

# CITY OF SANTA FE SPRINGS



JULY 2021

**FINAL**

## 2020 URBAN WATER MANAGEMENT PLAN





# City of Santa Fe Springs

## 2020

# Urban Water Management Plan



**JULY 2021**



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Appendix M	Water Conservation Regulations
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### LIST OF ACRONYMS

AB	Assembly Bill
AF	Acre-feet
AFY	Acre-feet per year
AWWA	American Water Works Association
CBMWD	Central Basin Municipal Water District
CBWQPP	Central Basin Water Quality Protection Program
CIMIS	California Irrigation Management Information System
City	City of Santa Fe Springs
CWC	California Water Code
DACs	Disadvantaged Communities
DOF	Department of Finance
DPW	Department of Public Works
DRA	Drought Risk Assessment
DWR	Department of Water Resources
ERP	Emergency Response Plan
ETo	Evapotranspiration
FY	Fiscal Year
GCMs	General Circulation Models
GIS	Geographical Information Systems
GPCD	Gallons per capita per day
gpm	Gallons per minute
GSP	Groundwater Sustainability Plan
GWMA	Gateway Water Management Authority
LACSD	Los Angeles County Sanitation Districts
LBWRP	Long Beach Water Reclamation Plant
LCWRP	Los Coyotes Water Reclamation Plant
LVL	Leo J. Vander Lans Advanced Water Treatment Facility
M&I	Municipal and Industrial
MCL	Maximum Contaminant Level
MOU	Memorandum of Understanding
MSL	Mean Sea Level
MWD	Metropolitan Water District of Southern California
PCE	Perchloroethylene
PFAS	Per- and Poly-Fluoroalkyl Substances
Plan	Urban Water Management Plan
RCP	Representative Concentration Pathway
RRA	Risk and Resilience Assessment
SB	Senate Bill
SCAG	Southern California Association of Governments
SGMA	Sustainable Groundwater Management Act
SWRCB	State Water Resources Control Board

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SWRCB-DDW	State Water Resources Control Board – Division of Drinking Water
SWP	State Water Project
TCE	trichloroethylene
TDS	Total Dissolved Solids
USEPA	U.S. Environmental Protection Agency
UWMP	Urban Water Management Plan
VOCs	Volatile Organic Compounds
WIN	Water Independence Now
WRCC	Western Regional Climate Center
WRD	Water Replenishment District of Southern California
WSAP	Water Supply Allocation Plan
WSCP	Water Shortage Contingency Plan
WUCA	Water Utility Climate Alliance
WUE	Water Use Efficiency

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## CHAPTER 1

### URBAN WATER MANAGEMENT PLAN INTRODUCTION AND OVERVIEW

#### LAY DESCRIPTION - INTRODUCTION

An urban water supplier is defined (pursuant to Section 10617 of the California Water Code<sup>1</sup>) as “a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. An urban water supplier includes a supplier or contractor for water, regardless of the basis of right, which distributes or sells for ultimate resale to customers.”

The City of Santa Fe Springs (City) is classified as an urban water supplier because it serves more than 3,000 customers (i.e. individual metered accounts) and it supplies more than 3,000 acre-feet of water annually to its customers for municipal purposes.

In accordance with the “Urban Water Management Planning Act”, which was enacted by the California Legislature in 1983, every urban water supplier (including the City) is required to prepare and adopt an Urban Water Management Plan (UWMP), periodically review its UWMP, and incorporate updated and new information into an updated UWMP at least once every five years.

The City’s most recent update was its 2015 UWMP (or 2015 Plan) which was submitted to, and approved by, the California Department of Water Resources (DWR). Urban water suppliers (including the City) are required to complete and submit their 2020 UWMPs to DWR by July 1<sup>st</sup>, 2021.

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<sup>1</sup> References to CWC Sections in this 2020 UWMP were obtained from <https://leginfo.legislature.ca.gov/>

The current requirements for preparing the UWMP are included in California Water Code (CWC) Sections 10608 through 10657. The City's 2020 UWMP (or 2020 Plan) was prepared consistent with the CWC and the recommended organization provided in DWR's Final "Urban Water Management Plan Guidebook 2020" (Final 2020 UWMP Guidebook), dated March 2021.

The UWMP provides urban water suppliers (including the City) with a reliable management action plan for long-term resource planning to ensure adequate water supplies are available to meet existing and future water supply needs. In addition, the 2020 UMWP incorporates water supply reliability determinations resulting from potential prolonged drought, regulatory revisions, and/or changing climatic conditions.

The City's 2020 Plan consists of the following Chapters:

- Chapter 1 Urban Water Management Plan Introduction and Overview
- Chapter 2 Plan Preparation
- Chapter 3 System Description
- Chapter 4 Water Use Characterization
- Chapter 5 SB X7-7 Baselines, Targets, and 2020 Compliance
- Chapter 6 Water Supply Characterization
- Chapter 7 Water Service Reliability and Drought Risk Assessment
- Chapter 8 Water Shortage Contingency Plan
- Chapter 9 Demand Management Measures
- Chapter 10 Plan Adoption, Submittal, and Implementation

A lay description is presented at the beginning of each of these Chapters.

## **LAY DESCRIPTION – CHAPTER 1**

### **URBAN WATER MANAGEMENT PLAN INTRODUCTION AND OVERVIEW**

Chapter 1 (Urban Water Management Plan Introduction and Overview) of the City's 2020 Plan discusses and provides the following:

- An overall lay description of the 2020 Plan, including California Water Code and Urban Water Management Plan Act requirements, is provided. The City is required to prepare an Urban Water Management Plan.
- The City's 2020 Plan was prepared consistent with the recommended organization provided in DWR's Final "Urban Water Management Plan Guidebook 2020", dated March 2021. A description regarding the organization of the 2020 Plan, including a summary of each Chapter, is provided. The City's Water Shortage Contingency Plan (discussed in Chapter 8) is also included in the 2020 Plan.
- The 2020 Plan incorporates DWR's water use and supply tables (standardized tables) for the reporting and submittal of UWMP data. These tables are included within the respective sections of the 2020 Plan and in Appendix A.
- The City's coordination efforts with other planning agencies are discussed, including coordination efforts with Central Basin Municipal Water District (CBMWD) and the Southern California Association of Governments
- The City's eligibility to receive grants and loans administered by the State of California and/or DWR, as a result of preparing the 2020 Plan, is discussed.
- Information is provided which demonstrates the City's prior, continued, and projected reduction on imported water supplies obtained (either directly or indirectly) from the Sacramento-San Joaquin Delta (Delta). The City has reduced its reliance on imported water supplies for Fiscal Year 2014-15 and Fiscal Year



2019-2020. In addition, the City is projected to continue reducing its reliance on imported water supplies through Fiscal Year 2044-45.

- The checklist developed by DWR and used by the City to incorporate the specific UWMP requirements is discussed. The completed checklist is provided in Appendix C.

## 1.1 RECOMMENDED UWMP ORGANIZATION

The City's 2020 Urban Water Management Plan (2020 Plan) was prepared consistent with the recommended organization provided in DWR's Final "Urban Water Management Plan Guidebook 2020" (Final 2020 UWMP Guidebook), dated March 2021. The City's 2020 Plan consists of the following Chapters:

Chapter 1	Urban Water Management Plan Introduction and Overview
Chapter 2	Plan Preparation
Chapter 3	System Description
Chapter 4	Water Use Characterization
Chapter 5	SB X7-7 Baselines, Targets, and 2020 Compliance
Chapter 6	Water Supply Characterization
Chapter 7	Water Service Reliability and Drought Risk Assessment
Chapter 8	Water Shortage Contingency Plan
Chapter 9	Demand Management Measures
Chapter 10	Plan Adoption, Submittal, and Implementation

Pursuant to CWC requirements, the City's 2020 Plan incorporates DWR's water use and supply tables (standardized tables) for the reporting and submittal of UWMP data. DWR's standardized tables are provided within the body of the 2020 Plan text as well as in

Appendix A. The City also submitted the UWMP data (standardized tables) electronically through DWR's Online Submittal Tool.

The City's 2020 Plan also provides supporting documents (appendices) including notification letters of the Plan update, public notice of the Plan hearing, and adoption resolution from the City's governing body. Further discussions regarding these supporting documents are provided within the individual Chapters of the City's 2020 Plan.

## **1.2 UWMPs IN RELATION TO OTHER EFFORTS**

The City is a sub-agency of Central Basin Municipal Water District, a wholesale water agency. CBMWD prepared a 2020 Plan which is incorporated in the City's 2020 Plan by reference. In addition, the City provided its 2020 Plan to CBMWD which includes water use projections in five-year increments for a normal year, a single dry year, and a five consecutive year drought over the next 25 years.

## **1.3 UWMPs AND GRANT OR LOAN ELIGIBILITY**

Pursuant to DWR's Final 2020 UWMP Guidebook:

*"In order for a Supplier to be eligible for any water grant or loan administered by DWR, the Supplier must have a current UWMP on file that has been determined by DWR to address the requirements of the Water Code. A current UWMP must also be maintained by the Supplier throughout the term of any grant or loan administered by DWR. A UWMP may also be required in order to be eligible for other state funding, depending on the conditions that are specified in the funding guidelines. Suppliers are encouraged to seek guidance on the specifics of any state funding source from the respective funding*

agencies. The following sections of the Water Code are pertinent to Suppliers considering pursuit of grants or loans.”

The City’s 2020 UWMP has been prepared to meet eligibility requirements for grants and loans administered by the State and/or DWR.

#### 1.4 DEMONSTRATION OF CONSISTENCY WITH THE DELTA PLAN FOR PARTICIPANTS IN COVERED ACTIONS

Pursuant to DWR, an urban water supplier that anticipates participating in or receiving water from a proposed project (or “covered action”) such as a multi-year water transfer, conveyance facility, or new diversion that involves transferring water through, exporting water from, or using water in the Sacramento-San Joaquin Delta (Delta) should provide information in their 2015 and 2020 UWMPs for use in demonstrating consistency with Delta Plan Policy WR P1, “Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance”. In addition, pursuant to California Code of Regulations, Title 23, § 5003:

*(c)(1) Water suppliers that have done all of the following are contributing to reduced reliance on the Delta and improved regional self-reliance and are therefore consistent with this policy:*

*(A) Completed a current Urban or Agricultural Water Management Plan (Plan) which has been reviewed by the California Department of Water Resources for compliance with the applicable requirements of Water Code Division 6, Parts 2.55, 2.6, and 2.8;*

*(B) Identified, evaluated, and commenced implementation, consistent with the implementation schedule set forth in the Plan, of all programs and projects included in the Plan that are locally cost effective and technically feasible which reduce reliance on the Delta; and*

*(C) Included in the Plan, commencing in 2015, the expected outcome for measurable reduction in Delta reliance and improvement in regional self-*

*reliance. The expected outcome for measurable reduction in Delta reliance and improvement in regional self-reliance shall be reported in the Plan as the reduction in the amount of water used, or in the percentage of water used, from the Delta watershed. For the purposes of reporting, water efficiency is considered a new source of water supply, consistent with Water Code section 1011(a).*

The City has reduced its reliance on the imported water supplies for fiscal year (FY) 2014-15 and FY 2019-20. In addition, the City is projected to continue reducing its reliance on the imported water supplies through FY 2044-45. A further discussion which demonstrates the City's measurable reduction in imported water reliance and improvement in regional self-reliance is provided in Appendix B.

## **1.5 TIPS FOR UWMP PREPARERS**

The City's 2020 UWMP (which includes the City's 2020 Water Shortage Contingency Plan (WSCP)) is considered an update to the City's 2015 UWMP. However, the 2020 UWMP and the WSCP are considered stand-alone documents. As discussed in Section 1.1, the City's 2020 UWMP was prepared consistent with the recommended organization provided in DWR's Final 2020 UWMP Guidebook.

A checklist of specific UWMP requirements is included in Appendix C. 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

#### LAY DESCRIPTION – CHAPTER 2

#### PLAN PREPARATION

Chapter 2 (Plan Preparation) of the City's 2020 Plan discusses and provides the following:

- The basis for preparing an Urban Water Management Plan is provided. The City is required to prepare the 2020 Plan because it is an “urban water supplier” (the City serves more than 3,000 customers and it supplies more than 3,000 acre-feet of water annually to its customers for municipal purposes)
- The City is a “Public Water System” and is regulated by the State Water Resources Control Board - Division of Drinking Water. The City's Public Water System number is provided in Table 2-1.
- The City's Plan has been prepared as an “individual” plan rather than a “regional” plan in an effort to provide information specific to the City to best inform its employees, management and customers.
- Information presented in the City's 2020 Plan is provided on “fiscal year” basis which is from July 1 through June 30 of the following year.
- Water quantities presented in the City's 2020 Plan are provided on an “acre-foot” basis.
- The City's coordination and outreach efforts with wholesale water agencies, other retail water agencies, and the community are described. The City coordinated the preparation of its 2020 Plan with the Cities of Downey, Norwalk, Santa Fe Springs, Whittier, the County of Los Angeles, and Central Basin Municipal Water District.
- The City's notification process to the cities and county within which the City provides water supplies to is discussed.

## 2.1 PLAN PREPARATION

As discussed in Section 1.1, the City's 2020 Plan was prepared consistent with the recommended organization provided in DWR's Final 2020 UWMP Guidebook. Pursuant to DWR's Final 2020 UWMP Guidebook:

*"The California Water Code (Water Code) specifies several requirements for preparing a UWMP, including who is required to prepare a UWMP; how to prepare a UWMP, depending on whether the Supplier chooses to participate in a regional or individual planning effort; selection of reporting year-type; and coordination, notification, and outreach."*

Pursuant to CWC requirements, the City's 2020 Plan incorporates DWR's water use and supply tables (standardized tables) for the reporting and submittal of UWMP data.

## 2.2 BASIS FOR PREPARING A PLAN

### CWC 10617.

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

### CWC 10620.

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

### CWC 10621.

*(a) Each urban water supplier shall update its plan at least once every five years on or before July 1, in years ending in six and one, incorporating updated and new information from the five years preceding each update.*

The City's 2020 Plan was prepared in accordance with the UWMP Act which was established in 1983. The UWMP Act requires every "urban water supplier" to prepare and adopt a Plan, to periodically review its Plan at least once every five years and make any amendments or changes which are indicated by the review. An "Urban Water Supplier" is defined as a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet (AF) of water annually.

Section 10621(a) of the CWC states, "*Each urban water supplier shall update its plan at least once every five years on or before July 1, in years ending in six and one, incorporating updated and new information from the five years preceding each update*". As a result, DWR requires the 2020 Plans be submitted by July 1, 2021.

The City is an "urban water supplier" pursuant to Section 10617 of the CWC 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's 2020 Plan is an update to the City's 2015 Plan.

## 2.2.1 PUBLIC WATER SYSTEMS

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### CWC 10644.

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

### California Health and Safety Code 116275.

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

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Pursuant to CWC requirements, the City's 2020 Plan incorporates DWR's standardized tables for the reporting and submittal of UWMP data. The standardized tables are

provided within the body of the 2020 Plan text as well as in Appendix A. The City also submitted the UWMP data (from the standardized tables) electronically through DWR’s Online Submittal Tool.

In addition, the City is a Public Water System and is regulated by the State Water Resources Control Board - Division of Drinking Water (SWRCB-DDW). The SWRCB-DDW requires 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. Table 2-1 provides the City’s Public Water System name and number.

**2.2.2 SUPPLIERS SERVING MULTIPLE SERVICE AREAS / PUBLIC WATER SYSTEMS**

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

**Table 2-1 Public Water Systems**

Submittal Table 2-1 Retail Only: Public Water Systems			
Public Water System Number	Public Water System Name	Number of Municipal Connections 2020	Volume of Water Supplied 2020 *
<i>Add additional rows as needed</i>			
CA1910245	City of Santa Fe Springs	6,788	5,823
<b>TOTAL</b>		<b>6,788</b>	<b>5,823</b>
* Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.			
NOTES: The "Volume of Water Supplied 2020" includes recycled water supplies of 846 AF. Source for "Number of Municipal Connections 2020": <a href="https://sdwis.waterboards.ca.gov/PDWW/">https://sdwis.waterboards.ca.gov/PDWW/</a>			



## 2.3 REGIONAL PLANNING

The City has developed its 2020 Plan reporting solely on its service area to address all requirements of the California Water Code. The City’s 2020 Plan was not developed as a Regional Plan.

## 2.4 INDIVIDUAL OR REGIONAL PLANNING AND COMPLIANCE

As shown in Table 2-2, the City’s 2020 Plan is an “Individual UWMP”. The City has developed its 2020 Plan reporting solely on its service area to address all requirements of the California Water Code, including water use targets and baselines pursuant to SB X7-7 Water Conservation Act of 2009 reporting (discussed further in Chapter 5). The City notified and coordinated with appropriate regional agencies and constituents (See Section 2.6).

**Table 2-2 Plan Identification Type**

Submittal Table 2-2: Plan Identification		
Select Only One	Type of Plan	Name of RUWMP or Regional Alliance if applicable (select from drop down list)
<input checked="" type="checkbox"/>	<b>Individual UWMP</b>	
<input type="checkbox"/>	<input type="checkbox"/> Water Supplier is also a member of a RUWMP	
	<input checked="" type="checkbox"/> Water Supplier is also a member of a Regional Alliance	Gateway Regional Alliance
<input type="checkbox"/>	<b>Regional Urban Water Management Plan (RUWMP)</b>	
NOTES:		

## 2.4.1 REGIONAL UWMP

### CWC 10620.

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

As indicated in Table 2-2, the City's 2020 Plan was developed as an "Individual UWMP" and not part of a Regional Plan.

## 2.4.2 REGIONAL ALLIANCE

### CWC 10608.20.

*(a)(1) ...Urban retail water suppliers may elect to determine and report progress toward achieving these targets on an individual or regional basis, as provided in subdivision (a) of Section 10608.28...*

### CWC 10608.28.

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

- (1) Through an urban wholesale water supplier.*
- (2) Through a regional agency authorized to plan and implement water conservation, including, but not limited to, an agency established under the Bay Area Water Supply and Conservation Agency Act (Division 31 (commencing with Section 81300)).*
- (3) Through a regional water management group as defined in Section 10537.*
- (4) By an integrated regional water management funding area.*
- (5) By hydrologic region.*
- (6) Through other appropriate geographic scales for which computation methods have been developed by the department.*

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

As indicated in Table 2-2, the City's 2020 Plan was developed as an "Individual UWMP". However, the City is also a participating agency in the Gateway Water Management

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Authority’s (GWMA) “Gateway Regional Water Conservation Alliance Report” (Gateway Regional Alliance report). GWMA is a coalition comprised of 28 cities and water agencies in the Los Angeles Gateway Region and was formed to integrate regional watershed activities. The GWMA previously prepared a “Summary of Baseline and Compliance Urban per Capita Water Use Determination” to provide its participating agencies with an alternative way of calculating Baseline and Urban per Capita Water Use compliance as a region. The City chose to estimate its Baseline and Urban per Capita Water Use as part of an Individual UWMP, which is discussed in detail in Chapter 5.

## 2.5 FISCAL OR CALENDAR YEAR AND UNITS OF MEASURE

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### [CWC 10608.20.](#)

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

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### 2.5.1 FISCAL OR CALENDAR YEAR

The data provided in the City’s 2020 Plan is reported on a fiscal year basis, unless noted otherwise, as shown in Table 2-3. A fiscal year begins on July 1<sup>st</sup> of every year.

**Table 2-3 Supplier Identification**

Submittal Table 2-3: Supplier Identification	
Type of Supplier (select one or both)	
<input type="checkbox"/>	Supplier is a wholesaler
<input checked="" type="checkbox"/>	Supplier 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)	
07/01	
Units of measure used in UWMP * (select from drop down)	
Unit	AF
<i>* Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.</i>	
NOTES:	

### 2.5.2 REPORTING COMPLETE 2020 DATA

The data provided in the City’s 2020 Plan is provided on a fiscal year basis through June 30, 2020.

### 2.5.3 UNITS OF MEASURE

As shown in Table 2-3, the data provided in the City’s 2020 Plan is reported in units of AF, unless noted otherwise.

## 2.6 COORDINATION AND OUTREACH

### CWC 10631.

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

### 2.6.1 WHOLESALE AND RETAIL COORDINATION

The City is a sub-agency of the wholesale water agency CBMWD. As indicated in Table 2-4, the City has provided its 2020 Plan to CBMWD which includes water use projections in five-year increments for normal, single dry, and a five consecutive year drought conditions over the next 25 years.

**Table 2-4 Water Supplier Information Exchange**

Submittal 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 Water Code Section 10631.
Wholesale Water Supplier Name
<i>Add additional rows as needed</i>
Central Basin Municipal Water District
NOTES:

## 2.6.2 COORDINATION WITH OTHER AGENCIES AND THE COMMUNITY

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### CWC 10620.

*(d)(3) Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.*

### CWC 10642.

*Each urban water supplier shall encourage the active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of both the plan...*

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The City is a retail water supplier that serves customers in the City of Santa Fe Springs. 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 its 2020 UWMP with Central Basin Municipal Water District. As discussed in Section 10.2, the City notified this agency, 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 2020 Plan and invited them to participate in the development of the 2020 Plan. A copy of the notification letters sent to these agencies is provided in Appendix D.

### 2.6.3 NOTICE TO CITIES AND COUNTIES

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#### CWC 10621.

*(b) Every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days before the public hearing on the plan required by Section 10642, notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan.*

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As discussed in Section 10.2, 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 previous 2015 Plan, and as a result prepare the 2020 Plan. Notification was provided at least 60 days prior to the public hearing (see Appendix D).

## CHAPTER 3

### SYSTEM DESCRIPTION

#### LAY DESCRIPTION – CHAPTER 3

#### SYSTEM DESCRIPTION

Chapter 3 (System Description) of the City's 2020 Plan discusses and provides the following:

- A description of the City's service area is provided. The City's water service area is approximately 8.9 square miles in size and covers approximately 90 percent of the land within the City's municipal boundaries, as well as a small area in the City of Downey. The City is bounded on the north by the City of Whittier, on the east by the City of La Mirada, on the southeast by the City of Cerritos, on the southwest by the City of Norwalk, on the west by the City of Downey, and on the northwest by the City of Pico Rivera.
- The City's water service area encompasses an area of approximately 8.9 square miles. The location of the City's water service area is provided in Figure 1.
- A description regarding the City's water service area climate is provided. The monthly historical average temperatures (including minimum and maximum), monthly historical average rainfall, and monthly evapotranspiration (ET<sub>o</sub>) in the vicinity of the City's service area is summarized. The sources of the climate information are also discussed.
- The population within the City's water service area is discussed and projected. The sources of the population information are also discussed. The City provides water service to an area with a current population of about 14,830. The City is projected to have a population of 16,902 by FY 2044-45.



- A discussion of land use information used by the City to develop the 2020 Plan is provided. The City reviewed the current and projected land uses within its service area. The City also reviewed data provided by the Southern California Association of Governments, the Department of Finance, and the United States Census Bureau and prepared for counties, cities, and unincorporated areas within Southern California.

### 3.1 GENERAL DESCRIPTION

#### CWC 10631.

*(a) Describe the service area of the supplier, including current and projected population, climate, and other social, economic, and demographic factors affecting the supplier's water management planning. The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available. The description shall include the current and projected land uses within the existing or anticipated service area affecting the supplier's water management planning. Urban water suppliers shall coordinate with local or regional land use authorities to determine the most appropriate land use information, including, where appropriate, land use information obtained from local or regional land use authorities, as developed pursuant to Article 5 (commencing with Section 65300) of Chapter 3 of Division 1 of Title 7 of the Government Code.*

The City of Santa Fe Springs was officially incorporated in 1957. The City's water service area is approximately 8.9 square miles in size and covers approximately 90 percent of the land within the City's municipal boundaries, as well as a small area in the City of Downey. The City is bounded on the north by the City of Whittier, on the east by the City of La Mirada, on the southeast by the City of Cerritos, on the southwest by the City of Norwalk, on the west by the City of Downey, and on the northwest by the City of Pico Rivera.

Land use within the City’s service area is approximately 85 percent commercial and industrial, and approximately 15 percent residential. Most of the residential land use is concentrated along the western perimeter of the City.

### 3.2 SERVICE AREA BOUNDARY MAPS

As discussed in Section 3.1, the City’s service area covers approximately 8.9 square miles encompassing the majority of the City of Santa Fe Springs. A service area boundary map is provided on Figure 1. The City’s water service area boundary relative to the City of Santa Fe Springs’s municipal boundary is also provided in Figure 2.

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

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#### CWC 10631.

