

City of Monterey Park

2015 Urban Water Management Plan

August 2016



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

Northern California ▪ Southern California ▪ Arizona ▪ Colorado

TABLE OF CONTENTS

Page

CHAPTER 1.....	1-1
INTRODUCTION AND OVERVIEW	1-1
1.1 BACKGROUND AND PURPOSE	1-1
1.2 URBAN WATER MANAGEMENT PLANNING AND THE CALIFORNIA WATER CODE	1-1
1.2.1 APPLICABLE CHANGES TO THE WATER CODE SINCE 2010	1-1
1.3 URBAN WATER MANAGEMENT PLANNING IN RELATION TO OTHER PLANNING EFFORTS	1-3
1.4 UWMP ORGANIZATION	1-3
1.5 UWMP AND GRANT OR LOAN ELIGIBILITY.....	1-4
1.6 TIPS FOR UWMP PREPARERS	1-4
CHAPTER 2.....	2-1
PLAN PREPARATION	2-1
2.1 BASIS FOR PREPARING A PLAN	2-1
2.1.1 PUBLIC WATER SYSTEMS	2-2
2.1.2 AGENCIES SERVING MULTIPLE SERVICE AREAS / PUBLIC WATER SYSTEMS.....	2-2
2.2 REGIONAL PLANNING	2-2
2.3 INDIVIDUAL OR REGIONAL PLANNING AND COMPLIANCE	2-3
2.4 FISCAL OR CALENDAR YEAR AND UNITS OF MEASURE.....	2-3
2.4.1 FISCAL OR CALENDAR YEAR	2-3
2.4.2 REPORTING COMPLETE 2015 DATA.....	2-3
2.4.3 UNITS OF MEASURE	2-3
2.5 COORDINATION AND OUTREACH	2-4
2.5.1 WHOLESALE AND RETAIL COORDINATION	2-4
2.5.2 COORDINATION WITH OTHER AGENCIES AND THE COMMUNITY	2-4
2.5.3 NOTICE TO CITIES AND COUNTIES	2-5
CHAPTER 3.....	3-1
SYSTEM DESCRIPTION	3-1
3.1 GENERAL DESCRIPTION.....	3-1
3.2 SERVICE AREA BOUNDARY MAP	3-2
3.2.1 MAP FORMAT RECOMMENDATIONS	3-2
3.3 SERVICE AREA CLIMATE	3-2
3.3.1 CLIMATE CHANGE	3-4
3.4 SERVICE AREA POPULATION AND DEMOGRAPHICS	3-4
3.4.1 OTHER DEMOGRAPHIC FACTORS	3-4
CHAPTER 4.....	4-1
SYSTEM WATER USE.....	4-1
4.1 RECYCLED VERSUS POTABLE AND RAW WATER DEMAND.....	4-1

**TABLE OF CONTENTS
(Continued)**

	<u>Page</u>
4.2	WATER USES BY SECTOR.....4-1
4.2.1	DEMAND SECTORS LISTED IN WATER CODE..... 4-1
4.2.2	DEMAND SECTORS IN ADDITION TO THOSE LISTED IN THE WATER CODE4-3
4.3	DISTRIBUTION SYSTEM WATER LOSSES.....4-3
4.4	ESTIMATED FUTURE WATER SAVINGS.....4-4
4.5	WATER USE FOR LOWER INCOME HOUSEHOLDS.....4-5
4.6	CLIMATE CHANGE4-5
CHAPTER 5.....	5-1
SB X7-7 BASELINE AND TARGETS	5-1
5.1	GUIDANCE FOR WHOLESALE AGENCIES5-1
5.2	UPDATING CALCULATIONS FROM 2010 UWMP5-2
5.2.1	TARGET METHOD.....5-2
5.2.2	REQUIRED USE OF 2010 U.S. CENSUS DATA5-2
5.2.3	SB X7-7 VERIFICATION FORM5-2
5.3	BASELINE PERIODS.....5-3
5.3.1	DETERMINATION OF THE 10-15 YEAR BASELINE PERIOD (BASELINE GPCD).....5-3
5.3.2	DETERMINATION OF THE 5-YEAR BASELINE PERIOD (TARGET CONFIRMATION).....5-4
5.4	SERVICE AREA POPULATION5-4
5.4.1	POPULATION METHODOLOGY.....5-4
5.5	GROSS WATER USE5-5
5.5.1	GROSS WATER TABLES.....5-5
5.6	BASELINE DAILY PER CAPITAL WATER USE5-6
5.7	2015 AND 2020 TARGETS5-6
5.7.1	SELECT AND APPLY A TARGET METHOD5-7
5.7.2	5-YEAR BASELINE – 2020 TARGET CONFIRMATION.....5-8
5.7.3	CALCULATE THE 2015 INTERIM URBAN WATER USE TARGET5-9
5.7.4	BASELINE AND TARGETS SUMMARY.....5-9
5.8	2015 COMPLIANCE DAILY PER CAPITA WATER USE (GPCD)5-9
5.8.1	MEETING THE 2015 TARGET5-9
5.8.2	2015 ADJUSTMENTS TO 2015 GROSS WATER USE.....5-10
5.9	REGIONAL ALLIANCE5-10
CHAPTER 6.....	6-1
SYSTEM SUPPLIES	6-1
6.1	PURCHASED OR IMPORTED WATER6-2
6.2	GROUNDWATER.....6-2
6.2.1	MAIN BASIN6-2
6.2.2	BASIN DESCRIPTION.....6-3
6.2.3	GROUNDWATER MANAGEMENT.....6-10

**TABLE OF CONTENTS
(Continued)**

	<u>Page</u>
6.2.4 OVERDRAFT CONDITIONS	6-19
6.2.5 HISTORICAL GROUNDWATER PUMPING	6-20
6.3 SURFACE WATER.....	6-20
6.4 STORMWATER	6-21
6.5 WASTEWATER AND RECYCLED WATER.....	6-21
6.5.1 RECYCLED WATER COORDINATION	6-22
6.5.2 WASTEWATER COLLECTION, TREATMENT, AND DISPOSAL.....	6-23
6.5.3 RECYCLED WATER SYSTEM	6-24
6.5.4 RECYCLED WATER BENEFICIAL USES.....	6-24
6.5.5 ACTIONS TO ENCOURAGE AND OPTIMIZE FUTURE RECYCLED WATER USE	6-25
6.6 DESALINATED WATER OPPORTUNITIES	6-25
6.6.1 MAIN BASIN	6-25
6.7 EXCHANGES OR TRANSFERS	6-26
6.7.1 EXCHANGES.....	6-26
6.7.2 TRANSFERS.....	6-26
6.7.3 EMERGENCY INTERTIES	6-27
6.8 FUTURE WATER PROJECTS.....	6-27
6.9 SUMMARY OF EXISTING AND PLANNED SOURCES OF WATER.....	6-27
6.10 CLIMATE CHANGE IMPACTS TO SUPPLY	6-28
CHAPTER 7.....	7-1
WATER SUPPLY RELIABILITY ASSESSMENT	7-1
7.1 CONSTRAINTS ON WATER SOURCES	7-1
7.1.1 WATER QUALITY IN MAIN SAN GABRIEL BASIN.....	7-1
7.2 RELIABILITY BY TYPE OF YEAR	7-2
7.2.1 TYPES OF YEARS	7-3
7.2.2 AGENCIES WITH MULTIPLE WATER SOURCES	7-4
7.3 SUPPLY AND DEMAND ASSESSMENT.....	7-4
7.4 REGIONAL SUPPLY RELIABILITY.....	7-5
CHAPTER 8.....	8-1
WATER SHORTAGE CONTINGENCY PLAN	8-1
8.1 STAGES OF ACTION	8-1
8.2 PROHIBITIONS ON END USES.....	8-1
8.2.1 LANDSCAPE IRRIGATION	8-2
8.2.2 COMMERCIAL, INDUSTRIAL, AND INSTITUTIONAL (CII)	8-3
8.2.3 SWIMMING POOLS	8-3
8.2.4 DEFINING WATER FEATURES	8-3
8.2.5 OTHER	8-4
8.3 PENALTIES, CHARGES, OTHER ENFORCEMENT OF PROHIBITIONS.....	8-4
8.4 CONSUMPTION REDUCTION METHODS	8-5

**TABLE OF CONTENTS
(Continued)**

	<u>Page</u>
8.4.1 CATEGORIES OF CONSUMPTION REDUCTION METHODS	8-5
8.5 DETERMINING WATER SHORTAGE REDUCTIONS	8-5
8.6 REVENUE AND EXPENDITURE REPORTS.....	8-6
8.6.1 DROUGHT RATE STRUCTURE AND SURCHARGES	8-6
8.6.2 USES OF FINANCIAL RESERVES	8-6
8.6.3 OTHER MEASURES	8-6
8.7 RESOLUTION OR ORDINANCE	8-7
8.8 CATASTROPHIC SUPPLY INTERRUPTION	8-7
8.9 MINIMUM SUPPLY NEXT THREE YEARS	8-7
8.9.1 THREE YEAR MINIMUM WATER SUPPLY	8-7
CHAPTER 9.....	9-1
DEMAND MANAGEMENT MEASURES	9-1
9.1 DEMAND MANAGEMENT MEASURES FOR WHOLESALE AGENCIES	9-1
9.2 DEMAND MANAGEMENT MEASURES FOR RETAIL AGENCIES.....	9-1
9.2.1 WATER WASTE PREVENTION ORDINANCES	9-1
9.2.2 METERING.....	9-2
9.2.3 CONSERVATION PRICING	9-2
9.2.4 PUBLIC EDUCATION AND OUTREACH	9-2
9.2.5 PROGRAMS TO ASSESS AND MANAGE DISTRIBUTION SYSTEM REAL LOSS	9-3
9.2.6 WATER CONSERVATION PROGRAM COORDINATION AND STAFFING SUPPORT	9-3
9.2.7 OTHER DEMAND MANAGEMENT MEASURES	9-4
9.3 IMPLEMENTATION OVER THE PAST FIVE YEARS.....	9-4
9.3.1 WATER WASTE PREVENTION ORDINANCES	9-5
9.3.2 METERING.....	9-5
9.3.3 CONSERVATION PRICING	9-5
9.3.4 PUBLIC EDUCATION AND OUTREACH	9-6
9.3.5 PROGRAMS TO ASSESS AND MANAGE DISTRIBUTION SYSTEM REAL LOSS	9-6
9.3.6 WATER CONSERVATION PROGRAM COORDINATION AND STAFFING SUPPORT	9-6
9.3.7 OTHER DEMAND MANAGEMENT MEASURES	9-7
9.4 PLANNED IMPLEMENTATION TO ACHIEVE WATER USE TARGETS	9-8
9.5 MEMBERS OF THE CALIFORNIA URBAN WATER CONSERVATION COUNCIL	9-8
CHAPTER 10.....	10-1
PLAN ADOPTION, SUBMITTAL, AND IMPLEMENTATION	10-1
10.1 INCLUSION OF ALL 2015 DATA.....	10-1
10.2 NOTICE OF PUBLIC HEARING	10-1
10.2.1 NOTICE TO CITIES AND COUNTIES	10-1
10.2.2 NOTICE TO THE PUBLIC.....	10-2
10.3 PUBLIC HEARING AND ADOPTION	10-2

**TABLE OF CONTENTS
(Continued)**

	<u>Page</u>
10.3.1 ADOPTION.....	10-3
10.4 PLAN SUBMITTAL	10-3
10.4.1 SUBMITTING A UWMP TO DWR	10-3
10.4.2 ELECTRONIC DATA SUBMITTAL.....	10-4
10.4.3 SUBMITTING A UWMP TO THE CALIFORNIA STATE LIBRARY	10-4
10.4.4 SUBMITTING A UWMP TO CITIES AND COUNTIES.....	10-5
10.5 PUBLIC AVAILABILITY	10-5
10.6 AMENDING AN ADOPTED UWMP.....	10-5

TABLE OF CONTENTS (Continued)

LIST OF TABLES

Table 2-1	Public Water Systems
Table 2-2	Plan Identification
Table 2-3	Agency Identification
Table 2-4	Water Supplier Information Exchange
Table 3-1	Population – Current and Projected
Table 4-1	Demands for Potable Water - Actual
Table 4-2	Demands for Potable Water - Projected
Table 4-3	Total Water Demands
Table 4-4	12-Month Water Loss Audit Reporting
Table 4-5	Inclusion in Water Use Projections
Table 5-1	Baselines and Targets Summary
Table 5-2	2015 Compliance
Table 6-1	Groundwater Volume Pumped
Table 6-2	Wastewater Collected Within Service Area in 2015
Table 6-3	Wastewater Treatment and Discharge Within Service Area in 2015
Table 6-4	Current and Projected Recycled Water Direct Beneficial Uses Within Service Area
Table 6-5	2010 UWMP Recycled Water Use Projection Compared to 2015 Actual
Table 6-6	Methods to Expand Future Recycled Water Use
Table 6-7	Expected Future Water Supply Projects or Programs
Table 6-8	Water Supplies – Actual
Table 6-9	Water Supplies – Projected
Table 7-1	Basis of Water Year Data
Table 7-2	Normal Water Supply and Demand Comparison
Table 7-3	Single Dry Year Supply and Demand Comparison
Table 7-4	Multiple Dry Years Supply and Demand Comparison
Table 8-1	Stages of Water Shortage Contingency Plan
Table 8-2	Restrictions and Prohibitions on End Uses
Table 8-3	States of Water Shortage Contingency Plan – Consumption Reduction Methods
Table 8-4	Minimum Supply Next Three Years
Table 10-1	Notification to Cities and Counties

TABLE OF CONTENTS (Continued)

LIST OF FIGURES

Figure 1	Water Service Area Boundary
Figure 2	Water Service Area and Municipal Boundaries
Figure 3	Main Basin Location Map
Figure 4	Municipal Water District Boundaries
Figure 5	Location of Key Well, Spreading Grounds and Water Channels, Main San Gabriel Basin
Figure 6	Historical Baldwin Park Key Well Elevations
Figure 7	Groundwater Contours Map, Main San Gabriel Basin – July 2015

LIST OF APPENDICES

Appendix A	Urban Water Management Planning Act
Appendix B	Completed Plan Checklist
Appendix C	Notification of Preparation of Urban Water Management Plan
Appendix D	AWWA Water Loss Audit Calculation
Appendix E	Water Conservation Act of 2009
Appendix F	Standardized Tables SB X7-7 Verification Form
Appendix G	Long Beach Judgment
Appendix H	Main San Gabriel Basin Judgment
Appendix I	Main San Gabriel Basin Watermaster Rules and Regulations
Appendix J	Main San Gabriel Basin Watermaster Five-Year Water Quality and Supply Plan
Appendix K	Historical Rainfall
Appendix L	Location of Potential Recycled Water Customers
Appendix M	2014 Water Quality Report
Appendix N	Emergency Water Conservation Regulations Ordinance
Appendix O	City's Water Rate Schedule
Appendix P	Notice of Public Hearing
Appendix Q	Resolution Adopting the 2015 Urban Water Management Plan



CHAPTER 1

INTRODUCTION AND OVERVIEW

1.1 BACKGROUND AND PURPOSE

Water Code §§ 10610 to 10656 require water suppliers to prepare an Urban Water Management Plan (“Plan”) to promote water demand management and efficient use in their service areas at least every five years. The Plan addresses projected water supply and demand over a 20 year period in five year increments. It identifies and quantifies adequate water supplies, including recycled water, for existing and future demands in normal, dry, and drought years, and also lays out a water conservation program to encourage the efficient use of water resources. The City of Monterey Park (City) is a water supplier and is required to prepare a Plan in accordance with the Urban Water Management Planning Act (UWMP Act). This Plan must be submitted to the California Department of Water Resources by July 1, 2016 pursuant to Water Code § 10621.

1.2 URBAN WATER MANAGEMENT PLANNING AND THE CALIFORNIA WATER CODE

1.2.1 APPLICABLE CHANGES TO THE WATER CODE SINCE 2010

The City last updated its Plan in 2010. The 2015 Plan provides updates 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’s “Guidebook for Urban Water Suppliers” dated March 2016

Water Code §10608.16, *et seq.*, requires the City to include the following in the 2015 Plan:

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

A discussion addressing these requirements is found in Chapter 5 of the City’s 2015 Plan.



1.3 URBAN WATER MANAGEMENT PLANNING IN RELATION TO OTHER PLANNING EFFORTS

San Gabriel Valley Municipal Water District (San Gabriel District) is a wholesale water agency. San Gabriel District has a direct contract with the State of California for State Water Project (SWP) water. San Gabriel District delivers the SWP water as “Supplemental Water” directly to the spreading grounds in the Main San Gabriel Basin (Main Basin), which is described in detail in Chapter 6. The San Gabriel District provides Supplemental Water on behalf of the cities of Alhambra, Azusa, Monterey Park, and Sierra Madre. San Gabriel District prepared a 2015 Plan which provides reliability of the SWP water for the next 20 years. Due to the volume of San Gabriel District’s 2015 Plan, it is by reference. In addition, the City provided San Gabriel District a notice to comment and a link to download the City’s Draft 2015 Plan, as shown in Appendices C and P. The City did not receive comments from San Gabriel District. The City’s 2015 Plan includes water use projections in five-year increments for normal, single dry, and multiple dry year conditions over the next 20 years.

