Supplier Achieve Targeted Reduction for 2015?**
		Extraordinary Events	Weather Normalization	Economic Adjustment				
107	137	*From Methodology 8 (Optional)*	*From Methodology 8 (Optional)*	*From Methodology 8 (Optional)*	-	107	107	**YES**

NOTES:

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

Actual 2015 GPCD*	2015 Interim Target GPCD*	Optional Adjustments to 2015 GPCD 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*		
107	137				0	107	107	Yes

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

NOTES:

Table 6.2-1
Annual Rainfall in the San Gabriel Valley

Year	Rainfall (in)	Year	Rainfall (in)
1958-59	8.5	1984-85	14.6
1959-60	10.6	1985-86	22.0
1960-61	5.9	1986-87	9.1
1961-62	22.4	1987-88	14.9
1962-63	12.3	1988-89	11.2
1963-64	9.4	1989-90	12.4
1964-65	12.2	1990-91	15.1
1965-66	19.6	1991-92	22.8
1966-67	25.0	1992-93	35.9
1967-68	15.0	1993-94	11.6
1968-69	30.5	1994-95	30.4
1969-70	11.1	1995-96	15.6
1970-71	13.3	1996-97	17.5
1971-72	8.5	1997-98	36.1
1972-73	22.4	1998-99	8.6
1973-74	16.8	1999-00	14.4
1974-75	14.9	2000-01	15.5
1975-76	12.1	2001-02	6.4
1976-77	14.5	2002-03	19.4
1977-78	38.4	2003-04	27.1
1978-79	23.9	2004-05	35.8
1979-80	34.8	2005-06	21.1
1980-81	10.3	2006-07	10.1
1981-82	18.9	2007-08	10.6
1982-83	39.3	2008-09	17.4
1983-84	10.6	2009-10	33.8
		52 Year Average:	**18.3**

Source: http://www.wrcc.dri.edu/

Table 6-1 Retail: Groundwater Volume Pumped

☐	Supplier does not pump groundwater. The supplier will not complete the table below.					
Groundwater Type ***Drop Down List*** *May use each category multiple times*	Location or Basin Name	2011	2012	2013	2014	2015
Add additional rows as needed						
Alluvial Basin	Main San Gabriel Basin	731.55	761.24	760.18	717.52	695.53
	TOTAL	732	761	760	718	696

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						
El Monte Wastewater Department	Estimated	350	Los Angeles County Sanitation District	San Jose Creek	No	
				Whittier		
				Narrows	No	
Total Wastewater Collected from Service Area in 2015:		350				

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)	None	Tertiary					10	
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	10	0

**IPR - Indirect Potable Reuse*

Table 6-6 Retail: Methods to Expand Future Recycled Water Use

☐	Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.
	Provide page location of narrative in UWMP

Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use
Add additional rows as needed			
Infrastructure extension	Extend recycled water distribution system from Upper San Gabriel Municipal Water District and/or San Gabriel Valley Water Company	2035	10
		Total	10

NOTES: The closest recycled water distribution pipe is approximately two miles away from El Monte High School, one of El Monte's largest potential users. The cost to extend the pipe is estimated at 3 million dollars, which cannot be justified given El Monte High School's relatively small potential recycled water use of 4 MG/year. As the cost of potable water continues to rise, the economics will become more attractive.

Table 6-8 Retail: Water Supplies — Actual				
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*	Additional Detail on Water Supply	Actual Volume	Water Quality *Drop Down List*	Total Right or Safe Yield *(optional)*
Add additional rows as needed				
Groundwater		794	Drinking Water	
	Total	794		0
NOTES: Based of Watermaster Operating Safe Yield (OSY) of 150,000 AF plus available carryover water from previous years. The production right (pumper's share plus carryover) from FY 14/15 and FY 15/16 in the Watermaster Annual Reports were averaged.				

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	Main San Gabriel Basin	689	597	836		836		836			
	Total	689	597	836	0	836	0	836	0	0	0

NOTES: El Monte's water right or pumper's share from the Main San Gabriel Watermaster is 1.40888% of the Operating Safe yield (OSY), which Watermaster determines in May of each year. El Monte's current preliminary pumper's share for FY 20/21 based on a preliminary OSY of 130,000 AF is 597 MG. However, it is reasonable to expect that the pumper's share will be adjusted to no less than 689 MG based on the current FY 16/17 OSY of 150,000 AF. For years 2025 and beyond, the reasonable available pumper's share is based on the average OSY for the last five years of 182,000 AF, which included historically dry years. The amounts assume there will be no carryover water available, which is a conservative approach.

Table 7-1 Retail: Basis of Water Year Data			
Year Type	**Base Year** *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	1996	904	100%
Single-Dry Year	1992	643	
Multiple-Dry Years 1st Year	2014	826	
Multiple-Dry Years 2nd Year	2015	689	
Multiple-Dry Years 3rd Year	2016	689	
Multiple-Dry Years 4th Year *Optional*			
Multiple-Dry Years 5th Year *Optional*			
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: Volume available is based on Watermaster's Operating Safe Yield (OSY). The average year is taken as the 42 year average of the OSY, 196,929 AF. The single driest year was in 91/92 when the OSY was 140,000 AF. The three driest multiple years were recently in 13/14, 14/15, and 15/16 when the OSY was 180,000 AF, 150,000 AF, and 150,000 AF respectively.			

Table 7-2 Retail: Normal Year Supply and Demand Comparison					
	2020	2025	2030	2035	2040 *(Opt)*
Supply totals (*autofill from Table 6-9)*	689	836	836	836	0
Demand totals *(autofill from Table 4-3)*	675	707	741	787	0
Difference	14	128	95	49	0
NOTES:					

Table 7-3 Retail: Single Dry Year Supply and Demand Comparison					
	2020	2025	2030	2035	2040 (Opt)
Supply totals	643	643	643	643	
Demand totals	675	707	741	777	
Difference	(32)	(64)	(98)	(134)	0
NOTES: Supply totals are based on allocation from Watermaster's possible OSY. No available carryover water is assumed. To make up any Difference, replenishment water is generally available for purchase from Watermaster.					

Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison						
		2020	2025	2030	2035	2040 (Opt)
First year	Supply totals	826	826	826	826	
	Demand totals	675	707	741	777	
	Difference	151	119	85	49	0
Second year	Supply totals	689	689	689	689	
	Demand totals	675	707	741	777	
	Difference	14	(18)	(52)	(88)	0
Third year	Supply totals	689	689	689	689	
	Demand totals	675	707	741	777	
	Difference	14	(18)	(52)	(88)	0
Fourth year *(optional)*	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Fifth year *(optional)*	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Sixth year *(optional)*	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0

NOTES: Supply totals are based on allocation from Watermaster's possible OSY. No available carryover water is assumed. To make up any Difference, replenishment water is generally available for purchase from Watermaster.