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

#### CWC 10630.

*It is the intention of the Legislature, in enacting this part, to permit levels of water management planning commensurate with the numbers of customers served and the volume of water supplied, while accounting for impacts from climate change.*

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The monthly historical average temperatures (including minimum and maximum), monthly historical average rainfall, and monthly ETo in the vicinity of the City’s service area is summarized in the tabulation below. Historical climate information was obtained from the Western Regional Climate Center (WRCC), Los Angeles County Department of Public Works (DPW), 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	58.6	47.8	69.6	3.2	1.94
February	60.2	48.8	71.4	3.2	2.36
March	61.6	50.4	72.9	2.2	3.67
April	65.5	53.3	77.6	1.0	4.58
May	68.3	57.3	79.4	0.2	4.74
June	72.5	60.9	84.0	0.1	4.89
July	76.5	64.2	88.6	0.0	5.64
August	77.2	65.1	89.5	0.1	5.45
September	75.6	63.6	87.7	0.3	4.48
October	70.6	58.5	82.9	0.5	3.21
November	63.4	51.5	75.4	1.4	2.08
December	59.0	47.4	70.5	2.0	1.66
Annual	67.0	55.3	79.1	14.5	44.7

**Source:**

Historical average monthly precipitation information was obtained from the Western Regional Climate Center (<http://www.wrcc.dri.edu/>) and is based on data collected from Station 049660 (Whittier City Yard, California) from 1949 through 2014. 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 045790 (Montebello, California) from 1979 through 2011. 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 174 (Long Beach).

The historical average rainfall in the vicinity of the City's service area is 14.5 inches. The City's service area has a dry climate and summers can reach average maximum daily temperatures in the high 80s. Although changes in climatic conditions may have an impact (as discussed in Section 4.5), the projected water supply demands will be based on average year, single dry year and a five consecutive year drought, based on historical data and projected demands. Precipitation within the vicinity of the City's service area is discussed further in Section 7.2.

A discussion of the City's sources of supply, how those sources may be impacted by climate change, and the proactive actions the City and other local/regional water managers may take to address the potential climate change on water supplies is provided in Section 4.5.

### 3.4 SERVICE AREA POPULATION AND DEMOGRAPHICS

#### 3.4.1 SERVICE AREA POPULATION

##### CWC 10631.

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

The City provides water service to an area with a current population of 14,830. Table 3-1 presents the current and projected population of the area encompassed by the City's service area from FY 2019-20 to FY 2044-45. The City is projected to have a population of 16,902 by FY 2044-45.

The City initially reviewed the available historical populations within its service area for population growth trends. The City determined historical U.S. Census populations within

its service area using DWR’s Population Tool (<https://wuedata.water.ca.gov/>). The City’s service area boundary was uploaded to DWR’s Population Tool in a “KML” file format (i.e. Google Earth format). The KML file was originally created in a GIS shapefile format and converted into a KML format. The uploaded KML file represents the City’s service area boundary from 1990 to present (2020). DWR’s 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 the years 1990, 2000, and 2010. The calculated FY 2019-20 population (discussed in Section 5.4) was used to determine compliance with the City’s SB X7-7 water use target for 2020 (discussed in Section 5.5).

Projected populations in the City’s service area were based on growth rate projections obtained from data provided by the Southern California Association of Governments (SCAG). The data provided by SCAG was based on their “*The 2020-2045 Regional Transportation Plan / Sustainable Communities Strategy of the SCAG*”, dated September 2020, and incorporates demographic trends, existing land use, general plan land use policies, and input and projections through the year 2045 from the Department of Finance (DOF) and the US Census Bureau for counties, cities and unincorporated areas within Southern California.

**Table 3-1 Population – Current and Projected**

Submittal Table 3-1 Retail: Population - Current and Projected						
Population Served	2020	2025	2030	2035	2040	2045(opt)
	14,830	15,223	15,627	16,041	16,466	16,902
NOTES: The DWR Population Tool was used to estimate the 2020 population (See Section 5.4.1). Growth rates obtained from SCAG data were applied to the 2020 population and projected through 2045 (See Section 3.4.1).						

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### 3.4.2 OTHER SOCIAL, ECONOMIC, AND DEMOGRAPHIC FACTORS

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#### CWC 10631.

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

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

## 3.5 LAND USES WITHIN SERVICE AREA

The City reviewed the current and projected land uses within its service area during the preparation of this 2020 Plan. Information regarding current and projected land uses is included in the Re-imagine Santa Fe Springs 2040 General Plan. The existing land uses within the City's service area include residential (single-family), commercial, and open space. The projected land uses within the City's service area are expected to remain similar to the existing land uses. In addition, although mostly built-out, the projected population within the City's service area is anticipated to increase (as discussed in Section 3.4). A discussion of the existing and projected water uses for the individual water use sectors within the City's service area, which includes the different land uses, is provided in Section 4.2. As discussed in Section 2.6, the City coordinated the preparation of the 2020 Plan with the Cities of Santa Fe Springs, Norwalk, Downey, Whittier, the County of Los Angeles, and other agencies.

As discussed in Section 3.4, the City obtained data from the Southern California Association of Governments document entitled "*The 2020-2045 Regional Transportation Plan / Sustainable Communities Strategy of the SCAG*", dated September 2020. Projected populations in the City's service area were based on growth rate projections developed by SCAG. The data provided by SCAG incorporates demographic trends, existing land use, general plan land use policies, and input and projections through the year 2045 from the Department of Finance and the US Census Bureau for counties, cities and unincorporated areas within Southern California.

## **CHAPTER 4**

### **WATER USE CHARACTERIZATION**

#### **LAY DESCRIPTION – CHAPTER 4**

#### **WATER USE CHARACTERIZATION**

Chapter 4 (Water Use Characterization) of the City’s 2020 Plan discusses and provides the following:

- The City provides water service to individual “water use sectors”. These water use sectors include single-family residential and commercial. Individual descriptions for these water use sectors are provided in Section 4.2.1.
- The City’s total water demands (including potable and recycled water) over the past 10 years have ranged from 5,823 AFY to 7,399 AFY, with an average of 6,504 AFY. The City currently measures its water use through meter data and billing records.
- The City conducts an annual water loss audit to identify distribution system water losses. Water losses can result from pipeline leaks and inaccurate metering due to faulty meters. Water loss estimates are incorporated into the City’s projected water demands.
- The City’s current and projected water demands are provided in five-year increments over the next 25 years are provided (through Fiscal Year 2044-45) as shown on Table 4-3.
- The City’s water demand projections incorporate water savings which are the result of implementation of new plumbing codes along with consumer awareness of the need to conserve water.



- The projected water demands for lower income households are identified and are included in the City's total projected water demands
- The City's sources of water supply and how those sources may be impacted by climate change are discussed. The proactive actions the City and other local/regional water managers may take to address the potential climate change impacts on water supplies are also discussed.
- The City will be able to provide sufficient water supplies to meet the projected water demands of its customers, including during a five consecutive year drought period.

#### **4.1 NON-POTABLE VERSUS POTABLE WATER USE**

The Water Code requires a description and quantification of water uses within the City's service area, including both non-potable and potable water. Recycled water (non-potable) uses are addressed in Section 6.5; however, a summary is provided in Table 4-3. Furthermore, Chapter 4 addresses the City's potable water demands.

## 4.2 PAST, CURRENT, AND PROJECTED WATER USES BY SECTOR

### CWC 10635.

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

### CWC 10631.

*(d)(1) For an urban retail water supplier, quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, based upon information developed pursuant to subdivision (a), identifying the uses among water use sectors, including, but not necessarily limited to, all of the following...*

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

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

*(B) To the extent that an urban water supplier reports the information described in subparagraph (A), an urban water supplier shall do both of the following:*

*(i) Provide citations of the various codes, standards, ordinances, or transportation and land use plans utilized in making the projections.*

*(ii) Indicate the extent that the water use projections consider savings from codes, standards, ordinances, or transportation and land use plans. Water use projections that do not account for these water savings shall be noted of that fact.*

The City's current and projected water demands are provided in five-year increments over the next 25 years (through FY 2044-45) in Tables 4-1, 4-2, and 4-3. The City's total water demands were projected based on a review of the SB X7-7 calculations which are discussed in Chapter 5 (including the SB X7-7 water use target for 2020), current water use factors based on recent water demands, and the total population projections based on land use trends within the City.

The City provides water service to individual “water use sectors” as identified by the California Water Code. The water use sectors supplied by the City are discussed in Section 4.2.1. The water use for each of these sectors during FY 2019-20 is provided in Table 4-1. The projected water use for each individual water use sector is provided in Table 4-2 and is based on the percentage breakdown of water use from each individual water use sector in FY 2019-20 (the percentages were then applied to the projected total water use).

**Table 4-1 Demands for Potable and Non-Potable Water - Actual**

Submittal Table 4-1 Retail: Demands for Potable and Non-Potable <sup>1</sup> Water - Actual			
Use Type	2020 Actual		
<b>Drop down list</b> May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool	Additional Description (as needed)	Level of Treatment When Delivered Drop down list	Volume <sup>2</sup>
Add additional rows as needed			
Single Family	Includes Multi-Family	Drinking Water	1,629
Commercial		Drinking Water	3,323
Losses		Drinking Water	25
<b>TOTAL</b>			<b>4,977</b>
<sup>1</sup> Recycled water demands are NOT reported in this table. Recycled water demands are reported in Table 6-4. <sup>2</sup> Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.			
NOTES: Recycled water demands are included on Table 4-3 and Table 6-4.			

**Table 4-2 Use for Potable and Non-Potable Water - Projected**

Submittal Table 4-2 Retail: Use for Potable and Non-Potable <sup>1</sup> Water - Projected						
Use Type	Additional Description (as needed)	Projected Water Use <sup>2</sup> <i>Report To the Extent that Records are Available</i>				
		2025	2030	2035	2040	2045 (opt)
<p><b>Drop down list</b> May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool</p>						
Add additional rows as needed						
Single Family	Includes Multi-Family	1,782	1,830	1,878	1,928	1,979
Commercial		3,456	3,548	3,642	3,739	3,837
Losses		208	214	220	225	231
<b>TOTAL</b>		5,446	5,592	5,740	5,892	6,047
<p><sup>1</sup> Recycled water demands are NOT reported in this table. Recycled water demands are reported in Table 6-4. Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.</p>						
NOTES:						

**Table 4-3 Total Gross Water Use (Potable and Non-Potable)**

<b>Submittal Table 4-3 Retail: Total Water Use (Potable and Non-Potable)</b>						
	2020	2025	2030	2035	2040	2045 (opt)
Potable Water, Raw, Other Non-potable <i>From Tables 4-1R and 4-2 R</i>	4,977	5,446	5,592	5,740	5,892	6,047
Recycled Water Demand <sup>1</sup> <i>From Table 6-4</i>	846	900	900	900	900	900
Optional Deduction of Recycled Water Put Into Long-Term Storage <sup>2</sup>						
<b>TOTAL WATER USE</b>	5,823	6,346	6,492	6,640	6,792	6,947
<sup>1</sup> Recycled water demand fields will be blank until Table 6-4 is complete <sup>2</sup> Long term storage means water placed into groundwater or surface storage that is not removed from storage in the same year. Supplier <i>may</i> deduct recycled water placed in long-term storage from their reported demand. This value is manually entered into Table 4-3.						
NOTES:						

## 4.2.1 WATER USE SECTORS LISTED IN WATER CODE

### CWC 10631.

*(d)(1) For an urban retail water supplier, quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, based upon information developed pursuant to subdivision (a), identifying the uses among water use sectors, including, but not necessarily limited to, all of the following:*

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

As shown in Table 4-1, the City's service area includes the following water use 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.)
- Commercial  
(Commercial users are defined as water users that provide or distribute a product or service)

- Distribution system losses  
(Distribution system losses represent the potable water losses from the pressurized water distribution system and water storage facilities, up to the point of delivery to the customers. Additional information is discussed in Section 4.2.4)

#### **4.2.2 WATER USE SECTORS IN ADDITION TO THOSE LISTED IN 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).

#### **4.2.3 PAST WATER USE**

Chapter 6 provides a discussion of the sources of water supply the City uses to meet its water demands. Section 6.1 provides a tabulation of the City's historical annual water demands for each water supply source. Over the past ten years, the City's total water demands (including potable and recycled water) have ranged from 5,823 AFY to 7,399 AFY, with an average of 6,504 AFY. In addition, the City recently experienced a five consecutive year drought within its service area from FY 2011-12 to FY 2015-16. The City reviewed its historical water demands to determine the projected water demands and water supply reliability (discussed in Chapter 7). The City is able to provide sufficient water supplies to meet the projected water demands of its customers, including during a five consecutive year drought period.

#### 4.2.4 DISTRIBUTION SYSTEM WATER LOSS

##### CWC 10631.

*(d)(1) For an urban retail water supplier, quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, based upon information developed pursuant to subdivision (a), identifying the uses among water use sectors, including, but not necessarily limited to, all of the following...*

*(J) Distribution system water loss.*

##### CWC 10631.

*(3)(A) The distribution system water loss shall be quantified for each of the five years preceding the plan update, in accordance with rules adopted pursuant to Section 10608.34.*

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

*(C) In the plan due July 1, 2021, and in each update thereafter, data shall be included to show whether the urban retail water supplier met the distribution loss standards enacted by the board pursuant to Section 10608.34.*

Distribution system water losses represent the potable water losses from the pressurized water distribution system and water storage facilities, up to the point of delivery to the customers. Sources of distribution system water loss can include: inaccurate metering due to faulty meters; water use not metered such as firefighting, flushing of the water system; and pipeline leaks.

The California Water Code Section 10608.34 requires “On or before October 1, 2017, and on or before October 1 of each year thereafter, each urban retail water supplier shall submit a completed and validated water loss audit report for the previous calendar year or the previous fiscal year...” The water loss audits must follow American Water Works Association (AWWA) guidance and be validated by a certified water audit validator. The City has completed the annual water loss audit process through October 1, 2020, as required by the California Water Code (i.e. the City has completed water loss audits



representing calendar years 2016, 2017, 2018, and 2019). The City’s water loss audits were prepared and validated pursuant to DWR requirements. The annual water loss audit reports submitted by retail water agencies in California, including the City (provided in Appendix E), are available on DWR’s website ([https://wuedata.water.ca.gov/awwa\\_plans](https://wuedata.water.ca.gov/awwa_plans)).

The City’s annual water loss audits identify real water losses (e.g. leaks and main failures) and apparent water losses (e.g. customer meter inaccuracies, systematic data handling errors in customer billing systems, and unauthorized consumption). The City’s distribution system water losses are based on the sum of the real and apparent water losses and are summarized in Table 4-4 for the past five years. Over the past five years, the City’s average distribution system water losses represent approximately 4 percent of its total water demands. This average water loss factor was incorporated into the City’s total potable water demand projections (Tables 4-2 and 4-3).

**Table 4-4 12 Month Water Loss Audit Report**

Submittal Table 4-4 Retail: Last Five Years of Water Loss Audit Reporting	
Reporting Period Start Date (mm/yyyy)	Volume of Water Loss <sup>1,2</sup>
07/2015	208
07/2016	309
07/2017	269
07/2018	180
07/2019	25
<sup>1</sup> Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet. <sup>2</sup> Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.	
NOTES: The "Volume of Water Loss" quantities for FY 2016-17 through FY 2018-19 were obtained from the annual AWWA Water Loss Audits (and based on the combination of apparent losses and real losses). Because the AWWA water loss audits were reported on a calendar year basis, half of the water loss during each calendar year was applied to the water losses for the corresponding fiscal year (to estimate the water losses for the entire fiscal year), pursuant to direction from DWR staff. The AWWA Water Loss Audit for calendar year 2020 will be prepared by October 2021. The "Volume of Water Loss" quantities for FY 2015-16 and for FY 2019-20 were estimated based on metered water production less metered water deliveries to customers.	

The California Water Code Section 10608.34 directs the SWRCB to “adopt rules requiring urban retail water suppliers to meet performance standards for the volume of water losses.” Pursuant to this law, and as discussed above, urban retail water suppliers (including the City) have been submitting water loss audits to DWR annually since October 2017. Pursuant to Assembly Bill (AB) 1668 and (SB) Senate Bill 606, urban retail water suppliers are required to calculate an “urban water use objective”, which includes indoor, outdoor, commercial, industrial and institutional irrigation uses and allowed system water loss, by the year 2024. In addition, by calendar year 2028, urban retail water suppliers are required to comply with individual volumetric standards (based on an economic model) for leak detection and repair actions. The goal of the proposed water loss standards is to reduce collective water losses throughout California by approximately 40 percent. The City will continue to develop its water loss standard and urban water use objective pursuant to SWRCB requirements.

#### **4.2.5 CURRENT WATER USE**

The City currently measures its water use through meter data and billing records. The water use for the City’s individual water use sectors during FY 2019-20 are provided in Table 4-1. Recycled water uses are addressed separately in Section 6.5; however, a summary of projected recycled water uses is provided in Table 4-3. The City’s total water uses during FY 2019-20 have been reviewed for compliance with the SB X7-7 water use target for 2020 adopted in the City’s 2015 Plan (discussed in Section 5.5).

DWR has created an optional “Planning Tool Worksheet” for water suppliers to review and assess monthly water use trends. DWR has deemed the tool as optional and the City is not required by DWR to use the tool. Section 6.1 provides a tabulation of the City’s historical annual water uses for each water supply source. During the past 10 years, the City experienced a five consecutive year drought within its service area from FY 2011-12 to FY 2015-16. Historical records indicate the City’s annual water demands had been greater prior to FY 2011-12. The City has been able to provide sufficient water supplies

to its customers, including during long-term droughts and years with historically high water demands. In addition, the City has been able to provide water service to meet maximum day water demands for these years, including during the summer months. A further discussion regarding the reliability of the City's water supply sources is provided in Chapter 7.

#### 4.2.6 PROJECTED WATER USE

##### CWC 10635.

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

##### CWC 10631.

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

##### CWC 10631.

*(d)(4)(A) Water use projections, where available, shall display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans identified by the urban water supplier, as applicable to the service area.*

*(d)(4)(B) To the extent that an urban water supplier reports the information described in subparagraph (A), an urban water supplier shall do both of the following:*

- 
- (i) Provide citations of the various codes, standards, ordinances, or transportation and land use plans utilized in making the projections.*
- (ii) Indicate the extent that the water use projections consider savings from codes, standards, ordinances, or transportation and land use plans. Water use projections that do not account for these water savings shall be noted of that fact.*
- 

The City's projected water demands are provided in five-year increments over the next 25 years (through FY 2044-45) in Table 4-3. The City's projected water demands and water supplies during a normal year, a single dry year, and a five consecutive year drought are provided in Chapter 7. The projected water demands for each of the City's water use sectors are provided in Table 4-2.

The City's water demands were projected based on a review of the SB X7-7 calculations discussed in Chapter 5 (including the SB X7-7 water use target for 2020), existing water use factors based on recent water demands, and the total population projections based on land use trends within the City. The projected water demands for the water use sectors were based on the percentage breakdown of water demands from each individual water use sector in FY 2019-20 (the percentages were then applied to the projected total water demands). A discussion of the City's water supplies from CBMWD, a wholesaler, are discussed in Section 6.2. As discussed in Section 2.6, the City has coordinated its water demand projections with CBMWD for each water use sector.

The City's 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. The City's Municipal Code 54.01 "Water Conservation", which was created through Ordinance No. 1065, which was adopted in May 2015 (discussed in Section 9.2.1), includes methods for current and ongoing reduction in water use and water waste. Prior to adoption of Ordinance No. 1065, the City's water use rate ranged from approximately 287 gallons per capita day to 370 gallons per capita day (from FY 1998-99 through FY 2007-08). As identified in Section 5.5, the City's actual water use rate during FY 2019-20 was 223 gallons per capita per day which

is a decrease of up to 147 gallons per capita per day from the recent historical water use and includes passive savings. The City’s projected water demands, incorporate water use targets less than its established SB X7-7 water use target for 2020 and incorporate ongoing water passive savings and reduced water use. As indicated in Table 4-5, estimated future water savings have been considered as part of the City’s water use projections.

**Table 4-5 Inclusion in Water Use Projections**

Submittal Table 4-5 Retail Only: Inclusion in Water Use Projections	
<b>Are Future Water Savings Included in Projections?</b> (Refer to Appendix K of UWMP Guidebook) <i>Drop down list (y/n)</i>	Yes
If "Yes" to above, state the section or page number, in the cell to the right, where citations of the codes, ordinances, or otherwise are utilized in demand projections are found.	Section 4.2.6 and Chapter 8
<b>Are Lower Income Residential Demands Included In Projections?</b> <i>Drop down list (y/n)</i>	Yes
NOTES:	

## 4.2.7 CHARACTERISTIC FIVE-YEAR WATER USE

### CWC 10635.

*(b) Every urban water supplier shall include, as part of its urban water management plan, a drought risk assessment for its water service to its customers as part of information considered in developing the demand management measures and water supply projects and programs to be included in the urban water management plan. The urban water supplier may conduct an interim update or updates to this drought risk assessment within the five-year cycle of its urban water management plan update. The drought risk assessment shall include each of the following:*

*(3) A comparison of the total water supply sources available to the water supplier with the total projected water use for the drought period.*

*(4) Considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.*

The City's projected water demands are provided in five-year increments over the next 25 years (and through FY 2044-45) in Table 4-3. The City's projected water demands and water supplies during a normal year, a single dry year, and a five consecutive year drought over the next 25 years (and through FY 2044-45) are provided in Chapter 7.

The City's "Drought Risk Assessment" (DRA) for the next five years (from FY 2020-21 through FY 2024-25) is discussed in Section 7.3. The DRA includes the City's projected annual water demands and supplies for each of the next five years and was prepared based on the five driest consecutive years on record. The DRA provides an assessment of the City's water service reliability during a drought lasting five years. The DRA reflects anticipated water demands and supplies prior to any expected benefits associated with water supply shortage responses included in the City's Water Shortage Contingency Plan (provided in Chapter 8). In addition to historical drought hydrology, the City considered impacts to water supplies and demands based on climate change conditions (discussed in Section 4.5) and anticipated regulatory changes, including the urban water use objectives (discussed in Section 4.2.4)

### **4.3 WORKSHEETS AND REPORTING TABLES**

The City's current and projected water demands, including the water demands for each of the City's water use sectors, are provided in five-year increments over the next 25 years (and through FY 2044-45) in Tables 4-1, 4-2, and 4-3.

#### **4.3.1 OPTIONAL PLANNING TOOL USE ANALYSIS WORKSHEET**

As discussed in Section 4.2.5, DWR has deemed the "Planning Tool Worksheet" as optional and the City is not required by DWR to use the tool. The City has provided sufficient water supplies to its customers, including during long-term droughts and years with historically high water demands. The City has also been able to provide water service

to meet maximum day water demands for these years, including during the summer months. A further discussion regarding the reliability of the City's water supply sources is provided in Chapter 7.

#### 4.3.2 DWR 2020 UWMP SUBMITTAL TABLES

The City's current water demands for each of the water use sectors during FY 2019-20 are provided in Table 4-1. The City's projected water demands for each of the water use sectors, in five-year increments over the next 25 years (and through FY 2044-45), are provided in Table 4-2. The City's total projected water demands, including potable and recycled water, in five-year increments over the next 25 years (and through FY 2044-45), are summarized in Table 4-3. The City's distribution system water losses over the past five years, based on the sum of the real and apparent water losses, are summarized in Table 4-4. The City's annual AWWA water loss audits are provided in Appendix E.

#### 4.4 WATER USE FOR LOWER INCOME HOUSEHOLDS

##### CWC 10631.1.

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

##### California Health and Safety Code 50079.5.

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

The City's water demands projections provided in Table 4-3 include projected water demands for lower income single-family and multi-family households. A lower income

household is defined as a household with an income less than 80 percent of the "area median income", adjusted for family size. For the purpose of this evaluation, the entire Los Angeles County was used for the "area median income". 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 Re-imagine Santa Fe Springs 2040 General Plan, a review of median household income range statistics provided by the US Census Bureau (<https://data.census.gov/cedsci/>), and a review of GIS maps of Disadvantaged Communities<sup>2</sup> (DACs), including block groups, tracts, and places, provided by DWR. The estimated number of lower income households located within the City's service area is 43 percent of the total number of households. As indicated in Table 4-2, the total projected residential (single family) water demands within the City in 2045 is estimated at about 1,979 AFY. Based on a 43 percent use factor of total residential water demands, the projected water demand for lower income households will be about 840 AFY by the FY 2044-2045. The projected water demands for lower income households were included in the City's total projected water demands, as indicated in Table 4-5.

## 4.5 CLIMATE CHANGE CONSIDERATIONS

### CWC 10630.

*It is the intention of the Legislature, in enacting this part, to permit levels of water management planning commensurate with the numbers of customers served and the volume of water supplied, while accounting for impacts from climate change.*

### CWC 10635.

*(b) Every urban water supplier shall include, as part of its urban water management plan, a drought risk assessment for its water service to its customers as part of information considered in developing the demand management measures and water supply projects and programs to be included in the urban water management plan. The urban water supplier may conduct an interim update or updates to this drought risk assessment within*

<sup>2</sup> 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)



*the five-year cycle of its urban water management plan update. The drought risk assessment shall include each of the following...*

*(4) Considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.*

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Climate is defined as “the average course or condition of the weather at a place usually over a period of years as exhibited by temperature, wind velocity and precipitation<sup>3</sup>”. A change in the climate which produces a greater amount of precipitation (i.e. more runoff and/or snowpack) and lower temperatures is generally a benefit to water supplies. However, drought conditions which may result in decreased precipitation, decreased runoff, and increased temperature may adversely affect an urban water supplier’s ability to meet demands by potentially impacting supplies. Consequently, the focus of impacts of climate change is on these adverse consequences.