1.4 UWMP ORGANIZATION

The City’s 2015 Plan was prepared consistent with the recommended organization provided in the Department of Water Resources’s “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

This 2015 Plan incorporates the California Department of Water Resources' ("DWR") standardized tables for the reporting and submittal of UWMP data. The standardized tables are provided following the text. The City also submitted the UWMP data (standardized tables) electronically to DWR.

1.5 UWMP AND GRANT OR LOAN ELIGIBILITY

The City's 2015 Plan has been prepared in order to meet eligibility requirements for grants and loans administered by the State and/or DWR.

1.6 TIPS FOR UWMP PREPARERS

The City's 2015 Plan is considered an update to the City's 2010 Plan. However, the 2015 Plan is considered a stand-alone document. A checklist of specific UWMP requirements is included in Appendix B. The checklist includes the page number where the required elements are addressed to assist in DWR's review of the submitted Plan.



CHAPTER 2

PLAN PREPARATION

2.1 BASIS FOR PREPARING A PLAN

The UWMP Act requires every “urban water supplier” to prepare and adopt a Plan, to periodically review its Plan at least once every five years and make any amendments or changes which are indicated by the review. An “Urban Water Supplier” is defined as a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet (AF) of water annually. The primary objective of the UWMP Act is to direct urban water suppliers to prepare a plan that describes and evaluates sources of supply, reasonable and practical efficient uses, reclamation, and demand management activities. The UWMP Act is directed primarily at retail water purveyors where programs can be immediately applied to the consumers.

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



2.1.1 PUBLIC WATER SYSTEMS

The City is a Public Water System and is regulated by the State Water Resources Control Board - Division of Drinking Water (SWRCB-DDW). The SWRCB-DDW requires water agencies provide the number of connections, water usage, and other information annually. The information provided to SWRCB-DDW indicates the City serves potable water to more than 3,000 customers and supplies more than 3,000 AFY.

2.1.2 AGENCIES SERVING MULTIPLE SERVICE AREAS / PUBLIC WATER SYSTEMS

The City serves only a single Public Water System. Table 2-1 provides the name and number of the City's Public Water System.

2.2 REGIONAL PLANNING

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



2.3 INDIVIDUAL OR REGIONAL PLANNING AND COMPLIANCE

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

2.4 FISCAL OR CALENDAR YEAR AND UNITS OF MEASURE

2.4.1 FISCAL OR CALENDAR YEAR

The data provided in the City's 2015 Plan is reported on a fiscal year basis, unless noted otherwise, as show in Table 2-3. A fiscal year begins on July 1 of every year.

2.4.2 REPORTING COMPLETE 2015 DATA

The data provided in the City's 2015 Plan is provided on a fiscal year basis through June 30, 2015.

2.4.3 UNITS OF MEASURE

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



2.5 COORDINATION AND OUTREACH

2.5.1 WHOLESALE AND RETAIL COORDINATION

As discussed in Section 1.3, San Gabriel District delivers Supplemental Water directly to the spreading grounds in the Main Basin on behalf of the cities of Alhambra, Azusa, Monterey Park and Sierra Madre. As indicated in Table 2-4, the City has made its 2015 Plan available to San Gabriel District which includes water use projections in five-year increments for normal, single dry, and multiple dry year conditions over the next 20 years.

2.5.2 COORDINATION WITH OTHER AGENCIES AND THE COMMUNITY

The City of Monterey Park is a retail water supplier that serves approximately 95 percent of the residents within the City of Monterey Park. The City is required to coordinate the preparation of the Plan with appropriate agencies in the area, including appropriate water suppliers that share a common source. Therefore, the City coordinated the preparation of the Urban Water Management Plan with the County of Los Angeles, the Main San Gabriel Basin Watermaster (Main Basin Watermaster), San Gabriel District, California Water Service Company, Golden State Water Company, San Gabriel Valley Water Company and the Cities of Alhambra and Monterey Park. As discussed in Section 10.2, the City provided notification to these agencies, as well as to the cities and county within which the City provides water supplies, at least sixty (60) days prior to the public hearing of the preparation of the 2015 Plan and invited them to participate in the development of the Plan. A copy of the notification letters sent to these agencies is provided in Appendix C.



2.5.3 NOTICE TO CITIES AND COUNTIES

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



CHAPTER 3

SYSTEM DESCRIPTION

3.1 GENERAL DESCRIPTION

The City of Monterey Park was incorporated in 1916. The City's service area is located approximately seven miles east of Downtown Los Angeles. The City's service area, as shown on Figure 1, is bounded by the City of Los Angeles to the west; the City of Alhambra to the north; the City of San Gabriel to the east; and the City of Montebello to the south. The City is a retail water company that serves approximately 95 percent of the residents of the City of Monterey Park, as shown on Figure 2.

The City's primary source of water supply is groundwater, which is delivered to the system by seven active wells, Wells No. 1, No. 5, No. 9, No. 10, No. 12, No. 15, and Fern, which are located within the Main Basin. The City has 6,704 AF of adjudicated water rights from the Main Basin as described in Section 6.2.

San Gabriel District, formed in 1959, is a wholesale water supplier. San Gabriel District has a direct contract with the State of California for SWP water. San Gabriel District is entitled to 28,800 acre-feet of water per year from the SWP and delivers untreated SWP water directly to spreading grounds in the Main Basin to replenish the Main Basin for any production by the cities of Alhambra, Azusa, Monterey Park and Sierra Madre in excess of water rights from the Main Basin, and to furnish their portion of the Long Beach Judgment Make-Up water. The San Gabriel District provides Supplemental Water on behalf of the cities of Alhambra, Azusa, Monterey Park, and Sierra Madre.



3.2 SERVICE AREA BOUNDARY MAP

As discussed in Section 3.1, the City's service area covers approximately 7 square miles encompassing the majority of the City of Monterey Park. A service area boundary map is provided on Figure 1. The City's water service area boundary relative to the City of Monterey Park's municipal boundary is also provided in Figure 2.

3.2.1 MAP FORMAT RECOMMENDATIONS

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

3.3 SERVICE AREA CLIMATE

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



Service Area Climate Information

Month	Average Temperature (F)	Average Min. Temperature (F)	Average Max. Temperature (F)	Average Total Precipitation (Inches)	ETo (Inches)
January	55.6	41.9	69.1	3.62	2.2
February	57.0	43.7	70.2	3.61	2.41
March	58.9	45.9	71.7	2.68	3.71
April	62.1	49.1	75.2	1.12	4.36
May	65.7	53.5	77.7	0.35	5.29
June	69.9	57.2	82.5	0.08	5.78
July	74.9	61.1	88.7	0.01	6.55
August	75.6	61.6	89.7	0.07	6.02
September	73.9	59.5	88.1	0.29	4.87
October	68.2	53.8	82.2	0.56	3.4
November	61.0	46.4	75.3	1.56	2.38
December	55.9	41.9	69.8	2.40	1.9
Annual	64.7	51.3	78.4	16.35	48.87

Source:

Historical average monthly precipitation was obtained by the County of Los Angeles Dept of Public Works Water Resources Division and is based on data collected from Station 108D (El Monte Fire Station) from 1951 through 2015. Historical average monthly temperature information was obtained from the Western Regional Climate Center (<http://www.wrcc.dri.edu/>) and is based on data collected from Station 047785 (San Gabriel Fire Department) from 1939 through 2015. Historical monthly average ETo information was obtained from the California Irrigation Management Information Systems (<http://www.cimis.water.ca.gov>) and is based on data collected from Station 159 (Monrovia).

The historical average rainfall in the vicinity of the City’s service area is about 16.4 inches. The City’s service area has a dry climate and summers can reach average daily temperatures in the high 80s. Although changes in climatic conditions will have an impact, the projected water supply demands will be based on average year, single dry year and multiple-dry years, based on historical data and projected demands.



3.3.1 CLIMATE CHANGE

The California Water Code does not require the City to address climate change. However, a discussion on single-dry year and multiple dry years is provided in Section 7.2 and a discussion on potential impacts to basin management practices is provided in Section 6.2.A discussion regarding the regional impacts of climate change on demand and supply are provided in Metropolitan Water District of Southern California's 2015 Plan. Due to the volume of Metropolitan Water District of Southern California's 2015 Plan, the City will incorporate it by reference only.

3.4 SERVICE AREA POPULATION AND DEMOGRAPHICS

The City provides water service to an area with a 2015 population of about 56,100. Table 3-1 presents the current and projected population of the area encompassed by the City from 2015 to 2040. Projected populations in the City's service area were based on projections obtained from the Southern California Association of Governments (SCAG). The SCAG data incorporates demographic trends, existing land use, general plan land use policies, and input and projections from the Department of Finance (DOF) and the United States Census Bureau. The population estimate for 2015 in Table 3-1 is consistent with the DWR requirements discussed in Section 5.4.1.

3.4.1 OTHER DEMOGRAPHIC FACTORS

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



CHAPTER 4

SYSTEM WATER USE

4.1 RECYCLED VERSUS POTABLE AND RAW WATER DEMAND

Chapter 4 addresses the City's potable water demands. Recycled water demands are addressed separately in Section 6.5; however, a summary is provided in Table 4-3.

4.2 WATER USES BY SECTOR

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

4.2.1 DEMAND SECTORS LISTED IN WATER CODE

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



- Single-family residential

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

- Multi-family

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

- Commercial

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

- Industrial

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

- Institutional (and governmental)

Institutional users are defined as water user dedicated to public service. Institutional users include, among other users, higher education institutions, schools, courts, churches, hospitals, government facilities, and



nonprofit research institutions. Institutional water demands are included in retail demands.

- Landscape

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

- Distribution system losses

Distribution system losses are discussed in Section 4.3

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

The City's service area does not include other water demand sectors which are not listed in the California Water Code (including exchanges, surface water augmentation, transfers, and wetlands or wildlife habitat).

4.3 DISTRIBUTION SYSTEM WATER LOSSES

The City estimated its distribution system water loss over the most recent 12-month period from July 2014 to June 2015 using the methodology developed by the American Water Association (AWWA), which is provided in Appendix L of DWR's "Guidebook for Urban Water Suppliers," dated March 2016. The City's distribution



system water loss over the most recent 12-month period available, from July 2014 to June 2015, was 367 acre-feet, as shown in Table 4-4. This is about a 5 percent water loss from water supplied. A copy of the AWWA water system balance calculation for the City's distribution system water loss is provided in Appendix D.

4.4 ESTIMATED FUTURE WATER SAVINGS

The City's water demand projections are provided in Chapter 7 and are based on the water use targets identified in Section 5.7. The water demand projections incorporate water savings, or "passive savings," which are the result of implementation of new plumbing codes along with consumer awareness of the need to conserve water. Monterey Park's Municipal Code ("MPMC") 6.31.060. "Water Efficient Landscapes," which was adopted in 2009, includes landscape water use standards to promote water conservation. In addition, the City of Monterey Park's water waste prohibition, which was also adopted in 2009, is codified MPMC Section 14.08.090, which has a provision against wasting water. The Monterey Park Emergency Water Conservation Regulations Ordinance, which was adopted in 2015 and discussed in greater detail in Chapter 8, includes drought emergency Stages 1 through 4 with prohibitions on various wasteful water uses such as lawn watering during mid-day hours, washing sidewalks and driveways with potable water, and allowing plumbing leaks to go uncorrected more than seven days after customer notification. According to the Municipal Code, the City is allowed to turn off water if a leak is not repaired within 30 days of notice. Before MPMC Sections 6.31.060 and 14.08.090 were adopted, the City's water use rate averaged about 164 gallons per capita day (from FY 1995-96 through FY 2008-09). As identified in Section 5.8, the City's actual water use rate during FY 2014-15 was 134 gallons per capita day which is a decrease of about 30 gallons per capita day from the recent historical average and is the result of passive savings. The City's projected water use targets identified in Section 5.7, including a water use target of 142 gallons per capita



day in 2020, incorporate ongoing water passive savings and reduced water use. As shown in Table 4-5, estimated future water savings have been considered as part of the City's water use projections.

4.5 WATER USE FOR LOWER INCOME HOUSEHOLDS

The City's water use projections (See Section 7.3) through 2040 include projected water demands for lower income single-family and multi-family households. The total number of lower income households within the City's service area was estimated based on billing records provided by the City, a review of the City's General Plan, a review of median household income statistics provided by the US Census Bureau's American Fact Finder, and a review of GIS maps of Disadvantaged Communities¹ (DACs), including block groups, tracts, and places, provided by DWR and the City's General Plan. The estimated number of lower income households located within the City's service area is approximately 45 percent of the total number of households. Based on a 45 percent use factor of total residential water demands, the projected water demand for lower income households is about 5,100 AFY by the year 2040. The projected water demands for lower income households were included in the City's total projected water demands, as indicated in Table 4-5.

4.6 CLIMATE CHANGE

Section 4.6 is optional for the City's UWMP. The City is not required by DWR to complete this section. However, a discussion on single-dry year and multiple dry years

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



is provided in Section 7.2 and a discussion on potential impacts to basin management practices is provided in Section 6.2. A discussion regarding the regional impacts of climate change on demand and supply are provided in Metropolitan Water District of Southern California's 2015 Plan. Due to the volume of Metropolitan Water District of Southern California's 2015 Plan, the City's 2015 Plan will incorporate it by reference only.



CHAPTER 5

BASELINE AND TARGETSWATER USE

California law requires retail urban water suppliers to determine target water use for the years 2015 and 2020 in order to help the State achieve a 20 percent reduction in urban water use by the year 2020. Methodologies for calculating baseline and compliance daily urban per capita water use for the consistent implementation of California law were previously published by DWR’s “Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use,” dated October 1, 2010. DWR provided updated methodologies in its “Methodologies for Calculating Baseline and Compliance Urban per Capita Water Use,” dated February 2016. DWR’s guidance documents were used by the City to determine the required water use parameters which are discussed below. The City developed the baselines and targets individually and not regionally. A copy of the Water Conservation Act of 2009 is provided in Appendix E.

5.1 GUIDANCE FOR WHOLESALE AGENCIES

The City is not a wholesale agency and is not required by DWR to complete Section 5.1.



5.2 UPDATING CALCULATIONS FROM 2010 UWMP

5.2.1 TARGET METHOD

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

- "Method 3" and was based on ninety-five percent of the applicable state hydrologic region target.

5.2.2 REQUIRED USE OF 2010 U.S. CENSUS DATA

The City has incorporated 2010 U.S. Census data into baseline population calculations in this 2015 Plan (See Section 5.4).

5.2.3 SB X7-7 VERIFICATION FORM

The City has calculated its baseline and water use target calculations (See Section 5.7). California law requires SB X7-7 Verification tables provided in Appendix F to be completed and used in all 2015 Plans. DWR and this chapter refers to these tables as "SB X7-7 tables."



5.3 BASELINE PERIODS

The Baseline Daily Per Capita Water Use is defined as the average water use, expressed in gallons per capita per day (GPCD), for a continuous, multi-year baseline period. There were two different baseline periods (including a 10-year baseline period² and a 5-year baseline period³) for calculating Baseline Daily Per Capita Water Use in the City's 2010 Plan. The baseline periods applicable for the City's 2015 Plan have been reviewed and are presented below.

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

The California Water Code allows an urban water supplier to calculate up to a 15-year baseline period if at least 10 percent of its 2008 retail water demands were met through recycled water deliveries within its service area, otherwise calculation of a 10-year baseline period is required. The City did not receive any recycled water deliveries during FY 2007-08. Consequently, a 10-year baseline period water use of 165GPCD for the City was determined and incorporated into this 2015 Plan and is based on a continuous 10-year period between FY 1995-96 through FY 2004-05 (See "SB X7-7 Table 1" in Appendix F). A further discussion of determining water use targets based on the 10-year baseline period water use is discussed further in Section 5.7.

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

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



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

According to Water Code Section 10608.22, if an urban retail water supplier's 5-year baseline period water use is greater than 100 GPCD, the calculated 2020 water use target (See Section 5.7) may need to be reduced (see Section 5.7.2). A 5-year baseline period water use of 162GPCD for the City was determined and incorporated into this 2015 Plan and is based on a continuous 5-year period between FY 2003-04 through FY 2007-08 (See "SB X7-7 Table 1" in Appendix F). A further discussion of the 2020 water use target confirmation based on the 5-year baseline period water use is discussed further in Section 5.7.2.

5.4 SERVICE AREA POPULATION

For purposes of projecting water use targets (See Section 5.7), agencies must determine the population that they served for each baseline year in both of the baseline periods (identified in Section 5.3) and for the 2015 compliance year (FY 2014-15). The City incorporated U.S. Census data through 2010 into baseline population calculations in this 2015 Plan (See Section 5.4.1).