Table 8-1 Retail Stages of Water Shortage Contingency Plan		
Stage	Complete Both	
	Percent Supply Reduction[1] *Numerical value as a percent*	Water Supply Condition (*Narrative description)*
Add additional rows as needed		
II	17%	Watermaster OSY is 10-17% less than demand
III	24%	OSY is 17%-24% less than anticipated demand
IV	31%	OSY is 24%-31% less than anticipated demand
V	50%	OSY is 31%-50% less than anticipated demand
[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 ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool*	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? *Drop Down List*
Add additional rows as needed			
II through V	Landscape - Restrict or prohibit runoff from landscape irrigation		Yes
II through V	Landscape - Limit landscape irrigation to specific times		Yes
II through V	Landscape - Limit landscape irrigation to specific days	III - every other day, IV - 2 days/wk, V - 1 day/wk	Yes
II through V	CII - Lodging establishment must offer opt out of linen service		Yes
II through V	CII - Restaurants may only serve water upon request		Yes
III through V	Water Features - Restrict water use for decorative water features, such as fountains		Yes
IV through V	Pools and Spas - Require covers for pools and spas	If covers are already owned	Yes
II through V	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner		Yes
II through V	Other - Require automatic shut of hoses		Yes
II through V	Other - Prohibit use of potable water for washing hard surfaces		Yes
V	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water		Yes
NOTES:			

Table 8-3 Retail Only: Stages of Water Shortage Contingency Plan - Consumption Reduction Methods		
Stage	Consumption Reduction Methods by Water Supplier ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool*	Additional Explanation or Reference *(optional)*
Add additional rows as needed		
II through V	Expand Public Information Campaign	
II through V	Reduce System Water Loss	
III through V	Increase Water Waste Patrols	
III through V	Implement or Modify Drought Rate Structure or Surcharge	
V	Decrease Line Flushing	
NOTES:		

Table 8-4 Retail: Minimum Supply Next Three Years			
	2016	2017	2018
Available Water Supply	767	800	597
NOTES: These are for FY 15/16, 16/17, and 17/18 based on Watermaster OSY plus available carryover amounts. 2018 amount is preliminary and will likely be adjusted upward.			

Table 10-1 Retail: Notification to Cities and Counties		
City Name	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
	☐	☐
	☐	☐
	☐	☐
County Name *Drop Down List*	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
Los Angeles County	☑	☑
	☐	☐

FIGURES

Figure 3.1-1

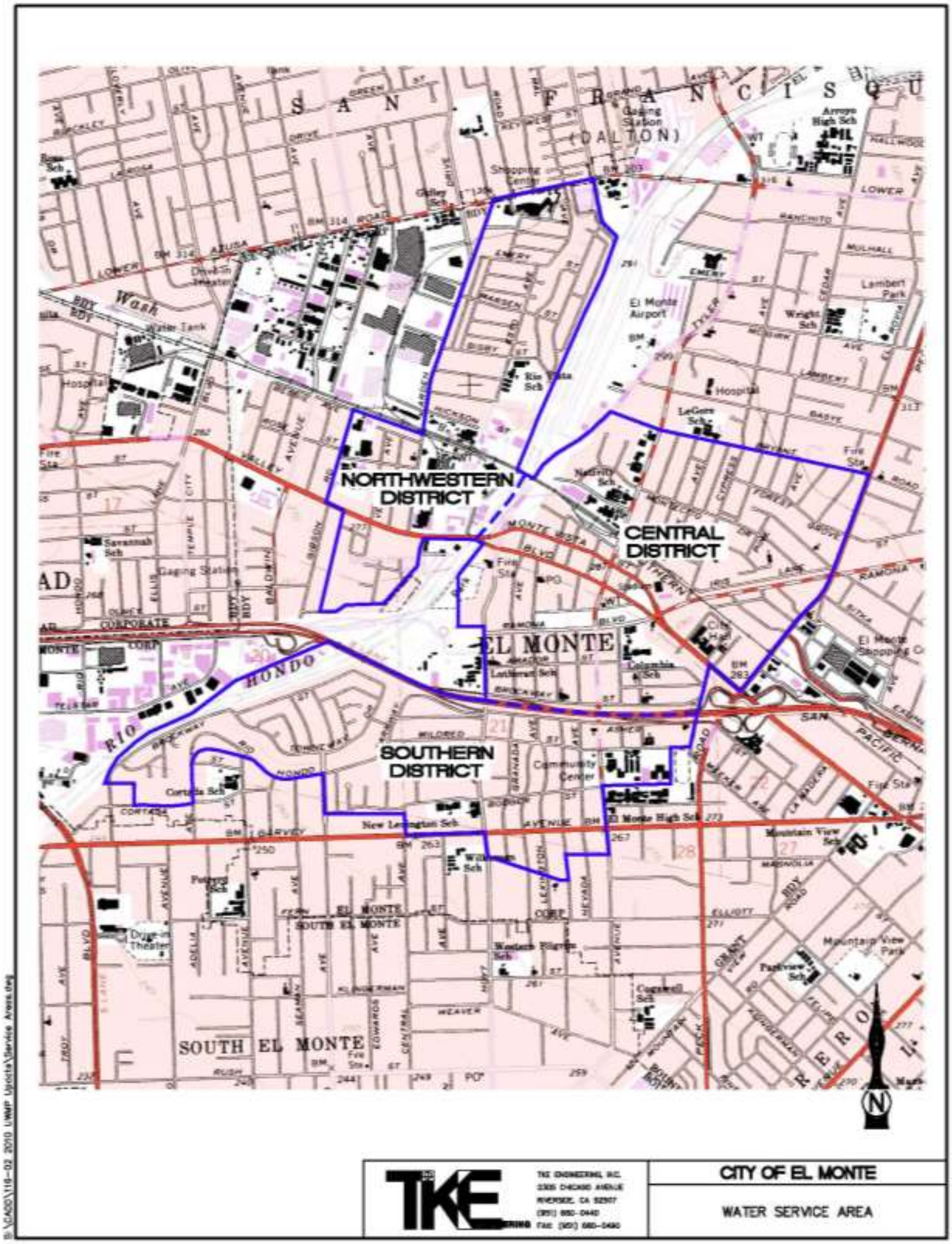

NORTHWESTERN DISTRICT
CENTRAL DISTRICT
SOUTHERN DISTRICT
EL MONTE
SOUTH EL MONTE
RIO HONDO
El Monte Airport
TKE ENGINEERING, INC.
CITY OF EL MONTE
WATER SERVICE AREA