Section 6.2 of this Plan describes the City’s sources of water supply, management practices associated with those sources, and the long-term reliability of those sources. Section 7.3 includes a Drought Risk Assessment which considers the potential impacts of climate change to the City’s water supply sources. Chapter 8 provides a detailed discussion of the City’s Water Shortage Contingency Plan, including but not limited to, the six standard water shortage levels in the event climate change results in a reduction to water supplies associated with a periodic drought condition. The following is a discussion of the City’s sources of supply, how those sources may be impacted by climate change, and the proactive actions the City and other local/regional water managers may take to address the potential climate change impacts on water supplies.

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<sup>3</sup> [www.merriam-webster.com](http://www.merriam-webster.com)

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### Imported Water Supplies

The City receives treated imported water as discussed in Section 6.2.1 and relies on the Water Replenishment District of Southern California (WRD) to manage groundwater supplies of the Central Basin. Consequently, the City directly and/or indirectly relies on the Metropolitan Water District of Southern California for those imported water supplies. MWD has prepared a Regional 2020 Urban Water Management Plan which includes a discussion (Section 2.6 in MWD's 2020 UWMP) of the reliability of its water supplies and the impacts of climate change and is incorporated by reference in this Plan. Furthermore, the City is a sub-agency of the Central Basin Municipal Water District which has also provided a discussion of climate change considerations and that discussion is included by reference. The following is a brief summary of MWD's efforts:

#### Resource Planning

- MWD has established the Robust Decision Making (RDM) approach to identify vulnerabilities to its water supplies. Climate change information was applied to MWD's simulated water supply scenarios to demonstrate the vulnerability of water supplies to climate change.
- MWD altered the inflow hydrology scenarios on the Colorado River simulation model to reflect modified inflow to MWD's Colorado River aqueduct.

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### Knowledge Sharing and Research Support

- MWD is an active and founding member of the Water Utility Climate Alliance (WUCA) which includes 12 nationwide partners collaborating on climate change considerations. As such, MWD shares agency actions on climate change and adaptation. WUCA has also released numerous research papers on climate change.

### Implementation of Programs and Policies

- MWD's programs include the use of solar energy, use of ride share programs, and reduction of greenhouse emissions. Collectively these actions are intended to impact the effects of climate change.

### Groundwater Supplies – Central Basin

The City relies on groundwater produced from the Central Basin as noted in Section 6.2.2 of this UWMP. As previously noted, the Central Basin has been identified by DWR as a very low-priority groundwater basin partially due to the fact it is adjudicated. In that regard, the Central Basin is actively managed by the Water Replenishment District of Southern California which serves as the Central Basin Watermaster and those management activities are described in detail in Section 6.2.2.

Recognizing the potential impacts of climate change on the Central Basin groundwater supplies (decreased local runoff and replenishment, along with increased groundwater production, may lead to decreased groundwater levels), the City has used climate tools available on the California Energy Commission's Cal-Adapt website (<https://cal-adapt.org/>) to identify potential future climate change cycles for the Central Basin. The Cal-Adapt website has been developed by the Geospatial Innovation Facility at the University of

California, Berkeley with funding and advisory oversight by the California Energy Commission and California Strategic Growth Council.

To address the uncertainty in future greenhouse gas emissions, Cal-Adapt has developed a Representative Concentration Pathway 4.5 (RCP 4.5) scenario and a Representative Concentration Pathway 8.5 (RCP 8.5) scenario. RCP 4.5 represents a scenario in which greenhouse gas emissions peak around 2040, then decline and stabilize. RCP 8.5 represents a scenario in which emissions continue to strongly rise through 2050 and plateau around 2100. RCP 4.5 is a “medium” emissions scenario that models a future in which there is an effort made by societies to reduce greenhouse gas emissions, whereas RCP 8.5 is a “business-as-usual” scenario. For the City’s climate change analysis, the RCP 4.5 scenario was selected.

The Cal-Adapt climate tools also incorporate several General Circulation Models (GCMs), which represent physical processes in the atmosphere, ocean, and land surface. These GCMs projected future climates under conditions such as warm/dry, cooler/wetter, and average simulations. For the City’s climate change analysis, the average condition GCM (CanESM2) was selected.

The climate tools available on the Cal-Adapt website were used to simulate projected annual precipitation and annual average maximum temperature in the Central Basin. An electronic boundary of the Central Basin was submitted online through the Cal-Adapt website in a “KML” file format (i.e. Google Earth format) and data using several of the available climate tools was generated.

Based on the data generated by the Cal-Adapt simulations (see Appendix F), the average annual rainfall in the Central Basin is projected to be 14.90 inches over the next 25 years (through 2045), compared to historical average of 13.72 inches (from 1950 through 2019). In addition, the average maximum temperature is projected to be 78.4 degrees Fahrenheit compared to a historical average of 75.4 degrees Fahrenheit. Although there may be

more precipitation in the future, it may be more likely to fall as rainfall compared to snowfall. The simulations do not denote the duration or intensity of storms contributing to the annual precipitation. Notwithstanding, the San Gabriel River watershed includes a complex and interconnected series of dams, reservoirs and replenishment basins to capture stormwater runoff. In an average to below average year of precipitation, over 95 percent of the precipitation in the watershed is retained within the watershed and is not lost to the ocean. Consequently, most if not all precipitation (whether it is rain or snowfall) likely will be captured for use in the Central Basin area and not adversely impacted by a potentially higher average annual temperature.

Recognizing these potential impacts to local hydrology resulting from climate change and the resultant impacts to the groundwater supplies, WRD has taken (and may reinstate as needed) the following proactive actions to anticipate and circumvent the potential impacts of climate change. These actions will enable the City to use rely on the Central Basin as a reliable source of supply.

#### Recycled Water Groundwater Replenishment

The WRD has actively used recycled water for groundwater replenishment for many decades. Historically the recycled water replenishment was supplemented with untreated imported water replenishment as part of Central Basin management. However, WRD has also established the Water Independence Now (WIN) program. The WIN program includes a treatment facility (previously referred to as the Groundwater Reliability Improvement Program) which includes ultrafiltration, reverse osmosis, and ultraviolet disinfection and advanced oxidation to treat recycled water by significantly reducing the total dissolved solids concentration. This action will gradually help to improve the water quality of the Central Basin, plus reduce or eliminate the future need to purchase untreated imported water.

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### Water Storage Programs

The Central Basin Adjudication allows Parties to the Judgment to pump up to 20 percent more of its annual Allowed Pumping Allocation plus any carry-over water rights as described in Section 6.2.2. In addition, the Central Basin Judgment includes an amendment which implemented a water storage program. A party may store up to 50 percent of the party's Allowed Pumping Allocation in an Individual Storage Account and 150 percent of the party's Allowed Pumping Allocation in a Community Storage Account if space is available. The amendments also allow parties to convert unused Allowed Pumping Allocation to stored water and revised the amount of carryover to be equal to 60 percent of the party's Allowed Pumping Allocation minus the amount of carryover water set aside for storage. The purpose of the storage program creates an added reliability in water supply from the Central Basin.

## **CHAPTER 5**

### **SB X7-7 BASELINE AND TARGETS**

#### **LAY DESCRIPTION – CHAPTER 5**

#### **SB X7-7 BASELINES, TARGETS, AND 2020 COMPLIANCE**

Chapter 5 (SB X7-7 Baselines, Targets, and 2020 Compliance) of the City's 2020 Plan discusses and provides the following:

- The Water Conservation Act of 2009 (or SB X7-7) required the State of California achieve a 20 percent reduction in urban water use by the year 2020.
- SB X7-7 required urban water suppliers, including the City, to develop a “2020 Water Use Target” to assist the State of California to achieve the 20 percent reduction. The 2020 Water Use Target represents the amount of water each person should use per day (i.e. gallons per capita per day or GPCD) by the year 2020.
- The City previously determined its 2020 Water Use Target during the preparation of its 2015 Plan by completing standardized tables (or the SB X7-7 Verification Form) to demonstrate compliance with the Water Conservation Act of 2009. The City's SB X7-7 Verification Form has not been modified and is included as part of this 2020 Plan as Appendix G. The City's 2020 Water Use Target is 250 GPCD.
- The City's 2020 Plan incorporates the 2020 Water Use Target and determines compliance based on actual water use.
- The population within the City's service area during Fiscal Year 2019-20 is estimated at 14,830. The City's population was estimated using the California Department of Water Resources' online “Population Tool” which incorporates

United States Census data in a Geographic Information Systems (or GIS) format to estimate the population within the City's service area.

- The City's "gross water" use represents the total volume of water entering its distribution system from its water supply sources. The City's gross water use excludes recycled water deliveries or water conveyed to another supplier. The City was also eligible to deduct process water from its gross water. The City's annual gross water during Fiscal Year 2019-20 was 3,706 AF.
- The City's per-capita water use is based on the gross water use divided by the population. The City's per-capita water use during Fiscal Year 2019-20 was 223 GPCD. The City's confirmed 2020 Water Use Target is 250 GPCD. The City's per-capita water use during Fiscal Year 2019-20 meets the 2020 Water Use Target.
- The City has also demonstrated compliance with the 2020 Water Use Target by completing the SB X7-7 2020 Compliance Form (provided in Appendix H).

## 5.1 GUIDANCE FOR WHOLESALE SUPPLIERS

### [CWC 10608.12.](#)

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

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

## 5.2 SB X7-7 FORMS AND SUMMARY TABLE

The City previously calculated its "Baseline" water periods and a "2020 Water Use Target" in its 2015 Plan. There were two different Baseline periods identified (consisting of a "10-year Baseline" period and a "5-year Baseline" period). The average water use for each of



these two Baseline periods, expressed in gallons per capita per day (GPCD), represents the Baseline water use for each period. A 10-year Baseline period was identified by the City and information regarding the starting year, ending year, and average water use rate during this period is provided in Table 5-1. The City determined its 2020 Water Use Target by calculating 80 percent of the 10-year Baseline water use.

According to Section 10608.22 of the California Water Code, if an urban retail water supplier's 5-year Baseline period water use is greater than 100 GPCD, the calculated 2020 Water Use Target may need to be reduced. A 5-year Baseline period was identified by the City and information regarding the starting year, ending year, and average water use rate during this period is provided in Table 5-1. The average water use rate during the identified 5-year Baseline period was greater than 100 GPCD. As a result, the 5-year Baseline period was used to determine if the 2020 Water Use Target required any adjustments.

The City's calculated 2020 Water Use Target was compared with 95 percent of the average water use within the 5-year Baseline to determine if any adjustments were required. The Baseline water uses were used to confirm the City's 2020 Water Use Target (which represents the per capita water use target for 2020 pursuant to SB X7-7).

### **5.2.1 SB X7-7 VERIFICATION FORM (BASELINES AND TARGETS)**

The City's service area has not changed (i.e. expansion or contraction) since the 2015 Plan was prepared. The City's 2020 Plan incorporates the Baseline water uses and 2020 Water Use Target calculated in the 2015 Plan. The City previously prepared standardized tables (SB X7-7 Verification Form) to demonstrate compliance with the Water Conservation Act of 2009 in its 2015 Plan, including compliance with the City's 2015 Interim Water Use Target. The City's SB X7-7 Verification Form has not been modified and is included as part of this 2020 Plan as Appendix G.

**5.2.2 SB X7-7 COMPLIANCE FORM**

The City’s compliance with its 2020 Water Use Target is summarized in the following sections. The City has also demonstrated compliance with the 2020 Water Use Target by completing the SB X7-7 2020 Compliance Form (provided in Appendix H).

**5.2.3 SB X7-7 VERIFICATION FORM**

Summary information from the SB X7-7 Verification Form and from the SB X7-7 2020 Compliance Form is provided in Tables 5-1 and 5-2 below.

**Table 5-1 Baselines and Targets Summary from SB X7-7 Verification Form**

<b>Submittal Table 5-1 Baselines and Targets Summary                      From SB X7-7 Verification Form  <i>Retail Supplier or Regional Alliance Only</i> </b>				
Baseline Period	Start Year *	End Year *	Average Baseline GPCD*	Confirmed 2020 Target*
10-15 year	1999	2008	313	250
5 Year	2003	2007	329	
<i>*All cells in this table should be populated manually from the supplier's SBX7-7 Verification Form and reported in Gallons per Capita per Day (GPCD)</i>				
NOTES:				

**Table 5-2 2020 Compliance from SB X7-7 Compliance Form**

<b>Submittal Table 5-2: 2020 Compliance From SB X7-7 2020 Compliance Form</b> <i>Retail Supplier or Regional Alliance Only</i>				
2020 GPCD			2020 Confirmed Target GPCD*	Did Supplier Achieve Targeted Reduction for 2020? Y/N
Actual 2020 GPCD*	2020 TOTAL Adjustments*	Adjusted 2020 GPCD* <i>(Adjusted if applicable)</i>		
223	0	223	250	Y
<i>*All cells in this table should be populated manually from the supplier's SBX7-7 2020 Compliance Form and reported in Gallons per Capita per Day (GPCD)</i>				
NOTES:				

### 5.2.4 REGIONAL UWMP/REGIONAL ALLIANCE

As discussed in Section 2.4, the City’s 2020 Plan was not developed as part of a Regional Alliance. Information from the City’s 2020 Plan is not required to be reported in a Regional Alliance report.

### 5.3 BASELINE AND TARGET CALCULATIONS FOR 2020 UWMPs

#### 5.3.1 SUPPLIER SUBMITTED 2015 UWMP, NO CHANGE TO SERVICE AREA

The general requirements associated with determining the Baseline periods, Baseline water uses, and 2020 Water Use Target were previously provided by DWR. Based on the requirements, the City calculated the Baseline water uses and 2020 Water Use Target in its 2015 Plan. The City’s service area has not changed (i.e. expansion or contraction)

since the 2015 Plan was prepared. The City's 2020 Plan incorporates the Baseline water uses and 2020 Water Use Target calculated in the 2015 Plan. The City's SB X7-7 Verification Form is included in Appendix G.

As discussed in Section 5.2.1, the City prepared standardized tables (SB X7-7 Verification Form) to demonstrate compliance with the Water Conservation Act of 2009. The City's SB X7-7 Verification Form is provided in Appendix G and includes Baseline water uses and the 2020 Water Use Target. A summary of the Baseline water uses and 2020 Water Use Target is provided below.

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's recycled water deliveries were less than 10 percent of its retail water demands during FY 2007-08. Consequently, a 10-year Baseline period was identified by the City and information regarding the starting year, ending year, and average water use rate during this period is provided in Table 5-1. Water systems could potentially identify their 2020 Water Use Target by calculating 80 percent of the 10-year Baseline water use.

According to Section 10608.22 of the California Water Code, if an urban retail water supplier's 5-year Baseline period water use is greater than 100 GPCD, the calculated 2020 Water Use Target may need to be reduced. A 5-year Baseline period was identified by the City and information regarding the starting year, ending year, and average water use rate during this period is provided in Table 5-1. The average was use rate during the identified 5-year Baseline period was greater than 100 GPCD. As a result, the 5-year Baseline period was used to determine whether the 2020 Water Use Target required any adjustments.

The City's calculated 2020 Water Use Target was compared with the 95 percent of the average water use within the 5-year Baseline to determine whether any adjustments were required. The City's confirmed 2020 Water Use Target is 250 GPCD and is summarized in Table 5-1.

## 5.4 METHODS FOR CALCULATING POPULATION AND GROSS WATER USE

### 5.4.1 SERVICE AREA POPULATION

#### CWC 10608.20.

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

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

#### CWC 10644.

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

A discussion regarding the City's compliance with the 2020 Water Use Target is provided in Section 5.5. Compliance with the 2020 Water Use Target is based on the total estimated population within the City's water service during FY 2019-20. Because U.S. Census 2020 population data was not available during the preparation of the 2020 Plan, the City reviewed the methodologies recommended by DWR to estimate the FY 2019-20 population. The population methodology used by the City in the 2020 Plan is provided below.

The City initially reviewed the available historical population within its service area for population growth trends. The City determined historical U.S. Census population within

its service area using DWR's Population Tool (<https://wuedata.water.ca.gov/>). The City's service area boundary was uploaded to DWR's Population Tool in a "KML" file format (i.e. Google Earth format). The KML file was originally created in a GIS shapefile format and converted into a KML format. The uploaded KML file represents the City's service area boundary from 1990 to present (2020). DWR's 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 the years 1990, 2000, and 2010.

DWR's Population Tool was also used to estimate the 2020 population within the City's service area. The total number of service connections within the City's service area (including residential, commercial, and industrial connections) in the years 2010 and 2020 were entered into the Population Tool. Based on the historical U.S. Census populations (from 1990, 2000, and 2010) and available data regarding total service connections for those corresponding years, DWR's Population Tool estimated the population within the City's service area for FY 2019-20 (using the service connection data for FY 2019-20) to be 14,830. The FY 2019-20 population is consistent with the historical population growth trends. The City's FY 2019-20 population is presented in Table 3 of the SB X7-7 2020 Compliance Form.

#### 5.4.2 GROSS WATER USE

##### CWC 10608.12.

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

- (1) Recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier.*
- (2) The net volume of water that the urban retail water supplier places into long-term storage.*
- (3) The volume of water the urban retail water supplier conveys for use by another urban water supplier.*
- (4) The volume of water delivered for agricultural use, except as otherwise provided in subdivision (f) of Section 10608.24.*

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

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

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Gross water use represents the total volume of water entering a distribution system (but excludes recycled water deliveries, water placed into long term storage, water conveyed to another supplier, water delivered for agricultural use, and process water if there is a substantial percentage used for industrial purposes) over a 12-month period. The City's annual gross water use amounts are based on the total amount of water entering the City's distribution system from its water supply sources (including groundwater production wells, purchased groundwater, and purchased imported water connections). The annual gross water use by the City during FY 2019-20 was 3,706 AF.

The annual gross water use amounts within the City for each year of the Baseline periods (discussed in Section 5.6) are provided in SB X7-7 Verification Form, Table 4 (Appendix G). A further discussion of the Baseline periods is provided in Section 5.6.

The City currently does not use indirect recycled water within its service area. The City is not required by DWR to complete SB X7-7 Verification Form, Table 4-B.

The City's percentage of historical industrial water use in its service area during 1998 to 2008 averaged 28 percent of the gross water use. In addition, the 2015 industrial water use was 29 percent of the gross water use. Because industrial water use is equal to or greater than 12 percent of the gross water use, the City is eligible to deduct process water from its gross water. The City is required by DWR to complete SB X7-7 Tables 4-C and 4-C.1, which are provided in Appendix G. The summary of Process Water deduction is shown in SB X7-7 Table 4-D (Appendix G).

## 5.5 2020 COMPLIANCE DAILY PER CAPITA WATER USE (GPCD)

### CWC 10608.12.

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

### CWC 10608.20.

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

As discussed in Section 5.4.2, the annual gross water use by the City during FY 2019-20 was 3,706 AF. As discussed in Section 5.4, the estimated population within the City's service area for FY 2019-20 is 14,830. As a result, the City's per-capita water use during FY 2019-20 was 223 GPCD. The City's confirmed 2020 Water Use Target is 250 GPCD. The City's per-capita water use during FY 2019-20 meets the 2020 Water Use Target and is in compliance. The City has also demonstrated compliance with the 2020 Water Use Target by completing the SB X7-7 2020 Compliance Form (provided in Appendix H).

### 5.5.1 2020 ADJUSTMENTS FOR FACTORS OUTSIDE OF SUPPLIER'S CONTROL

#### CWC 10608.24.

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

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

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

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



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

**Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use, Methodology 4.**

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

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The City has determined its compliance with the 2020 Water Use Target without adjusting its annual gross water use during FY 2019-20.

### **5.5.2 SPECIAL SITUATIONS**

The City's 2020 Plan incorporates the Baseline water uses and 2020 Water Use Target calculated in the 2015 Plan. There were no special situations that required the City to recalculate the Baseline water uses and 2020 Water Use Target.

### **5.5.3 IF SUPPLIER DOES NOT MEET 2020 TARGET**

The City's per-capita water use during FY 2019-20 meets the 2020 Water Use Target and is in compliance.

## **5.6 REGIONAL ALLIANCE**

As discussed in Section 2.4, the City is also a participating agency in the GWMA's "Gateway Regional Water Conservation Alliance Report". The GWMA previously prepared a "Summary of Baseline and Compliance Urban per Capita Water Use Determination" in June 2016 to provide its participating agencies with an alternative way of calculating Baseline and Urban per Capita Water Use compliance as a region. In addition, the GWMA has prepared calculations to determine compliance with the regional 2020 Water Use Target. However, the City's 2020 Plan was not developed as part of a Regional Alliance. Information from the City's 2020 Plan was prepared individually, including the City's per-capita water use during FY 2019-20 and compliance with the 2020 Water Use Target.

## CHAPTER 6

### WATER SUPPLY CHARACTERIZATION

#### LAY DESCRIPTION – CHAPTER 6

#### WATER SUPPLY CHARACTERIZATION

Chapter 6 (Water Supply Characterization) of the City's 2020 Plan discusses and provides the following:

- The City's water supply sources include treated groundwater through the Central Basin Water Quality Protection Program, treated imported surface water purchased from MWD through CBMWD, and recycled water supplies from CBMWD.
- The City's main sources of water supply include treated groundwater through the Central Basin Water Quality Protection Program and imported water from CBMWD.
- A tabulation of the City's historical water supplies is provided in Section 6.1.
- A discussion regarding the City's imported water supplies from CBMWD is provided. Information regarding imported water connections, capacities, reliability, and historical production is provided.
- A discussion regarding the City's treated groundwater supplies through Central Basin Water Quality Protection Program is provided. Information regarding basin location, adjudication, management, water levels, water quality, water rights, and historical production is provided.
- A discussion regarding the City's recycled water supplies is provided. The City's recycled water supplies are produced by CBMWD. The City uses recycled water for industry (carpet manufacturing, cooling towers, and concrete mixing) and for

irrigation at City parks (Heritage Park, Lake Center Park, Lakeview Park, Little Lake Park, and Los Nietos Park), athletic fields, schools, roadway medians, business park landscaping, and along the California Department of Transportation freeways and highways.

- The City's proposed future projects to maximize its water supply resources are discussed.
- The City's "energy intensity" is discussed and represents the quantity of energy consumed, measured in kilowatt hours, divided by the volume of water, measured in acre-feet over a one-year period. The total energy intensity associated with the City's water management processes was estimated during FY 2019-20.

In this Chapter, the City will identify and describe each of its sources of water supply. In addition, the City will describe the following:

- Management of each water supply source;
- Current provisions of a basin adjudication or Groundwater Sustainability Plan (GSP), as applicable, pertaining to management of groundwater supplies;
- Measures the City is taking to develop potential new sources of water supply (as applicable); and
- Opportunities for exchanges and transfers on a long- or short-term basis.

The characterization of the City's water supply sources will account for the anticipated availability during a normal year, a single dry year, a five consecutive year drought, along with projections through FY 2044-45.

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## 6.1 WATER SUPPLY ANALYSIS OVERVIEW

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### CWC 10631.

*(b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a), providing supporting and related information, including all of the following:*

*(1) A detailed discussion of anticipated supply availability under a normal water year, single dry year, and droughts lasting at least five years, as well as more frequent and severe periods of drought, as described in the drought risk assessment. For each source of water supply, consider any information pertinent to the reliability analysis conducted pursuant to Section 10635, including changes in supply due to climate change.*

*(2) When multiple sources of water supply are identified, a description of the management of each supply in correlation with the other identified supplies*

### CWC 10631.

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

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The City's water supply sources include treated groundwater through the Central Basin Water Quality Protection Program , treated imported water purchased from MWD through CBMWD, and recycled water supplies from CBMWD. The City's main sources of water supplies are imported water from CBMWD and treated groundwater purchased from the CBWQPP. A tabulation of the City's historical water supplies is provided below.