5.4.1 POPULATION METHODOLOGY

The annual populations within the City's service area for each year during the baseline periods (identified in Section 5.3) and for the 2015 compliance year (FY 2014-15) were estimated by DWR's online Population Tool (See "SB X7-7 Table 2" in Appendix F). As discussed in Section 3.2.1, the City's service area boundary was uploaded to the Population Tool in a "KML" file format (i.e. Google Earth format). The



uploaded KML file represents the City's service area boundary from 1990 to present (2015). The Population Tool utilized U.S. Census data from 1990, 2000, and 2010, along with the City's service area boundary, to estimate the population served by the City in calendar years 1990, 2000, and 2010. The annual amounts of residential service connections⁴ within the City's service area for each year from 1990 through 2015 were also entered into the Population Tool. Based on the actual population data (1990, 2000, and 2010) as well as the annual residential service connections (from 1990 through 2015), DWR's Population Tool estimated the annual population within the City's service area for each year from 1990 (FY 1989-90) to 2015 (FY 2014-15). The City's estimated populations during the baseline periods are provided in "SB X7-7 Table 3" in Appendix F.

5.5 GROSS WATER USE

Annual gross water use amounts within the City for each year of the 10-year baseline year (FY 1995-96 to FY 2004-05) identified in Section 5.3.1, for each year of the 5-year baseline year (FY 2003-04 to FY 2007-08) identified in Section 5.3.2, and for FY 2014-15, are provided in "SB X7-7 Table 4" in Appendix F and are based on the total amount of water entering the City's distribution system from its water supply sources (including groundwater production wells and purchased water connections).

5.5.1 GROSS WATER TABLES

Annual gross water use amounts within the City for each year of the 10-year baseline year (FY 1995-96 to FY 2004-05), identified in Section 5.3, and for 2015 (fiscal year 2014-15), are provided in "SB X7-7 Table 4" in Appendix F.

⁴ The annual number of residential service connections was based on information provided by the City. Service connections between 1991-92 and 2009-10 were interpolated. The total number of residential service connections includes both single family and multi-family connections.



The City does not use indirect recycled water within its service area. Consequently, the City is not required by DWR to complete “SB X7-7 Table 4-B” in Appendix F.

Industrial process water is not included in the City’s gross water use provided in “SB X7-7 Table 4” in Appendix F. Consequently, the City is not required by DWR to complete “SB X7-7 Table 4-C.1,” “SB X7-7 Table 4-C.2,” “SB X7-7 Table 4-C.3,” “SB X7-7 Table 4-C.4,” and “SB X7-7 Table 4-D.”

5.6 BASELINE DAILY PER CAPITAL WATER USE

The “daily per capita water use” is based on the water used per person per day (GPCD) within the City. The daily per capita water use is estimated by dividing gross water use (See Section 5.5 and “SB X7-7 Table 4” in Appendix F) by the service area population (See Section 5.4 and “SBX 7-7 Table 3” in Appendix F). The City’s baseline daily per capita water uses were determined for each baseline year (FY 1995-96 to FY 2004-05), and for FY 2014-15, and are provided in “SB X7-7 Table 5” in Appendix F.

5.7 2015 AND 2020 TARGETS

As discussed in Section 5.2.1, “Target Method 3” has been incorporated in the City’s 2015 Plan to determine the City’s 2015 and 2020 urban water use targets. A further discussion regarding the selected target method is provided below.



5.7.1 SELECT AND APPLY A TARGET METHOD

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

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

Using this target method, the Urban Water Use Target for the City was calculated as **132 GPCD**, based on 80 percent of the City's Baseline Per Capita Daily Water Use of 165 GPCD (See "SB X7-7 Table 7-A" in Appendix F).

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

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

Target Method 3: *Ninety-five percent of the applicable state hydrologic region target, as set forth in the state's 20x2020 Water Conservation Plan.⁵*

The City's service area lies entirely within the "South Coast" Hydrologic Region. According to "SB X7-7 Table 7-E" in Appendix F, the 2020 regional water use target for the South Coast Hydrologic Region is 149 GPCD. The Target Method 3 regional use

⁵ California Department of Water Resources, State Water Resources Control Board, California Bay-Delta Authority, California Energy Commission, California Department of Public Health, California Public Utilities Commission, and California Air Resources Board. *20x2020 Water Conservation Plan*. February 2010. (www.water.ca.gov/wateruseefficiency/sb7/docs/20x2020plan.pdf)



target for the South Coast Hydrologic Region (or 95 percent of the 2020 regional water use target) is 142 GPCD.

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

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

The City's Urban Water Use Target was initially determined to be **142 GPCD** for 2020 and is based on Target Method 3 above, as indicated in "SBX7-7 Table 7" in Appendix F.

5.7.2 5-YEAR BASELINE – 2020 TARGET CONFIRMATION

As discussed in Section 5.3.2, if an urban retail water supplier's 5-year baseline period water use is greater than 100 GPCD, the calculated 2020 Urban Water Use Target (See Section 5.7.1) must be reduced to 95 percent of the 5-year baseline period water use (unless it is already below 95 percent of the 5-year baseline period water use). The City's calculated 5-year baseline period water use was 162GPCD (See Section 5.3.2).The value calculated for 95 percent of the 5-year baseline period water use is **154 GPCD**. The City's 2020 Urban Water Use Target was initially determined using Target Method 3 above to be 142 GPCD, which is less than the value calculated in this step (154 GPCD).Therefore, no adjustment is needed to the City's 2020 Urban Water Use Target of **142 GPCD** (See "SB X7-7 Table 7-F" in Appendix F).



5.7.3 CALCULATE THE 2015 INTERIM URBAN WATER USE TARGET

The City's 2015 Interim Target is based on the value mid-point between the 10-year baseline period water (165 GPCD, See Section 5.3.1 and "SB X7-7 Table 5" in Appendix F) and the confirmed 2020 Urban Water Use Target (142 GPCD, See Section 5.7.2 and "SB X7-7 Table 7" in Appendix F). The City's 2015 Interim Target is **153 GPCD** as indicated in "SB X7-7 Table 8" in Appendix F.

5.7.4 BASELINE AND TARGETS SUMMARY

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

5.8 2015 COMPLIANCE DAILY PER CAPITA WATER USE (GPCD)

5.8.1 MEETING THE 2015 TARGET

As discussed in Section 5.7.3, the City's 2015 Interim Target is **153 GPCD**. The City's actual water use during FY 2014-15 was **134 GPCD**. The City's 2014-15 water use of 134 GPCD is in compliance with the 2015 Interim Target of 153 GPCD, as shown in "SB X7-7 Table 9" in Appendix F.



5.8.2 2015 ADJUSTMENTS TO 2015 GROSS WATER USE

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

5.9 REGIONAL ALLIANCE

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



CHAPTER 6

SYSTEM SUPPLIES

The City's main source of water supply is groundwater pumped from the Main Basin. A tabulation of the City's historical water supplies is provided below.

Fiscal Year	Groundwater – Main Basin (AF)	Purchased Water (AF)	Total (AF)
1995-96	10,686	0	10,686
1996-97	11,027	80	11,107
1997-98	10,294	20	10,314
1998-99	10,662	146	10,808
1999-00	10,970	0	10,970
2000-01	10,288	20	10,308
2001-02	10,274	196	10,470
2002-03	9,997	182	10,179
2003-04	6,264	3,989	10,253
2004-05	8,647	1,319	9,966
2005-06	10,357	82	10,439
2006-07	10,904	114	11,018
2007-08	9,852	211	10,063
2008-09	9,452	49	9,501
2009-10	8,686	0	8,686
2010-11	8,389	108	8,497
2011-12	8,740	51	8,791
2012-13	8,817	148	8,965
2013-14	9,022	72	9,094
2014-15	8,132	259	8,391



6.1 PURCHASED OR IMPORTED WATER

The City has purchased local groundwater from San Gabriel Valley Water Company (SGVWC). The City has one (1) emergency connection with SGVWC, with a maximum capacity of 8.2 cubic feet per second (cfs) which can supply up to approximately 3,700 gallons per minute (gpm). The City owns one (1) emergency connection with the Metropolitan Water District of Southern California (MWD), with a maximum capacity of 15.6 cfs which can supply up to approximately 7,000 gpm. The City has not utilized the MWD emergency water supply. The City's current and projected volumes of purchased water are provided in Tables 6-8 and 6-9 (see Section 6.9).

6.2 GROUNDWATER

6.2.1 MAIN BASIN

The City pumps groundwater from the City's seven active wells, Wells No. 1, No. 5, No. 9, No. 10, No. 12, No. 15, and Fern, which are located within the Main Basin. These wells have a combined capacity of about 11,000 gpm. The City has the legal right to pump groundwater from the Main Basin. As discussed in greater detail in Section 6.2.3, although there is no limit on the quantity of water that may be extracted by Parties to the Main Basin Judgment⁶, including the City, groundwater production in excess of a Party's water right, or its proportional share (pumper's share) of the

⁶Upper San Gabriel Valley Municipal Water District v. City of Alhambra, et al., Los Angeles County Case No. 924128, Judgment entered January 4, 1973.



Operating Safe Yield,⁷ requires purchase of imported replacement water to recharge the Main Basin. The City has a prescriptive pumping right of 6,704.08 acre-feet and a pumper's share of 3.39216 percent of the Operating Safe Yield. If the City pumps more than the allowed amount of water, replacement water may be purchased from San Gabriel District to recharge the Main Basin.

6.2.2 BASIN DESCRIPTION

Main Basin - Description

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 3.

The San Gabriel River and its distributaries, 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 of Whittier, through which the San Gabriel River and the 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 Basin and the Coastal Plain. The approximately 490 square miles of drainage area upstream of Whittier Narrows consists of about 167 square miles of valley lands and about 323 square miles of mountains and foothills.

⁷ Operating Safe Yield is set by Watermaster to allocate to each Party its portion of groundwater that can be produced from the Main Basin free of a Replacement Water Assessment.



The Main Basin includes essentially the entire valley floor of the San Gabriel Valley with the exception of the Raymond Basin and Puente Basin. The boundaries of the Main Basin are the 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 San Gabriel Valley Municipal Water District (Upper District) and Central Basin Municipal Water District (Central District) 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 No. 1323 (Superior Court of the County of Los Angeles, 1944). 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 (administered by the Main Basin Watermaster, discussed in detail in Section 6.2.3) 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 Raymond Basin and Puente Basin, and by return flow from water applied for overlying uses. Additionally, the Main Basin is replenished with untreated SWP water, which is delivered directly to spreading grounds in the Main Basin. The Main Basin serves as a natural storage reservoir, transmission system and filtering medium for wells constructed therein.

There are three municipal wholesale water districts overlying and/or partially overlying the Main Basin. The three districts are Upper District, San Gabriel District, and Three Valleys Municipal Water District (Three Valleys District). The boundaries of these water districts are shown on Figure 4.

Urbanization of the San Gabriel Valley began in the early part of the twentieth century, but until the 1940s, agricultural land use occupied more area than residential



and commercial land use. After World War II, agricultural areas reduced rapidly and are now less than two thousand acres. The 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.

Main Basin - Geology

The Main Basin consists of a roughly bowl-shaped depression of bedrock, filled over millions of years with alluvial deposits. This bowl-shaped depression is relatively deep; the elevation at 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 (DWR, 1966, Plate II).

Most of the alluvium deposited within this depression is debris from the San Gabriel Mountains, washed and blown down from the side of the mountains over time. This process has also resulted in the materials of the Main Basin varying in size from relatively coarse gravel nearer the mountains to fine and medium-grained sand containing silt and clay as the distance from the mountains increases. 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 northeastern portion of the Main Basin near the mountains to nearly 4,000 feet in the South El Monte area.



The soils overlying the Main Basin average about six 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 the area has been paved and many miles of stream channel have been lined for flood control purposes, thus decreasing infiltration of water through streambeds. Detailed basin geology is discussed in the report entitled "Planned Utilization of Ground Water Basins, San Gabriel Valley, Appendix A:Geo-hydrology" (DWR, 1966).

Main Basin - Hydrology

The total fresh water storage capacity of the Main Basin is estimated to be about 9.5 million acre-feet. Of that, about 1,100,000 acre-feet have been used historically in Main Basin operations, which is the result of producing groundwater and replenishing the groundwater basin with local water and untreated SWP water. The Baldwin Park Key Well⁸ (Key Well) is defined in the Main Basin Judgment⁹ as the "Key Well" used to measure groundwater elevation in the Main Basin. The change in groundwater elevation at the 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 5 and the hydrograph of the Key Well is shown on Figure 6. The historical high groundwater elevation was recorded at over 329.1 feet in April 1916, at which time Main Basin storage was

⁸ The Baldwin Key Well is a monitoring well located in the City of Baldwin Park used to determine the trends in the groundwater levels throughout the Main Basin.

⁹ Upper San Gabriel Valley Municipal Water District v. City of Alhambra, et al., Los Angeles County Case No. 924128, Judgment entered January 4, 1973.



estimated to be about 8,700,000 acre-feet. The historical low was recorded in November 2015 at 174.0 feet, at which time Main Basin storage was estimated to be about 7,400,000 acre-feet. The Key Well hydrograph shown on Figure 6 illustrates the cyclic nature of basin recharge and depletion. The hydrograph also 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 to the southwest, as shown on Figure 7. Groundwater movement in the northern and northeastern regions of the Main Basin is affected by faulting. For example, the Raymond Fault located in the northwesterly portion of the Main Basin separates the Raymond Basin from the Main Basin.

The Main Basin is an unconfined aquifer. Although clay deposits appear mixed with the soils 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 for the movement of subsurface water. The Main Basin therefore operates as a single, unconfined aquifer. As previously mentioned, a thorough discussion of basin hydrogeology is contained in the report "Planned Utilization of Ground Water Basins, San Gabriel Valley, Appendix A: Geo-hydrology" (DWR, 1966).

Within the Main Basin there are a number of identified sub-basins. These include the Upper San Gabriel Canyon Basin, Lower San Gabriel Canyon Basin, Glendora Basin, Foothill Basin, Way Hill Basin and San Dimas Basin. In addition, the Puente Basin is tributary to the Main Basin from the southeast, between the San Jose and Puente Hills, but is not included in the Main Basin adjudication. Figure 5 shows the location of the sub-basins within the Main Basin.



Main Basin – Groundwater Replenishment

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. Rainfall occurs predominantly in the winter months and is more intense at higher elevations and closer to the San Gabriel Mountains.

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 only been estimated. The DPW maintains records on the amount of local and imported water conserved in water spreading facilities and stream channels.

The San Gabriel River bisects the Main Basin. 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. The San Gabriel River flows southwesterly across the valley to Whittier Narrows, a distance of about 15 miles. It exits San Gabriel Valley at Whittier Narrows, and transverses the Coastal Plain 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 northeast 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 River 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. Tributaries draining the westerly portion of the Main Basin, including Sawpit Wash, Santa Anita Wash, Eaton Canyon Wash, Rubio Wash and Alhambra Wash, all of which originate in the San Gabriel Mountains or the foothills, feed the Rio Hondo. 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 the 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) constructed an extensive system of dams, debris basins, reservoirs and flood control channels, which are shown on Figure 5. The dams and reservoirs also operate as water conservation facilities. 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 Main Basin and Whittier Narrows Reservoir at the southwestern end of the San Gabriel Valley.

Many of the stream channels tributary to the San Gabriel River have been improved with concrete banks (walls) and concrete-lined bottoms. These stream channel improvements have significantly reduced the area of previous stream channels and reduce Main Basin recharge. A number of off-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 5. Some of these facilities are accessible to imported water supplies, while some facilities receive only local runoff.



The paths of the surface streams are mirrored in the soils and in the direction of groundwater movement in the Main Basin. The tributary creeks and washes, carrying smaller amounts of water, generally flow toward the center of the San Gabriel 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 generally from the east and west toward the center of the Main Basin as shown on Figure 7. The greatest infiltration and transmissivity rates of soils in the Main Basin are from 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.

6.2.3 GROUNDWATER MANAGEMENT

Main Basin – Groundwater Management Plan

The Main Basin was adjudicated and management of the local water resources within the Main Basin is based on that adjudication. Management of the water resources in the Main Basin is based upon Watermaster services under two Court Judgments: Long Beach Judgment¹⁰ and Main Basin Judgment,¹¹ which are both discussed in detail in the following sections. The City is a party to both Judgments. Accordingly, it participates in the management procedures established by these cases. The City also participates in the Main Basin management described in the Main Basin Watermaster's

¹⁰Board of Water Commissioners of the City of Long Beach, et al., v. San Gabriel Valley Water Company, et al., Los Angeles County Case No. 722647, Judgment entered September 24, 1965.

¹¹Upper San Gabriel Valley Municipal Water District v. City of Alhambra, et al., Los Angeles County Case No. 924128, Judgment entered January 4, 1973.



document entitled “Five-Year Water Quality and Supply Plan.” The City is a party in the Long Beach Judgment and as such participations in that case.

The following sections provide a description of the two Judgments and the Five Year Water Quality and Supply Plan that make up the groundwater management plan for the Main Basin. In addition, this section describes Upper District’s and San Gabriel Basin Water Quality Authority’s (WQA) policies to promote groundwater basin clean-up.