Figure 3.2-1

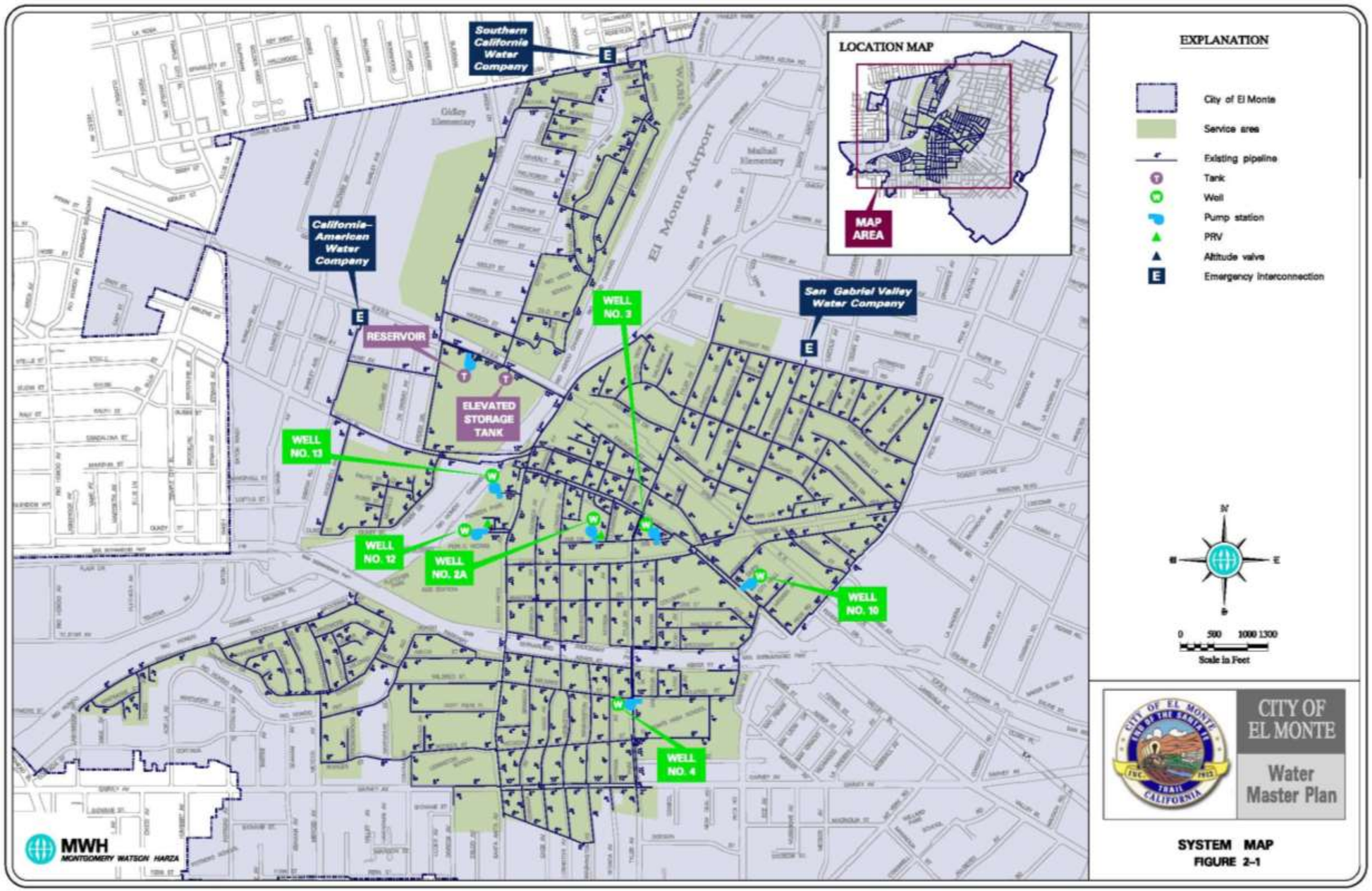

Southern California Water Company
California-American Water Company
San Gabriel Valley Water Company
RESERVOIR
ELEVATED STORAGE TANK
WELL NO. 13
WELL NO. 12
WELL NO. 2A
WELL NO. 3
WELL NO. 10
WELL NO. 4
El Monte Airport
LOCATION MAP
MAP AREA
EXPLANATION
City of El Monte
Service area
Existing pipeline
Tank
Well
Pump station
PRV
Altitude valve
Emergency Interconnection
0 500 1000 1300
Scale in Feet
MWH
MONTGOMERY WATSON HARZA
CITY OF EL MONTE
Water Master Plan
SYSTEM MAP
FIGURE 2-1