Fiscal Year	System Water Supply Sources (AF)					Total
	Potable Water				Recycled Water	
	Central Basin MWD - Imported	CBWQPP - Imported	Central Basin Groundwater	Subtotal		
2010-11	3,302	1,899	1,080	6,280	503	6,783
2011-12	2,980	2,096	1,343	6,418	322	6,740
2012-13	3,041	2,265	1,377	6,683	471	7,154
2013-14	2,876	2,841	650	6,367	1,033	7,399
2014-15	3,275	2,552	6	5,833	896	6,728
2015-16	2,500	2,728	0	5,228	924	6,152
2016-17	2,690	2,409	0	5,100	893	5,993
2017-18	2,965	2,424	0	5,389	909	6,298
2018-19	3,002	2,004	0	5,006	966	5,971
2019-20	2,564	2,413	0	4,977	846	5,823

Source: Data provided by the City

### 6.1.1 SPECIFIC ANALYSIS APPLICABLE TO ALL WATER SUPPLY SOURCES

The section below provides a discussion of the following information to the extent practical:

- The City’s existing and planned sources of water supply are identified;
- Each source of supply is quantified in five-year increments through FY 2044-45;
- The anticipated supply availability under normal, single dry, and five consecutive dry years, and any other water year conditions included in the Drought Risk Assessment (see Chapter 7) are described;
- The management of each water supply in correlation with other identified supplies is described.
- Information pertinent to the reliability analysis, including climate change effects, is considered.

The City historically has relied on groundwater supplies from CBWQPP, treated imported water purchased from MWD through CBMWD, and recycled water supplies from CBMWD. The following descriptions summarize the City's sources of supply (detailed descriptions are provided in Section 6.2).

### Existing and Planned Sources of Supply

#### Purchased Treated Imported Water

The City has historically purchased treated imported water from the Central Basin Municipal Water District, as described in Section 6.2.1. In addition, Section 6.2.1 provides a detailed discussion of the existing and planned supply of the treated imported water, including a description of the management and reliability of those treated imported water supplies. Table 6-8 summarizes the actual treated imported water supply for FY 2019-20. In addition, Table 6-9 summarizes the projected water supply, in five-year increments, through FY 2044-45 under varying water supply conditions.

#### Purchased Groundwater

The City currently purchases treated Central Basin groundwater from the CBWQPP. In addition, the City previously pumped groundwater from the Central Basin. Section 6.2.2 provides a detailed discussion of the existing and planned supply of the groundwater, including a description of the management and reliability of those groundwater supplies. Table 6-8 summarizes the actual purchased groundwater supplies for FY 2019-20. In addition, Table 6-9 summarizes the projected water supply, in five-year increments, through FY 2044-45 under varying water supply conditions.

## Storm Water

The City has historically received groundwater from the Central Basin. Management and use of the stormwater runoff by WRD, which is crucial to groundwater management, is described in Section 6.2.4. However, the City currently does not have its own program to beneficially use stormwater runoff as a direct source of supply.

### **6.1.2 OTHER CHARACTERIZATION CONSIDERATIONS**

A description of the City's water system along with a map of its service area is included in Chapter 3. In addition, the agencies which manage the water supplies used by the City are identified in Section 6.2.1 (imported water), 6.2.2 (groundwater), 6.2.3 (surface water), 6.2.4 (stormwater), and 6.2.5 (recycled water).

### **6.1.3 OPTIONAL PLANNING TOOL**

As discussed in Section 4.2.5, DWR has created an optional "Planning Tool Worksheet" for water suppliers to review and assess monthly water use trends. However, DWR has deemed the tool as optional and the City is not required by DWR to use the tool. Section 6.1 provides a tabulation of the City's historical annual water uses for each water supply source. During the past 10 years, the City experienced a five consecutive year drought within its service area from FY 2011-12 to FY 2015-16. In addition, historical records indicate the City's annual water demands typically have been even greater prior to FY 2011-12. The City has been able to provide sufficient water supplies to its customers, including during long-term droughts and years with historically high water demands. In addition, the City has been able to provide water service to meet maximum day water demands for these years, including during the summer months. A further discussion regarding the reliability of the City's water supply sources is provided in Chapter 7.



## 6.2 NARRATIVE SECTIONS FOR SUPPLIER'S UWMP WATER SUPPLY CHARACTERIZATION

### 6.2.1 PURCHASED OR IMPORTED WATER

The City purchases treated groundwater through Central Basin Water Quality Protection Program and purchases treated, imported water from MWD through CBMWD.

#### CBWQPP

The Central Basin Water Quality Protection Plan is a federally funded program designed, constructed and operated to protect the Central Basin from any potential contamination from the Main San Gabriel Basin flowing through the Whittier Narrows. The CBWQPP has been operating since 2003 under a Memorandum of Understanding (MOU) between Central District and the Cities of Pico Rivera, Santa Fe Springs and Whittier. The groundwater supplies are from the Central Basin, which is adjudicated. The management of the groundwater supplies are discussed in Section 6.2.2. Groundwater production from the CBWQPP is constant to facilitate a groundwater quality protection program. The City receives treated groundwater from the CBWQPP in-lieu of production from its own wells.

The CBWQPP provides treated Central Basin groundwater to the City of Santa Fe Springs, which has a contracted minimum purchase amount of 2,016 AFY. The City receives the treated groundwater through an interconnection with the City of Whittier. The City's water purchases from the CBWQPP over the past five years have been tabulated in Section 6.1 and have ranged from 2,004 AFY to 2,728 AFY, with an average of 2,396 AFY. The City's projected purchases of water from the CBWQPP, over the next 25 years in five-year increments, are provided in Table 6-9.

## **TREATED IMPORTED WATER**

As a wholesale agency, MWD distributes imported water to 26 member agencies throughout Southern California. CBMWD is one of the member agencies served by MWD. CBMWD distributes water to its retail agencies, including the City of Santa Fe Springs. The City purchases imported water from CBMWD through its CENB-30 and CENB-42 connections, which have capacities of 10 cubic feet per second and 16 cubic feet per second, respectively. The City's purchases of water from CBMWD over the past five years have been tabulated in Section 6.1 and have ranged from 2,500 AFY to 3,002 AFY, with an average of 2,744 AFY. The City's projected water purchases from CBMWD, over the next 25 years in five-year increments, is provided in Table 6-9.

The City's treated imported water supplies from MWD, through CBMWD, may be impacted during a multi-year drought or other conditions which limits MWD from delivering sufficient water supplies to all of its member agencies, and consequently to the City. In anticipation of such a reduction in supplies, MWD developed a Water Supply Allocation Plan (WSAP) which is briefly described below. The WSAP provides a means of equitably providing reduced water supplies to each of MWD's member agencies for up to 10 levels of reduction representing up to a 50 percent reduction.

During calendar year 2007, critically dry conditions impacted MWD's water supply sources. In addition, a ruling in the Federal Courts in August 2007 provided protective measures for the Delta Smelt (and subsequently other aquatic species) in the Sacramento-San Joaquin River Delta resulting in restrictions on the availability of State Water Project water. As a result, MWD adopted a Water Supply Allocation Plan in February 2008 to allocate available water supplies to its member agencies. MWD revised the WSAP in December 2014.

The WSAP establishes ten different shortage levels and a corresponding Allocation to each member agency. Based on the shortage levels established by MWD, the WSAP

provides a separate reduced Allocation to a member agency for its 1) Municipal and Industrial (M&I) retail demand and 2) replenishment demand. The WSAP formula considers historical local water production, full service treated water deliveries, agricultural deliveries and water conservation efforts when calculating each member agency's Allocation.

In general, the WSAP process calculates total historical member agency demand. That historical demand is then compared to member agency projected local supply for a specific Allocation year. The balance required from MWD, less an Allocation reduction factor, is the member agency's "Water Supply Allocation" of imported water from MWD. When a member agency reduces its local demand through conservation or other means, the Allocation of imported water will increase. Depending on MWD's available supply, MWD can establish a specific WSAP shortage level. The shortage level causes a regional reduction and calculates an allocation for each of its member agency. Additional information about MWD's WSAP is provided in MWD's Regional 2020 UWMP which is incorporated by reference. The following is a summary of MWD's water shortage levels:

- Level 1 – Regional Percent Reduction of 5%
- Level 2 – Regional Percent Reduction of 10%
- Level 3 – Regional Percent Reduction of 15%
- Level 4 – Regional Percent Reduction of 20%
- Level 5 – Regional Percent Reduction of 25%
- Level 6 – Regional Percent Reduction of 30%
- Level 7 – Regional Percent Reduction of 35%
- Level 8 – Regional Percent Reduction of 40%
- Level 9 – Regional Percent Reduction of 45%
- Level 10 – Regional Percent Reduction of 50%

In response to a fourth consecutive year of below average rainfall and critically dry conditions, MWD declared a WSAP Allocation Level 3 for fiscal year 2015-16, which represented a regional reduction of 15 percent. MWD rescinded the WSAP for fiscal year 2016-17 and has not reinstated the WSAP since that time.

## 6.2.2 GROUNDWATER

### CWC 10631.

*(b)(4) If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information:*

*(A) The current version of any groundwater sustainability plan or alternative adopted pursuant to Part 2.74 (commencing with Section 10720), any groundwater management plan adopted by the urban water supplier, including plans adopted pursuant to Part 2.75 (commencing with Section 10750), or any other specific authorization for groundwater management for basins underlying the urban water supplier's service area.*

*(B) A description of any groundwater basin or basins from which the urban water supplier pumps groundwater. For basins that a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree. For a basin that has not been adjudicated, information as to whether the department has identified the basin as a high- or medium-priority basin in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to coordinate with groundwater sustainability agencies or groundwater management agencies listed in subdivision (c) of Section 10723 to maintain or achieve sustainable groundwater conditions in accordance with a groundwater sustainability plan or alternative adopted pursuant to Part 2.74 (commencing with Section 10720).*

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

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

## CENTRAL BASIN

### **Central Basin - Sustainable Groundwater Management Act**

The Central Basin is a subbasin of the Coastal Plain of Los Angeles Groundwater Basin pursuant to DWR Bulletin 118, Basin Number 4-11.04. Pursuant to the Sustainable Groundwater Management Act of 2014 (SGMA), the Central Basin was named as an adjudicated groundwater basin and is exempt from the requirements of developing a Groundwater Sustainability Plan and subsequently was designated a very-low-priority basin in DWR's 2019 SGMA Basin Prioritization report. In compliance with SGMA, the Central Basin Watermaster (which is the Water Replenishment District of Southern California) submits its Annual Report to DWR.

### **Central Basin - Adjudication**

On January 2, 1962, the Central and West Basin Water Replenishment District (now the Water Replenishment District of Southern California) filed Case No. 786,656 in the Superior Court, County of Los Angeles, naming more than 700 parties as defendants. It sought to adjudicate water rights of groundwater and regulate pumping from the Central Basin. By September 1962, a proposed agreement had been approved by a sufficient number of water producers (producers owning over 75 percent of the Assumed Relative Rights within Central Basin) to guarantee control over groundwater pumping in Central Basin. On September 28, 1962, the Court signed the "Order Pursuant to Stipulation and Interim Agreement and Petition for Order" and appointed the Department of Water Resources as Watermaster.

Subsequently, a stipulated judgment was drafted. Approval was received by public utility water companies and other producers representing well over 200,000 AF, or 75 percent, of the total rights within Central Basin. This was a prerequisite to filing the stipulated judgment with the Court. On May 17, 1965, the case went to trial before Judge Edmund

M. Moor. Following testimony on engineering, geology, hydrology, and safe yield of Central Basin and arguments on water right entitlement, the case was continued to August 25, 1965. Shortly thereafter, Judge Moor appointed DWR as Watermaster. The final Judgment was signed on October 11, 1965 and became effective on October 1, 1966.<sup>4</sup>

The Judgment was amended on March 21, 1980, to provide for a transition in the administrative year from a water year (October 1 to September 30) to a fiscal year (July 1 to June 30). Under the Judgment, this transition in turn contained a “short” administrative year of nine months (from October 1, 1980 to June 30, 1981). The administrative year starting July 1, 1981 was on a fiscal year basis.

The Judgment was again amended on July 19, 1985, modifying the annual budget (\$20 minimum assessment) and exchange pool provisions. The second amended Judgment of May 6, 1991 modified the carryover and overproduction provisions (to 20 percent of allowed pumping allocation or 20 AF, whichever is greater, from 10 percent of allowed pumping allocation or 10 AF), and defined drought carryover, and provided for exemptions for extractors of contaminated groundwater.

In December 2013, the Central Basin Judgment was amended (“Third Amended” Central Basin Judgment) to confirm the retirement of DWR as the Watermaster of Central Basin. The Judgment established three separate bodies to assist the Court in the administration and enforcement of the provisions and stipulations of the Judgment. The first body is the Administrative Body, which administers Watermaster accounting and financial reporting activities. The Water Replenishment District of Southern California was appointed by the Court for this role. The second body is the Water Rights Panel, which enforces issues related to groundwater production rights as defined by the Judgment. The Water Rights

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<sup>4</sup> Central and West Basin Water Replenishment District, etc. v. Charles E. Adams, et al, Los Angeles County Case No. 786,656.

panel comprises of seven elected water rights holders within the Central Basin. The third administrative body is the Storage Panel, which reviews and approves groundwater storage efforts. The Storage Panel is comprised of the Water Rights Panel and the WRD Board of Directors. A copy of the Central Basin Judgment is provided in Appendix I.

The Court approved 2013 Judgment amendments also implemented a water storage program. The amendment states, "...a party may store up to 200 percent of the party's Allowed Pumping Allocation, if space is available." In addition, the amendments allow parties to convert unused Allowed Pumping Allocation to stored water and revised the amount of carryover to be equal to 100 percent of the party's Allowed Pumping Allocation minus the amount of carryover water set aside for storage, as noted above. The purpose of the storage program creates an added reliability in water supply from the Central Basin. In addition, the amendments allow for transfer of water between Central Basin and West Basin by permitting parties with water rights in Central Basin to increase production in Central Basin, while another party decreases production in West Basin by the corresponding amount.

Under the Judgment, water rights are fixed and do not vary year to year. Water producers cannot exceed their water rights by more than 20 percent or 20 AF, whichever is greater, in any year and an adjustment is made the following year. In addition, water producers cannot carry over more than 20 percent or 20 AF, whichever is greater, of their water rights for use in the following year. In addition, the Central Basin Judgment includes an amendment which implemented a water storage program. A party may store up to 50 percent of the party's Allowed Pumping Allocation in an Individual Storage Account and 150 percent of the party's Allowed Pumping Allocation in a Community Storage Account if space is available. The amendments also allow parties to convert unused Allowed Pumping Allocation to stored water and revised the amount of carryover to be equal to 60 percent of the party's Allowed Pumping Allocation minus the amount of carryover water set aside for storage. The purpose of the storage program creates an added reliability in water supply from the Central Basin.

### **Central Basin - Description**

Central Basin is one of two groundwater basins in the Coastal Plain of Los Angeles County. It is comprised of Quaternary-age sediments (less than 1.8 million years old) of gravel, sand, silt, and clay that were deposited from the erosion of nearby hills and mountains, and from historical beaches and shallow ocean floors that covered the area in the past. Underlying these Quaternary sediments are basement rocks such as the Pliocene Pico Formation that generally do not provide sufficient quantities of groundwater for pumping. Separating the Central Basin from the West Coast Basin is the NIU, a series of discontinuous faults and folds that form a prominent line of northwest trending hills including the Baldwin Hills, Dominguez Hills, and Signal Hill.

Central Basin covers approximately 270 square miles and is bounded on the north by the Hollywood Basin and the Elysian, Repetto, Merced, and Puente Hills, to the east by the Los Angeles County/Orange County line, and to the south and west by the NIU. The location of the Central Basin is provided in Figure 3. DWR divided the Central Basin into four sections: the Los Angeles Forebay, the Montebello Forebay, the Whittier Area, and the Pressure Area. Pursuant to DWR Bulletin 118 (for Basin Number 4-11.04), the total storage capacity of the Central Basin is estimated at approximately 13,800,000 AF.

The aquifers of Central Basin received their water supply primarily from the surface and subsurface inflow of water from the San Gabriel Valley. The water originates as rainfall in the San Gabriel Mountains, the runoff from which is conveyed to the Los Angeles River, the Rio Hondo, and the San Gabriel River. The Los Angeles River enters Central Basin through the Los Angeles Narrows, crosses the Los Angeles Forebay Area, and proceeds south across Central Basin, exiting Central Basin through the Dominguez Gap in West Basin. The Rio Hondo, enters Central Basin at Whittier Narrows parallel to the San Gabriel River, proceeds southwesterly across the Montebello Forebay Area and joins the Los Angeles River midway across the Basin. The San Gabriel River also enters Central



Basin through the Whittier Narrows, crosses the Montebello Forebay, and runs south to the Pacific Ocean near Long Beach at the Orange County line.

As the Rio Hondo and San Gabriel River flow through the Upper San Gabriel Valley toward Whittier Narrows, much of their flow percolates into the Main Basin. This water crosses the Whittier Narrows and enters Central Basin as subsurface flow into the aquifers of Central Basin. At the same time, the surface flows of the Rio Hondo and the San Gabriel River percolate downward into the aquifers of Central Basin in the Montebello Forebay. In the Montebello Forebay, the underground aquifers merge and are unconfined, and thus are capable of receiving large quantities of water from percolation through the sand and gravel surface of the forebay area.

The Los Angeles Forebay area is also favorably situated for percolation from the flows of the Los Angeles River, but the Los Angeles Forebay has been largely eliminated as a source of freshwater replenishment to Central Basin, due to lining of the Los Angeles River channel and the impervious surface in the forebay area. In the Montebello Forebay area, by contrast, flood flows have been largely controlled through the construction of the Whittier Narrows Dam, and the river channels have not been lined in the area, so percolation still occurs.

Groundwater in the Central Basin provides a substantial portion of the water supply needed by residents and industries in the overlying area. Groundwater occurs in the pore spaces of the sediments in the basin. The major aquifers identified in Central Basin include the following, from shallowest to deepest: a) the Gaspur and semi-perched aquifers of the Holocene Alluvium Formation; b) the Exposition, Artesia, Gage, and Gardena aquifers of the Upper Pleistocene Lakewood Formation; c) the Hollydale, Jefferson, Lynwood, and Silverado aquifers of the Lower Pleistocene Upper San Pedro Formation; and d) the Sunnyside Aquifer of the Lower Pleistocene Lower San Pedro Formation.

WRD's Leo J. Vander Lans Advanced Water Treatment Facility (LVL) was built in 2003 and expanded in 2014. The facility is located in the City of Long Beach and currently produces about 8 MGD of advanced treated water for injection at the Alamitos Barrier in Long Beach. The LVL also injects tertiary treated recycled water from the Los Angeles County Sanitation District's Long Beach Water Reclamation Plant. By injecting the LVL's advanced treated water and effluent from the Long Beach Water Reclamation Plant, groundwater supply is replenished and seawater intrusion is prevented.

The WRD Board of Directors established the Water Independence Now program in 2003 to protect the security of the region's groundwater supplies. The WIN program is comprised of various projects that include expansions to existing water treatment facilities, spreading activities, and stormwater capture. The largest component of the WIN program is the Albert Robles Center for Water Recycling & Environmental Learning (formerly the Groundwater Reliability Improvement Program), which was completed in 2019. The purpose of the Albert Robles Center is to reduce demand for imported water at the Rio Hondo and San Gabriel Coastal Spreading Grounds. The Albert Robles Center includes ultrafiltration, reverse osmosis, and ultraviolet disinfection and advanced oxidation to treat recycled water by significantly reducing the total dissolved solids concentration.

Groundwater quality is monitored by WRD. Groundwater in the Central Basin is currently contaminated with natural metals such as arsenic, iron and manganese, Volatile Organic Chemicals (VOCs), including trichloroethylene (TCE) and perchloroethylene (PCE), 1,4-Dioxane, Perchlorate, and Per- and Poly-Fluoroalkyl Substances (PFAS). In addition, Total Dissolved Solids (TDS) concentrations exceed drinking water quality standards. Wellhead treatment is necessary in these areas to allow delivery of the groundwater for potable purposes.

As previously discussed, DWR divided the Central Basin into four sections: the Los Angeles Forebay, the Montebello Forebay, the Whittier Area, and the Pressure Area.

Below is a discussion of groundwater level changes, pursuant to WRD's 2020 Engineering Survey and Report.

- In the Los Angeles Forebay, the water level high was observed in 1938 with an elevation of approximately 70 feet above mean sea level (msl) and by 1962, the water levels had fallen by 180 feet to an elevation of 109 feet below msl due to over pumping and lack of recharge. Water levels have improved since then due to pumping rights adjudication and managed aquifer recharge. In 2019, the groundwater levels were at an elevation of 20.3 feet below msl.
- In the Montebello Forebay, the water level high was observed in 1942 with an elevation of approximately 137.8 feet above mean sea level (msl) and by 1958, the water levels had fallen by 117 feet to an elevation of 20.9 feet above msl due to over pumping and lack of recharge. Water levels have improved since then due to pumping rights adjudication and managed aquifer recharge. In 2019, the groundwater levels were at an elevation of 72.9 feet above msl.
- In the Pressure Area, the water level high was observed in 1935 at about 10 feet above msl when they began to continually decline by over 110 feet until the observed low of about 120 feet below msl in 1961 due to over pumping and lack of recharge. Groundwater levels improved during the early 1960s due to replenishment operations. Between 1995 and 2007, there were 100-foot swings in water levels as a result of seasonal pumping from producers. Water levels have improved since then due to pumping rights adjudication and managed aquifer recharge. In 2019, the groundwater levels were at elevations between 75 and 91.1 feet below msl.

- Long-term hydrographs and records were not maintained for the Whittier Area; however, groundwater levels have been tracked from recently constructed monitoring wells.

### **Central Basin - Historical and Projected Basin Production**

The City can produce groundwater from the Central Basin. However, due to water quality issues, the City has not produced from the Central Basin since 2014. The City's current Allowed Pumping Allocation in the Central basin is 4,035.78 AFY. The City's production over the past five years has been tabulated in Section 6.1. Over the past five years, the City has not produced groundwater from the Central Basin. The City's projected production from the Central Basin, over the next 25 years in five-year increments, is provided in Table 6-9.

**Table 6-1 Groundwater Volume Pumped**

Submittal Table 6-1 Retail: Groundwater Volume Pumped						
<input type="checkbox"/>	Supplier does not pump groundwater. The supplier will not complete the table below.					
<input type="checkbox"/>	All or part of the groundwater described below is desalinated.					
Groundwater Type <i>Drop Down List</i> <i>May use each category multiple times</i>	Location or Basin Name	2016*	2017*	2018*	2019*	2020*
<i>Add additional rows as needed</i>						
Alluvial Basin	Central Basin	0	0	0	0	0
	<b>TOTAL</b>	0	0	0	0	0
<i>* Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.</i>						
NOTES: The City currently does not produce from the Central Basin due to water quality issues. The City purchases treated Central Basin groundwater from the CBWQPP.						

### 6.2.3 SURFACE WATER

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

### 6.2.4 STORMWATER

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

## 6.2.5 WASTEWATER AND RECYCLED WATER

### CWC 10633.

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

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

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

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

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

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

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

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

Discussion of wastewater collection, treatment, and recycled water use is included in this chapter. Municipal recycled water is municipal wastewater that has been treated from a municipal wastewater facility to a specified quality to enable it to be used again for a beneficial purpose. Municipal wastewater must meet two requirements; it must be reused

beneficially pursuant to Title 22 of the California Code of Regulations and it must be reused in accordance with a Regional Water Quality Control Board permit. Title 22 of the California Code of Regulations defines beneficial reuse of recycled water as “the use of recycled water that has been transported from the point of treatment or production to the point of use without an intervening discharge to water of the State.”

Recycled water is used within the City’s service area for landscape irrigation at City parks, schools, athletic fields, roadway medians, and business complexes, as well as industrial purposes, including carpet manufacturing, concrete mixing, and cooling tower use.

#### 6.2.5.1 RECYCLED WATER COORDINATION

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##### CWC 10633.

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

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The City is a sub-agency of CBMWD, which provides recycled water produced from Los Angeles County Sanitation Districts’ (LACSD) Los Coyotes Water Reclamation Plant (LCWRP) in Cerritos and San Jose Creek Water Reclamation Plant (SJCWRP) in Whittier. CBMWD has developed a recycled water program within its service area to provide direct delivery of recycled water to serve non-potable demands, thereby offsetting reliance on imported water supplies. The City has coordinated the preparation of its 2020 Plan with CBMWD.

## 6.2.5.2 WASTEWATER COLLECTION, TREATMENT, AND DISPOSAL

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### CWC 10633.

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

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Wastewater generated by the City is collected and treated by LACSD's LCWRP and Long Beach Water Reclamation Plant (LBWRP). The water reclamation plants are not located within the City's service area. The water reclamation plants serving the City include LACSD'S LCWRP and LBWRP. LACSD estimates approximately 60 gallons of wastewater is generated per person per day within LACSD's service area. Based on the City's 2020 population of 14,830 within its service area, the estimated volume of residential wastewater generated and collected in 2020 is approximately 1,000 AF, as shown in Table 6-2.

LCWRP, which began operation in 1970, has a current design capacity of 37.5 MGD and provides coagulated, filtered and disinfected tertiary effluent. 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.

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.