Main Basin – Long Beach Judgment

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

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 Basin Watermaster and delivered to agencies in Central District 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 San Gabriel 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 requires 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 nominated by and through Upper District, one representing the Lower Area parties nominated by and through the Central District, and one jointly nominated by Upper District and Central District. This three-member board is known as the River Watermaster.

The River Watermaster administers and enforces the provisions of the Long Beach Judgment. 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 determinations of usable water received by the Lower Area, and to prepare its annual report to the Court. The River Watermaster has rendered annual reports for the water years 1963-64 through 2014-15 and operations of the river system under that Court Judgment and through the administration by the River Watermaster have been satisfactory since its inception.



One major result of the Long Beach Judgment was to leave the Main Basin free to manage its water resources so long as it meets its downstream obligation to the Lower Area under the terms of the Long Beach Judgment. Upper District intervened in the Long Beach case as a defendant to enforce the provisions of a Reimbursement Contract, which was incorporated into the Long Beach Judgment to assure that any Make-up Water obligations under the terms of the Long Beach Judgment would be satisfied.

Main Basin – 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. After due consideration by the Association, 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. After several years of study (including verification of annual water production) and negotiations, a stipulation for entry of Judgment was approved by a 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 the Judgment (Main Basin Judgment) was entered on January 4, 1973. The Main Basin Judgment was most recently amended on June 21, 2012. A copy of the Main Basin Judgment, updated as of June 2012, is located in Appendix H.

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 a nine-member Main Basin Watermaster. Six



of those members are nominated by water producers (producer members) and three members (public members) are nominated by the Upper District and the San Gabriel Valley Municipal Water District (San Gabriel District), which overlie most of the 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 throughout the year. A copy of the Main Basin Watermaster's Rules and Regulations is located in Appendix I.

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 all annual extractions in excess of a Party's annual right to extract water with Supplemental Water. The Main Basin Watermaster annually establishes 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 a producer extracts water in excess of its right under the annual Operating Safe Yield, it must pay an assessment for Replacement Water, which is sufficient to purchase one acre-foot of Supplemental Water to be spread in the Main Basin for each acre-foot of excess production. All water production is metered and is reported quarterly to the Main Basin Watermaster.

In addition to Replacement Water Assessments, the Main Basin Watermaster levies an Administration Assessment to fund the administration of the Basin management program under the Court Judgment and a Make-up Obligation Assessment in order to fulfill the requirements for any make-up Obligation under the Long Beach Judgment and to supply fifty 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 so long as such transfers meet the requirements of the 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 Amended Main Basin Judgment provides that the Main Basin Watermaster will, insofar as practicable, spread imported water in the Main Basin to maintain the groundwater elevation at the Key Well above 200 feet. 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.

Main Basin – Operations of the Groundwater Basin

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 Upper District rely upon groundwater from Main Basin for their water supply. The City of Alhambra has agreed to receive treated, imported water as part of the Cooperative Water Exchange Agreement (CWEA) to reduce the groundwater extractions from the western portion of the Main Basin and the associated drawdown concerns.

Imported water for groundwater replenishment is delivered through the flood control channels and diverted and spread at spreading grounds through Main Basin Watermaster's agreement with the Los Angeles County Department of Public Works



(DPW). Groundwater replenishment utilizes imported water and is considered 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. As of the end of fiscal year 2014-15, the City has a cyclic storage account balance of 4,581 acre-feet.

The Main Basin Watermaster has entered into a Cyclic Storage Agreement with each of the three municipal water districts. One is with MWD and Upper District, which permits MWD 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 District and permits Metropolitan to deliver and store up to 40,000 acre-feet for future Replacement Water use. The third is with San Gabriel District and contains generally the same conditions as the agreement with MWD except that the stored quantity is not to exceed 50,000 acre-feet.

Imported Make-up Water has been 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.



Main Basin – Five-Year Water Quality and Supply Plan

The Main Basin Watermaster was created in 1973 to resolve water issues that had arisen among water users in the San Gabriel Valley. Main Basin Watermaster's mission was to generally manage the water supply of the Main Basin. During the late 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 agricultural operations that infiltrated nitrates into the groundwater. Cleanup efforts were undertaken at the local, state, and federal level.

Local water agencies adopted a joint resolution in 1989 regarding water quality issues that stated 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 added 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 most recent Five-Year Water Quality and Supply Plan (excluding its appendices) is located in Appendix J.

Main Basin Watermaster prepares and annually updates the Five-Year Water Quality and Supply Plan in accordance with the requirements of Section 28 of the 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 Main Basin Watermaster plans to:



1. Monitor groundwater supply and quality;
2. Develop projections of future groundwater supply 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 the Basin;
5. Address Perchlorate, N-nitrosodimethylamine (NDMA), and other emerging contaminants in the 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 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. The 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 the Main Basin Watermaster Board takes final action.



Sustainable Groundwater Management Act

The 2014 Sustainable Groundwater Management Act (Water Code § 10720, et seq.; (“SGMA”) requires DWR to establish initial groundwater basin priorities for the basins identified and defined in DWR’s Bulletin 118 (Water Code § 10722).DWR finalized the basin prioritization in June 2014 through the California Statewide Groundwater Elevation Monitoring (CASGEM)¹² program. The CASGEM basin prioritization program is being used by DWR to focus resources towards implementing legislation to require all groundwater basins be monitored for seasonal and long-term groundwater elevation trends.DWR plans to evaluate the status of groundwater level monitoring in “High” or “Medium” priority groundwater basins. If DWR determines that groundwater levels in all or part of a High or Medium Priority basin are not being monitored, DWR will work cooperatively with local entities to establish a monitoring program. Compliance with DWR requirements allows the basin monitoring entities to be eligible to receive State water grants or loans. SGMA identifies the Main Basin as being exempt from establishing a Groundwater Management Plan (GMP).The Main Basin(Basin 4-13) is identified through CASGEM as a “high” priority basin.

6.2.4 OVERDRAFT CONDITIONS

The City produces groundwater from the Main Basin, which is an adjudicated basin as discussed in Section 6.2.2. The City is not required by DWR to complete Section 6.2.3.

¹²http://www.water.ca.gov/groundwater/casgem/basin_prioritization.cfm



6.2.5 HISTORICAL GROUNDWATER PUMPING

Main Basin – Historical Pumping

As discussed in Section 6.2, the City pumps groundwater from its Main Basin wells, including Wells No. 1, No. 5, No. 9, No. 10, No. 12, No. 15, and Fern. The collective capacity of the wells is approximately 11,000 gpm. The City's historical groundwater production in the Main Basin over the past five years is shown in Table 6-1. The groundwater supply from the Main Basin is pumped to the City's storage reservoirs and then delivered to the City's customers. The City's groundwater production from the Main Basin from FY 2010-11 to FY 2014-15 has averaged approximately 8,600 AFY.

As noted in Section 6.2.2, the Main Basin is managed by the Main Basin Watermaster. Amendments to the Main Basin Judgment were made in June 2012. Figure 6 shows the historical fluctuation of the Key Well elevation and illustrates that since the Main Basin was adjudicated in 1973, it generally operated between an elevation 250 feet and 200 feet above MSL. Furthermore, at an elevation of 174 feet above MSL at the Key Well, which represents the historical low, the Main Basin has about 7,400,000 acre-feet of available storage. During the period of management under the Judgment, significant drought events have occurred from 1969 to 1977, 1983 to 1991, 1998 to 2004, 2006 to 2009, and 2011 to 2015 (see Appendix K). In each drought cycle the Main Basin has been managed to maintain water levels. A supply and demand assessment of the City's Main Basin supplies is provided in Section 7.3.

6.3 SURFACE WATER

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



6.4 STORMWATER

The Municipal Separate Storm Sewer System (MS4) Permit Order No. R4-2012-0175 for Los Angeles County provides a mechanism for the City to achieve Permit compliance through development of Enhanced Watershed Management Programs (EWMP). EWMP for the Upper Los Angeles River (ULAR) Watershed Management Area (EWMP Area) was developed by the ULAR EWMP Group, which includes the City. The EWMP was developed to maximize the retention and use of urban runoff as a resource for groundwater recharge and irrigation. Monterey Park Municipal Code § 6.30.030 prohibits the discharge of untreated wastewater to the MS4 including non-stormwater untreated runoff within the City. The City educates the public about storm water quality through newspaper, newsletters, flyers, public education, schools, and participate in County-wide Environmental Programs, Earth Day festival and Bike Ride event. The message covers proper pet waste disposal, residential car washes, and used oil recycling.

The City does not use stormwater to directly meet its potable water demands. However, the City retains stormwater runoff to water landscape within the City, which helps reduce demand for groundwater supplies.

6.5 WASTEWATER AND RECYCLED WATER

The City does not have access to recycled water supplies due to the lack of infrastructure to convey recycled water to the City. In 2008, Central District in conjunction with Upper District and San Gabriel District prepared a Recycled Water Master Plan Update (Master Plan) which provided details of a proposed Capital Improvement Program to potentially expand Central District's existing recycled water pipeline. Based on the City's proximity to Central District's existing Southeast Water



Reliability Project (SWRP) recycled water pipeline, the Master Plan identified over 10 potential recycled water customers in the City (the Monterey Hills leg of the proposed recycled water pipeline) with total demands estimated at approximately 800 acre-feet per year. The potential customers identified in the Master Plan include the Monterey Park Golf Course, parks, schools, and various irrigation customers which may be served from an extension of Central District's SWRP recycled water pipeline.

The City is coordinating with San Gabriel District and Central District to potentially extend Central District's SWRP recycled water pipeline to serve customers located within the City's service area. A map showing the location of potential recycled water customers within the City's service area is provided in Appendix L.

Table 6-4 summarizes current and projected recycled water use within the City from fiscal year 2014-15 to fiscal year 2039-40. The following sections provide a description of the City's plans to expand the use of recycled water as a source of water supply over the next 20 years.

6.5.1 RECYCLED WATER COORDINATION

The City does not have access to recycled water due to the current lack of infrastructure to convey recycled water supplies to the City. The City is coordinating with San Gabriel District and Central District to potentially extend Central District's SWRP recycled water pipeline to serve customers located within the City's service area. A map showing the location of potential recycled water customers within the City's service area is provided in Appendix L.



6.5.2 WASTEWATER COLLECTION, TREATMENT, AND DISPOSAL

Wastewater generated by the City is treated by the Sanitation Districts of Los Angeles County (LACSD). Wastewater is collected within the City's local sewer collection system. The City's local sewers tie into one of LACSD's regional trunk sewers. The regional trunk sewer lines deliver wastewater to one or more water reclamation plants owned by LACSD for treatment. The water reclamation plants are not located within the City's service area. The water reclamation plants serving the City include the Los Coyotes Water Reclamation Plant (LCWRP), the Long Beach Water Reclamation Plant (LBWRP) and the Joint Water Pollution Control Plant (JWPCP); however, the percentage breakdown between these two plants in treating the City's wastewater is unknown. LACSD estimates approximately 80 gallons per person per day of wastewater is generated within LACSD's service area. Based on a 2014-15 population of 56,063 within the City, the estimated amount of wastewater collected by the City is approximately 4.5 million gallons per day (about 5,000 AFY), as shown in Table 6-2. As indicated previously, and in Table 6-3, wastewater is not treated or disposed within the City's service area.

The LCWRP, which began operation in 1970, is located in Cerritos, California and has a current design capacity of 37.5 million gallons per day (MGD). The LCWRP plant serves a population of approximately 370,000 people. The method of disposal when treated recycled water is not used (non-recycled) is discharge to the San Gabriel River and eventually flows to the ocean.

The LBWRP, which began operation in 1973, is located in Long Beach, California and has a current design capacity of 25 MGD. The LBWRP plant serves a population of approximately 250,000 people. The method of disposal when treated recycled water is



not used (non-recycled) is discharge to Coyote Creek, a tributary of the San Gabriel River that flows to the ocean.

6.5.3 RECYCLED WATER SYSTEM

The City does not have access to recycled water due to the current lack of infrastructure to convey recycled water supplies to the City. The City is coordinating with San Gabriel District and Central District to potentially extend Central District's SWRP recycled water pipeline to serve customers located within the City's service area. A map showing the location of potential recycled water customers within the City's service area is provided in Appendix L.

6.5.4 RECYCLED WATER BENEFICIAL USES

As previously discussed in Section 6.5.3, the City does not have access to recycled water due to the current lack of infrastructure to convey recycled water supplies to the City. The City is coordinating with San Gabriel District and Central District to potentially extend Central District's SWRP recycled water pipeline to serve customers located within the City's service area. A map showing the location of potential recycled water customers within the City's service area is provided in Appendix L. The projected recycled water demand within the City's service area is shown in Table 6-4.



6.5.5 ACTIONS TO ENCOURAGE AND OPTIMIZE FUTURE RECYCLED WATER USE

As previously discussed in Section 6.5.3, the City does not have access to recycled water due to the current lack of infrastructure to convey recycled water supplies to the City. However, the southern edge of the City's service area is located just north of the northern terminus of Central District's recycled water pipeline. The City is coordinating with San Gabriel District and Central District to potentially extend Central District's SWRP recycled water pipeline to serve customers within the City's service area. The City, in conjunction with Central District, have identified potential recycled water users, including schools, construction projects, and corporate irrigation locations, which are shown on the map provided in Appendix L. The City plans to meet 10 percent of its future demands with recycled water supplies, as shown in Table 6-6.

The City's recycled water would be provided by Central District. Additional details on Central District's recycled water program are available in Central District's 2015 Plan which is incorporated by reference.

6.6 DESALINATED WATER OPPORTUNITIES

6.6.1 MAIN BASIN

Groundwater produced from the Main Basin has acceptable Total Dissolved Solids (TDS) concentrations (less than secondary Maximum Contaminant Level (MCL) of 1,000 milligrams per liter or mg/l) and does not require desalination. The annual average TDS value is for San Gabriel's Main Basin Wells is approximately 338 mg/L, according to the draft Main Basin Salt and Nutrient Management Plan, which is below



its secondary MCL.SWRCB-DDW recommended level is 500 mg/l and water can be provided for long-term domestic use with TDS concentrations of up to 1,000 mg/l. Due to the high quality (low TDS concentration) of the groundwater, the City has not needed to investigate the use of desalination to develop or reestablish a new long-term supply. However, there may be opportunities for use of desalinated ocean water as a potential water supply source in the future, if needed, through coordination with other agencies that have ocean desalination programs.

6.7 EXCHANGES OR TRANSFERS

6.7.1 EXCHANGES

The City does not have any current or planned water exchange opportunities.

6.7.2 TRANSFERS

As a Party to the Main Basin Judgment, the City can pump from the Main Basin. 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. In addition, the City has entered into a Cyclic Storage agreement, described in Chapter 6.2.2, with the Main Basin Watermaster to 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. As of the end of fiscal year 2014-15, the City has a cyclic storage account of 7,500 acre-feet with an ending balance of approximately 4,581 acre-feet within cyclic storage.



6.7.3 EMERGENCY INTERTIES

The City has five interconnections with other water agencies that serve as short-term emergency exchange opportunities. The City has emergency interconnections with the following water agencies:

- California Water Service
- City of Montebello
- MWD
- San Gabriel Valley Water Company

6.8 FUTURE WATER PROJECTS

The City pumps groundwater from the Main Basin and plans to utilize recycled water within its water system, as described in Section 6.5.4. The City plans to have 90 percent of its future demands met with groundwater and 10 percent of its future demands met with recycled water.

6.9 SUMMARY OF EXISTING AND PLANNED SOURCES OF WATER

As discussed in Chapter 6, the City's current water supply source is local groundwater and the City's planned water supply sources include local groundwater and recycled water supplies. The actual quantities of the water supply sources available to the City during fiscal year 2014-15 are summarized in Table 6-8. The reliable quantities of projected water supply sources available to the City in five-year increments through 2040 during average years are summarized in Table 6-9.



6.10 CLIMATE CHANGE IMPACTS TO SUPPLY

The California Water Code does not require the City to address climate change. However, a discussion on single-dry year and multiple dry years is provided in Section 7.2 and a discussion on potential impacts to basin management practices is provided in Section 6.2.A discussion regarding the regional impacts of climate change on demand and supply are provided in MWD's 2015 Plan, which is incorporated by reference.



CHAPTER 7

WATER SUPPLY RELIABILITY ASSESSMENT

7.1 CONSTRAINTS ON WATER SOURCES

The City has been able to meet all historical water demands with the available water supply. However, the City has experienced short-term water quality issues in the past, requiring the City to purchase water from SGVWC. The City has since installed additional treatment facilities to meet all SWRCB-DDW standards for drinking water. Management of the City's primary groundwater supplies is based on a groundwater basin adjudication, which is described in Section 6.2.2.

The City owns and operates Wells No. 1, No. 5, No. 9, No. 10, No. 12, No. 15, and Fern in the Main Basin with a combined capacity of about 11,000gpm. City wells historically have had tetrachloroethylene (PCE) concentrations exceeding the MCL of 5 ug/L and are treated to meet drinking water standards before being served to the public. Treatment is discussed further in Section 7.1.1. The City's active wells meet all SWRCB-DDW standards for drinking water. Following SWRCB-DDW approved treatment, the City will be able to use groundwater as a supply source over the next 20 years.