Figure 6.2-1

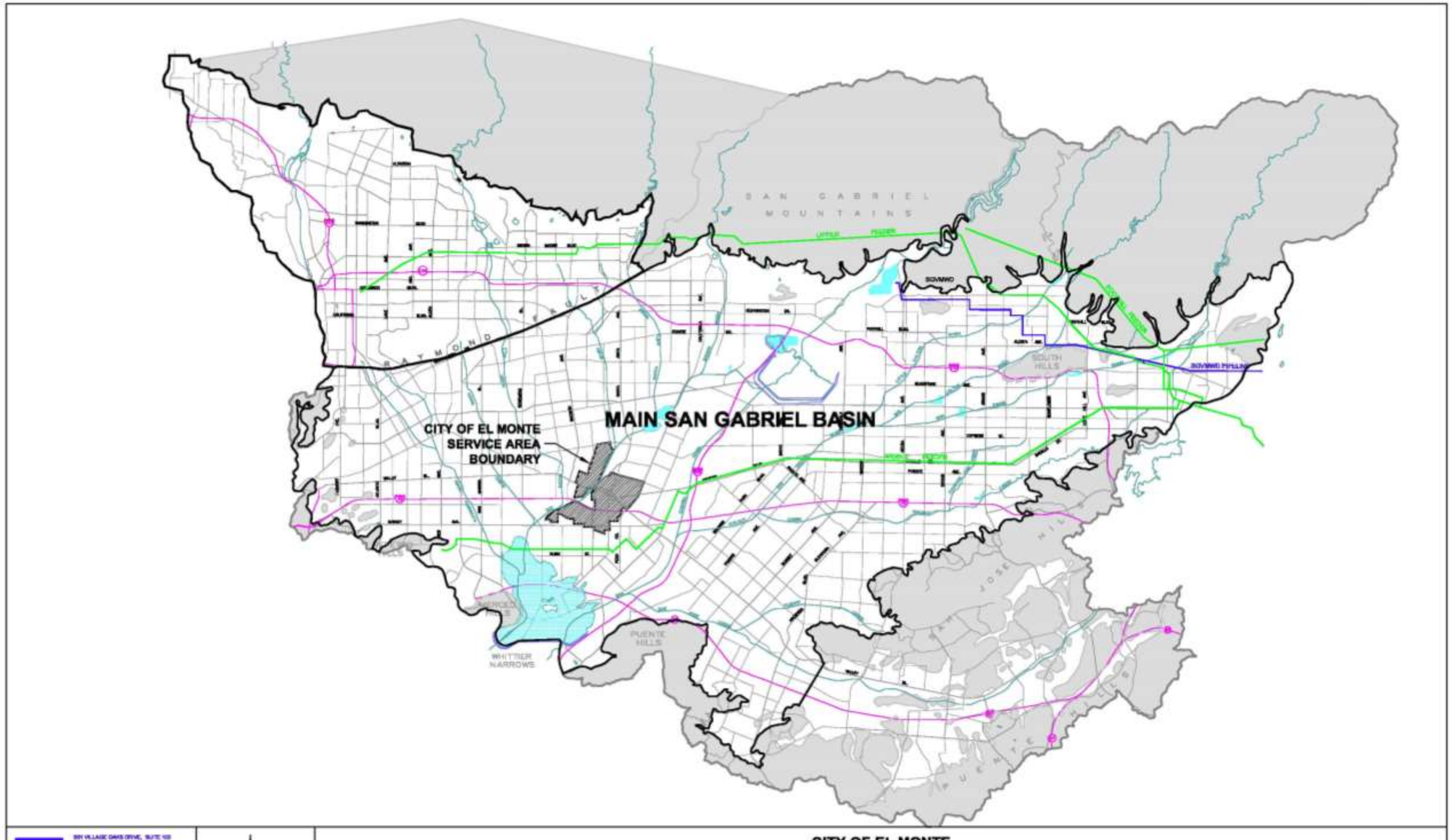

SAN GABRIEL MOUNTAINS
RAYMOND BASIN
MAIN SAN GABRIEL BASIN
CITY OF EL MONTE SERVICE AREA BOUNDARY
SOUTH HILLS
PUENTE HILLS
WHITTIER NARROWS
SCHWMD
SCHWMD PIPELINE
STETSON ENGINEERS INC.
APPROXIMATE SCALE
1" = 11,000'
CITY OF EL MONTE
MAIN SAN GABRIEL BASIN

Figure 6.2-2

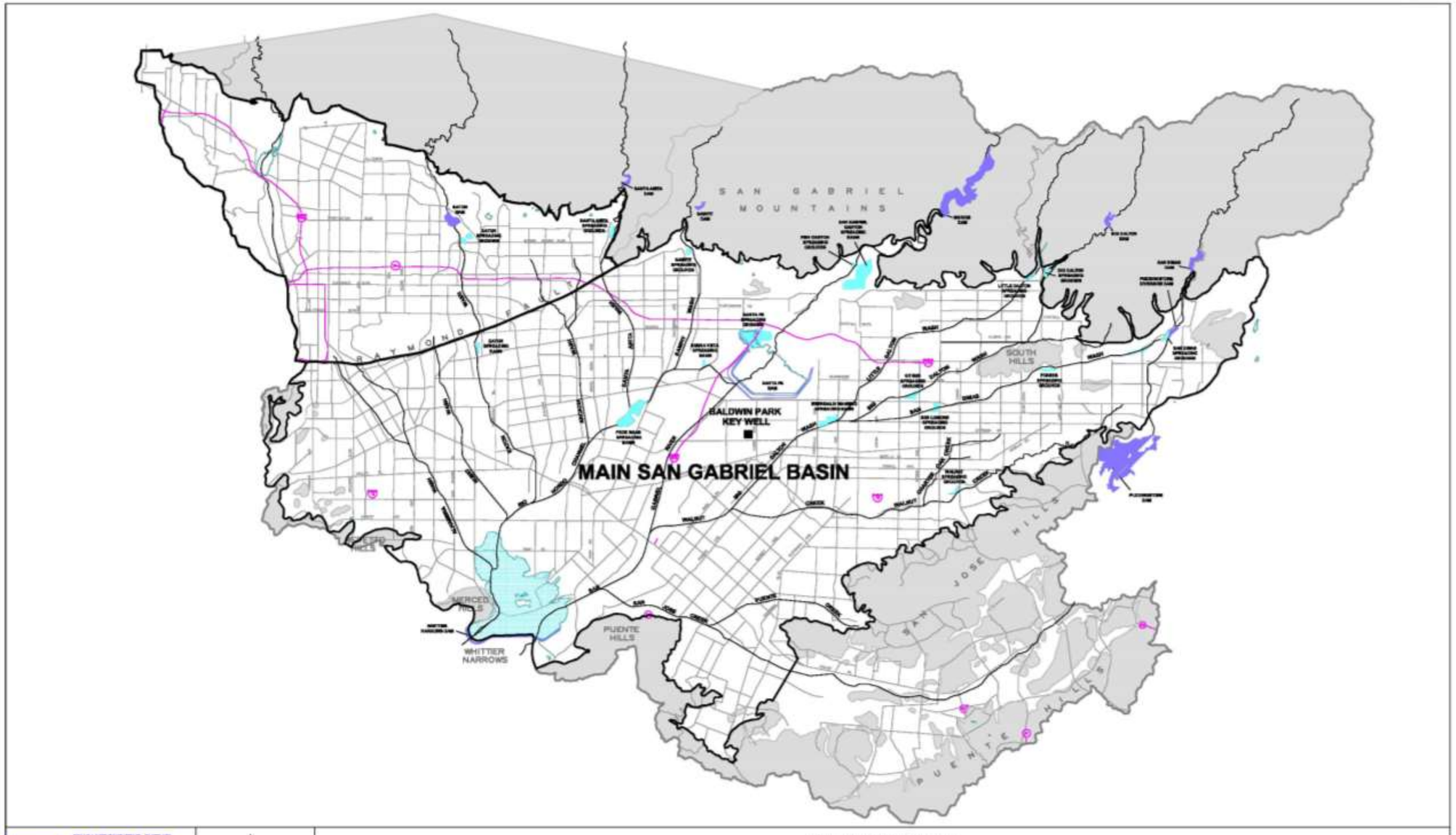

SAN GABRIEL MOUNTAINS
RAYMOND BASIN
SOUTH HILLS
BALDWIN PARK KEY WELL
MAIN SAN GABRIEL BASIN
MERCED HILLS
WHITTIER NARROWS
PUENTE HILLS
SAN JOSE HILLS
PUENTE HILLS
STETSON ENGINEERS INC.
CITY OF EL MONTE
LOCATION OF SPREADING GROUNDS AND WATER CHANNELS
SAN GABRIEL VALLEY