**Table 6-2 Wastewater Collected Within Area in 2020**

Submittal Table 6-2 Retail: Wastewater Collected Within Service Area in 2020						
<input type="checkbox"/> There is no wastewater collection system. The supplier will not complete the table below.						
Percentage of 2020 service area covered by wastewater collection system <i>(optional)</i>						
Percentage of 2020 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 2020 *	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) Drop Down List</i>
City of Santa Fe Springs	Estimated	1,000	Sanitation Districts of Los Angeles County	Los Coyotes Water Reclamation and Long Beach Water Reclamation Plant	No	No
<b>Total Wastewater Collected from Service Area in 2020:</b>		1,000				
* <i>Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3 .</i>						
NOTES:						

**Table 6-3 Wastewater Treatment and Discharge within Service Area in 2020**

Submittal Table 6-3 Retail: Wastewater Treatment and Discharge Within Service Area in 2020											
<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) <sup>2</sup>	Method of Disposal <i>Drop down list</i>	Does This Plant Treat Wastewater Generated Outside the Service Area? <i>Drop down list</i>	Treatment Level <i>Drop down list</i>	2020 volumes <sup>1</sup>				
							Wastewater Treated	Discharged Treated Wastewater	Recycled Within Service Area	Recycled Outside of Service Area	Instream Flow Permit Requirement
<b>Total</b>							0	0	0	0	0

<sup>1</sup> Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.  
<sup>2</sup> If the Wastewater Discharge ID Number is not available to the UWMP preparer, access the SWRCB CIWQS regulated facility website at <https://ciwqs.waterboards.ca.gov/ciwqs/readOnly/CiwqsReportServlet?inCommand=reset&reportName=RegulatedFacility>

NOTES:

**6.2.5.3 RECYCLED WATER SYSTEM DESCRIPTION**

**CWC 10633.**

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

Recycled water use within the City began in 1992 when CBMWD completed construction of the Century recycled water distribution system (Century system). Recycled water delivered to the City is part of the Century system, which delivers recycled water from LCWRP and SJCWRP. Recycled water use within the City's service area is used in industry (carpet manufacturing, cooling towers, and concrete mixing) and for irrigation at the City's parks (Heritage Park, Lake Center Park, Lakeview Park, Little Lake Park, and Los Nietos Park), athletic fields, schools, roadway medians, business park landscaping,

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and along the California Department of Transportation freeways and highways. Current recycled water demand within the City's service area is shown on Table 6-4.

#### 6.2.5.4 POTENTIAL, CURRENT, AND PROJECTED RECYCLED WATER USES

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**CWC 10633.**

*(b) A description of the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use. A description of the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.*

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

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

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As shown in Table 6-4 and previously discussed in Section 6.5.3, the City has several recycled water connections within its service area to deliver recycled water to its customers. Recycled water use within the City's service area is used in industry (carpet manufacturing, cooling towers, and concrete mixing) and for irrigation at City parks (Heritage Park, Lake Center Park, Lakeview Park, Little Lake Park, and Los Nietos Park), athletic fields, schools, roadway medians, business park landscaping, and along the California Department of Transportation freeways and highways. The City continues to retrofit landscape irrigation systems to use recycled water where available. The City has continued to add pipelines connecting to the CBMWD distribution system since 1992.

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

Submittal Table 6-4 Retail: 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 Supplier Producing (Treating) the Recycled Water:		Los Angeles County Sanitation District								
Name of Supplier Operating the Recycled Water Distribution System:		Central Basin Municipal Water District								
Supplemental Water Added in 2020 (volume) <i>Include units</i>		0								
Source of 2020 Supplemental Water		N/A								
Beneficial Use Type <i>Insert additional rows if needed.</i>	Potential Beneficial Uses of Recycled Water (Describe)	Amount of Potential Uses of Recycled Water (Quantity) <i>Include volume units<sup>1</sup></i>	General Description of 2020 Uses	Level of Treatment <i>Drop down list</i>	2020 <sup>1</sup>	2025 <sup>1</sup>	2030 <sup>1</sup>	2035 <sup>1</sup>	2040 <sup>1</sup>	2045 <sup>1</sup> (opt)
Agricultural irrigation										
Landscape irrigation (exc golf courses)	Schools, Parks, City Landscape	540	Schools, Parks, City Landscape	Tertiary	507	540	540	540	540	540
Golf course irrigation										
Commercial use										
Industrial use	Cooling, Concrete Mixing, Manufacturing	360	Cooling, Concrete Mixing, Manufacturing	Tertiary	339	360	360	360	360	360
Geothermal and other energy production										
Seawater intrusion barrier										
Recreational impoundment										
Wetlands or wildlife habitat										
Groundwater recharge (IPR)										
Reservoir water augmentation (IPR)										
Direct potable reuse										
Other (Description Required)										
<b>Total:</b>					846	900	900	900	900	900
<b>2020 Internal Reuse</b>										

<sup>1</sup> Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.

NOTES: Projected breakdown of recycled water for direct beneficial use is based on historical data and historical breakdown (60% landscape irrigation, and 40% industrial use).

Table 6-5 2015 Recycled Water Use Projection Compared to 2020 Actual

Submittal Table 6-5 Retail: 2015 UWMP Recycled Water Use Projection Compared to 2020 Actual		
<input type="checkbox"/>	Recycled water was not used in 2015 nor projected for use in 2020. The supplier will not complete the table below. If recycled water was not used in 2020, and was not predicted to be in 2015, then check the box and do not complete the table.	
Beneficial Use Type	2015 Projection for 2020 <sup>1</sup>	2020 Actual Use <sup>1</sup>
<i>Insert additional rows as needed.</i>		
Agricultural irrigation		
Landscape irrigation (exc golf courses)	548	507
Golf course irrigation		
Commercial use		
Industrial use	366	339
Geothermal and other energy production		
Seawater intrusion barrier		
Recreational impoundment		
Wetlands or wildlife habitat		
Groundwater recharge (IPR)		
Reservoir water augmentation (IPR)		
Direct potable reuse		
Other (Description Required)		
<b>Total</b>	<b>914</b>	<b>846</b>
<sup>1</sup> Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.		
NOTE:		

**6.2.5.5 ACTIONS TO ENCOURAGE AND OPTIMIZE FUTURE RECYCLED WATER USE**

**CWC 10633.**

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

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

**Table 6-6 Methods to Expand Future Recycled Water Use**

Submittal 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.		
Section 6.2.5	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>			
Retrofits	Retrofit landscape irrigation systems	Ongoing	50
<b>Total</b>			<b>50</b>
<b>*Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.</b>			
NOTES:			

The City's recycled water is provided by CBMWD. As a sub-agency of CBMWD, the City has the advantage of receiving financial assistance for plumbing retrofits necessary to receive recycled water. CBMWD advances funds for the necessary plumbing retrofits, which are then reimbursed. In addition, CBMWD offers recycled water at a lower rate and

the savings are passed on to City customers with non-potable water demands. CBMWD also promotes the use of recycled water within its system as a more reliable water source than imported water. Additional details on CBMWD's recycled water program are available in CBMWD's 2020 Plan which is incorporated by reference.

### 6.2.6 DESALINATED WATER OPPORTUNITIES

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#### CWC 10631.

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

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#### Central Basin

The average TDS concentrations for the Central Basin groundwater is less than its secondary Maximum Contaminant Level (MCL) of 1,000 mg/l, based on most recent available data in the City's groundwater wells. Consequently, 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 future potential water supply source, if needed, through coordination with other agencies that have ocean desalination programs.

### 6.2.7 WATER EXCHANGES AND TRANSFERS

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#### CWC 10631.

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

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### **6.2.7.1 EXCHANGES**

Pursuant to DWR's 2020 Final Guidebook, "*Water exchanges are typically water delivered by one water user to another water user, with the receiving water user providing water in return at a specified time or when the conditions of the parties' agreement are met. Water exchanges can be strictly a return of water on a basis agreed upon by the participants or it can include payment and the return of water.*"

The City does not have any current or planned water exchanges.

### **6.2.7.2 TRANSFERS**

Pursuant to DWR's 2020 Final Guidebook, "*The Water Code defines a water transfer as a temporary or long-term change in the point of diversion, place of use, or purpose of use due to a transfer, sale, lease, or exchange of water or water rights.*"

Pursuant to the Central Basin Judgment (discussed in Section 6.2), parties to the Judgments are allowed to assign, transfer, license, or lease their water rights. The Judgment also allows for the transfer of stored water between parties. The City is able to utilize the transfer opportunities available for Chino Basin water when necessary.

### **6.2.7.3 EMERGENCY INTERTIES**

Emergency interties (or interconnections) are distribution system interconnections between water agencies for use during critical situations where one system or the other is temporarily unable to provide sufficient potable water to meet its water demands and/or fire protection needs. An emergency interconnection will allow a water system to continue serving water during critical situations such as local water supply shortages as a result of earthquakes, fires, prolonged power outages, and droughts.



The City has emergency interconnections with the City of Whittier that serve as short-term emergency exchange opportunities. This is a 6-inch connection that consists of a 6-inch pressure-reducing valve tied to an 8-inch main and is capable of providing up to 2,200 gallons per minute (gpm). This emergency source would be chlorinated through an existing 2-inch tap by using one of the City's portable chlorination units.

### 6.2.8 FUTURE WATER PROJECTS

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#### CWC 10631.

*(f) Include a description of all water supply projects and water supply programs that may be undertaken by the urban water supplier to meet the total projected water use, as established pursuant to subdivision (a) of Section 10635. The urban water supplier shall include a detailed description of expected future projects and programs that the urban water supplier may implement to increase the amount of the water supply available to the urban water supplier in normal and single-dry water years and for a period of drought lasting five consecutive water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.*

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As discussed in Section 6.2, the City has not pumped any groundwater from its wells since 2014 due to water quality issues. The City is looking into the viability of re-activating its Well No. 2, which has been inactive since 2007 due to arsenic levels. The assessment may begin in 2021, however, it is not known if Well No. 2 can be rehabilitated (to allow the City to produce from the Central Basin) or if the well will need to be abandoned.

The City is currently proceeding with a project to increase the size and capacity of its interconnection with the City of Whittier to be able to receive more water from the CBWQPP. This project is estimated to be completed during 2021 and will increase the existing capacity from 1,800 gpm to 4,900 gpm. It is estimated the City could potentially receive up to an additional 5,000 AFY with the increased capacity.

**Table 6-7 Expected Future Water Supply Projects or Programs**

Submittal Table 6-7 Retail: Expected Future Water Supply Projects or Programs						
<input type="checkbox"/>	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.					
<input type="checkbox"/>	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.					
Section 6.2.8	Provide page location of narrative in the UWMP					
Name of Future Projects or Programs	Joint Project with other suppliers?		Description (if needed)	Planned Implementation Year	Planned for Use in Year Type <i>Drop Down List</i>	Expected Increase in Water Supply to Supplier* <i>This may be a range</i>
	<i>Drop Down List (y/n)</i>	<i>If Yes, Supplier Name</i>				
<i>Add additional rows as needed</i>						
Well No. 2	No		Assessment of Water Well No. 2	2021	All Year Types	2,000 AFY
Expand Interconnection	Yes	City of Whittier	Increase the size and capacity of its interconnection with the City of Whittier	2021	All Year Types	5,000 AFY
<b>*Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.</b>						
NOTES:						

## 6.2.9 SUMMARY OF EXISTING AND PLANNED SOURCES OF WATER

### CWC 10631.

*(b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a), providing supporting and related information, including all of the following...*

*(b)(2) When multiple sources of water supply are identified, a description of the management of each supply in correlation with the other identified supplies.*

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

### 6.2.9.1 DESCRIPTION OF SUPPLIES

As discussed in Section 6.2, the City's water supply sources consist of treated imported water purchased from CBMWD (see Section 6.2.1), treated groundwater purchased from CBWQPP (see Section 6.2.1), and recycled water (see Section 6.2.5). The actual quantities of the water supply sources available to the City during FY 2019-20 are summarized in Table 6-8. The reliable quantities of projected water supply sources available to the City in five-year increments through FY 2044-45 during normal or average years are summarized in Table 6-9. The reliability of these sources of supply are addressed in Section 7.2.3, including during normal years, single dry years, and five consecutive year droughts.

The order of use of the City's projected reliable water supplies from FY 2019-20 through FY 2044-45 in five-year increments is based on historical practices, water supply availability, and the cost of water. It is anticipated the City will initially use treated

groundwater from CBWQPP. At the same time the City will continue to use recycled water for non-potable demands. The City will also use treated imported water.

### **6.2.9.2 QUANTIFICATION OF SUPPLIES**

The actual quantities of the water supply sources available to the City during FY 2019-20 are summarized in Table 6-8. The reliable quantities of projected water supply sources available to the City in five-year increments through FY 2044-45 during average years are summarized in Table 6-9. The reliability of these sources of supply are addressed in Section 7.2.3, including during normal years, single dry years, and five consecutive year droughts.

The City's projected quantities of treated imported water supplies and/or local surface water supplies are based on historical long-term averages and available supplies during previous dry year conditions. The City's projected quantities of recycled water supplies to meet non-potable demands are based on historical long-term averages. The City's projected quantities of groundwater supplies from CBWQPP and treated imported water are based on meeting the remainder of the City's total water demands. Consequently, it is anticipated the City will have sufficient water supplies available to meet projected demands.

**Table 6-8 Water Supplies - Actual**

Submittal Table 6-8 Retail: Water Supplies — Actual				
Water Supply	Additional Detail on Water Supply	2020		
<b>Drop down list</b> May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool		Actual Volume*	Water Quality Drop Down List	Total Right or Safe Yield* (optional)
Add additional rows as needed				
Purchased or Imported Water	Central Basin Municipal Water District	2,564	Drinking Water	
Purchased or Imported Water	Water Quality Protection Plan	2,413	Drinking Water	
Recycled Water		846	Recycled Water	
<b>Total</b>		<b>5,823</b>		<b>0</b>
<i>*Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.</i>				
NOTES:				

**Table 6-9 Water Supplies - Projected**

Submittal Table 6-9 Retail: Water Supplies — Projected											
Water Supply	Additional Detail on Water Supply	Projected Water Supply * Report To the Extent Practicable									
		2025		2030		2035		2040		2045 (opt)	
		Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)
Add additional rows as needed											
Purchased or Imported Water	Central Basin Municipal Water District	3,096		3,242		3,390		3,542		3,697	
Purchased or Imported Water	Water Quality Protection Plan	2,350		2,350		2,350		2,350		2,350	
Recycled Water		900		900		900		900		900	
<b>Total</b>		<b>6,346</b>	<b>0</b>	<b>6,492</b>	<b>0</b>	<b>6,640</b>	<b>0</b>	<b>6,792</b>	<b>0</b>	<b>6,947</b>	<b>0</b>
<i>*Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.</i>											
NOTES:											

## **6.2.10 SPECIAL CONDITIONS**

The City considered the issues described below when developing its planned sources of water supply.

### **6.2.10.1 CLIMATE CHANGE EFFECTS**

Climate change has the possibility of impacting the availability of planned water supplies, particularly during a drought period. Section 4.5 of this Plan provides a discussion regarding climate change effects on the City's various sources of supply.

### **6.2.10.2 REGULATORY CONDITIONS AND PROJECT DEVELOPMENT**

The City has considered the implications of changing regulatory conditions and project development on the availability of planned water supplies. Section 1.4 provides a discussion the reduced reliance on imported water supplies. In addition, Section 6.2.5 discusses the proposed Carson recycled water project.

### **6.2.10.3 OTHER LOCALLY APPLICABLE CRITERIA**

There are no locally applicable criteria which applies to the City.

## **6.3 SUBMITTAL TABLES COMPLETION USING THE OPTIONAL PLANNING TOOL**

As discussed in Section 4.2.5, DWR has created an optional "Planning Tool Worksheet" for water suppliers to review and assess monthly water use trends. However, DWR has deemed the tool as optional and the City is not required by DWR to use the tool. Section 6.1 provides a tabulation of the City's historical annual water uses for each water supply source. During the past 10 years, the City experienced a five consecutive year drought

within its service area from FY 2011-12 to FY 2015-16. In addition, historical records indicate the City's annual water demands typically have been even greater prior to FY 2011-12. The City has been able to provide sufficient water supplies to its customers, including during long-term droughts and years with historically high water demands. In addition, the City has been able to provide water service to meet maximum day water demands for these years, including during the summer months. A further discussion regarding the reliability of the City's water supply sources is provided in Chapter 7.

## 6.4 ENERGY USE

### CWC 10631.2.

*(a) In addition to the requirements of Section 10631, an urban water management plan shall include any of the following information that the urban water supplier can readily obtain:*

- (1) An estimate of the amount of energy used to extract or divert water supplies.*
- (2) An estimate of the amount of energy used to convey water supplies to the water treatment plants or distribution systems.*
- (3) An estimate of the amount of energy used to treat water supplies.*
- (4) An estimate of the amount of energy used to distribute water supplies through its distribution systems.*
- (5) An estimate of the amount of energy used for treated water supplies in comparison to the amount used for nontreated water supplies.*
- (6) An estimate of the amount of energy used to place water into or withdraw from storage.*
- (7) Any other energy-related information the urban water supplier deems appropriate.*

“Energy intensity” is defined as the quantity of energy consumed, measured in kilowatt hours (kWh), divided by the volume of water, measured in AF for a water management process over a one-year period. The information used to calculate the estimated energy intensity associated with the City's water system is provided below. The energy intensity

information is based on readily obtainable energy and water use data for the following water management processes: 1) extraction or diversion of water supplies; 2) placement into storage; 3) conveyance to distribution; 4) treatment; and 5) water system distribution.

The City has tabulated its energy intensity using readily obtainable energy consumption data obtained from monthly electricity bills from Southern California Edison (SCE) for the whole water system and the corresponding water use data obtained from available water meter readings. The City has reported the energy intensity associated with the water management processes which occur within its operational control. Because the City does not track individual energy usage for each water management process identified above, the City has estimated the energy intensity using the a “total utility approach” (i.e. sum of all water management processes). The total energy consumed was approximately 1,596 kWh during FY 2019-20. Although the total energy consumption reported includes electricity usage for general administration (e.g. at the City’s headquarters) which is not associated with any water management processes, the general administration energy usage is considered negligible compared to overall water system use and has not been netted out.

The total volume of water entering the potable water system was approximately 4,977 AF during FY 2019-20 and is consistent with the total volume of water provided in Table 4-1 (less recycled water supplies).

The total energy intensity associated with the City’s water management processes is estimated at less than 1 kWh/AF. The energy intensity data and calculations based on the “total utility approach” are provided in Table O-1B below.

The City’s water management processes do not include “consequential hydropower generation” where the energy generation is a direct consequence of water delivery (i.e. all water passing through the energy generation devices is delivered to users). The City’s water management processes do not include “non-consequential hydropower generation”



where the energy generation is not a direct consequence of water delivery (i.e. energy could be generated even if no water was being delivered to water users). In addition, the City’s water management processes do not include any substantial “self-generated energy sources” including solar, wind, geothermal, biomass, co-generation, and diesel generator sources.

**Table O-1B. Recommended Energy Reporting — Total Utility Approach**

**Urban Water Supplier:** City of Santa Fe Springs

**Water Delivery Product** (If delivering more than one type of product use Table O-1C)

Retail Potable Deliveries

Table O-1B: Recommended Energy Reporting - Total Utility Approach				
Enter Start Date for Reporting Period	7/1/2019	Urban Water Supplier Operational Control		
End Date	6/30/2020			
<input type="checkbox"/> Is upstream embedded in the values reported?		Sum of All Water Management Processes	Non-Consequential Hydropower	
<i>Water Volume Units Used</i>	AF	Total Utility	Hydropower	Net Utility
<i>Volume of Water Entering Process (volume unit)</i>		4977	0	4977
<i>Energy Consumed (kWh)</i>		1596	0	1596
<i>Energy Intensity (kWh/volume)</i>		0.3	0.0	0.3
<b>Quantity of Self-Generated Renewable Energy</b>				
0 kWh				
<b>Data Quality</b> ( <i>Estimate, Metered Data, Combination of Estimates and Metered Data</i> )				
<u>Combination of Estimates and Metered Data</u>				
<b>Data Quality Narrative:</b>				
The total energy consumed was identified based on Southern California Edison (SCE) billing records. Although the total energy consumed includes electricity usage for general administration (which is not an identified water management process), general administration energy use is considered to be negligible compared to overall water system use and has not been netted out.				
<b>Narrative:</b>				
The total energy consumption includes energy associated with operating booster pumps to deliver water in the distribution system. Energy consumption is also associated with plant lighting and air conditioning, and operating the Supervisory Control and Data Acquisition (SCADA) system and chlorination injection pumps.				

## CHAPTER 7

### **WATER SERVICE RELIABILITY AND DROUGHT RISK ASSESSMENT**

#### LAY DESCRIPTION – CHAPTER 7

#### **WATER SERVICE RELIABILITY AND DROUGHT RISK ASSESSMENT**

Chapter 7 (Water Service Reliability and Drought Risk Assessment) of the City's 2020 Plan discusses and provides the following:

- FY 2016-17 represents an “average” or “normal” water year for the City in which the total amount of rainfall was similar to the historical average rainfall.
- A “single dry” year for the City was represented in FY 2017-18, in which the total amount of rainfall was below the historical average rainfall.
- A “five consecutive year drought” period for the City is represented from FY 2011-12 to FY 2015-16, where the total amount of rainfall during each of these years was less than the historical average rainfall.
- The City's current and projected water supplies available during normal years in five-year increments over the next 25 years are provided (through Fiscal Year 2044-45) as shown on Table 7-2.
- The City's current and projected water supplies available during single dry years in five-year increments over the next 25 years are provided (through Fiscal Year 2044-45) as shown on Table 7-3.
- The City's current and projected water supplies available during each year of a five consecutive year drought in five-year increments over the next 25 years are provided (through Fiscal Year 2044-45) as shown on Table 7-4.
- The reliability of the City's water supply sources, including a review of water supply constraints, is provided. A single dry year or a five consecutive year drought period

will not compromise the City's ability to provide a reliable supply of water to its customers.

- A Drought Risk Assessment (or DRA) is provided which includes an assessment of the City's water supply reliability over a five consecutive year drought period. The City's DRA assumes a five consecutive year drought from FY 2020-21 through FY 2024-25 and includes a review of water supplies, water uses, and water supply reliability for each water supply source during this period. The City's water system has experienced a prior five consecutive year drought with no limitation to its collective water supplies. However, the cost of those water supplies may have increased based on the mix of water supplies which are used. Consequently, the City has the ability to enact varying water shortage levels (see Chapter 8) to help educate its customers and provide an economic incentive for the retail customers to reduce their water consumption.

## **7.1 INTRODUCTION**

This section of the City's UWMP describes the City's ability to meet retail customer water demands by analyzing a variety of factors which affect the City's water supply. This section assesses the City's water service reliability during average years, single dry years, and during a five consecutive year drought period to meet the water needs of its customers. This section also includes the discussion of a Drought Risk Assessment which provides a mechanism for the City to evaluate the risk to its water supply under a drought lasting for the next five consecutive years.

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## 7.2 WATER SERVICE RELIABILITY ASSESSMENT

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### CWC 10635.

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

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Information regarding the reliability of the City's water supplies is based on the historical precipitation data in the Central Basin area. Historical annual precipitation in the Central Basin area is discussed in Section 3.3 and is based on historical data collected from Station 049660 (Whittier City Yard, California). Furthermore, Section 4.5 of this Plan notes that potential future climate change impacts may result in an increase in the average annual precipitation within the City's service area, thus indicating use of historical data is a reasonable and conservative approach. As indicated in Section 3.3, the historical average rainfall in the vicinity of the City's service area is 14.5 inches. FY 2016-17 represents an average or normal water year for the City in which the total amount of rainfall was similar to the historical average rainfall. A single dry year for the City was represented in FY 2017-18, in which the total amount of rainfall was below the historical average rainfall. A five consecutive year drought period for the City is represented from FY 2011-12 to FY 2015-16, where the total amount of rainfall during each of these years was less than the historical average rainfall. Table 7-1 summarizes these "base years" for average, single dry, and five consecutive year drought and provides the total amount of water supplies available to the City during those base years. The following discussion assesses the water service reliability of the City's water supply sources.

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### **Water Service Reliability - Imported Water**

The City's treated imported water supplies from MWD, through CBMWD, may be impacted during a multi-year drought or other conditions which limits MWD from delivering sufficient water supplies to all of its member agencies, and consequently to the City. In anticipation of such a reduction in supplies, MWD developed a WSAP which is briefly described below. The WSAP provides a means of equitably providing reduced water supplies to each of MWD's member agencies for up to 10 levels of reduction representing up to a 50 percent reduction.

During calendar year 2007, critically dry conditions impacted MWD's water supply sources. In addition, a ruling in the Federal Courts in August 2007 provided protective measures for the Delta Smelt (and subsequently other aquatic species) in the Sacramento-San Joaquin River Delta resulting in restrictions on the availability of State Water Project water. As a result, MWD adopted a WSAP in February 2008 to allocate available water supplies to its member agencies. MWD revised the WSAP in December 2014.