7.1.1 WATER QUALITY IN MAIN SAN GABRIEL BASIN

In the early 1980s, widespread contamination by VOCs associated with past industry practices was discovered in the Main Basin. In the late 1990s, groundwater contaminated with VOCs at concentrations exceeding the MCL was found to have reached the City's production wells. The City's well field is located within the South El



Monte Operable Unit (SEMOU). As a result of contaminant migration, the City has experienced short-term water supply issues in the past, requiring the City to purchase water from SGVWC. The City has since installed additional treatment facilities to meet all SWRCB-DDW standards for drinking water. Wells No. 9, No. 12, and No. 15 are treated for VOCs and perchlorate at the City's Delta Treatment Plant using a combination of air stripping, ion-exchange and Liquid Phase Granular Activated Carbon (LGAC) treatment methods. Wells No. 1, 10 and Fern flow to a second LGAC treatment facility at the Delta Treatment Plant for VOC treatment. Well No. 5 flows to a third LGAC treatment facility for VOC treatment. Production from Monterey Park Wells No. 12 and No. 15 are operated consistently with the SEMOU Record of Decision.

Groundwater from Wells No. 1, No. 5, No. 9, No. 10, No. 12, No. 15, and Fern meets all SWRCB-DDW standards for drinking water. The water supply from the City's wells will provide a reliable water source for the City for the next 20 years.

7.2 RELIABILITY BY TYPE OF YEAR

Information regarding the reliability of the City's water supplies is based on the historical precipitation data in the vicinity of the City's service area. Historical annual precipitation in the vicinity of the City's service area is provided in Appendix K and is based on data collected from Station 108D (El Monte, California) from fiscal year 1951-52 through 2014-15. As indicated in Section 3.3, the historical average rainfall in the vicinity of the City's service area is 16.4 inches. Fiscal year 2009-10 represents an average or normal water year for the City in which the total amount of rainfall was about 16.6 inches. A single dry year for the City was represented in fiscal year 2011-12 in which the total amount of rainfall was about 9.1 inches. A multiple dry year period for the City is represented from fiscal year 2011-12 to fiscal year 2013-14, where the total amount of rainfall was about 9.1 inches, 7.5 inches, and 5.2 inches, respectively. Table



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

Table 7-1 shows that during the base years (for average year, single dry year and multiple dry years), water supplies remained stable. A single dry year or a multiple dry year period will not compromise the City’s ability to provide a reliable supply of water to its customers.

7.2.1 TYPES OF YEARS

The City’s base years for average, single dry, and multiple dry years are provided in Section 7.2 and are summarized in Table 7-1. As indicated in Section 6.2.4, the City’s groundwater supplies were sufficient in meeting the City’s historical water demands under all base years, including during normal, single, and multiple dry years. A normal or average year was based on a year during the past 10 years with a total precipitation similar to the historical average precipitation in the vicinity of the City’s service area. Because a single dry year or a multiple dry year period will not compromise the City’s ability to provide a reliable supply of water to its customers, a single dry year in this Plan was selected based on the first year of a multiple dry year period during the past 10 years. The multiple dry year period was based on a period of three consecutive dry years during the past 10 years.(The City has experienced short-term water supply issues in the past due to groundwater contamination, requiring the City to purchase water from SGVWC. The City has since installed treatment facilities to mitigate the water supply constraint due to groundwater contamination.)



7.2.2 AGENCIES WITH MULTIPLE WATER SOURCES

The City primarily obtains its water supply from groundwater wells located in the Main Basin. As discussed in Section 7.3 and shown in Table 7-2, Table 7-3, and Table 7-4, each of the City's water supply sources share the same base years. As previously discussed in Section 7.2.1, a single dry year or a multiple dry year period will not compromise the City's ability to provide a reliable supply of water to its customers.

7.3 SUPPLY AND DEMAND ASSESSMENT

The City's projected normal year water demands over the next 20 years in five-year increments were based on the City's 2020 Urban Water Use Target of 142 GPCD. The ratio of water supplies available to the City during a historical normal FY in 2009-10 (or 8,686 AF) and during a historical single dry year in FY 2011-12 (or 8,791 AF) was used to estimate the City's projected water demands during single dry years. The ratio of water supplies available to the City during a historical normal FY in 2009-10 (or 8,686 AF) and a historical multiple dry year period from FY 2011-12 to FY 2013-14 (or 8,791 AF, 8,965 AF, and 9,094 AF, respectively) was used to estimate the City's projected water demands during a multiple dry year period. The City's projected dry year water supplies over the next 20 years were based on the minimum supplies needed by the City to meet projected single-dry year demands. Table 7-2, Table 7-3, and Table 7-4 summarize the City's projected water demands and supplies over the next 20 years in five-year increments, including during normal, single, and multiple dry years. These tables indicate the City can meet water demands during normal, single dry, and multiple dry years over the next 20 years.



7.4 REGIONAL SUPPLY RELIABILITY

As noted in Section 6.2.2, the Main Basin is managed by the Main Basin Watermaster. During the period of management under the Judgment, significant drought events have occurred. In each drought cycle the Main Basin has been managed to maintain water levels. Therefore, based on historical and on-going management practices, the City will be able to rely on the Main Basin for adequate supply over the next 20 years under single year and multiple year droughts.

Chapter 6 provides a description of the management of groundwater resources in the Main Basin, as well as information on basin management. Chapter 6 also demonstrates the management structure of the Main Basin provides a reliable source of groundwater supply for the City during average, single-dry and multiple-dry water years. Historical data indicates the Main Basin has been well managed for the full period of the adjudication, resulting in a stable and reliable water supply. There are no contemplated basin management changes, other than increasing direct use of recycled water (see Section 6.5) and the planned use of recycled water for groundwater replenishment in the Main Basin to reduce the need to import water from other regions. Therefore, the groundwater supplies in the Main Basin are deemed reliable.



CHAPTER 8

WATER SHORTAGE CONTINGENCY PLAN

8.1 STAGES OF ACTION

The City will manage water supplies prudently to minimize the adverse impacts of water shortages. The City's plan for water usage during periods of shortage is designed to provide a minimum of 50 percent of normal supply during a severe or extended water shortage. Water shortage trigger mechanisms have been established to ensure that this policy is implemented.

Table 8-1 provides a description of the stages of action which may be triggered by a shortage in one or more of the City's water supply sources, depending on the severity of the shortage and its anticipated duration.

8.2 PROHIBITIONS ON END USES

On July 1, 2015, the Monterey Park City Council adopted a resolution declaring a Stage 2 drought emergency under the Monterey Park Emergency Water Conservation Regulations Ordinance. The Monterey Park Emergency Water Conservation Regulations Ordinance includes drought emergency Stages 1 through 4 with prohibitions on various wasteful water uses such as lawn watering during mid-day hours, washing sidewalks and driveways with potable water, and allowing plumbing leaks to go uncorrected more than seven days after customer notification. A copy of the Monterey Park Emergency Water Conservation Regulations Ordinance is provided in Appendix N.



As the water purveyor, the City must provide the minimum health and safety water needs of the community at all times. The water shortage response is designed to provide a minimum of fifty percent (50%) of normal supply during a severe or extended water shortage. The various consumption reduction methods undertaken by the City are included in Table 8-2.

8.2.1 LANDSCAPE IRRIGATION

General landscape irrigation prohibitions include watering between 9am and 5pm, watering more than once a day, watering within 48 hours of measurable rainfall, and watering to an extent which causes runoff.

Stage 1 prohibitions include all general landscape irrigation prohibitions, with the addition of limits of lawn watering without a drip irrigation system to Monday, Wednesday, and Friday.

Stage 2 prohibitions include all general and Stage 1 landscape irrigation prohibitions with the addition of limits of lawn watering without a drip irrigation system to Monday and Thursday, prohibiting the installation of non-drip irrigation of micro-spray systems in new commercial and residential developments, and prohibiting landscape irrigation on City street medians.

Stage 3 prohibitions include all general, Stage 1, and Stage 2 landscape irrigation prohibitions with the addition of limits of lawn watering without a drip irrigation system to Mondays.



Stage 4 prohibitions include all general, Stage 1, Stage 2, and Stage 3 landscape irrigation prohibitions with the addition of prohibiting lawn watering without a drip irrigation system.

The landscape prohibitions for each Stage are provided in Table 8-2.

8.2.2 COMMERCIAL, INDUSTRIAL, AND INSTITUTIONAL (CII)

General commercial, industrial, and institutional (CII) prohibitions include; restaurants providing table service shall offer water only upon request, and lodging establishments must institute linen service only upon request. Stages 1 through 4 prohibitions include all general CII prohibitions. The CII prohibitions for each Stage are provided in Table 8-2.

8.2.3 SWIMMING POOLS

Stage 3 swimming pool prohibitions limit the filling of swimming pools, spas, hot tubs, Jacuzzis, and children's wading pools to one day per week (Monday). Stage 4 prohibitions include all Stage 3 swimming pool prohibitions. The swimming pool prohibitions for each Stage are provided in Table 8-2.

8.2.4 DEFINING WATER FEATURES

General water feature prohibitions include the use of potable water in a fountain or other decorative water feature except where the water is part of a recirculation system. Stages 1 through 4 prohibitions include all general water feature prohibitions. This prohibition is restricted to decorative water features only and does not apply to



swimming pools or spas. The water feature prohibitions for each Stage are provided in Table 8-2.

8.2.5 OTHER

General “other” prohibitions include use of potable water to wash hard surfaces, customers must repair leaks and/or breaks within seven days of notification, vehicle washing using potable water, except by use of a bucket and hose equipped with a self-closing valve. Stage 1 and 2 drought emergency “other” prohibitions include all general “other” prohibitions. During a Stage 3 drought emergency, “other” prohibitions include all general “other” prohibitions with the addition of a prohibition on vehicle washing unless performed at commercial car wash facilities. Stage 4 drought emergency “other” prohibitions include all Stage 3 drought emergency “other” prohibitions. The “other” prohibitions for each Stage are provided in Table 8-2.

8.3 PENALTIES, CHARGES, OTHER ENFORCEMENT OF PROHIBITIONS

Each infraction is punishable as follows:

1. A fine not exceeding \$100.00 for the first violation;
2. A fine not exceeding \$200.00 for a second violation of the same provision within one (1) year;
3. A fine not exceeding \$500.00 for each additional violation of the same provision within one (1) year of the first violation.

If a person violates the same provision a fourth time within one (1) year of the first violation, the City Attorney may, but is not required to, prosecute the violation as a misdemeanor in accordance with applicable law.



8.4 CONSUMPTION REDUCTION METHODS

The City's consumption reduction methods include education and outreach to the public, a rate billing structure to promote water conservation, and new prohibitions on specific water uses. The City is looking into providing recycled water in order to reduce potable water use.

The City must provide the minimum Health and Safety water needs (Chapter 7.1.2) to its customers at all times. The City's water shortage response is designed to provide a minimum of 50 percent of the "normal" water supply during a severe or extended water shortage. The stages of action are designed to ensure this goal is met and are shown on Table 8-1. The consumption reduction methods are shown on Table 8-3.

8.4.1 CATEGORIES OF CONSUMPTION REDUCTION METHODS

The City's consumption reduction methods are provided in Table 8-3.

8.5 DETERMINING WATER SHORTAGE REDUCTIONS

The City measures and determines reductions in water use by using SWRCB's Drought Response Tool pursuant to Executive Order B-29-15 discussed in Section 8.2. Beginning October 2014, urban water suppliers were required to estimate and report the number of gallons of water per person per day used by residential customers it serves using the tool for submitting monthly water production data. The Drought Response Tool allows the City to calculate residential GPCD on a monthly basis for comparison with the City's baseline year 2013, which is set by the SWRCB.



8.6 REVENUE AND EXPENDITURE REPORTS

The City's source of revenue is user service charges, which consist of monthly fixed water meter charges based on meter size, a consumption charge per unit of water consumed, and a water treatment charge. The monthly fixed meter charges combined with the water treatment charge is sufficient to meet about 50 percent of the City's fixed expenses. The revenue from the consumption charge is designed to be sufficient to fund the remaining 50 percent of the fixed expenses plus all of the variable expenses associated with the cost of water. The current water rates are provided in Appendix O.

8.6.1 DROUGHT RATE STRUCTURE AND SURCHARGES

The City implements a rate structure designed to promote water conservation. The current water rates are provided in Appendix O.

8.6.2 USES OF FINANCIAL RESERVES

The City historically maintains a financial reserve in its water fund. The City may use financial reserves for water system expenditures to make up for shortfalls in water revenue associated with unanticipated reduced water sales.

8.6.3 OTHER MEASURES

In 2014, the City approved a water rate structure with 10 percent annual rate increases over each of the next five years. These increases are necessary in order to keep the water operations solvent and financially sound.



8.7 RESOLUTION OR ORDINANCE

The City has adopted the “Monterey Park Emergency Water Conservation Regulations” Ordinance pertaining to Drought Regulations and Water Conservation Standards. A copy of the Ordinance is provided in Appendix N.

8.8 CATASTROPHIC SUPPLY INTERRUPTION

The City prepared an Emergency Response Plan (ERP) in June 2004, which describes the actions the City will take during a catastrophic interruption of water supplies including, natural disasters (such as a fire, earthquake, flood, storm, or other natural disasters), major accidents (such as industrial, transportation, or other major accidents), and terrorism/vandalism. Included in the ERP are items such as requests for mutual aid once local resources have been exhausted, a description of emergency interconnection resources, public notification procedures, and criteria for emergency use of alternate sources of water supply.

8.9 MINIMUM SUPPLY NEXT THREE YEARS

8.9.1 THREE YEAR MINIMUM WATER SUPPLY

Over the past 20 years, the driest three-year sequence (multiple dry years) in the City’s service area occurred from FY 2011-12 to FY 2013-14. Although additional water supplies were available to the City during the driest three-year sequence, Table 7-1 shows the minimum supplies needed by the City to meet actual demands during these years. The ratios between production in a normal dry year (FY 2009-10) and multiple dry years (FY 2011-12 through FY 2013-14) were estimated for the City’s supply, as



shown in Table 7-1. The ratios from Table 7-1 were used to estimate the minimum water supply available during each of the next three years (from FY 2015-16 to FY 2017-18) based on the driest three-year historical sequence for the City's water supply (see Table 8-4).



CHAPTER 9

DEMAND MANAGEMENT MEASURES

The City is committed to implementing water conservation programs. The City also coordinates with San Gabriel District to provide water conservation programs for the City's residents. The following sections describe the City's implementation of the Demand Management Measures (DMMs) required in the UWMP Act.

9.1 DEMAND MANAGEMENT MEASURES FOR WHOLESALE AGENCIES

The City is not a wholesale agency and is not required by DWR to complete Section 9.1.

9.2 DEMAND MANAGEMENT MEASURES FOR RETAIL AGENCIES

9.2.1 WATER WASTE PREVENTION ORDINANCES

The City of Monterey Park's water waste prohibition is included in MPMC § 14.08.090, which has a provision against wasting water. The City is allowed to turn off water if a leak is not repaired within 30 days of notice. In addition, the City has adopted the "Monterey Park Emergency Water Conservation Regulations" Ordinance pertaining to Drought Regulations and Water Conservation Standards, in response to the Governor's Executive Order B-29-15, which calls for a 25 percent statewide reduction of water use. A copy of the Ordinance is provided in Appendix N.



9.2.2 METERING

The City meters all customer connections, including separate metering for single-family residential, commercial, industrial, large landscape and institutional/governmental facilities. Furthermore, if there is new development within the City, each facility is individually metered. Service charges for the city are based on the customers' connection size. Further information regarding the City's service fees and conservation pricing is provided in Section 9.2.3.

9.2.3 CONSERVATION PRICING

For fiscal year 2014-15, the City implemented a rate structure, as shown in Appendix O.

9.2.4 PUBLIC EDUCATION AND OUTREACH

The City implements public information programs which include the distribution of public information through customer's water bills, brochures, community speakers and special events. The City also implements school education programs which include various water awareness educational materials. The City works with the local school districts within its service area to promote water conservation and provides resource to school facilities to educate students about water-related issues. The City distributes water conservation materials and offers a speaker who discusses water supply and conservation issues to local schools. The City also is involved in the City of Monterey Park's community events (such as Chinese Lunar New Year and July 4th Celebration) in which the City sets up information booths.



As a member of San Gabriel District, the City participates in San Gabriel District's public information programs. Details regarding San Gabriel District's programs can be found in San Gabriel District's 2015 UWMP, which is incorporated by reference.