Figure 6.2-3

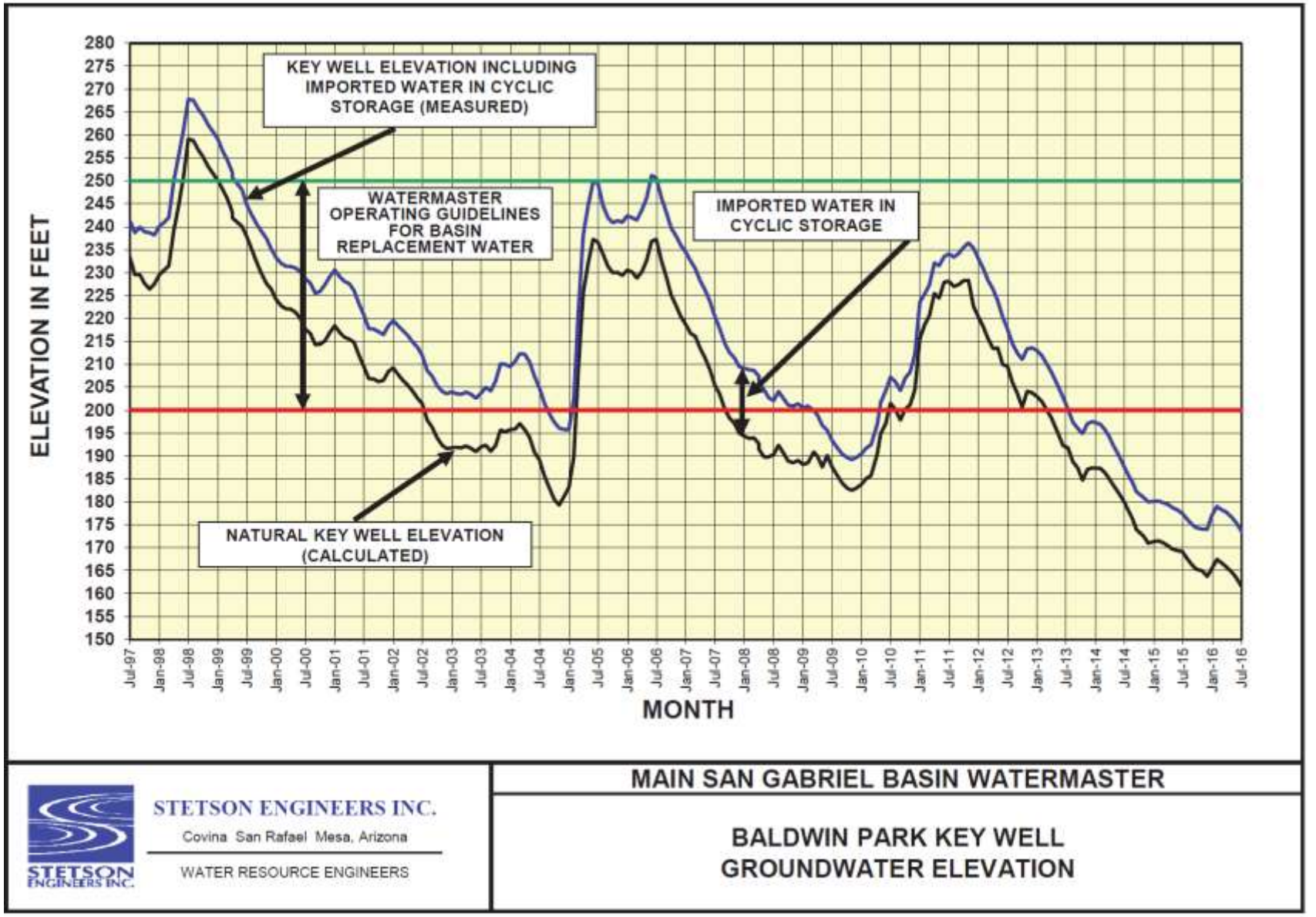

KEY WELL ELEVATION INCLUDING IMPORTED WATER IN CYCLIC STORAGE (MEASURED)
WATERMASTER OPERATING GUIDELINES FOR BASIN REPLACEMENT WATER
IMPORTED WATER IN CYCLIC STORAGE
NATURAL KEY WELL ELEVATION (CALCULATED)
ELEVATION IN FEET
MONTH
STETSON ENGINEERS INC.
Covina San Rafael Mesa, Arizona
WATER RESOURCE ENGINEERS
MAIN SAN GABRIEL BASIN WATERMASTER
BALDWIN PARK KEY WELL
GROUNDWATER ELEVATION