The WSAP establishes ten different shortage levels and a corresponding Allocation to each member agency. Based on the shortage levels established by MWD, the WSAP provides a separate reduced Allocation to a member agency for its 1) Municipal and Industrial retail demand and 2) replenishment demand. The WSAP formula considers historical local water production, full service treated water deliveries, agricultural deliveries and water conservation efforts when calculating each member agency's Allocation.

In general, the WSAP process calculates total historical member agency demand. That historical demand is then compared to member agency projected local supply for a specific Allocation year. The balance required from MWD, less an Allocation reduction factor, is the member agency's "Water Supply Allocation" of imported water from MWD.

When a member agency reduces its local demand through conservation or other means, the Allocation of imported water will increase. Depending on MWD's available supply, MWD can establish a specific WSAP shortage level. The shortage level causes a regional reduction and calculates an allocation for each of its member agency. Additional information about MWD's WSAP is provided in MWD's Regional 2020 UWMP which is incorporated by reference. The following is a summary of MWD's water shortage levels:

- Level 1 – Regional Percent Reduction of 5%
- Level 2 – Regional Percent Reduction of 10%
- Level 3 – Regional Percent Reduction of 15%
- Level 4 – Regional Percent Reduction of 20%
- Level 5 – Regional Percent Reduction of 25%
- Level 6 – Regional Percent Reduction of 30%
- Level 7 – Regional Percent Reduction of 35%
- Level 8 – Regional Percent Reduction of 40%
- Level 9 – Regional Percent Reduction of 45%
- Level 10 – Regional Percent Reduction of 50%

In response to a fourth consecutive year of below average rainfall and critically dry conditions, MWD declared a WSAP Allocation Level 3 for fiscal year 2015-16, which represented a regional reduction of 15 percent. MWD rescinded the WSAP for fiscal year 2016-17 and has not reinstated the WSAP since that time.

### **Water Service Reliability - Groundwater**

#### **Central Basin Groundwater Production**

The Central Basin groundwater supplies are managed by the Central Basin Watermaster (WRD), as discussed in Section 6.2.2. Over the past five years, the City has not produced groundwater from the Central Basin. During a five consecutive year drought (FY 2011-

12 to FY 2015-16), the City met between 0 and 20 percent of its total demands with supplies from the Central Basin.

### Purchased Central Basin

The City can also purchase treated Central Basin water from the CBWQPP (as discussed in Section 6.2.1). During a five consecutive year drought (FY 2011-12 to FY 2015-16), the City met between 31 and 44 percent of its total demands with purchased groundwater supplies from the Central Basin.

## **Water Service Reliability Summary**

Table 7-1 shows the water supplies during the base years (for average year, single dry year and a five consecutive year drought). As a result of the City's diverse water supply portfolio, water supplies may be re-apportioned during a five consecutive year drought to meet the City's water demands.

### **7.2.1 SERVICE RELIABILITY - CONSTRAINTS ON WATER SOURCES**

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#### **CWC 10631.**

*(b)(1) A detailed discussion of anticipated supply availability under a normal water year, single dry year, and droughts lasting at least five years, as well as more frequent and severe periods of drought, as described in the drought risk assessment. For each source of water supply, consider any information pertinent to the reliability analysis conducted pursuant to Section 10635, including changes in supply due to climate change.*

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The City's sources of supplies consist of treated groundwater from CBWQPP, treated imported water purchased from MWD through CBMWD, and recycled water supplies from CBMWD, as described in Section 6.2. Although all of these supplies are managed, the following constraints may occur which the City has considered in this reliability analysis.

## Imported Water

The City receives treated surface water from MWD through CBMWD. Water quality from MWD relating to supply reliability is addressed separately in MWD's 2020 Regional Urban Water Management Plan.

## **7.2.2 SERVICE RELIABILITY - YEAR TYPE CHARACTERIZATION**

### **7.2.2.1 TYPES OF YEARS**

The City's base years for an average year, a single dry year, and a five consecutive year drought are discussed in Section 7.2 and are summarized in Table 7-1. As indicated in Chapter 6, the City's water supplies sources have been sufficient in meeting the City's historical water demands during an average year, a single dry year, and a five consecutive year drought. An average year was based on a historical 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 five consecutive year drought 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 one of the driest years during the past 10 years. The five consecutive year drought period was based on a period of five consecutive dry years during the past 10 years.

As indicated in Section 3.3, the historical average rainfall in the vicinity of the City's service area is 14.5 inches. FY 2016-17 represents an average or normal water year for the City in which the total amount of rainfall was similar to the historical average rainfall. A single dry year for the City was represented in FY 2017-18, in which the total amount of rainfall was less than the historical average rainfall. A five consecutive year drought period for the City is represented from FY 2011-12 to FY 2015-16, where the total amount of rainfall during each of these years was less than the historical average rainfall. Table 7-1 summarizes these "base years" for an average year, a single dry year and a five



consecutive year drought period and provides the total amount of water supplies available to the City during those base years.

**Table 7-1 Basis of Water Year Data (Reliability Assessment)**

Submittal Table 7-1 Retail: Basis of Water Year Data (Reliability Assessment)			
Year Type	Base Year If not using a calendar year, type in the last year of the fiscal, water year, or range of years, for example, water year 2019-2020, use 2020	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	2017	5,993	100%
Single-Dry Year	2018	6,298	105.1%
Consecutive Dry Years 1st Year	2012	6,740	112.5%
Consecutive Dry Years 2nd Year	2013	7,154	119.4%
Consecutive Dry Years 3rd Year	2014	7,399	123.5%
Consecutive Dry Years 4th Year	2015	6,728	112.3%
Consecutive Dry Years 5th Year	2016	6,152	102.6%
<p><i>Supplier 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 a Supplier 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.</i></p>			
<p><b>*Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.</b></p>			
<p>NOTES:</p>			

### 7.2.2.2 SOURCES FOR WATER DATA

The monthly historical average temperatures (including minimum and maximum), monthly historical average rainfall, and monthly ETo in the vicinity of the City's service area are discussed in Section 3.3 Historical climate information was obtained from the WRCC, DPW, and from DWR's CIMIS.

### 7.2.3 WATER SERVICE RELIABILITY – SUPPLY AND DEMAND COMPARISON

#### CWC 10635.

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

The City primarily obtains its water supplies from imported water provided by MWD through CBMWD and treated groundwater purchased from the CBWQPP. 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 five consecutive year drought period will not compromise the City's ability to provide a reliable supply of water to its customers.

As previously discussed in Section 4.2.6, the City's projected normal year water demands over the next 20 years, in five-year increments, were based on the City's 2020 Water Use Target of 250 GPCD for potable water demands. The ratio of total water supplies (including potable and recycled water supplies) available to the City during a historical

average year in FY 2016-17 (or 5,993 AF) and during a historical single dry year in FY 17-18 (or 6,298 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 average year in FY 2016-17 (or 5,993 AF) and a historical a five consecutive year drought period from FY 2011-12 to FY 2015-16 (or 6,740 AF, 7,154 AF, 7,399 AF, 6,728 AF, and 6,152 AF, respectively) was used to estimate the City’s projected water demands during a five consecutive year drought period. The City’s projected dry year water supplies over the next 25 years were based on the minimum supplies needed by the City to meet projected single-dry year demands. Table 7-2, Table 7-3, and Table 7-4 summarize the City’s projected water demands and supplies over the next 25 years in five-year increments, including during normal years, single dry years, and a five consecutive year drought periods. These tables indicate the City can meet water demands during normal years, single dry years, and a five consecutive year drought periods over the next 25 years.

**7.2.3.1 WATER SERVICE RELIABILITY – NORMAL YEAR**

Table 7-2 summarizes the City’s projected water demands and supplies over the next 25 years in five-year increments during normal years. Table 7-2 indicates the City can meet water demands during normal years over the next 25 years.

**Table 7-2 Normal Year Supply and Demand Comparison**

Submittal Table 7-2 Retail: Normal Year Supply and Demand Comparison					
	2025	2030	2035	2040	2045 (Opt)
Supply totals ( <i>autofill from Table 6-9</i> )	6,346	6,492	6,640	6,792	6,947
Demand totals ( <i>autofill from Table 4-3</i> )	6,346	6,492	6,640	6,792	6,947
Difference	0	0	0	0	0
NOTES:					

### 7.2.3.2 WATER SERVICE RELIABILITY – SINGLE DRY YEAR

Table 7-3 summarizes the City’s projected water demands and supplies over the next 25 years in five-year increments during single dry years. Table 7-3 indicates the City can meet water demands during single dry years over the next 25 years.

**Table 7-3 Single Dry Year Supply and Demand Comparison**

Submittal Table 7-3 Retail: Single Dry Year Supply and Demand Comparison					
	2025	2030	2035	2040	2045 (Opt)
Supply totals*	6,671	6,822	6,978	7,138	7,302
Demand totals*	6,671	6,822	6,978	7,138	7,302
Difference	0	0	0	0	0
<i>*Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.</i>					
NOTES:					

### 7.2.3.3 WATER SERVICE RELIABILITY – FIVE CONSECUTIVE DRY YEARS

Table 7-4 summarizes the City’s projected water demands and supplies over the next 25 years in five-year increments during five consecutive year drought periods. Table 7-4 indicates the City can meet water demands during five consecutive year drought periods over the next 25 years.

Table 7-4 Multiple Dry Years Supply and Demand Comparison

Submittal Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison						
		2025*	2030*	2035*	2040*	2045* (Opt)
First year	Supply totals	7,138	7,300	7,467	7,638	7,814
	Demand totals	7,138	7,300	7,467	7,638	7,814
	Difference	0	0	0	0	0
Second year	Supply totals	7,577	7,750	7,927	8,108	8,295
	Demand totals	7,577	7,750	7,927	8,108	8,295
	Difference	0	0	0	0	0
Third year	Supply totals	7,837	8,015	8,198	8,386	8,579
	Demand totals	7,837	8,015	8,198	8,386	8,579
	Difference	0	0	0	0	0
Fourth year	Supply totals	7,126	7,288	7,455	7,626	7,801
	Demand totals	7,126	7,288	7,455	7,626	7,801
	Difference	0	0	0	0	0
Fifth year	Supply totals	6,515	6,664	6,816	6,972	7,132
	Demand totals	6,515	6,664	6,816	6,972	7,132
	Difference	0	0	0	0	0
Sixth year (optional)	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
*Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.						
NOTES:						

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## 7.2.4 DESCRIPTION OF MANAGEMENT TOOLS AND OPTIONS

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### CWC 10620.

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

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As noted in Section 6.2.2, the Central Basin is managed by the WRD. During the period of management under the Judgment, significant drought events have occurred. In each drought cycle the Central 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 Central Basin for adequate supply over the next 25 years under single dry years and a five consecutive year drought periods.

Section 6.2.2 provides a description of the management of groundwater resources in the Central Basin, as well as information on basin management. Chapter 6 also demonstrates the management structure of the Central Basin provides a reliable source of groundwater supply for the City during a normal year, a single-dry year and a five consecutive year drought. Historical data indicates the Central Basin has been well managed for the full period of the adjudication, resulting in a stable and reliable water supply. Basin management changes are discussed in Section 6.2.2 and include increased direct use of recycled water (see Section 6.5) and the planned use of treated recycled water for groundwater replenishment in the Central Basin to reduce the need to import water from other regions. Therefore, the groundwater supplies in the Central Basin are deemed reliable.

## 7.3 DROUGHT RISK ASSESSMENT

### CWC 10635.

*(b) Every urban water supplier shall include, as part of its urban water management plan, a drought risk assessment for its water service to its customers as part of information considered in developing the demand management measures and water supply projects and programs to be included in the urban water management plan. The urban water supplier may conduct an interim update or updates to this drought risk assessment within the five-year cycle of its urban water management plan update. The drought risk assessment shall include each of the following:*

*(1) A description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts five consecutive water years, starting from the year following when the assessment is conducted.*

*(2) A determination of the reliability of each source of supply under a variety of water shortage conditions. This may include a determination that a particular source of water supply is fully reliable under most, if not all, conditions.*

*(3) A comparison of the total water supply sources available to the water supplier with the total projected water use for the drought period.*

*(4) Considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.*

The City's sources of supplies consist of treated groundwater from CBWQPP, treated imported surface water purchased from MWD through CBMWD, and recycled water supplies from CBMWD. The following discussion provides a Drought Risk Assessment which assesses the City's water supply reliability over a five consecutive year drought period. The City's DRA incorporates a five consecutive year drought from FY 2020-21 through FY 2024-25 and includes a review of water supplies, water uses, and water supply reliability.

### 7.3.1 DRA, DATA, METHODS, AND BASIS FOR WATER SHORTAGE CONDITIONS

The City's DRA was prepared using historical production data from the City's water supply sources. The following assumptions were considered during the preparation of the City's DRA for each year of the five consecutive year drought.

- The five consecutive year drought period associated with the 2020 UWMP is based on five consecutive dry years from FY 2020-21 through FY 2024-25
- The projected water supplies available during each year of this five consecutive year drought are assumed to be identical to the water supplies produced during each year between FY 2011-12 and FY 2015-16 (which represents the most recent and historical five consecutive year drought).
- The projected demands during this five consecutive year drought are based on water demands from FY 2016-17 (a normal year) which were adjusted based on projected population over the next five years along with the ratio of the normal year demands to actual demands over each year of the most recent and historical five consecutive year drought period (from FY 2011-12 and FY 2015-16).
- The projected demands were compared to the projected supplies to identify potential water supply deficits which may require implementation of the Water Shortage Contingency Plan (discussed further in Chapter 8).

The following methodologies were considered during the preparation of the City's DRA during for each year of the five consecutive year drought:



- Drought Year 1: The region had experienced an average to above average year of precipitation in the prior year. Water use in the prior year had been below average due to a reduce need for outdoor water use, the groundwater basin had been replenished from above average local stormwater runoff, and imported water supplies were not restricted.
- Drought Year 2: The region experienced a second year of below average precipitation and runoff. Retail customers increase water use for outdoor irrigation to compensate for lack of precipitation. Groundwater and imported water supplies have not been impacted.
- Drought Year 3: The region experienced a third year of below average precipitation and runoff. Retail customers increase water use for outdoor irrigation to compensate for lack of precipitation. Groundwater and imported water supplies have not been impacted. However, there is an increased demand on both groundwater and treated imported water.
- Drought Year 4: The region experienced a fourth year of below average precipitation and runoff. Groundwater supplies have not been impacted. However, there is an increased demand on groundwater.
- Drought Year 5: Fifth year of below average precipitation and runoff. Groundwater supplies have not been impacted. However, there is an increased demand on groundwater.

### 7.3.2 DRA INDIVIDUAL WATER SOURCE RELIABILITY

The City's DRA incorporates a five consecutive year drought based on five consecutive dry years commencing in FY 2021-22. The quantity of water supplies available for each year during this five consecutive year drought period included in the City's DRA is assumed to be the same as the quantity of water supplies produced by the City (i.e. demands) during the most recent and historical five consecutive year drought which occurred from FY 2011-12 through FY 2015-16. Production data for those years have

been tabulated in Section 6.1. The following describes the anticipated reliability of each water source for each year of the five consecutive year drought based on recent experience.

### Groundwater

The City purchases treated groundwater supplies from the Central Basin which is actively managed by the Central Basin Watermaster, as described in Section 6.2. The Central Basin is adjudicated; however, the water rights are fixed each year. Consequently, a Central Basin producer cannot produce in excess of its own water rights or rights it may have leased from others. The City also has access to water supplies from treated imported water and recycled water. The quantity of groundwater used (and reliably available) during the most recent and historical five consecutive year drought period have been tabulated in Section 6.1. The City manages its water supply portfolio to optimize the water supplies available each year and to avoid a water supply shortage. The City also had the ability to systematically implement aspects of its Water Shortage Contingency Plan (see Chapter 8). As a result of these collective actions (and experience during prior consecutive five-year droughts), the City does not anticipate a water supply shortage.

### Imported Water

The City obtains imported water from the Metropolitan Water District of Southern California through CBMWD. Section 6.2.1 describes the planning conducted by the Metropolitan Water District of Southern California regarding treated imported water supplies available to the City. The reliability of MWD's supplies is also discussed in its 2020 Regional UWMP and is incorporated by reference. The City purchases treated imported water which is delivered directly within its distribution system. The City's purchases of treated, imported water over the past ten years have been tabulated in Section 6.1. In the event of a drought which limits imported water supplies, the City will rely on its groundwater production.

The imported water purchases by the City during the most recent and historical five consecutive year drought period have been tabulated in Section 6.1. Because the City's DRA assumes the most recent and historical five consecutive year drought scenario will be repeated over the next five years, it is assumed the quantity of treated imported water supplies purchased during the most recent and historical five consecutive year drought scenario will be available. Furthermore, this constitutes the minimum amount of treated imported water which may be available in a future five consecutive year drought absent MWD's programs which it has since implemented.

### Recycled Water

The City has a recycled water distribution system which it has developed over the years to reduced demands on its potable water supplies as described in Section 6.2.5. The availability of recycled water supplies is not adversely impacted by drought conditions and are locally available.

The quantity of recycled water used during the most recent and historical five consecutive year drought period have been tabulated in Section 6.1. The quantity of recycled water available during each year of the most recent and historical five consecutive year drought is expected to be available during a future five consecutive year drought.

### Summary

The City's water system has experienced a prior five consecutive year drought with no limitation to its collective water supplies. However, the cost of those water supplies may have increased based on the mix of supplies which are used. Consequently, the City has the ability to enact varying water shortage levels (see Chapter 8) to help educate its customers and provide an economic incentive for the retail customers to reduce their water consumption.

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### **7.3.3 DRA TOTAL WATER SUPPLY AND USE COMPARISON**

Gross water use for the projected five consecutive year drought is shown on Table 7-5. Section 7.3.2 describes the water source reliability for each source of supply the City will rely on during a five consecutive year drought. The annual quantities are the summed and are also provided on Table 7-5. When necessary, the City can implement various water shortage levels of its Water Shortage Contingency Plan (as discussed in Chapter 8) in order to reduce its water demands. As shown in Table 7-5, assuming no additional water supply benefits will be available from groundwater supplies, the City will implement various stages of its Water Shortage Contingency Plan to balance water demands with available supplies during years 2, 3, 4, and 5 of the projected five consecutive year drought.

**Table 7-5 Five-Year Drought Risk Assessment Tables to Address Water Code Section 10635(b)**

<b>2021</b>		<b>Total</b>
Total Water Use		6,667
Total Supplies		6,740
Surplus/Shortfall w/o WSCP Action		73
<b>Planned WSCP Actions (use reduction and supply augmentation)</b>		
WSCP - supply augmentation benefit		0
WSCP - use reduction savings benefit		0
Revised Surplus/(shortfall)		73
Resulting % Use Reduction from WSCP action		0%
<b>2022</b>		<b>Total</b>
Total Water Use		7,202
Total Supplies		7,154
Surplus/Shortfall w/o WSCP Action		(48)
<b>Planned WSCP Actions (use reduction and supply augmentation)</b>		
WSCP - supply augmentation benefit		0
WSCP - use reduction savings benefit		48
Revised Surplus/(shortfall)		0
Resulting % Use Reduction from WSCP action		1%
<b>2023</b>		<b>Total</b>
Total Water Use		7,578
Total Supplies		7,399
Surplus/Shortfall w/o WSCP Action		(179)
<b>Planned WSCP Actions (use reduction and supply augmentation)</b>		
WSCP - supply augmentation benefit		0
WSCP - use reduction savings benefit		179
Revised Surplus/(shortfall)		0
Resulting % Use Reduction from WSCP action		2%
<b>2024</b>		<b>Total</b>
Total Water Use		7,009
Total Supplies		6,728
Surplus/Shortfall w/o WSCP Action		(281)
<b>Planned WSCP Actions (use reduction and supply augmentation)</b>		
WSCP - supply augmentation benefit		0
WSCP - use reduction savings benefit		281
Revised Surplus/(shortfall)		0
Resulting % Use Reduction from WSCP action		4%
<b>2025</b>		<b>Total</b>
Total Water Use		6,515
Total Supplies		6,152
Surplus/Shortfall w/o WSCP Action		(363)
<b>Planned WSCP Actions (use reduction and supply augmentation)</b>		
WSCP - supply augmentation benefit		0
WSCP - use reduction savings benefit		363
Revised Surplus/(shortfall)		0
Resulting % Use Reduction from WSCP action		6%

#### **7.3.4 OPTIONAL PLANNING TOOL WORKBOOK**

DWR has deemed the “Planning Tool Worksheet” as optional and the City is not required by DWR to use the tool. The City has provided sufficient water supplies to its customers, including during long-term droughts and years with historically high water demands. The City has also been able to provide water service to meet maximum day water demands for these years, including during the summer months.

## **CHAPTER 8**

### **WATER SHORTAGE CONTINGENCY PLAN**

#### **LAY DESCRIPTION – CHAPTER 8**

#### **WATER SHORTAGE CONTINGENCY PLAN**

Chapter 8 (Water Shortage Contingency Plan) of the City's 2020 Plan discusses and provides the following:

- The City's Water Shortage Contingency Plan is a detailed approach which presents how the City intends to act, or respond, in the case of an actual water shortage contingency.
- Preparation of the City's "Annual Water Supply and Demand Assessment" (or Annual Assessment) is discussed. Commencing July 1, 2022, the City is required to submit the Annual Assessment. The Annual Assessment will include a review of the City's "unconstrained" water demands for the current year and for a potential upcoming single dry year. Unconstrained water demands represent the City's water demands prior to any "response actions" the City may invoke pursuant to the City's Water Shortage Contingency Plan.
- The City will manage water supplies to minimize the adverse impacts of water shortages. The City's plan for water usage during periods of shortage is designed to incorporate six standard water shortage levels corresponding to progressive ranges from up to a 10, 20, 30, 40, and 50 percent shortage, and greater than a 50 percent shortage.
- For each declared water supply shortage level, customers will be required to reduce their consumption by the percentage specified in the corresponding water supply shortage level.

- For each declared water supply shortage level, the City has established response actions to reduce demand on water supplies and to reduce any shortage gaps in water supplies. These demand reduction actions include irrigation and other outdoor use restrictions, rate structure changes, and other water use prohibitions.
- The operational changes the City will consider in addressing water shortages on a short-term basis are discussed and include improved monitoring, analysis, and tracking of customer water usage to enforce demand reduction measures.
- The City's Emergency Response Plan is summarized. The Emergency Response Plan provides the management, procedures, and designated actions the City and its employees will implement during emergency situations (including catastrophic water shortages) resulting from natural disasters, system failures, and other unforeseen circumstances.
- The preparation of the City's seismic risk assessment and mitigation plan is discussed. The locations of earthquake faults in the vicinity of the City's water service area are provided.
- The effectiveness of the shortage response actions for each of the City's standard water shortage levels is presented. The City has been able to provide sufficient water supplies to its customers, including during long-term droughts and years with historically high water demands.
- The communication protocols implemented by the City when it declares any water shortage level are presented.
- The compliance and enforcement procedures associated with City's standard water shortage levels are presented.
- The legal authorities associated with City's standard water shortage levels are presented.
- The financial consequences associated with City's standard water shortage levels are presented.
- The City will evaluate the need for revising the Water Shortage Contingency Plan in order to resolve any water shortage gaps, as necessary. The steps necessary



for the City to adopt and amend its Water Shortage Contingency Plan are presented.

The following Water Shortage Contingency Plan includes references to Chapters and Sections from the City of Santa Fe Spring's 2020 Urban Water Management Plan:

## 8.1 WATER SUPPLY RELIABILITY ANALYSIS

### CWC 10632.

*(a)(1) The analysis of water supply reliability conducted pursuant to Section 10635.*

The City's sources of supply were discussed in Section 6.2 of the 2020 UWMP and consist of groundwater from CBWQPP, treated imported water purchased from MWD through CBMWD, and recycled water supplies. The reliability of the various sources of supply are discussed in Chapter 7 of this UWMP. Imported water supplies (treated) may be impacted in the event MWD implements its WSAP due to a water supply shortage.