9.2.5 PROGRAMS TO ASSESS AND MANAGE DISTRIBUTION SYSTEM REAL LOSS

The City has implemented its system water audit, leak detection and repair program since 1981. Historically, unaccounted water loss has been kept below 10 percent per year and the City's Water Utility Manager annually reviews production reports and billing data records to confirm this. In addition, since the City is located in an earthquake zone, it has permanently incorporated a system water audit and leak detection and meter calibration for its water production wells. The City also incorporates customer meter calibration programs into its utility operations. The City inspects 4 to 10 percent of the distribution system meters each year and replaces faulty meters when necessary. This program is effective at informing the City of unaccounted for water loss and provides a system audit on its distribution system, yearly.

9.2.6 WATER CONSERVATION PROGRAM COORDINATION AND STAFFING SUPPORT

The City does not have a specific position designated Water Conservation Coordinator. However, the City's Water Utility Manager is responsible for all aspects of water conservation measures and water auditing activities. The City's Water Utility Manager coordinates public water awareness programs and participates in the distribution of water efficient plumbing retrofits. This position, as well as all employees of



the City, are effective at informing the public about water-related issues and conservation.

9.2.7 OTHER DEMAND MANAGEMENT MEASURES

Water Conservation Rebate Programs

The City implements water conservation rebate programs through San Gabriel District, including washing machines, high-efficiency toilets, smart irrigation controllers, and rain barrels.

Large Landscape Conservation Program

During fiscal year 2009-10 San Gabriel District began a pilot program which provides grants to its member agencies to fund projects relating to water conservation. The objectives of the pilot program are to conserve water and to provide teaching examples of technology, materials, and procedures which conserve water. The pilot program provides grants in excess of \$50,000 per project to member cities. After project implementation, the member agencies must report back to San Gabriel District the actual water savings and provide information such as the number of budgets developed for large landscape customers, the number of surveys completed, and the number of follow-up visits.

9.3 IMPLEMENTATION OVER THE PAST FIVE YEARS

The City is committed to implementing water conservation programs and works collaboratively with San Gabriel District to provide water conservation programs for its residents. As a sub-agency of San Gabriel District, the City's residents have the benefit



of participating in San Gabriel District's conservation efforts. The highlights of DMM implementation over the past five years are described below.

9.3.1 WATER WASTE PREVENTION ORDINANCES

As discussed in Section 9.2.1, the City's water waste prohibition is included in the MPMC § 14.08.090, which has a provision against wasting water. The City is allowed to turn off water if a leak is not repaired within 30 days of notice. In addition, the City has adopted the "Monterey Park Emergency Water Conservation Regulations" Ordinance pertaining to Drought Regulations and Water Conservation Standards, due to the Governor of California issuing a proclamation of a state of emergency based on drought conditions on January 17, 2014. A copy of the Ordinance is provided in Appendix N.

9.3.2 METERING

Over the past five years, the City continued to meter all water sales to its customers. The City does not have any unmetered accounts. Additionally, within the City if there was new development, each unit was individually metered.

9.3.3 CONSERVATION PRICING

As discussed in Section 9.2.3, the City began implementation of a water rate schedule, as shown in Appendix O. This water rate schedule helps to maximize conservation.



9.3.4 PUBLIC EDUCATION AND OUTREACH

Over the past five years, the City implemented public information programs which included the distribution of public information through customer's water bills, brochures, community speakers and special events. The City also implemented school education programs which include various water awareness educational materials.

As a member of San Gabriel District, the City participated in San Gabriel District's public information programs. Details regarding San Gabriel District's programs can be found in San Gabriel District's 2015 UWMP, which is incorporated by reference.

9.3.5 PROGRAMS TO ASSESS AND MANAGE DISTRIBUTION SYSTEM REAL LOSS

The City has implemented its system water audit, leak detection and repair program since 1981. Over the past five years, the City continued to implement a system water audit, leak detection and repair program within its service area. The City's water system is completely metered and City staff conducts water audits, leak detection and repair on its distribution system.

9.3.6 WATER CONSERVATION PROGRAM COORDINATION AND STAFFING SUPPORT

As discussed in Section 9.2.6, the City does not have a specific position designated Water Conservation Coordinator. However, the City's Water Utility Manager was responsible for all aspects of water conservation measures and water auditing activities over the past five years.



9.3.7 OTHER DEMAND MANAGEMENT MEASURES

Water Conservation Rebate Programs

Over the past five years, the City implemented water conservation rebate programs through San Gabriel District, including washing machines, high-efficiency toilets, smart irrigation controllers, and rain barrels.

Large Landscape Conservation Program

As discussed in Section 9.2.7, during fiscal year 2009-10 San Gabriel District began a pilot program which provides grants to its member agencies to fund projects relating to water conservation. In 2010, San Gabriel District provided \$383,000 in grants for various pilot projects to reduce water consumption. The following projects have been funded within the City under the pilot program.

City Hall

- Re-irrigate planters in front of City Hall with water-efficient equipment such as sprinkler heads and nozzles, as well as weather-based, "smart" water controllers. The planters have been re-vegetated as well to include more water-efficient species of plants.

Garvey Park

- Install water-efficient equipment featuring weather-based, "smart" water controllers



9.4 PLANNED IMPLEMENTATION TO ACHIEVE WATER USE TARGETS

The City will continue to implement water conservation programs (see Section 9.2) and work collaboratively with San Gabriel District to provide water conservation programs for its residents. As discussed in Section 5.8.1, the City's actual water use during 2015 was 134 GPCD, which is in compliance with the 2015 Interim Target of 153 GPCD, as shown in "SB X7-7 Table 9" in Appendix F. The City met its 2015 interim target through the implementation of DMMs discussed in Section 9.2. Continued implementation of these DMMs will assist the City in meeting the confirmed 2020 water use target of 142 GPCD projected in Section 5.7.

9.5 MEMBERS OF THE CALIFORNIA URBAN WATER CONSERVATION COUNCIL

The City is not a member of the CUWCC, and is not required by DWR to complete Section 9.5.



CHAPTER 10

PLAN ADOPTION, SUBMITTAL, AND IMPLEMENTATION

10.1 INCLUSION OF ALL 2015 DATA

The data provided in the City's 2015 Plan is provided on a fiscal year basis through June 30, 2015 (as discussed in Section 2.4.2).

10.2 NOTICE OF PUBLIC HEARING

10.2.1 NOTICE TO CITIES AND COUNTIES

As discussed in Section 2.5.2., the City coordinated the preparation of the 2015 Plan with the County of Los Angeles, the Main Basin Watermaster, San Gabriel District, California Water Service Company, Golden State Water Company, San Gabriel Valley Water Company and the Cities of Alhambra and Monterey Park. The City notified these agencies at least sixty (60) days prior to the public hearing of the preparation of the 2015 Plan and invited them to participate in the development of the Plan. A copy of the notification letters sent to these agencies is provided in Appendix C.

Additionally, a notice of public hearing was sent to the County of Los Angeles, the (Main Basin Watermaster, San Gabriel District, California Water Service Company, Golden State Water Company, San Gabriel Valley Water Company and the Cities of Alhambra and Monterey Park. Copies of the notice of the public hearing are provided in Appendix P.



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

10.2.2 NOTICE TO THE PUBLIC

The City encouraged the active involvement of the population within its service area prior to and during the preparation of the Plan. Pursuant to Section 6066 of the Government Code, the City published a notice of public hearing in the newspaper during the weeks of May 19 and 26, 2016 and June 14 and 23, 2016. A notice of public hearing was also provided to the City Clerk's office and on the City's website. A copy of the published notice is provided in Appendix P. To ensure that the plan was available for review, the City placed a copy of the 2015 draft Plan at the City Clerk's Office located at City Hall and made a copy available for review on its website.

10.3 PUBLIC HEARING AND ADOPTION

Prior to adopting the 2015 Plan, the City held a public hearing on June 1, 2016, July 6, 2016 and August 3, 2016, which included input from the community regarding the City's draft 2015 Plan (see Appendix P). The City Planning Commission also held a public hearing on July 12, 2016 to determine the Plan was consistent with the City's General Plan (see Appendix P). As part of the public hearing, the City provided information on determination of its water use targets through selection of Target Method 3 (see Section 5.7.1). In addition, the City provided information regarding the economic impacts of meeting these water use targets; including measures described in Section 8.6.

The City is committed to the implementation of the 2015 Plan in accordance with Water Code Section 10643, including the water demand management measures



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

10.3.1 ADOPTION

Following the public hearings, the City adopted the draft Plan as its 2015 Plan on August 3, 2016. A copy of the resolution adopting the 2015 Plan is provided in Appendix Q.

10.4 PLAN SUBMITTAL

10.4.1 SUBMITTING A UWMP TO DWR

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

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



10.4.2 ELECTRONIC DATA SUBMITTAL

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

10.4.3 SUBMITTING A UWMP TO THE CALIFORNIA STATE LIBRARY

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

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

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

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



10.4.4 SUBMITTING A UWMP TO CITIES AND COUNTIES

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

10.5 PUBLIC AVAILABILITY

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

10.6 AMENDING AN ADOPTED UWMP

If the City amends the adopted 2015 Plan, the amended Plan will undergo adoption by the City's governing board. Within 30 days of adoption, the amended Plan will then be submitted to DWR, the State of California Library, the County of Los Angeles Registrar / Records office, and the City Clerk's Office.

TABLES

Table 2-1 Retail Only: Public Water Systems

Public Water System Number	Public Water System Name	Number of Municipal Connections 2015	Volume of Water Supplied 2015
1910092	Monterey Park, City of	15,230	8,391
TOTAL		15,230	8,391

NOTES: Volume of water supplied provided by City staff.

Table 2-2: Plan Identification

Select Only One	Type of Plan		Name of RUWMP or Regional Alliance <i>if applicable</i> <i>drop down list</i>
<input checked="" type="checkbox"/>	Individual UWMP		
<input type="checkbox"/>	<input type="checkbox"/>	Water Supplier is also a member of a RUWMP	
<input type="checkbox"/>	<input type="checkbox"/>	Water Supplier is also a member of a Regional Alliance	
<input type="checkbox"/>	Regional Urban Water Management Plan (RUWMP)		
NOTES:			

Table 2-3: Agency Identification	
Type of Agency (select one or both)	
<input type="checkbox"/>	Agency is a wholesaler
<input checked="" type="checkbox"/>	Agency is a retailer
Fiscal or Calendar Year (select one)	
<input type="checkbox"/>	UWMP Tables Are in Calendar Years
<input checked="" type="checkbox"/>	UWMP Tables Are in Fiscal Years
If Using Fiscal Years Provide Month and Date that the Fiscal Year Begins (mm/dd)	
<i>07/01</i>	
Units of Measure Used in UWMP (select from Drop down)	
Unit	AF
NOTES:	

Table 2-4 Retail: Water Supplier Information Exchange

The retail supplier has informed the following wholesale supplier(s) of projected water use in accordance with CWC 10631.

Wholesale Water Supplier Name *(Add additional rows as needed)*

San Gabriel Valley Municipal Water District (San Gabriel District)

NOTES:

Table 3-1 Retail: Population - Current and Projected

Population Served	2015	2020	2025	2030	2035	2040(opt)
	56,063	58,987	61,699	64,543	67,501	70,603

NOTES: Based on current (2015) population using projected populations from the Southern California Association of Governments for the City's service area.

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

Use Type <i>(Add additional rows as needed)</i>	2015 Actual		
<i>Drop down list</i> <i>May select each use multiple times</i> <i>These are the only Use Types that will be recognized by the WUEdata online submittal tool</i>	Additional Description <i>(as needed)</i>	Level of Treatment When Delivered <i>Drop down list</i>	Volume
Single Family	includes multi-family	Drinking Water	7,366
Commercial	includes industrial	Drinking Water	526
Agricultural irrigation		Drinking Water	32
Institutional/Governmental		Drinking Water	48
Losses		Drinking Water	420
TOTAL			8,391
NOTES: Losses include distribution system water losses (367 AF) and unbilled water (53 AF).			

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

Use Type <i>(Add additional rows as needed)</i>	Additional Description <i>(as needed)</i>	Projected Water Use <i>Report To the Extent that Records are Available</i>				
<u>Drop down list</u> <i>May select each use multiple times</i> <i>These are the only Use Types that will be recognized by the WUEdata online submittal tool</i>		2020	2025	2030	2035	2040-opt
Single Family	includes multi-family	7,884	7,912	8,308	8,723	9,155
Commercial	includes industrial	563	565	593	623	654
Agricultural irrigation		34	34	36	38	40
Institutional/Governmental		51	51	54	57	59
Losses		449	451	473	497	522
TOTAL		8,982	9,014	9,465	9,937	10,430
NOTES:						

Table 4-3 Retail: Total Water Demands

	2015	2020	2025	2030	2035	2040 <i>(opt)</i>
Potable and Raw Water <i>From Tables 4-1 and 4-2</i>	8,391	8,982	9,014	9,465	9,937	10,430
Recycled Water Demand* <i>From Table 6-4</i>	0	800	800	800	800	800
TOTAL WATER DEMAND	8,391	9,782	9,814	10,265	10,737	11,230

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

NOTES:

Table 4-4 Retail: 12 Month Water Loss Audit Reporting

Reporting Period Start Date (mm/yyyy)	Volume of Water Loss*
07/2014	367

** Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet.*

NOTES: AWWA Audit Worksheet provided in Appendix D.

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

<p>Are Future Water Savings Included in Projections? (Refer to Appendix K of UWMP Guidebook) <i>Drop down list (y/n)</i></p>	<p>Yes</p>
<p>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.</p>	<p>Section 4-5</p>
<p>Are Lower Income Residential Demands Included In Projections? <i>Drop down list (y/n)</i></p>	<p>Yes</p>
<p>NOTES:</p>	

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	1996	2005	165	153	142
5 Year	2004	2008	162		

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

NOTES: Years provided are on a fiscal year basis (e.g. "1996" is equivalent to fiscal year 1995-96).

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

Actual 2015 GPCD*	2015 Interim Target GPCD*	Optional Adjustments to 2015 GPCD <i>From Methodology 8</i>					2015 GPCD* <i>(Adjusted if applicable)</i>	Did Supplier Achieve Targeted Reduction for 2015? Y/N
		Extraordinary Events*	Economic Adjustment*	Weather Normalization*	TOTAL Adjustments*	Adjusted 2015 GPCD*		
134	153	0	0	0	0	134	134	Yes
<i>*All values are in Gallons per Capita per Day (GPCD)</i>								
NOTES:								

Table 6-1 Retail: Groundwater Volume Pumped

<input type="checkbox"/>	Supplier does not pump groundwater. The supplier will not complete the table below.					
Groundwater Type <i>Drop Down List</i> <i>May use each category multiple times</i>	Location or Basin Name	2011	2012	2013	2014	2015
<i>Add additional rows as needed</i>						
Alluvial Basin	Main Basin	8,389	8,740	8,817	9,022	8,132
TOTAL		8,389	8,740	8,817	9,022	8,132
NOTES: Years provided are on a fiscal year basis (e.g. "2011" is equivalent to fiscal year 2010-11). Groundwater volume provided by City staff.						

Table 6-2 Retail: Wastewater Collected Within Service Area in 2015

<input type="checkbox"/>	There is no wastewater collection system. The supplier will not complete the table below.					
	Percentage of 2015 service area covered by wastewater collection system <i>(optional)</i>					
	Percentage of 2015 service area population covered by wastewater collection system <i>(optional)</i>					
Wastewater Collection			Recipient of Collected Wastewater			
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? <i>Drop Down List</i>	Volume of Wastewater Collected from UWMP Service Area 2015	Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTP Located Within UWMP Area? <i>Drop Down List</i>	Is WWTP Operation Contracted to a Third Party? <i>(optional)</i> <i>Drop Down List</i>
<i>Add additional rows as needed</i>						
LACSD	Estimated	5,024	LACSD	LCWRP, LBWRP, and JWPCP	No	
Total Wastewater Collected from Service Area in 2015:		5,024				
NOTES:						

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

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

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

<input type="checkbox"/>		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:		LACSD							
Name of Agency Operating the Recycled Water Distribution System:		Central District							
Supplemental Water Added in 2015									
Source of 2015 Supplemental Water									
Beneficial Use Type	General Description of 2015 Uses	Level of Treatment <i>Drop down list</i>	2015	2020	2025	2030	2035	2040 (opt)	
Agricultural irrigation									
Landscape irrigation (excludes golf courses)		Tertiary	0	800	800	800	800	800	
Golf course irrigation									
Commercial use									
Industrial use									
Geothermal and other energy production									
Seawater intrusion barrier									
Recreational impoundment									
Wetlands or wildlife habitat									
Groundwater recharge (IPR)*									
Surface water augmentation (IPR)*									
Direct potable reuse									
Other (<i>Provide General Description</i>)									
Total:			0	800	800	800	800	800	

*IPR - Indirect Potable Reuse

NOTES: The City anticipates future access to recycled water supplies through CBMWD. Previously identified potential recycled water customers within the City are provided in Appendix L.

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

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

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

<input type="checkbox"/>	Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.		
6-27	Provide page location of narrative in UWMP		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use
<i>Add additional rows as needed</i>			
Central District Recycled Water Project	Extension of Central District's SWRP Recycled Water Pipeline	2020	800
Total			800
NOTES: The City anticipates future access to recycled water supplies through CBMWD. Previously identified potential recycled water customers within the City are provided in Appendix L.			