Figure 6.2-4

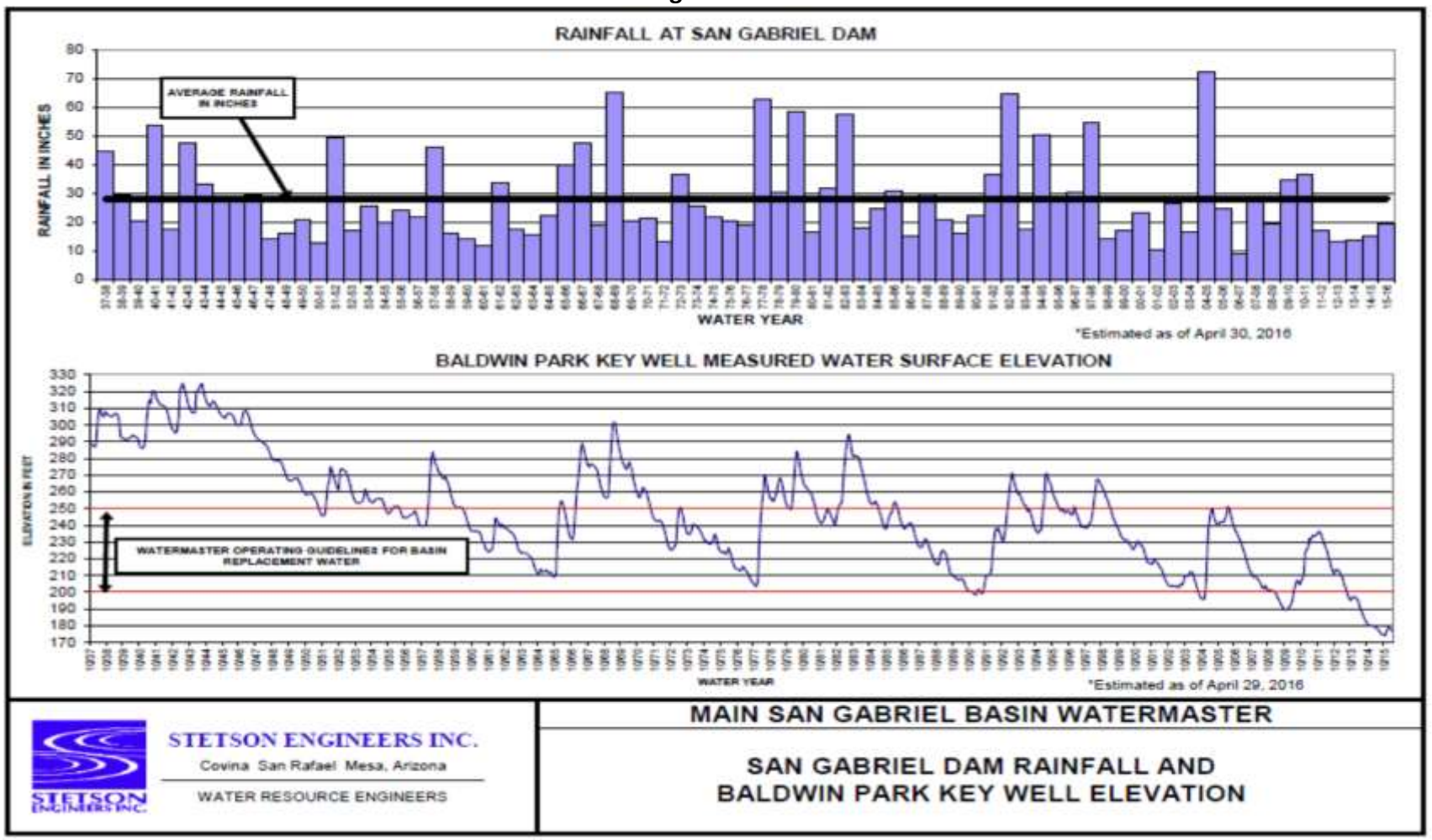

RAINFALL AT SAN GABRIEL DAM
RAINFALL IN INCHES
AVERAGE RAINFALL IN INCHES
WATER YEAR
*Estimated as of April 30, 2016
BALDWIN PARK KEY WELL MEASURED WATER SURFACE ELEVATION
ELEVATION IN FEET
WATERMASTER OPERATING GUIDELINES FOR BASIN REPLACEMENT WATER
WATER YEAR
*Estimated as of April 29, 2016
STETSON ENGINEERS INC.
Covina San Rafael Mesa, Arizona
WATER RESOURCE ENGINEERS
MAIN SAN GABRIEL BASIN WATERMASTER
SAN GABRIEL DAM RAINFALL AND
BALDWIN PARK KEY WELL ELEVATION

Figure 6.2-5

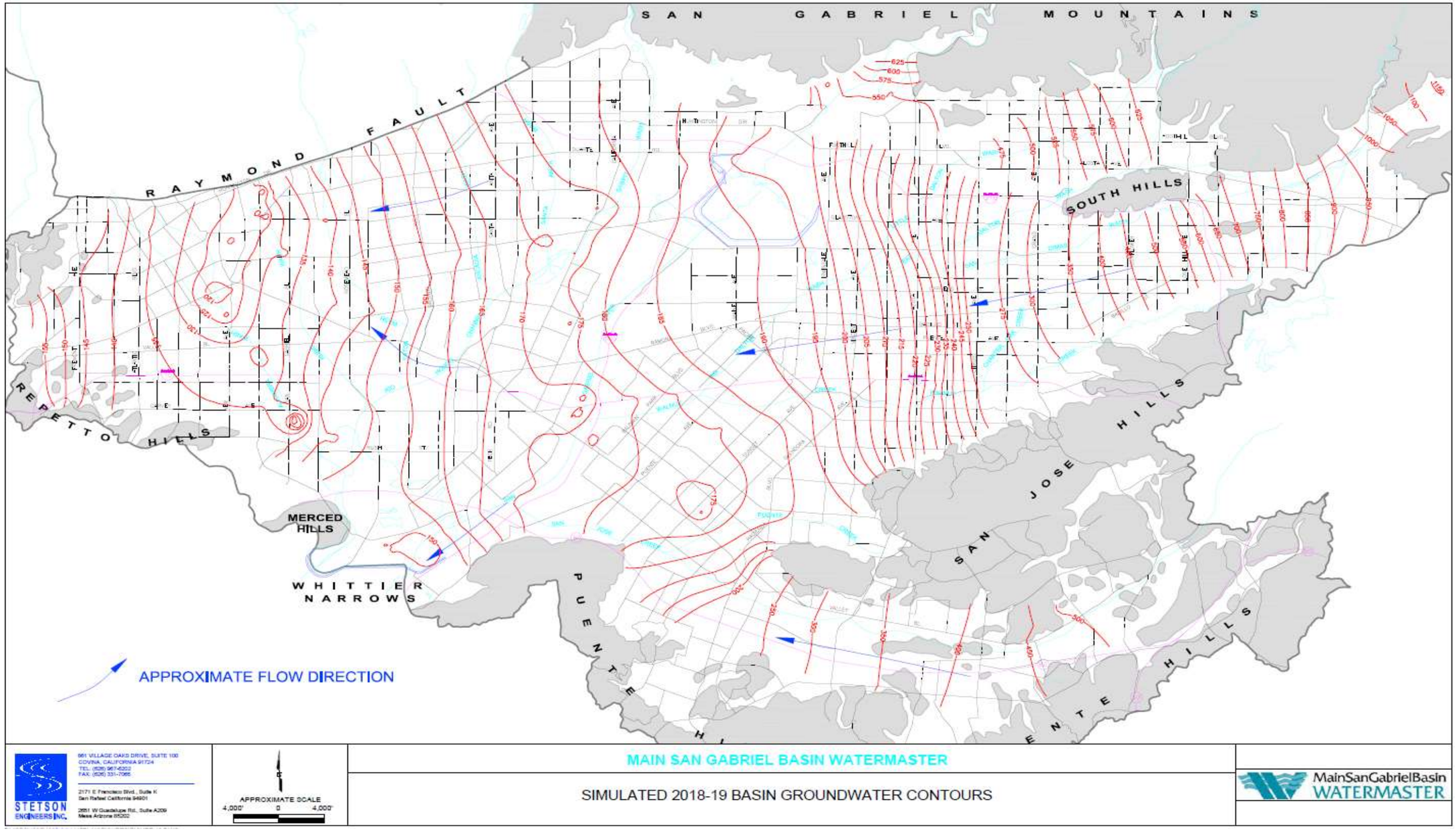

SAN GABRIEL MOUNTAINS
RAYMOND FAULT
SOUTH HILLS
REPETTO HILLS
MERCED HILLS
WHITTIER NARROWS
SAN JOSE HILLS
PUENTE HILLS
APPROXIMATE FLOW DIRECTION
STETSON ENGINEERS INC.
APPROXIMATE SCALE
4,000' 0 4,000'
MAIN SAN GABRIEL BASIN WATERMASTER
SIMULATED 2018-19 BASIN GROUNDWATER CONTOURS
MainSanGabrielBasin WATERMASTER