## 8.2 ANNUAL WATER SUPPLY AND DEMAND ASSESSMENT PROCEDURES

### CWC 10632.

*(a)(2) The procedures used in conducting an annual water supply and demand assessment that include, at a minimum, both of the following:*

*(A) The written decision-making process that an urban water supplier will use each year to determine its water supply reliability.*

*(B) The key data inputs and assessment methodology used to evaluate the urban water supplier's water supply reliability for the current year and one dry year, including all of the following:*

*(i) Current year unconstrained demand, considering weather, growth, and other influencing factors, such as policies to manage current supplies to meet demand objectives in future years, as applicable.*

*(ii) Current year available supply, considering hydrological and regulatory conditions in the current year and one dry year. The annual supply and demand assessment may consider more than one dry year solely at the discretion of the urban water supplier.*

*(iii) Existing infrastructure capabilities and plausible constraints.*

*(iv) A defined set of locally applicable evaluation criteria that are consistently relied upon for each annual water supply and demand assessment.*

*(v) A description and quantification of each source of water supply.*

**CWC 10632.1.**

*An urban water supplier shall conduct an annual water supply and demand assessment pursuant to subdivision (a) of Section 10632 and, on or before July 1 of each year, submit an annual water shortage assessment report to the department with information for anticipated shortage, triggered shortage response actions, compliance and enforcement actions, and communication actions consistent with the supplier's water shortage contingency plan. An urban water supplier that relies on imported water from the State Water Project or the Bureau of Reclamation shall submit its annual water supply and demand assessment within 14 days of receiving its final allocations, or by July 1 of each year, whichever is later.*

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Commencing July 1, 2022, the City is required to submit an “Annual Water Supply and Demand Assessment” (Annual Assessment) in accordance with DWR’s guidance and requirements. The Annual Assessment will include a review of the City’s unconstrained water demands (i.e. water demands prior to any projected response actions the City may trigger under this Water Shortage Contingency Plan) for the current year and the upcoming (potential single dry) year. The City will also include information regarding anticipated shortages, triggered shortage response actions, compliance and enforcement actions, and communication actions consistent with the City’s Water Shortage Contingency Plan.

For each Annual Assessment, the City plans to prepare a preliminary assessment which evaluates the adequacy of its water supplies for the current and upcoming years by April of each year. The preliminary assessment will include a review of water supplies for at least a single dry year.

The components of Annual Assessment consist of the following:

- A written decision-making process
- Key data inputs and assessment methodology

### **8.2.1 DECISION MAKING PROCESS**

The City purchase treated groundwater supplies from CBWQPP and imported water supplies from CBMWD as its primary sources of water supply. Consequently, during the third quarter of each fiscal year the City will review its water demands from the initial six months along with the current groundwater basin conditions and local hydrology. This information will be used to help develop the Annual Assessment. A draft of the Annual Assessment will be circulated internally within the City for peer review and comment. Based on comments received, a redraft will be prepared and provided to City managers during the Spring of each year. The draft will subsequently be provided to the General Manager for final review. Subsequently, a final draft of the Annual Assessment will be provided to the City Council for review and included in the agenda as part of a City meeting such that it can be approved and any recommended specific shortage response actions may be enacted. The final Annual Assessment will be provided to DWR no later than July 1 of each year.

The Annual Assessments will be instrumental in providing guidance to the City for decisions regarding potential declarations of a water supply shortage and implementation of water reduction stages, instituting mandatory water restrictions, promoting water use efficiency and conservation programs, water rates and drought rate surcharges, and the necessity of pursuing alternative water supplies. This process will help ensure adequate water supplies resources are available to the City.

## 8.2.2 DATA METHODOLOGIES

The key data inputs and methodologies which will be evaluated by the City during the preparation of the preliminary assessment will include the following:

- 1) Evaluation Criteria: The locally applicable evaluation criteria used to prepare the Annual Assessment will be identified. The evaluation criteria will include, but is not limited to, an analysis of current local hydrology (including rainfall and groundwater levels), current water demands, a review of water system improvement plans which may impact infrastructure availability, and water quality regulations which may impact groundwater availability.
- 2) Water Supply: A description of each available water supply source will be provided. The descriptions will include a quantification of each available water supply source and will be based on review of current production capacities, historical production, Urban Water Management Plans, and prior water supply studies (including Water Supply Assessments and/or Master Plans).
- 3) Unconstrained Water Demand: The potential unconstrained water demands during the current year and the upcoming (potential single dry) year will be reviewed. The review will include factors such as weather, existing and projected land uses and populations, actual customer consumption and water use factors, monthly Urban Water Supplier Monthly Reports, existing water shortage levels (see Section 8.3), and existing water conservation ordinances (see Section 9.2.1).

- 4) Planned Water Use for Current Year Considering Dry Subsequent Year: The water supplies available to meet the demands during the current year and the upcoming (potential single dry) year will be considered and identified by each type of supply. The evaluation will include factors such as estimated water demands, weather, groundwater basin operating safe yields, water quality results, existing available pumping capacities, imported water allocations, contractual obligations, regulatory issues, use of emergency interconnections, and the costs associated with producing each water supply source.
- 5) Infrastructure Considerations: The capabilities of the water distribution system infrastructure to meet the water demands during the current year and the upcoming (potential single dry) year will be considered. Available production capacities (e.g. groundwater well capacities) and distribution system water losses (see Section 4.2.4) will be reviewed. In addition, capital improvement and replacement projects, as well as potential projects which may increase water system and production capacities (see Section 6.2.8), will be considered.
- 6) Other Factors: Additional local considerations, if any, which can affect the availability of water supplies will be described.

### 8.3 SIX STANDARD WATER SHORTAGE LEVELS

#### CWC 10632.

*(a)(3)(A) Six standard water shortage levels corresponding to progressive ranges of up to 10, 20, 30, 40, and 50 percent shortages and greater than 50 percent shortage. Urban water suppliers shall define these shortage levels based on the suppliers' water supply conditions, including percentage reductions in water supply, changes in groundwater levels, changes in surface elevation or level of subsidence, or other changes in hydrological or other local conditions indicative of the water supply available for use. Shortage levels shall also apply to catastrophic interruption of water supplies, including, but not limited to, a regional power outage, an earthquake, and other potential emergency events.*

*(B) An urban water supplier with an existing water shortage contingency plan that uses different water shortage levels may comply with the requirement in subparagraph (A) by developing and including a cross-reference relating its existing categories to the six standard water shortage levels.*

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 incorporate six standard water shortage levels corresponding to progressive ranges from up to 10, 20, 30, 40, and 50 percent shortages and greater than a 50 percent shortage.

The City’s Resolution No. 5592 (“Revising Resolution No. 5570 An Emergency Water Conservation Plan”), adopted in 1991, previously established five (5) water shortage levels. A copy of Resolution No. 5592 is provided in Appendix J. In accordance with the California Water Code in which urban water suppliers are required to define six standard water shortage level, the City has developed the crosswalk illustrated below that translated the City’s previously established shortage levels to the mandated standard shortage levels.

Corresponding Relationships Between Supplier's 2015 Shortage Levels and the 2020 WSCP Mandated Shortage Levels

Established Level	Supply Condition/ Shortage		2020 Standard Level	Shortage Level
1	10%	→	1	≤10%
2		→	2	10 to 20%
3		→	3	20 to 30%
4		→	4	30 to 40%
5	Up to 50%	→	5	40 to 50%
		→	6	> 50%

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.

**Table 8-1 Water Shortage Contingency Planning Levels**

Submittal Table 8-1 Water Shortage Contingency Plan Levels		
Shortage Level	Percent Shortage Range	Shortage Response Actions <i>(Narrative description)</i>
1	Up to 10%	During a Shortage Level 1, the City will implement the following prohibitions: (1) Restrict or prohibit runoff from landscape irrigation (2) Limit landscape irrigation to specific times (3) Limit landscape irrigation to specific days (4) Lodging establishment must offer opt out of linen service (5) Restaurants may only serve water upon request (6) Restrict water use for decorative water feature, such as fountains (7) Require automatic shut of hoses (8) Prohibit use of potable water for washing hard surface
2	Up to 20%	No customer of water shall use water contrary to the provisions in Shortage Level 1. During Shortage Level 2, no customer or user of water shall use or permit the use of water from the City in an amount in excess of eighty percent (80%).
3	Up to 30%	No customer of water shall use water contrary to the provisions in Shortage Level 1. During Shortage Level 2, no customer or user of water shall use or permit the use of water from the City in an amount in excess of seventy percent (70%).
4	Up to 40%	No customer of water shall use water contrary to the provisions in Shortage Level 1. During Shortage Level 2, no customer or user of water shall use or permit the use of water from the City in an amount in excess of sixty (60%).
5	Up to 50%	No customer of water shall use water contrary to the provisions in Shortage Level 1. During Shortage Level 2, no customer or user of water shall use or permit the use of water from the City in an amount in excess of fifty (50%).
6	>50%	No customer of water shall use water contrary to the provisions in Shortage Level 1. During Shortage Level 2, no customer or user of water shall use or permit the use of water from the City in an amount more than fifty percent.
NOTES:		

## 8.4 SHORTAGE RESPONSE ACTIONS

### CWC 10632.

*(a)(4) Shortage response actions that align with the defined shortage levels and include, at a minimum, all of the following:*

*(A) Locally appropriate supply augmentation actions.*

*(B) Locally appropriate demand reduction actions to adequately respond to shortages.*

*(C) Locally appropriate operational changes.*

*(D) Additional, mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions and appropriate to the local conditions.*

*(E) For each action, an estimate of the extent to which the gap between supplies and demand will be reduced by implementation of the action.*

### 8.4.1 DEMAND REDUCTION

A full listing of the restrictions/prohibitions associated with each shortage level is provided below.

#### Water Shortage Level 1

The following requirements apply to all customers during Shortage Level 1:

- A. To prevent the waste and unreasonable use of water and to promote water conservation, each of the following actions is prohibited, except where necessary to address an immediate health and safety need or to comply with a term or condition in a permit issued by a state or federal agency:
  1. The application of potable water to outdoor landscapes in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures.
  2. The use of a hose that dispenses potable water to wash a motor vehicle, except where a hose is fitted with a shut-off nozzle or device attached to it that causes it to cease dispensing water immediately when not in use.



3. The application of potable water to driveways and sidewalks.
  4. The use of potable water in a fountain or other decorative water feature, except where the water is part of a recirculating system.
  5. The application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall.
  6. The serving of drinking water other than upon request in eating or drinking establishments, including but not limited to restaurants, hotels, cafes, cafeterias, bars, or other public places where food or drink are served and/or purchased.
  7. The irrigation with potable water of ornamental turf on public street medians.
  8. The irrigation with potable water of landscapes outside of newly constructed homes and buildings in a manner inconsistent with regulations or other requirements established by the California Building Standards Commission and the Department of Housing and Community Development.
- B. To promote water conservation, operators of hotels and motels shall provide guests with the option of choosing not to have towels and linens laundered daily. The hotel or motel shall prominently display notice of this option in each guestroom using clear and easily understood language.
- C. Residential and commercial landscape areas shall be watered no more than two times per week, for no more than ten minutes per area. Residential and commercial landscape areas shall not be watered between the hours of 8:00 a.m. and 8:00 p.m. Watering of landscape areas shall be permitted only on Mondays and Thursdays at properties located north of the centerline of Lakeland Road, and at those properties located within the triangle bounded by Florence Avenue on the north, I-5 on the west and the railroad tracks parallel to Ringwood Avenue on the east. Watering of landscape areas shall be permitted only on Tuesdays and Fridays at properties located south of the centerline of Lakeland Road.
- D. The taking of any action prohibited by this section, or the failure to take any action required by this section, is an infraction, punishable by a fine as set forth in Cal.

Govt's Code § 36900, not to exceed \$500 for each day in which the violation occurs.

#### Water Shortage Level 2 through 6

During Shortage Level 2 through 6, no customer of water shall use water contrary to the provisions above.

### **8.4.2 SUPPLY AUGMENTATION**

The City does not plan to add a new source of water supply to address customer demands, but instead will consider increased supplies from existing sources. Table 8-3 reflects this approach and does not identify any new supplies. Instead, the City will focus on demand reduction measures in the event existing sources of supply are not sufficient to meet customer demands. As discussed in Chapter 6, the City's sources of water supply include groundwater produced from the CBWQPP, imported surface water purchased from MWD through Central Basin Municipal Water District, and recycled water supplies provided by LACSD. As noted in Section 8.2, beginning July 1, 2022, the City will prepare and submit an Annual Assessment which will include a review of water supplies available to meet water demands for the current and upcoming years. If the City is currently in, or considers entering into, one of the standard water shortage levels identified in Section 8.3, the City will consider the water supply (augmentation) actions described below.

For each water shortage level discussed in Section 8.3, the City will consider supplementing its existing water supplies through purchase of additional imported water supplies. Due to previous critically dry conditions, MWD developed the "Water Supply Allocation Plan" whereby available supplies are equitably allocated to its member agencies, including Central Basin Municipal Water District. The WSAP establishes ten different shortage levels and a corresponding drought allocation to each member agency. Based on the shortage level established by MWD, the WSAP provides a reduced drought allocation to a member agency for its M&I retail demand. The ratio of MWD water supply

drought allocation to local water supply will change based on the WSAP stage. The MWD drought allocation can be used to make Full Service water deliveries at the Tier 1 rate up to a Tier 1 allocation. Any Full Service water delivered in excess of a drought allocation is subject to a penalty rate in addition to the normal rate paid for the water.

In addition to the WSAP, MWD describes supply augmentation actions in its Regional 2020 UWMP, which is incorporated by reference. MWD's primary first response to any gap between core supplies (from the State Water Project and Colorado River) and demand is to make optimal use of its supply augmentation options, consisting of drawing from flexible supply programs and storage reserves. MWD has developed and actively manages a portfolio of water supply programs including water transfer, storage, and exchange agreements. MWD pursues voluntary water transfer and exchange programs to help mitigate supply/demand imbalances and provide additional dry-year supply sources. In addition, MWD has developed significant storage capacity in reservoirs, conjunctive use, and other groundwater storage programs totaling approximately 6.0 million AF. Pursuant to MWD's "Emergency Storage Objective", updated in 2019, approximately 750,000 AF of total stored water is emergency storage reserved by MWD for use in the event of supply interruptions. Based on MWD's historical and on-going water supply and storage programs and management practices, the City can potentially continue relying on purchased imported water supplies from MWD through CBMWD for adequate supply augmentation in response to each of the standard water shortage levels identified in Section 8.3.

**Table 8-2 Demand Reduction Actions**

Submittal Table 8-2: Demand Reduction Actions				
Shortage Level	Demand Reduction Actions <i>Drop down list</i> <i>These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.</i>	How much is this going to reduce the shortage gap? <i>Include units used (volume type or percentage)</i>	Additional Explanation or Reference <i>(optional)</i>	Penalty, Charge, or Other Enforcement? <i>For Retail Suppliers Only</i> <i>Drop Down List</i>
<i>Add additional rows as needed</i>				
1	Landscape - Restrict or prohibit runoff from landscape irrigation	Collective reduction from all Shortage Level 1 actions is up to 428 AFY		Yes
1	Landscape - Limit landscape irrigation to specific times	Collective reduction from all Shortage Level 1 actions is up to 428 AFY		Yes
1	Landscape - Limit landscape irrigation to specific days	Collective reduction from all Shortage Level 1 actions is up to 428 AFY		Yes
1	CII - Lodging establishment must offer opt out of linen service	Collective reduction from all Shortage Level 1 actions is up to 428 AFY		Yes
1	CII - Restaurants may only serve water upon request	Collective reduction from all Shortage Level 1 actions is up to 428 AFY		Yes
1	Water Features - Restrict water use for decorative water features, such as fountains	Collective reduction from all Shortage Level 1 actions is up to 428 AFY		Yes
1	Other - Require automatic shut of hoses	Collective reduction from all Shortage Level 1 actions is up to 428 AFY		Yes
1	Other - Prohibit use of potable water for washing hard surfaces	Collective reduction from all Shortage Level 1 actions is up to 428 AFY		Yes
2	Other	Collective reduction from Shortage Level 1 plus all Shortage Level 2 actions is up to 856 AFY	All actions under Shortage Level 1	Yes
3	Other	Collective reduction from Shortage Level 2 plus all Shortage Level 3 actions is up to 1,284 AFy	All actions under Shortage Level 2	Yes
4	Other	Collective reduction from Shortage Level 3 plus all Shortage Level 4 actions is up to 1,712 AFY	All actions under Shortage Level 3	Yes
5	Other	Collective reduction from Shortage Level 4 plus all Shortage Level 5 actions is up to 2,140 AFY	All actions under Shortage Level 4	Yes
6	Other	Collective reduction from Shortage Level 5 plus all Shortage Level 6 actions is greater than 2,140 AFY	All actions under Shortage Level 5	Yes
NOTES:				

**Table 8-3 Supply Augmentation and Other Actions**

Submittal Table 8-3: Supply Augmentation and Other Actions			
Shortage Level	Supply Augmentation Methods and Other Actions 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>	How much is this going to reduce the shortage gap? <i>Include units used (volume type or percentage)</i>	Additional Explanation or Reference <i>(optional)</i>
<i>Add additional rows as needed</i>			
1	Transfers	Not applicable (see Notes)	
2	Transfers	Not applicable (see Notes)	
3	Transfers	Not applicable (see Notes)	
4	Transfers	Not applicable (see Notes)	
5	Transfers	Not applicable (see Notes)	
6	Transfers	Not applicable (see Notes)	
NOTES: As noted on Table 8-2, the City plans to implement demand reduction measures in the event water supplies from existing sources are not sufficient to meet anticipated demands.			

### 8.4.3 OPERATIONAL CHANGES

During a water supply shortage situation, the City will manage its water supply resources to provide sufficient water supplies capable of meeting the demands of its customers. Section 8.4.1 describes the City’s standard water shortage levels and associated demand reduction measures. Section 8.4.2 describes the City’s water supply sources and water supply augmentation actions available. The supply augmentation actions and demand reduction measures, when implemented, may potentially result in short-term operational changes which are necessary to allow the City to utilize all available water supply sources in response to water shortage situations.

As noted in Section 8.2, beginning July 1, 2022, the City will prepare and submit an Annual Assessment which will include a review of the water supplies available to meet water demands for the current and upcoming years. Preparation of the Annual Assessment will assist the City in determining any potential operational changes. In addition, the City’s standard water shortage levels and the associated demand reduction measures, in conjunction with the City’s existing Demand Management Measures

(discussed in Chapter 9), will be essential to the City in reducing water demands during any water shortage period. The operational changes the City will consider in addressing non-catastrophic water shortages on a short-term basis include the following:

- Improved monitoring, analysis, and tracking of customer water usage to enforce demand reduction measures
- Optimized production from existing available water supply sources
- Potential use of emergency supply sources, including emergency interconnections
- Potential blending of water supply resources
- Improved monitoring, maintenance, and repairs to reduce water distribution system losses

#### **8.4.4 ADDITIONAL MANDATORY RESTRICTIONS**

The mandatory restrictions which are implemented by the City to reduce customer demands are discussed in Section 8.4.1. There are no additional mandatory restrictions planned at this time.

#### **8.4.5 EMERGENCY RESPONSE PLAN**

Catastrophic water shortages are incorporated in the City's standard water shortage levels (identified in Section 8.3) and the associated demand reduction measures (described in Section 8.4.1). In addition to the water supply augmentation actions (Section 8.4.2) and potential operational changes (Section 8.4.3) which the City may consider in order to continue providing sufficient water supplies, the City will review and implement any necessary steps included in its "Emergency Response Plan".

As part of the "America's Water Infrastructure Act of 2018", community water systems serving a population greater than 3,300 people, including the City, are required to review

and update their “Risk and Resilience Assessment” (RRA) and the associated “Emergency Response Plan” (ERP) every five (5) years. However, due to security concerns regarding the submitting of these reports, water systems are required to submit certifications to the United States Environment Protection Agency (USEPA), from March 31, 2020 and December 30, 2021, confirming the current RRA and ERP have been reviewed and updated.

The City’s RRA, prepared in 2021, evaluates the vulnerabilities, threats, and consequences from potential hazards to the City’s water system. The City prepared its RRA (which is incorporated by reference) by evaluating the following items:

- Natural hazards and malevolent acts (i.e., all hazards);
- Resilience of water facility infrastructure (including pipes, physical barriers, water sources and collection, treatment, storage and distribution facilities, and electronic, computer and other automated systems);
- Monitoring practices;
- Financial systems (e.g., billing systems);
- Chemical storage and handling; and
- Operation and maintenance.

The City’s RRA evaluated a series of potential malevolent acts, natural hazards, and other threats in order to estimate the potential “monetized risks” (i.e. associated economic consequences to both the water system and surrounding region, and the likelihood of occurrence) associated with the City’s water facility assets. The cost-effectiveness of implementing potential countermeasures to reduce risks was also reviewed.

The City’s ERP, prepared in 2021, provides the management, procedures, and designated actions the City and its employees will implement during emergency situations (including catastrophic water shortages) resulting from natural disasters, system failures

and other unforeseen circumstances. The City's ERP (which is incorporated by reference) provides the guidelines for evaluating an emergency situation, procedures for activating an emergency response, and details of the different response phases in order to ensure that customers receive a reliable and adequate supply of potable water. The scope of the ERP includes emergencies which directly affect the water system and the ability to maintain safe operations (such as a chlorine release, and earthquake or a threat of contamination). The ERP also incorporates the results of City's RRA and includes the following:

- Strategies and resources to improve resilience, including physical and cybersecurity
- Plans and procedures for responding to a natural hazard or malevolent act
- Actions and equipment to lessen the impact of a natural hazard or malevolent act
- Strategies to detect natural hazards or malevolent act

The City will review the ERP for procedures regarding the utilization of alternative water supply sources in response to water supply shortages, including during the standard water shortage levels. The City will also review applicable procedures described in the ERP regarding any necessary temporary shutdown of water supply facilities, including appropriate regulatory and public notifications.

#### **8.4.6 SEISMIC RISK ASSESSMENT AND MITIGATION PLAN**

##### **CWC 10632.5.**

*(a) In addition to the requirements of paragraph (3) of subdivision (a) of Section 10632, beginning January 1, 2020, the plan shall include a seismic risk assessment and mitigation plan to assess the vulnerability of each of the various facilities of a water system and mitigate those vulnerabilities.*

*(b) An urban water supplier shall update the seismic risk assessment and mitigation plan when updating its urban water management plan as required by Section 10621.*



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*(c) An urban water supplier may comply with this section by submitting, pursuant to Section 10644, a copy of the most recent adopted local hazard mitigation plan or multihazard mitigation plan under the federal Disaster Mitigation Act of 2000 (Public Law 106-390) if the local hazard mitigation plan or multihazard mitigation plan addresses seismic risk.*

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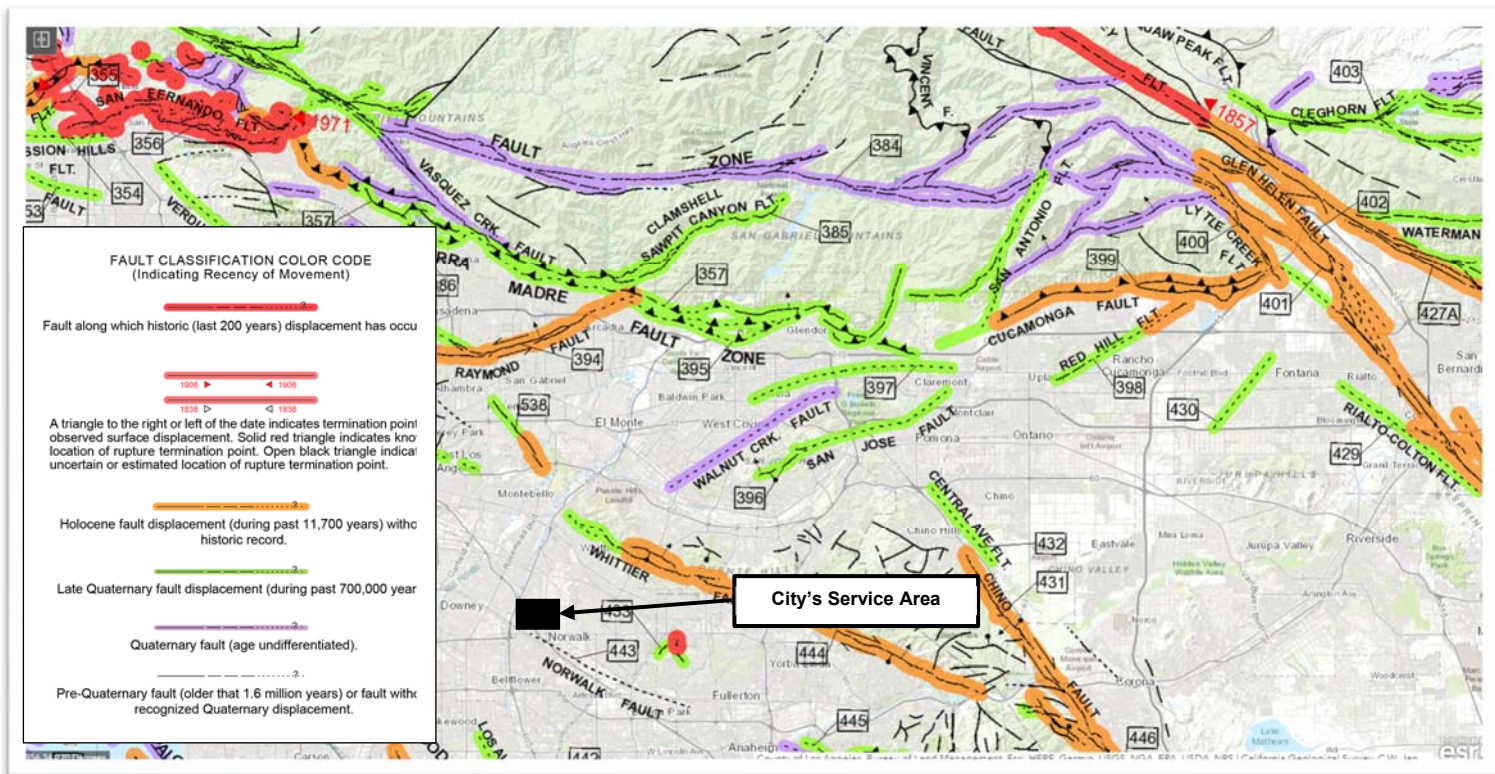
The City prepared a local “Natural Hazards Mitigation Plan” which was approved by the Federal Emergency Management Agency (FEMA) in 2004. The Hazard Mitigation Plan identifies effective ways to assess the significant natural hazards (including earthquakes) that may affect the City and its residents. The Hazard Mitigation Plan provides resources, information, and strategies to reduce the City’s vulnerability to these hazards, while providing guidance for the coordination of mitigation activities throughout the City. The Hazard Mitigation Plan includes mitigation projects necessary to reduce seismic risk to the City’s water distribution system facilities (including its distribution system pipelines, groundwater wells, booster pumps, and storage reservoirs) and potential disruptions in providing water service. The City’s Hazard Mitigation Plan is provided in Appendix K.