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

No expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Supplier will not complete the table below.

Some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format.

6-30 Provide page location of narrative in the UWMP

Name of Future Projects or Programs	Joint Project with other agencies?		Description (if needed)	Planned Implementation Year	Planned for Use in Year Type <i>Drop Down List</i>	Expected Increase in Water Supply to Agency <i>This may be a range</i>
	<i>Drop Down List (y/n)</i>	<i>If Yes, Agency Name</i>				

Add additional rows as needed

NOTES: Although the City has no plans for future water supply projects, the City will construct new groundwater production wells to replace existing wells when necessary.

Table 6-8 Retail: Water Supplies — Actual

Table 6-8 Retail: Water Supplies — Actual				
Water Supply	Additional Detail on Water Supply	2015		
<i>Drop down list</i> <i>May use each category multiple times.</i> <i>These are the only water supply categories that will be recognized by the WUEdata online submittal tool</i>		Actual Volume	Water Quality <i>Drop Down List</i>	Total Right or Safe Yield <i>(optional)</i>
<i>Add additional rows as needed</i>				
Groundwater		8,132	Drinking Water	4,829
Purchased or Imported Water		259	Drinking Water	
Total		8,391		4,829
NOTES: Groundwater and purchased water volumes provided by City staff.				

Table 6-9 Retail: Water Supplies — Projected

Water Supply	Additional Detail on Water Supply	Projected Water Supply <i>Report To the Extent Practicable</i>									
		2020		2025		2030		2035		2040 (opt)	
		Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)
<i>Add additional rows as needed</i>											
Groundwater		8,982		9,014		9,465		9,937		10,430	
Purchased or Imported Water		0		0		0		0		0	
Recycled Water		800		800		800		800		800	
	Total	9,782	0	9,814	0	10,265	0	10,737	0	11,230	0
NOTES:											

Table 7-1 Retail: Basis of Water Year Data

Year Type	Base Year <i>If not using a calendar year, type in the last year of the fiscal, water year, or range of years, for example, water year 1999-2000, use 2000</i>	Available Supplies if Year Type Repeats	
		<input type="checkbox"/>	Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location _____
		<input checked="" type="checkbox"/>	Quantification of available supplies is provided in this table as either volume only, percent only, or both.
		Volume Available	% of Average Supply
Average Year	2010	8,686	100%
Single-Dry Year	2012	8,791	101%
Multiple-Dry Years 1st Year	2012	8,791	101%
Multiple-Dry Years 2nd Year	2013	8,965	103%
Multiple-Dry Years 3rd Year	2014	9,094	105%
Multiple-Dry Years 4th Year <i>Optional</i>			
Multiple-Dry Years 5th Year <i>Optional</i>			
Multiple-Dry Years 6th Year <i>Optional</i>			
<p>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.</p>			
<p>NOTES: Years provided are on a fiscal year basis (e.g. "2012" is equivalent to fiscal year 2011-12).</p>			

Table 7-2 Retail: Normal Year Supply and Demand Comparison

	2020	2025	2030	2035	2040 <i>(Opt)</i>
Supply totals <i>(autofill from Table 6-9)</i>	9,782	9,814	10,265	10,737	11,230
Demand totals <i>(autofill from Table 4-3)</i>	9,782	9,814	10,265	10,737	11,230
Difference	0	0	0	0	0

NOTES:

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

	2020	2025	2030	2035	2040 (Opt)
Supply totals	9,476	9,912	10,368	10,844	11,342
Demand totals	9,476	9,912	10,368	10,844	11,342
Difference	0	0	0	0	0

NOTES: 101% of projected average year demands (Table 6-9)

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

		2020	2025	2030	2035	2040 (Opt)
First year	Supply totals	9,476	9,912	10,368	10,844	11,342
	Demand totals	9,476	9,912	10,368	10,844	11,342
	Difference	0	0	0	0	0
Second year	Supply totals	9,663	10,108	10,573	11,059	11,567
	Demand totals	9,663	10,108	10,573	11,059	11,567
	Difference	0	0	0	0	0
Third year	Supply totals	9,851	10,305	10,778	11,274	11,792
	Demand totals	9,851	10,305	10,778	11,274	11,792
	Difference	0	0	0	0	0
Fourth year <i>(optional)</i>	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Fifth year <i>(optional)</i>	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Sixth year <i>(optional)</i>	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0

NOTES: First Year: 101% of average year demand, Second year:103% of average year demand and Third Year: 105% of average year demand.

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

Stage	Complete Both	
	Percent Supply Reduction ¹ <i>Numerical value as a percent</i>	Water Supply Condition <i>(Narrative description)</i>
<i>Add additional rows as needed</i>		
1	10%	need to reduce City's water demands up to 10%
2	25%	need to reduce City's water demands between 10% and 25%
3	35%	need to reduce City's water demands between 25% and 35%
4	50%	need to reduce City's water demands between 35% and 50%
¹ One stage in the Water Shortage Contingency Plan must address a water shortage of 50%.		
NOTES:		

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

Stage	Restrictions and Prohibitions on End Users <i>Drop down list</i> <i>These are the only categories that will be accepted by the WUEdata online submittal tool</i>	Additional Explanation or Reference <i>(optional)</i>	Penalty, Charge, or Other Enforcement? <i>Drop Down List</i>
<i>Add additional rows as needed</i>			
General through Stage 4	Landscape - Restrict or prohibit runoff from landscape irrigation		Yes
General through Stage 4	Landscape - Limit landscape irrigation to specific times		Yes
General through Stage 4	Landscape - Limit landscape irrigation to specific days		Yes
Stage 2 through 4	Landscape - Prohibit certain types of landscape irrigation	Drip irrigation required for new construction	Yes
General through Stage 4	CII - Restaurants may only serve water upon request		Yes
General through Stage 4	CII - Lodging establishment must offer opt out of linen service		Yes
General through Stage 4	Water Features - Restrict water use for decorative water features, such as fountains		Yes
Stage 2 through 4	Other water feature or swimming pool restriction	Limit filling or refilling of swimming pools to Mondays	Yes
General through Stage 4	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner		Yes
General through Stage 4	Other - Require automatic shut of hoses		Yes
General through Stage 4	Other - Prohibit use of potable water for washing hard surfaces		Yes
Stage 3 through 4	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water		Yes
NOTES:			

**Table 8-3 Retail Only:
Stages of Water Shortage Contingency Plan - Consumption Reduction Methods**

Stage	Consumption Reduction Methods by Water Supplier <i>Drop down list</i> <i>These are the only categories that will be accepted by the WUEdata online submittal tool</i>	Additional Explanation or Reference <i>(optional)</i>
<i>Add additional rows as needed</i>		
All	Expand Public Information Campaign	
All	Offer Water Use Surveys	
All	Provide Rebates on Plumbing Fixtures and Devices	
All	Provide Rebates for Landscape Irrigation Efficiency	
NOTES:		

Table 8-4 Retail: Minimum Supply Next Three Years

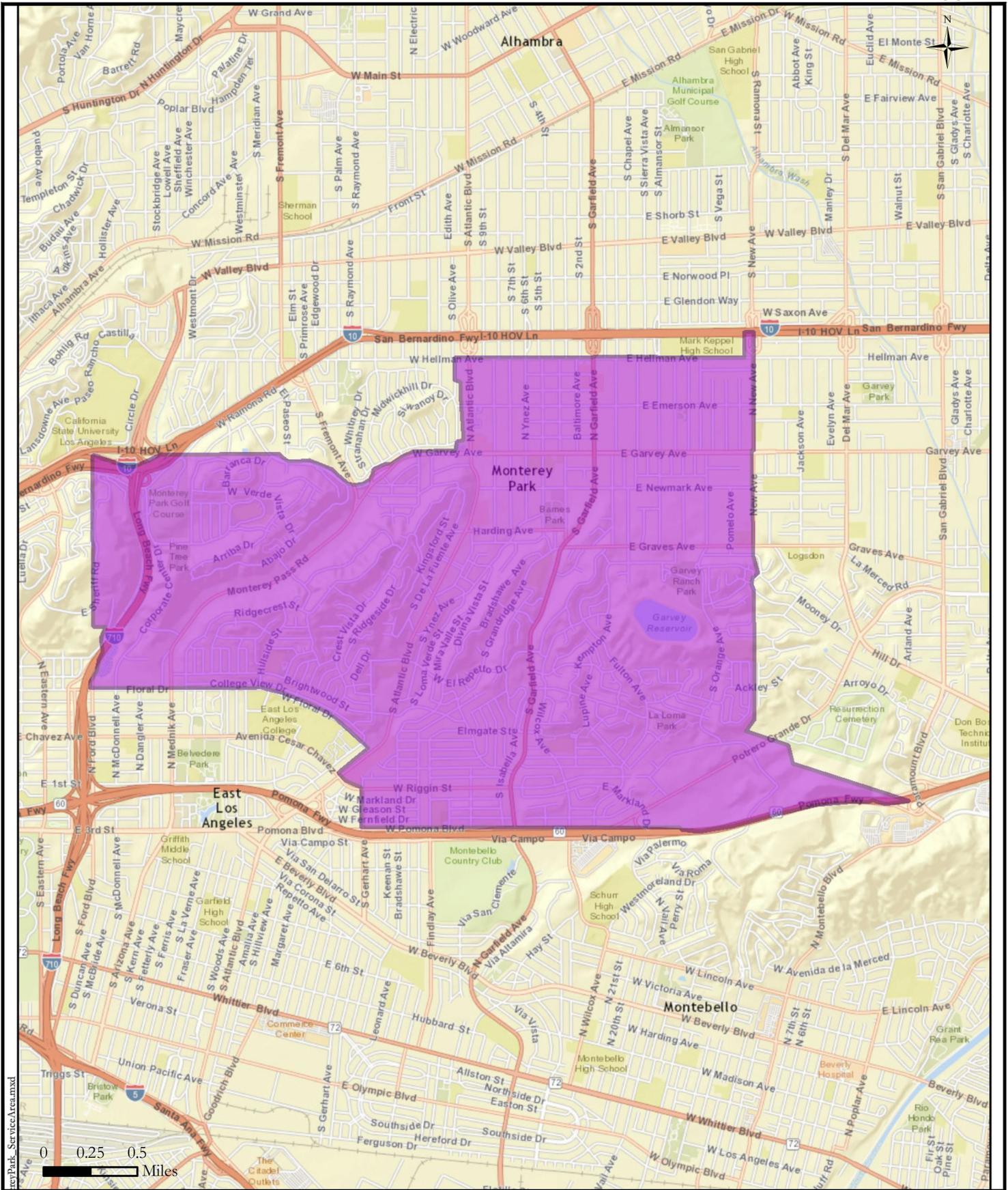
	2016	2017	2018
Available Water Supply	9,803	10,100	10,401

NOTES: Normal year water supplies were projected and multiplied by multiple dry year factors as follows: First Year: 101% of average year demand, Second year: 103% of average year demand and Third Year: 105% of average year demand.

Table 10-1 Retail: Notification to Cities and Counties

City Name	60 Day Notice	Notice of Public Hearing
<i>Add additional rows as needed</i>		
Alhambra	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Monterey Park	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
County Name <i>Drop Down List</i>	60 Day Notice	Notice of Public Hearing
<i>Add additional rows as needed</i>		
Los Angeles County	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>

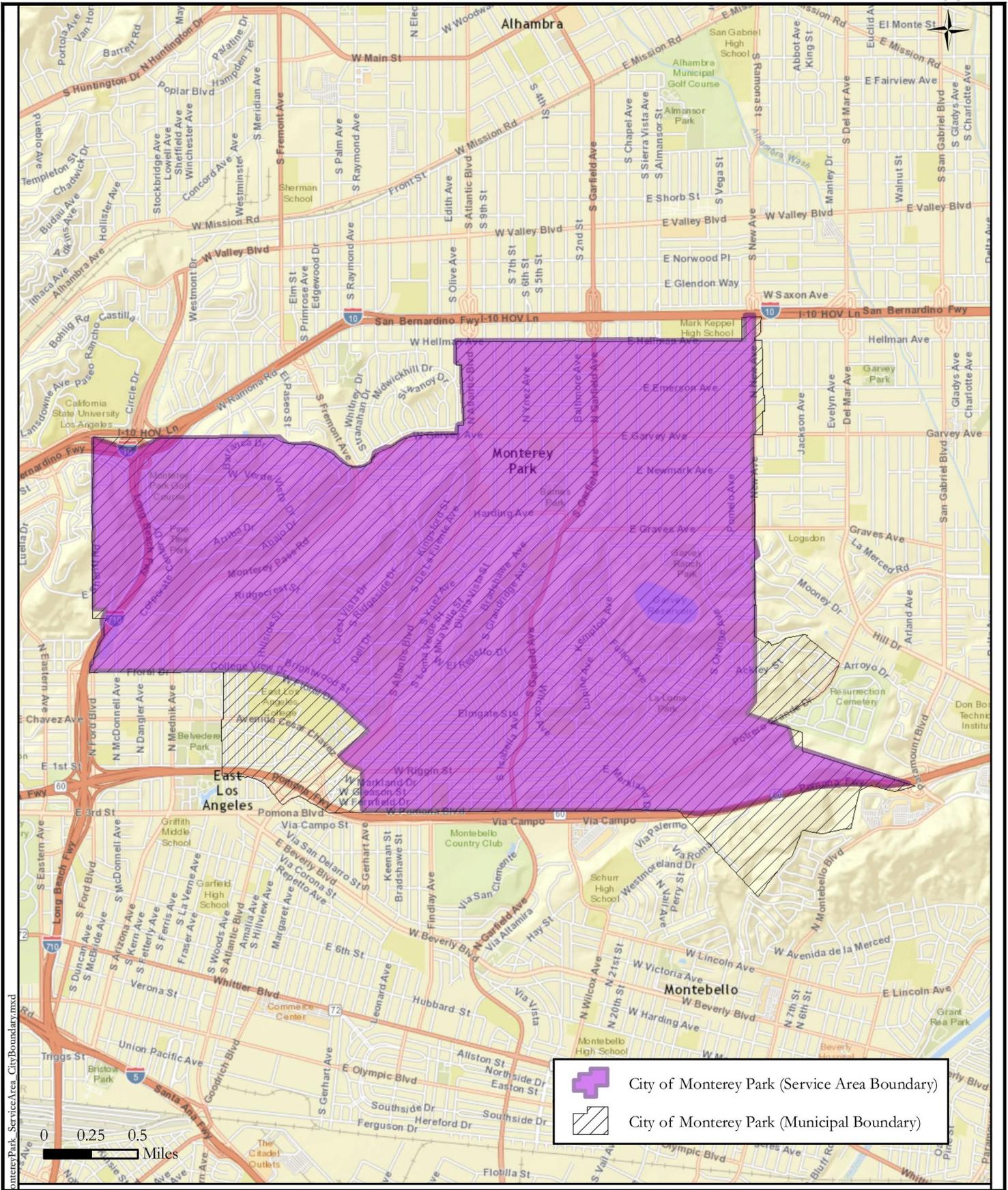
FIGURES




 861 VILLAGE OAKS DRIVE, SUITE 100
 COVINA, CALIFORNIA 91724
 TEL: (626) 967-6202
 FAX: (626) 331-7065
 2171 E Francisco Blvd., Suite K
 San Rafael California 94901
 2651 W Guadalupe Rd., Suite A209
 Mesa Arizona 85202



CITY OF MONTEREY PARK
WATER SERVICE AREA BOUNDARY



	City of Monterey Park (Service Area Boundary)
	City of Monterey Park (Municipal Boundary)