Figure 6.2-6

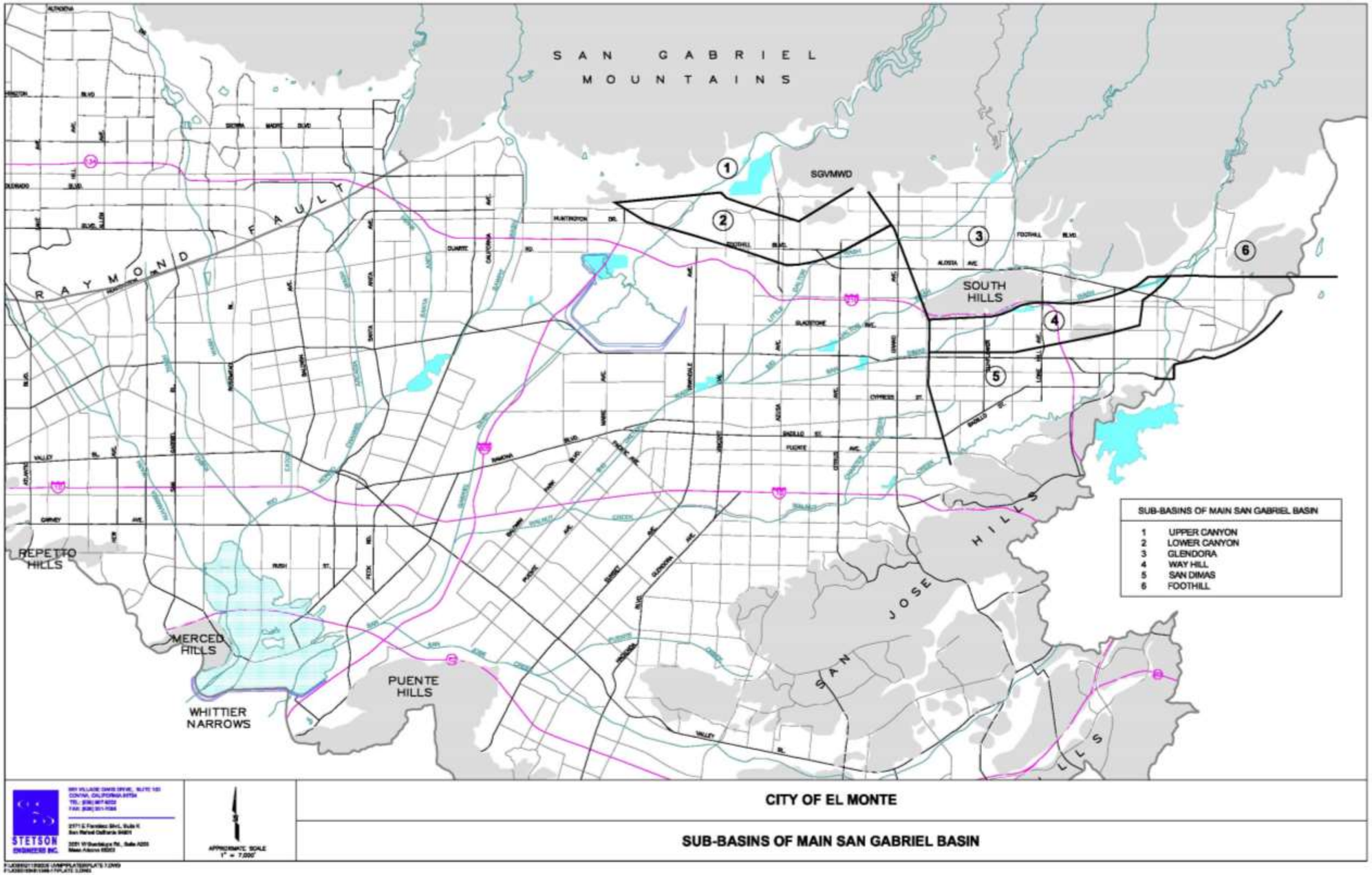
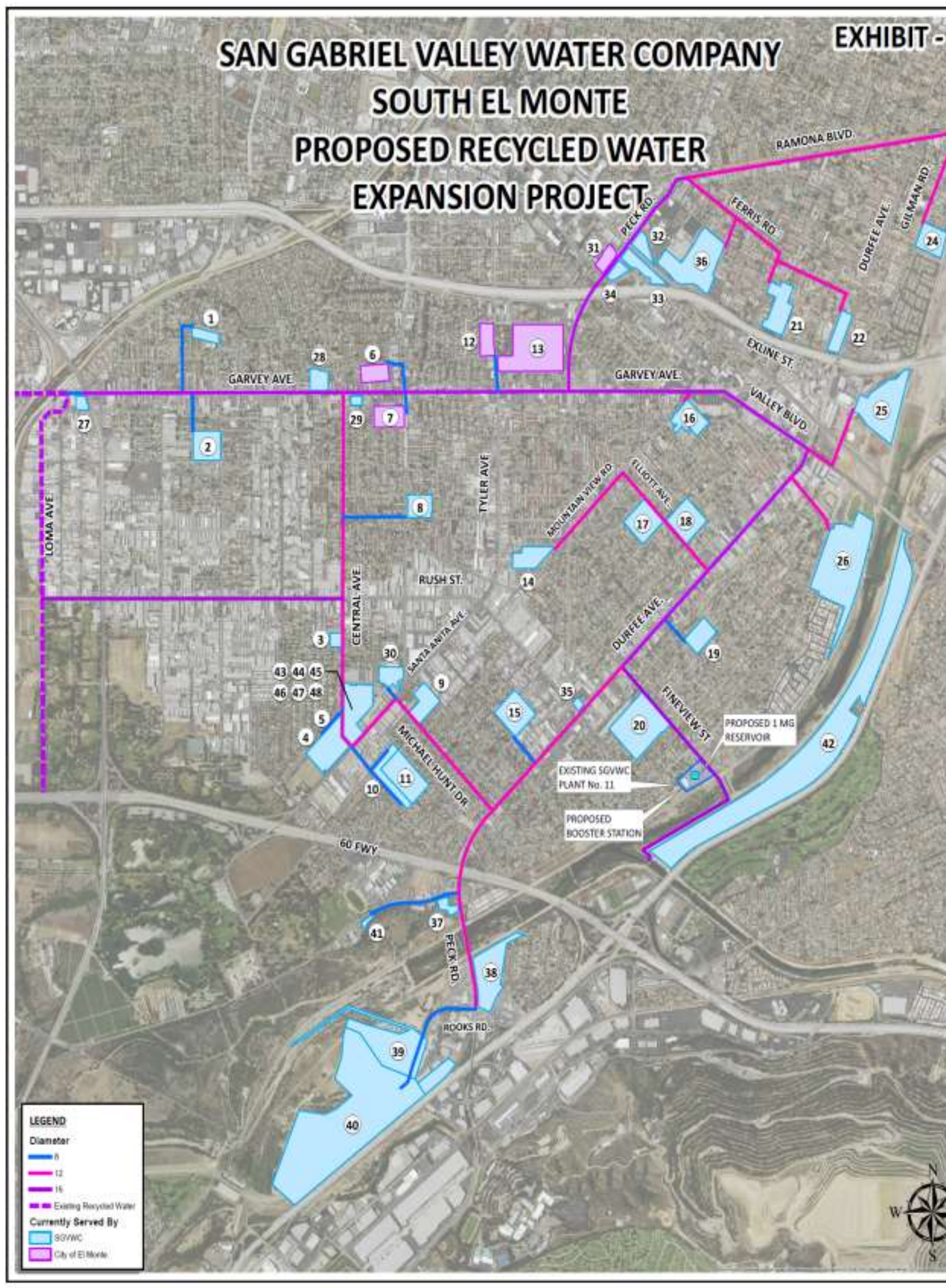

SAN GABRIEL MOUNTAINS
RAYMOND FAULT
SGVMWD
SOUTH HILLS
SAN JOSE HILLS
REPETTO HILLS
MERCED HILLS
PUENTE HILLS
WHITTIER NARROWS
SUB-BASINS OF MAIN SAN GABRIEL BASIN
1 UPPER CANYON
2 LOWER CANYON
3 GLENDORA
4 WAY HILL
5 SAN DIMAS
6 FOOTHILL
CITY OF EL MONTE
SUB-BASINS OF MAIN SAN GABRIEL BASIN

Figure 6.5.2-1



PROPOSED RECYCLED WATER CUSTOMERS

NAME	ANNUAL USAGE (AF)	NAME	ANNUAL USAGE (AF)	NAME	ANNUAL USAGE (AF)	NAME	ANNUAL USAGE (AF)
1. CORTADA ELEMENTARY SCHOOL	5.3	15. MONTE VISTA ELEMENTARY SCHOOL	9.1	29. BUBBLE BATH CAR WASH	2.8	43. COUNTY OF LOS ANGELES	1.0
2. POTRERO ELEMENTARY SCHOOL	7.0	16. PAYNE ELEMENTARY SCHOOL	5.3	30. GREATER EL MONTE COMMUNITY HOSPITAL	11.9	44. SOUTH EL MONTE CITY HALL	2.8
3. MARY VAN DYKE PARK	3.2	17. PARKVIEW ELEMENTARY SCHOOL	8.9	31. STAR CAR WASH	2.4	45. LOS ANGELES COUNTY LIBRARY	1.5
4. DEAN L. SHIVELY PARK	8.9	18. MOUNTAIN VIEW PARK	12.9	32. NELSON HONDA	7.5	46. SOUTH EL MONTE PUBLIC POOL	5.0
5. DEAN SHIVELY MIDDLE SCHOOL	5.2	19. MAXSON ELEMENTARY SCHOOL	2.8	33. WIN HYUNDAI	2.1	47. SOUTH EL MONTE COMMUNITY CENTER	2.5
6. NEW LEXINGTON ELEMENTARY SCHOOL	5.7	20. KRANZ INTERMEDIATE SCHOOL	24.0	34. ROSS NISSAN	4.9	48.SOUTH EL MONTE SENIOR CENTER	2.0
7. WILKERSON ELEMENTARY SCHOOL	5.7	21. BAKER ELEMENTARY SCHOOL	4.9	35. TESORO WEST COAST Co., LLC (USA GAS)	3.2		
8. MIRAMONTE ELEMENTARY SCHOOL	4.9	22. VOORHIS ELEMENTARY SCHOOL	5.6	36. LONGO TOYOTA	41.2		
9. EPIPHANY CATHOLIC SCHOOL	3.5	23. LA PRIMARIA ELEMENTARY SCHOOL	5.5	37. DURFEE BUSINESS PARK	2.7		
10. NEW TEMPLE PARK	16.7	24. TWIN LAKES ELEMENTARY SCHOOL	9.3	38. PECK ROAD INDUSTRIAL CENTER	8.0		
11. NEW TEMPLE ELEMENTARY SCHOOL	8.1	25. MADRID MIDDLE SCHOOL	19.6	39. EQUESTRIAN CENTER	5.1		
12. TONY ARCEO MEMORIAL PARK	3.9	26. MOUNTAIN VIEW HIGH SCHOOL	51.4	40. SPORTS ARENA/BICENTENNIAL PARK	73.1		
13. EL MONTE HIGH SCHOOL	60.7	27. SUPERKLEEN CAR WASH	2.1	41. NATURE CENTER	31.9		
14. COGSWELL ELEMENTARY SCHOOL	5.6	28. GARVEY COURT SENIOR APARTMENTS	1.0	42. WCA DUCK FARM/COINER NURSERY	143		

APPENDIX A

2015 UWMP ADOPTION RESOLUTION

APPENDIX B

LONG BEACH JUDGEMENT

APPENDIX C

MAIN BASIN JUDGEMENT

APPENDIX D

MAIN SAN GABRIEL BASIN WATERMASTER'S

RULES AND REGULATIONS

APPENDIX E

FIVE-YEAR WATER QUALITY AND SUPPLY PLAN

APPENDIX F

EMERGENCY RESPONSE PLAN

APPENDIX G

CITY OF EL MONTE

RESOLUTION NO. 9597

APPENDIX H

CITY OF EL MONTE

ORDINANCE NO. 2861

APPENDIX I

RATE SCHEDULE

APPENDIX J

NOTICE OF PUBLIC HEARING