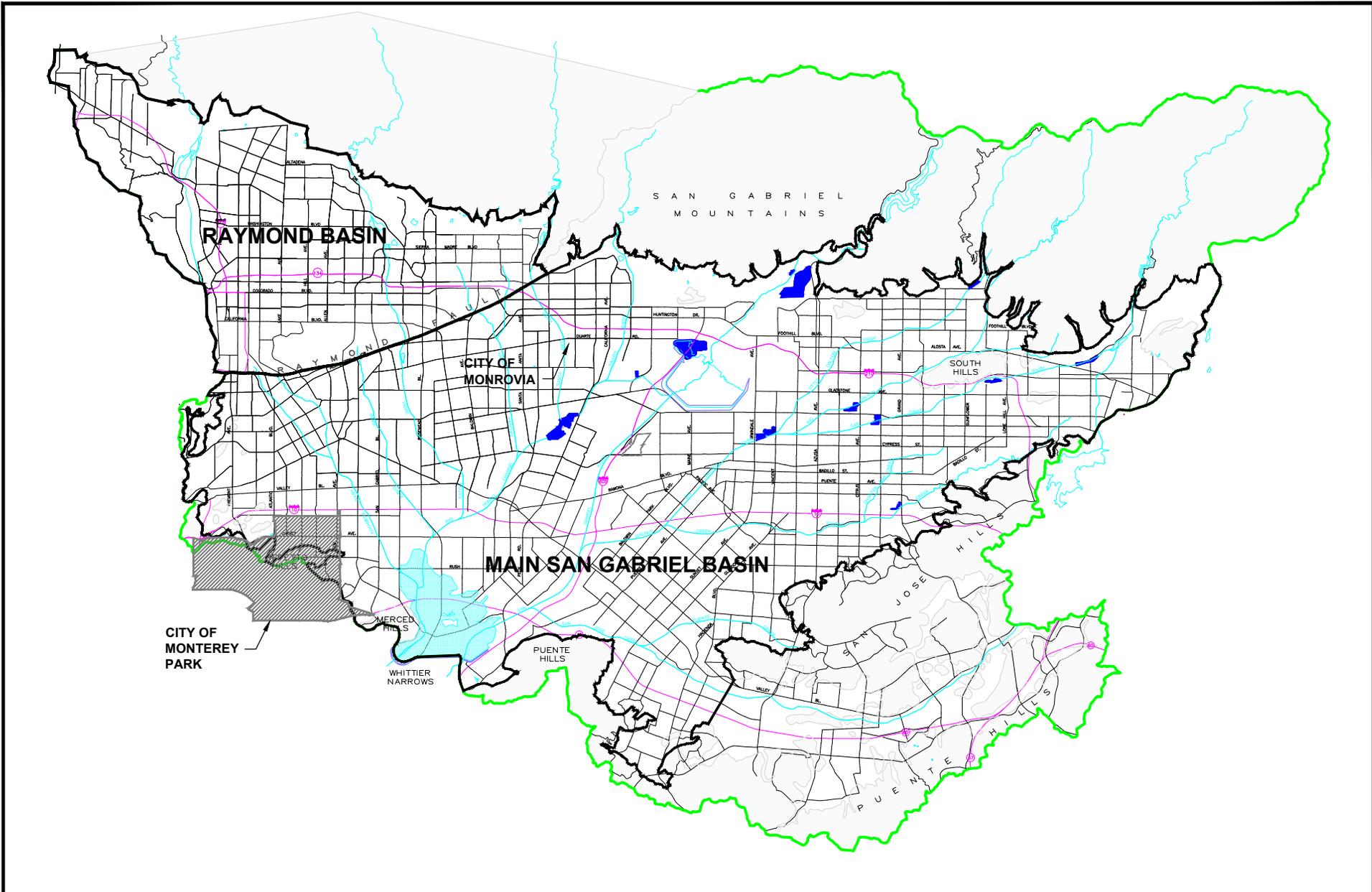


 861 VILLAGE OAKS DRIVE, SUITE 100
 COVINA, CALIFORNIA 91724
 TEL: (626) 967-6202
 FAX: (626) 331-7065

 2171 E Francisco Blvd., Suite K
 San Rafael California 94901
 2651 W Guadalupe Rd., Suite A209
 Mesa Arizona 85202



CITY OF MONTEREY PARK
WATER SERVICE AREA AND MUNICIPAL BOUNDARIES



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

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

2651 W Guadalupe Rd., Suite A209
Mesa Arizona 85202

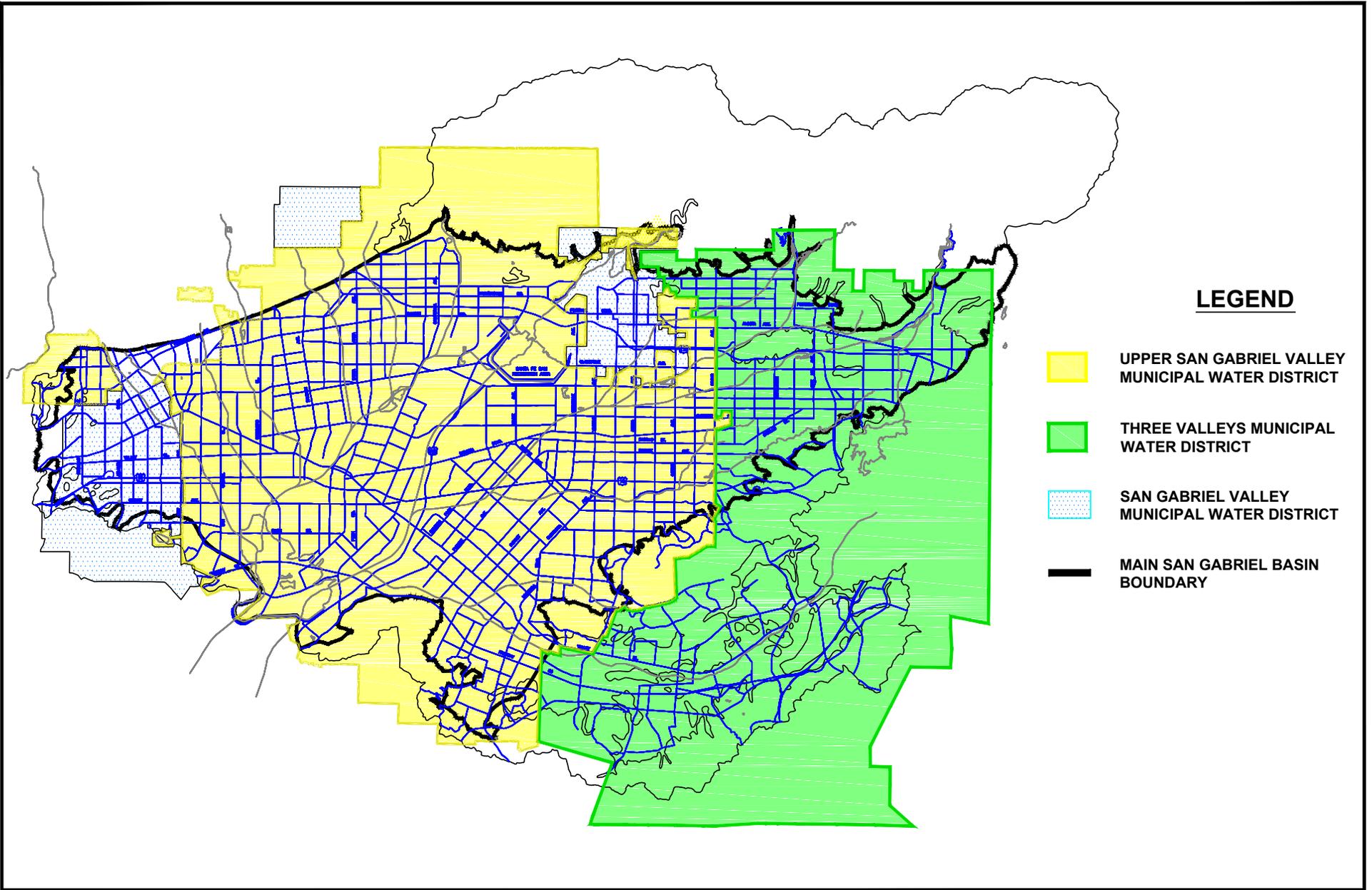


N.T.S.

CITY OF MONTEREY PARK

MAIN BASIN LOCATION MAP

FIGURE 3



LEGEND

-  UPPER SAN GABRIEL VALLEY MUNICIPAL WATER DISTRICT
-  THREE VALLEYS MUNICIPAL WATER DISTRICT
-  SAN GABRIEL VALLEY MUNICIPAL WATER DISTRICT
-  MAIN SAN GABRIEL BASIN BOUNDARY



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

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

2651 W Guadalupe Rd., Suite A209
 Mesa Arizona 85202

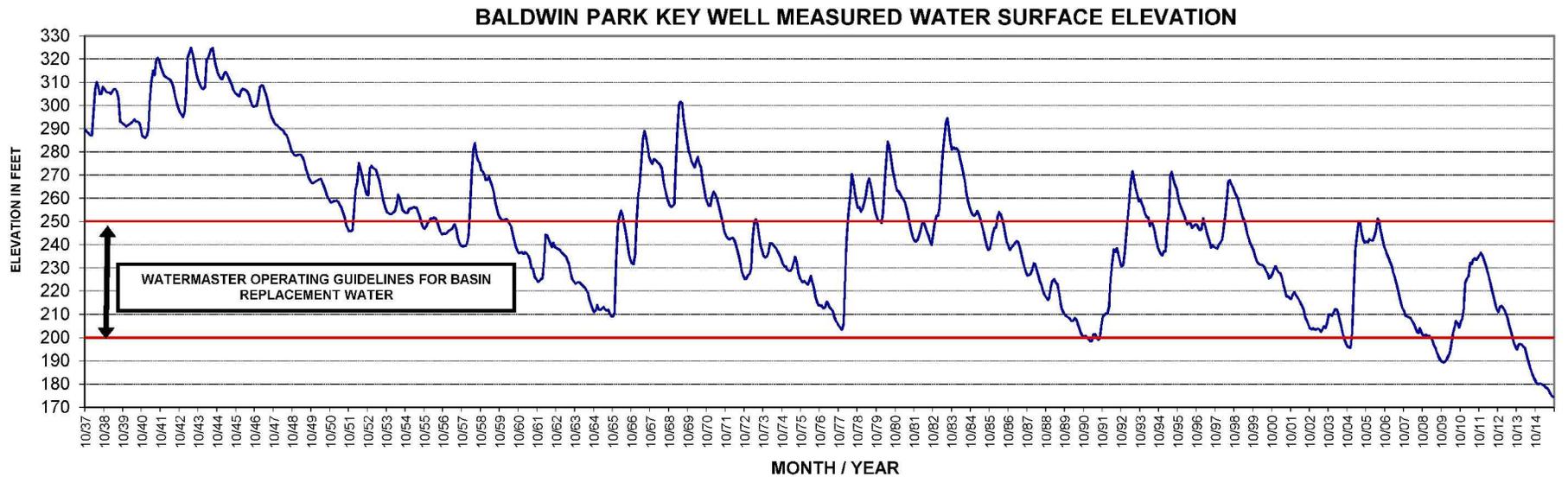
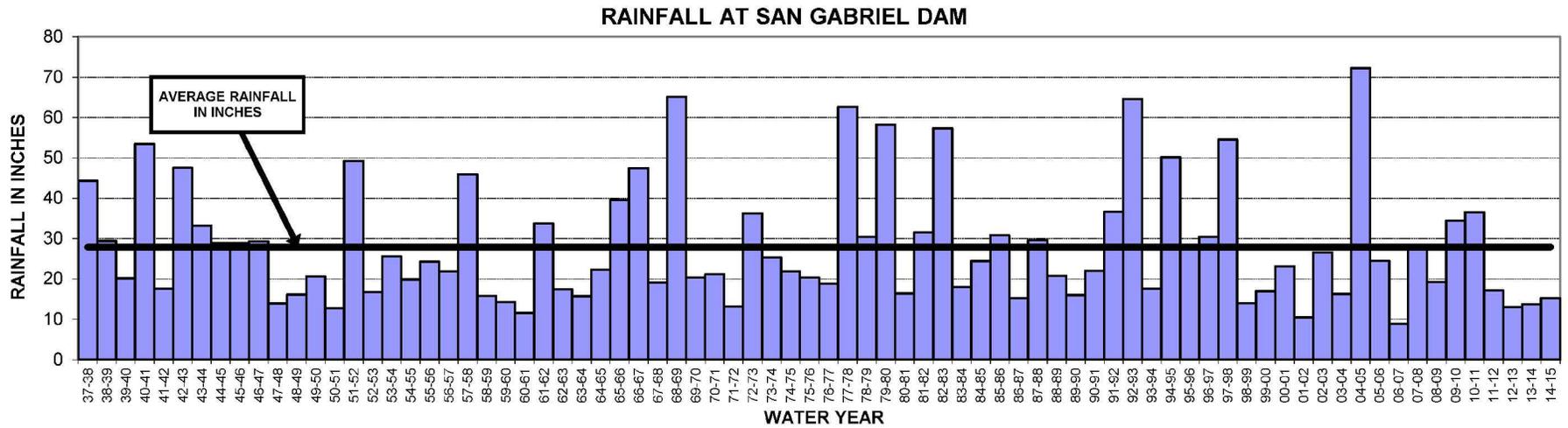


N.T.S.

CITY OF MONTEREY PARK

MUNICIPAL WATER DISTRICT BOUNDARIES

FIGURE 4



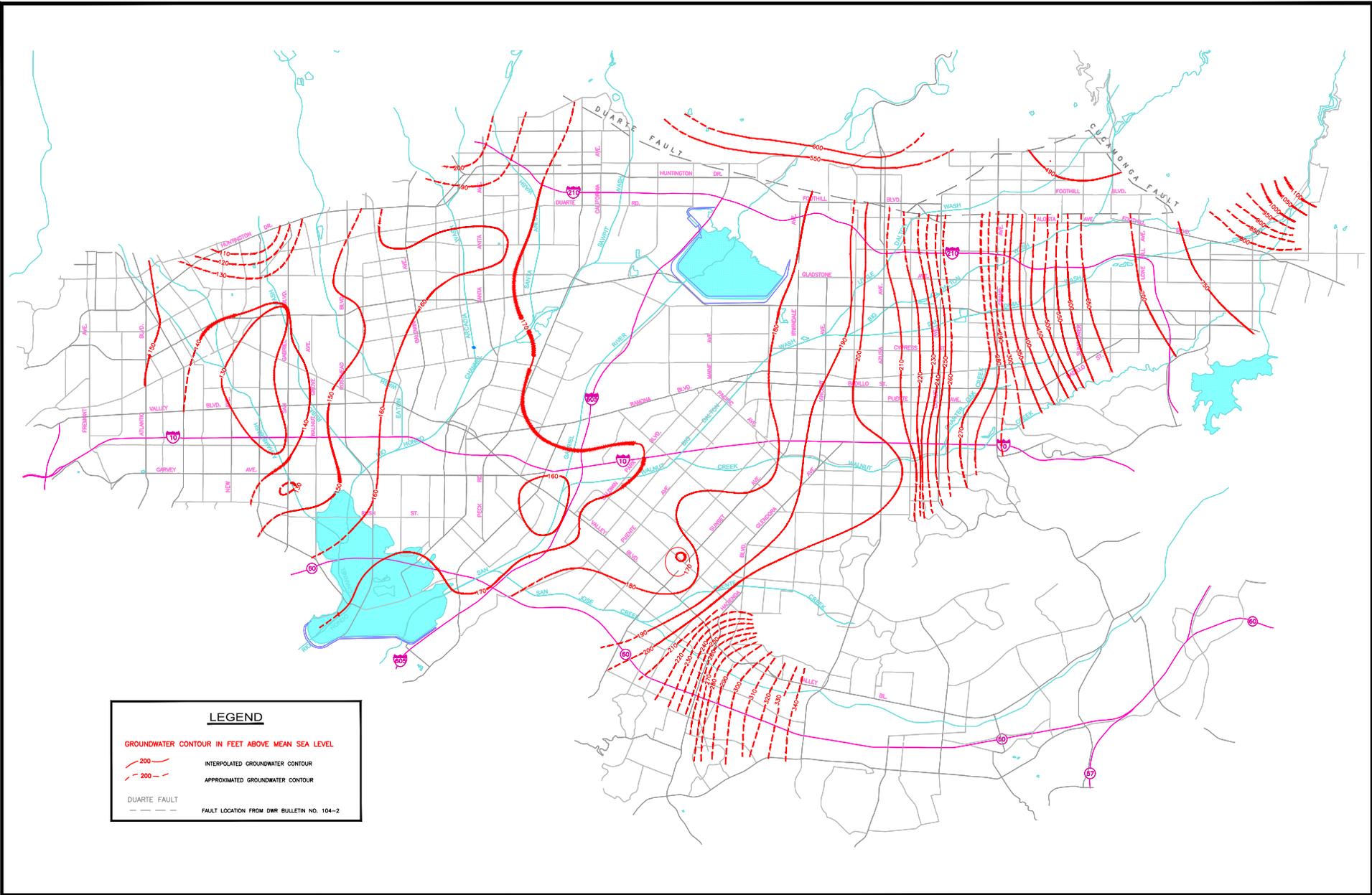
861 VILLAGE OAKS DRIVE, SUITE 100
 COVINA, CALIFORNIA 91724
 TEL: (626) 967-6202
 FAX: (626) 331-7065

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

2651 W Guadalupe Rd., Suite A209
 Mesa Arizona 85202

CITY OF MONTEREY PARK

HISTORICAL BALDWIN PARK KEY WELL ELEVATIONS



LEGEND

GROUNDWATER CONTOUR IN FEET ABOVE MEAN SEA LEVEL

— 200 — INTERPOLATED GROUNDWATER CONTOUR
 - - - 200 - - - APPROXIMATED GROUNDWATER CONTOUR

DUARTE FAULT
 - - - - - FAULT LOCATION FROM DWR BULLETIN NO. 104-2



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

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

2651 W Guadalupe Rd., Suite A209
 Mesa Arizona 85202



N.T.S.

CITY OF MONTEREY PARK

**GROUNDWATER CONTOURS MAP
 MAIN SAN GABRIEL BASIN - JULY 2015**

FIGURE 7

J:\2570\2570-05-2015 (Monterey Park)\2015 UWMP\03 Plates and Figures\FIGURE 7.dwg
 NONE