The County of Los Angeles prepared a “All-Hazards Mitigation Plan” in 2019 which identified methods to assess significant natural hazards (including earthquakes) affecting areas throughout Los Angeles County, and the mitigation strategies necessary to reduce risks, including seismic risk. The County’s All-Hazards Mitigation Plan is provided in Appendix L.

The California Geological Survey has published the locations of numerous faults which have been mapped in the Southern California region. Although the San Andreas fault is the most recognized and is capable of producing an earthquake with a magnitude greater than 8 on the Richter scale, some of the lesser-known faults have the potential to cause significant damage. The locations of these earthquake faults in the vicinity of the City’s water service area are provided in the figure below. The faults that are located in close proximity to and could potentially cause significant shaking in the City’s water service area

include the San Andreas fault, the Walnut Creek fault, the Whittier fault, the San Jose fault, the Cucamonga fault, the Chino fault, and the Sierra Madre fault.

**Location of Earthquake Faults**

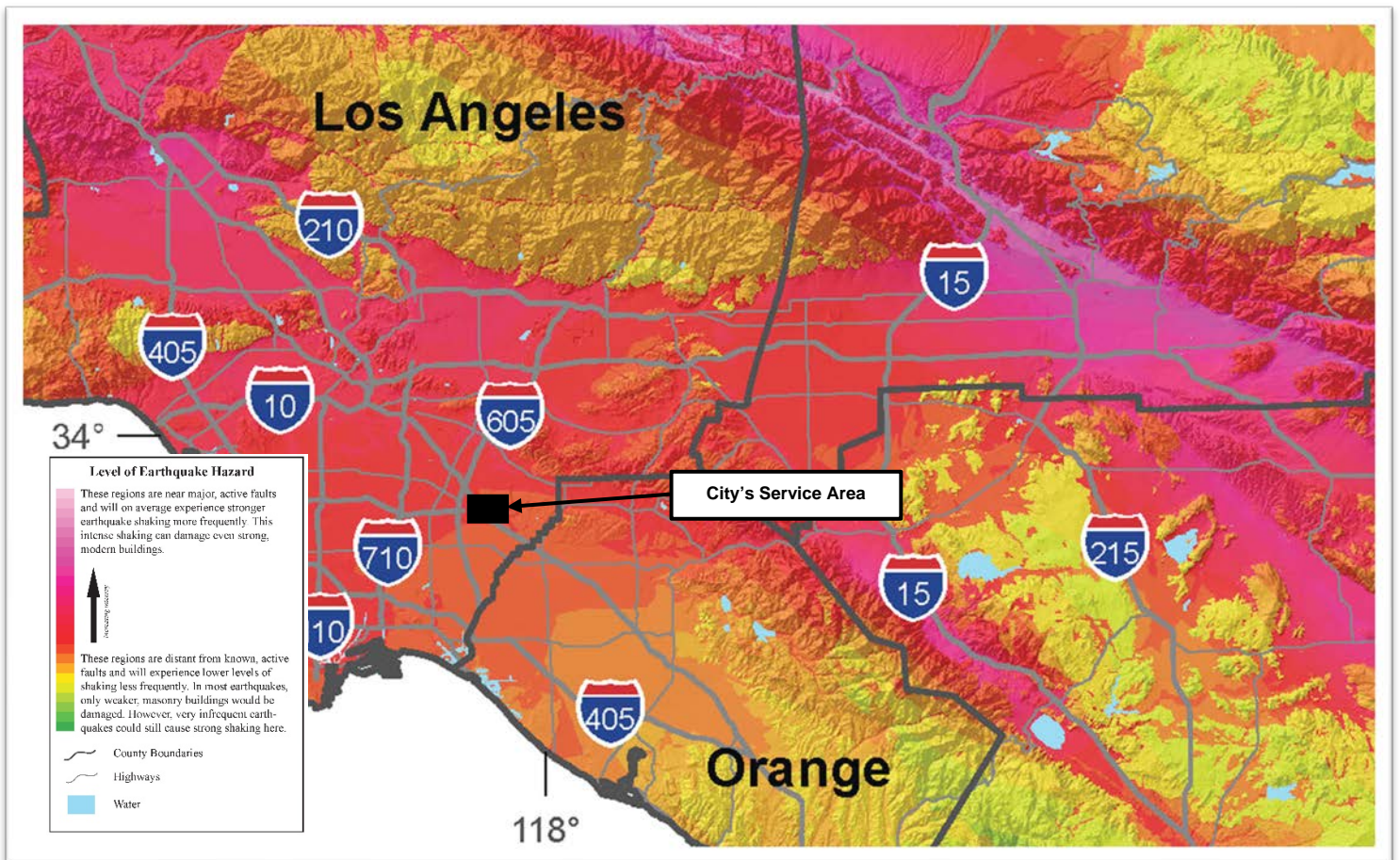


Source: <https://maps.conservation.ca.gov/cgs/fam/App/>

The following figure provides the relative intensity of ground shaking in the vicinity of the City's service area from anticipated future earthquakes. The locations of relatively long-period (1.0 second) earthquake shaking, including the City's service area, are provided. Long-period shaking affects tall, relatively flexible buildings, but also correlates with earthquake damage. The shaking potential is calculated based on the level of ground motion that has a 2 percent chance of being exceeded in 50 years (or the level of ground-shaking with an approximate 2,500-year average repeat time). As discussed in Section 8.4.5, the City has prepared an Emergency Response Plan which provides the management, procedures, and designated actions the City and its employees will

implement during emergency situations resulting from natural disasters, including during earthquakes, to ensure that customers receive a reliable and adequate supply of potable water. The City's ERP is incorporated by reference.

**Earthquake Shaking Potential**



Source: "Earthquake Shaking Potential for California", 2016, California Geological Survey and United States Geological Survey

#### 8.4.7 SHORTAGE RESPONSE ACTION EFFECTIVENESS

The effectiveness of the shortage response actions for each of the standard water shortage levels identified in Section 8.3 is evident in the City's historical ability to meet its customer's water demands in response to a water supply shortage. In addition, the City imposes water consumption regulations and restrictions, and supports local agencies in efforts to enforce regulations and prohibitions on water use. The effectiveness of each of the City's shortage response actions, in order to reduce any potential gaps between supply and demand, has been quantified in the expected demand reduction provided in Table 8-2 and Table 8-3.

Section 6.1 provides a tabulation of the City's historical annual water demands for each water supply source. During the past 10 years, the City experienced a five consecutive year drought within its service area from FY 2011-12 to FY 2015-16. Throughout this extended dry year period, the City's annual water production ranged from 6,152 AF to 7,399 AF, with an average of approximately 6,835 AF. In addition, historical records indicate the City previously produced a maximum of up to 7,399 AF during FY 2013-14. The City has been able to provide sufficient water supplies to its customers, including during long-term droughts and years with historically high water demands. In addition, the City has been able to provide water service to meet maximum day water demands for these years, including during the summer months.

The City's water demands during the most recent five years (from FY 2015-16 to FY 2019-20) averaged approximately 6,047 AFY. Due to conservation efforts and demand management measures (discussed in Chapter 9), the City's recent water demands have been less than its historical water demands, including during long-term droughts. The City's projected water demands (during normal, single dry, and multiple dry years) are provided in Section 7.2.3 and are anticipated to incorporate similar reductions in water use rates as a result of the shortage response actions, ongoing conservation efforts, and demand management measures. Because the City's projected water demands are

similar to its historical water demands, it is anticipated the City will be able to continue providing sufficient water supplies to its customers to meet projected water demands, including during long-term droughts. In addition, as discussed in Section 8.4.2, based on historical and on-going management practices, the City will be able to continue relying on its water supply sources from CBWQPP and CBMWD for adequate supply augmentation in response to each of the standard water shortage levels identified in Section 8.3.

Based on the City's ability in meeting water demands during past water supply shortages, adopted water shortage levels, adjusted operating safe yields, and long-term droughts, it is anticipated that the City will be able to continue providing sufficient water supplies to its customers during any of its standard water shortage levels. Although adequate supplies are anticipated, the cost of those water supplies may become incrementally more expensive. The City will enact varying levels of its water shortage contingency plan to encourage retail customers to reduce water consumption and at the same time reduce the need to use the more expensive water supplies. Notwithstanding, the effectiveness of each of the City's shortage response actions, in order to reduce any potential gaps between supply and demand, has been quantified in the expected demand reduction provided in Table 8-2 and Table 8-3. The effectiveness of the City's shortage response actions is based on the City's water demands prior to 2015 (unconstrained demands). The City reduced its water demands in 2015 in response to the Governor's April 1, 2015 Executive Order B-29-15 which mandated statewide reduction in water use of 25 percent. The City's actual water demand reduction during this period was used to estimate the extent of water use reductions for the City's Water Shortage Levels. The City's Water Shortage Levels 1, 2, 3, 4, 5, and 6 are expected to reduce water demands by up to 10%, 20%, 30%, 40%, 50%, and greater than 50%, respectively.

## 8.5 COMMUNICATION PROTOCOLS

### CWC 10632.

*(a)(5) Communication protocols and procedures to inform customers, the public, interested parties, and local, regional, and state governments, regarding, at a minimum, all of the following:*

*(A) Any current or predicted shortages as determined by the annual water supply and demand assessment described pursuant to Section 10632.1.*

*(B) Any shortage response actions triggered or anticipated to be triggered by the annual water supply and demand assessment described pursuant to Section 10632.1.*

*(C) Any other relevant communications.*

Pursuant to CWC 10632.1, The City's Annual Assessment will be submitted to DWR by July 1 of each year or within 14 days of receiving its final allocation, whichever is later. The Annual Assessment will provide information on the City's anticipated shortage, triggered response actions, compliance and enforcement actions, and communication actions, as discussed in Section 8.2. The City may use the Annual Assessment as a method of declaring the appropriate water shortage level.

Information pertaining to the declared water shortage will be provided to the public, customers, interested parties, and local agencies through the following:

- Bill stuffers
- City website
- Social media posts
- Press releases
- Newspaper publications

The information provided will include the declared shortage level, response action associated with each shortage level, and any other relevant information relating to the resolution.

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## 8.6 COMPLIANCE AND ENFORCEMENT

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### CWC 10632.

*(a)(6) For an urban retail water supplier, customer compliance, enforcement, appeal, and exemption procedures for triggered shortage response actions as determined pursuant to Section 10632.2.*

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If any customer should fail to comply with the rules and regulations, the City shall advise the customer of such failure either verbally or by written notice. If the customer does not remedy or abate such noncompliance within 15 days after notification, the City may shut the water off and discontinue service; except, that for any condition or circumstance creating a hazard or danger to life or property, rendering immediate action imperative, no notice shall be required.

Under Section 54.01 of the City Municipal Code, any customer violating actions prohibited in this chapter on water use set forth in the City Municipal Code may be prosecuted as an infraction punishable by a fine as set forth in Section 36900 of the California Government Code. Every violation determined to be an infraction is punishable by (1) a fine not exceeding one hundred dollars (\$100) for a first violation; (2) a fine not exceeding two hundred dollars (\$200) for a second violation of the same ordinance within one year; (3) a fine not exceeding five hundred dollars (\$500) for each additional violation of the same ordinance within one year.

In addition, the City imposes the following penalties, in ascending order:

- Written notice to the customer on or with the current water bill;
- A surcharge of 10% of the total water bill, charged in addition to the regular water charges;
- In addition to the regular rate, a minimum over usage charge of \$1.25 per 100 cubic feet of water used over the target quantity;
- In addition to the regular rate, a minimum over usage charge of \$2.00 per 100 cubic feet of water used over the target quantity;
- In addition to the regular rate, a minimum over usage charge of \$4.00 per 100 cubic feet of water used over the target quantity shall be charged;
- In addition to the regular rate, a minimum over usage charge of \$10 per 100 cubic feet of water used over the target quantity shall be charged;

For a third or subsequent failure to comply with the water restrictions, the City may install a flow restricting device at a customer's water service connection. Tampering or removal of a flow restricting device may result in water service discontinuation. Each of these penalties results following a notice of subsequent violation and failure to comply, when the City is in Shortage Level 2 through 6.

## 8.7 LEGAL AUTHORITIES

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### CWC 10632.

*(a)(7)(A) A description of the legal authorities that empower the urban water supplier to implement and enforce its shortage response actions specified in paragraph (4) that may include, but are not limited to, statutory authorities, ordinances, resolutions, and contract provisions.*

*(B) A statement that an urban water supplier shall declare a water shortage emergency in accordance with Chapter 3 (commencing with Section 350) of Division 1.*



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*(C) A statement that an urban water supplier shall coordinate with any city or county within which it provides water supply services for the possible proclamation of a local emergency, as defined in Section 8558 of the Government Code.*

**CWC Division 1, Section 350**

*The governing body of a distributor of a public water supply, whether publicly or privately owned and including a mutual water company, shall declare a water shortage emergency condition to prevail within the area served by such distributor whenever it finds and determines that the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply of the distributor to the extent that there would be insufficient water for human consumption, sanitation, and fire protection.*

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In the event that the demand of water consumers cannot be satisfied without depleting a substantial amount of water supply needed for human consumption, sanitation, and fire protection, the City shall declare a water shortage emergency. The City shall coordinate with any city or county within its service area for possible declaration of a local emergency.

In 1991, the City Council adopted Resolution No. 5592, establishing an Emergency Water Conservation Plan (Appendix J). On May 28, 2015, the City passed Ordinance No. 1065, which updated and implemented water conservation regulations (Appendix M).

## **8.8 FINANCIAL CONSEQUENCES OF WSCP**

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**CWC 10632.**

*(a)(8) A description of the financial consequences of, and responses for, drought conditions, including, but not limited to, all of the following:*

*(A) A description of potential revenue reductions and expense increases associated with activated shortage response actions described in paragraph (4).*

*(B) A description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions described in paragraph (4).*

*(C) A description of the cost of compliance with Chapter 3.3 (commencing with Section 365) of Division 1.*

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The City maintains financial operating reserves, which may be used for water system expenditures to make up for unanticipated shortfalls in water revenue as the result of reduced water sales.

The City's source of revenue is 1) user service charges, which consist of monthly fixed water meter charges based on meter size and fire service; 2) a consumption charge per unit of water consumed; 3) a reclaimed water rate; 4) a City facility rate; and 5) a senior citizen lifeline rate. The monthly fixed meter 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. In addition, the City's consumption charge is based on 3 tiers of water uses and rates designed to promote water conservation. The current water rates are provided in Appendix N.

## 8.9 MONITORING AND REPORTING

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### [CWC 10632.](#)

*(a)(9) For an urban retail water supplier, monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance and to meet state reporting requirements.*

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The City may use one or more of the following measures to determine actual reductions in water consumption:

- Establish a normalized/averaged water use baseline
- Review water production on a more frequent basis
- Read customer meters on a more frequent basis
- Perform leak detections and repair on a more frequent basis
- Perform meter checking and repair on a more frequent basis
- Perform periodic water system audits
- Continue monitor utility actions
- Continue enforcing penalties for violations

Through regular communication with imported water suppliers and groundwater basin managers, the City maintains routine monitoring for supply trends.

## 8.10 WSCP REFINEMENT PROCEDURES

### CWC 10632.

*(a)(10) Reevaluation and improvement procedures for systematically monitoring and evaluating the functionality of the water shortage contingency plan in order to ensure shortage risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented as needed.*

The City's Water Shortage Contingency Plan has been prepared as an adaptive management plan. As discussed in Section 8.9, the City will monitor and report on the implementation of the Water Shortage Contingency Plan. The City will review the implementation results for any current or potential shortage gaps between water supplies and demands. The City will evaluate the need for revising the Water Shortage Contingency Plan in order to resolve any shortage gaps, as necessary. The City will consider the following potential revisions in the event of a potential shortage gap:

- 
- Implementation of additional public outreach, education, and communication programs (in addition to the programs discussed in Chapter 9).
  - Implementation of more stringent water use restrictions under the standard water shortage levels (discussed in Section 8.4.1)
  - Implementation of stricter enforcement actions and penalties (discussed in Section 8.6)
  - Improvements to the water supply augmentation responses (discussed in Section 8.4.2), as well as any associated operational changes (discussed in Section 8.4.3) which may be required
  - Incorporation of additional actions recommended by City staff or other interested parties

The City will use the monitoring and reporting data to evaluate the ability for these potential revisions to resolve any shortage gaps which may occur within the standard water shortage levels.

This Water Shortage Contingency Plan is adopted as part of the City's 2020 Urban Water Management Plan adoption process discussed in Section 10.3. It is anticipated the City will review, revise, and adopt an updated Water Shortage Contingency Plan as part of preparing its 2025 Urban Water Management Plan as necessary. However, the City will continue to review the monitoring and reporting data, and if needed, update the Water Shortage Contingency Plan more frequently. Any updates to the City's Water Shortage Contingency Plan will include a public hearing and adoption process by the City Council (see Section 8.12).

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## 8.11 SPECIAL WATER FEATURE DISTINCTION

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### CWC 10632.

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

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The City's Water Shortage Contingency Plan defines "decorative water features" as water features which are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, but excluding pools and spas. In general, there are additional health and safety considerations in the water supplied to pools and spas compared to decorative water features. As a result, the City's Water Shortage Contingency Plan has reviewed the response actions, enforcement actions, and monitoring and reporting programs separately for decorative water features and for pools and spas, as applicable.

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## 8.12 PLAN ADOPTION, SUBMITTAL, AND AVAILABILITY

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### CWC 10632.

*(a)(c) The urban water supplier shall make available the water shortage contingency plan prepared pursuant to this article to its customers and any city or county within which it provides water supplies no later than 30 days after adoption of the water shortage contingency plan.*

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The City's Water Shortage Contingency Plan is adopted as part of the City's 2020 Urban Water Management Plan adoption process discussed in Chapter 10. The process for adopting the City's Water Shortage Contingency Plan includes the following:

- The City will conduct a public hearing and make the Water Shortage Contingency Plan available for public inspection.
- The City will provide notification of the time and place of the public hearing to any city or county in which water is provided.
- The City will publish notice of public hearing in a newspaper once a week, for two successive weeks (with at least five days between publication dates).
- The City Council will adopt the 2020 Urban Water Management Plan and the Water Shortage Contingency Plan
- As part of submitting the 2020 Urban Water Management Plan to DWR, the City will also submit the Water Shortage Contingency Plan (electronically through DWR's online submittal tool) within 30 days of adoption and by July 1, 2021. The City will submit a copy of the Water Shortage Contingency Plan to the California State Library and to any city or county in which water is provided within 30 days of adoption. In addition, the City will make the Water Shortage Contingency Plan available for public review within 30 days of adoption.

If there are any subsequent amendments required, the process for adopting an amended Water Shortage Contingency Plan includes the following:

- The City will conduct a public hearing and make the amended Water Shortage Contingency Plan available for public inspection.
- The City Council will adopt the amended Water Shortage Contingency Plan
- The City will submit the amended Water Shortage Contingency Plan to DWR (electronically through DWR's online submittal tool) within 30 days of adoption

Additional information regarding the adoption, submittal, and availability of the City's Water Shortage Contingency Plan (and 2020 Urban Water Management Plan) is provided in Chapter 10.

## CHAPTER 9

### DEMAND MANAGEMENT MEASURES

#### LAY DESCRIPTION – CHAPTER 9

#### DEMAND MANAGEMENT MEASURES

Chapter 9 (Demand Management Measures) of the City’s 2020 Plan discusses and provides the following:

- The City has implemented “Demand Management Measures” to reduce its water demands and achieve its water use targets (discussed in Chapter 5)
- The City’s Demand Management Measures include adoption of an ordinance to prevent water waste.
- The City’s Demand Management Measures include metering of all customer connections, including separate metering for single-family residential, commercial, industrial, large landscape and institutional/governmental facilities.
- The City’s Demand Management Measures include conservation pricing. The City’s current water rate structure is tiered to promote water conservation by customers.
- The City’s Demand Management Measures include public education and outreach programs regarding water conservation.
- The City’s Demand Management Measures include various actions to assess and manage water distribution system losses.
- Additional Demand Management Measures including rebate, conservation, and educational programs are discussed.
- A summary of the Demand Management Measures the City has implemented over the past five (5) years is provided. The City met the 2020 Water Use Target

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(discussed in Chapter 5) through the implementation of these Demand Management Measures.

## 9.1 DEMAND MANAGEMENT MEASURES FOR WHOLESALE SUPPLIERS

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### CWC 10631.

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

*(1)(B) The narrative pursuant to this paragraph shall include descriptions of the following water demand management measures:*

*(ii) Metering.*

*(iv) Public education and outreach.*

*(vi) Water conservation program coordination and staffing support.*

*(vii) Other demand management measures that have a significant impact on water use as measured in gallons per capita per day, including innovative measures, if implemented.*

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

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



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## 9.2 EXISTING DEMAND MANAGEMENT MEASURES FOR RETAIL SUPPLIERS

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### CWC 10631.

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

*(1)(A) For an urban retail water supplier, as defined in Section 10608.12, a narrative description that addresses the nature and extent of each water demand management measure implemented over the past five years. The narrative shall describe the water demand management measures that the supplier plans to implement to achieve its water use targets pursuant to Section 10608.20.*

*(B) The narrative pursuant to this paragraph shall include descriptions of the following water demand management measures:*

*(i) Water waste prevention ordinances.*

*(ii) Metering.*

*(iii) Conservation pricing.*

*(iv) Public education and outreach.*

*(v) Programs to assess and manage distribution system real loss.*

*(vi) Water conservation program coordination and staffing support.*

*(vii) Other demand management measures that have a significant impact on water use as measured in gallons per capita per day, including innovative measures, if implemented.*

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### 9.2.1 WATER WASTE PREVENTION ORDINANCES

The City Council passed Resolution No. 5592 on September 12, 1991 establishing an emergency water conservation plan (see Appendix J). The City Council passed Ordinance No. 1065 on May 28, 2015, which implemented water conservation regulations (see Appendix M). As discussed in Section 8.2, measures to prevent water waste include landscape irrigation during specified hours and days, laundry options at lodging establishments, use of recirculated water in decorative water features, and prohibition of washing down hard or paved surfaces.

In May 2020, the City passed Resolution No. 9673, amending water rates and service charges effective June 1, 2020. The City changes its rate structure to promote water conservation.

### 9.2.2 METERING

#### CWC 526.

*(a) Notwithstanding any other provision of law, an urban water supplier that, on or after January 1, 2004, receives water from the federal Central Valley Project under a water service contract or subcontract... shall do both of the following:*

*(1) On or before January 1, 2013, install water meters on all service connections to residential and nonagricultural commercial buildings... located within its service area.*

#### CWC 527.

*(a) An urban water supplier that is not subject to Section 526 shall do both of the following:*

*(1) Install water meters on all municipal and industrial service connections located within its service area on or before January 1, 2025.*

The City is fully metered for all connections within its service area. Water service charges for the City are based on the customers' connection size. Section 9.2.3 provides greater detail about the City's fees and conservation pricing. In addition, the City requires a separate meter and an appropriate backflow device for each service line (i.e. fire, landscape, and domestic use) in new developments.

### 9.2.3 CONSERVATION PRICING

As discussed in Section 8.8, the City utilizes a water rate structure that provides financial incentives for customers to conserve water. The water rate structure includes a meter service charge, tiered commodity charge, and a fire line charge. The service charge is a fixed charge based on the size of the customer's connection. The fire line charge is also a fixed charge based on the size of the customer's connection.

In April 2020, the City completed a Water and Reclaimed Water Rate Study. The study consists of a long-range financial plan, cost of service analysis, and rate design and derivation. It encompasses a four-year financial plan and four years of proposed rates, for adoption beginning in June 2020 and January of every year thereafter. The proposed rate structure remains the same for the monthly meter and fire service charges. However, it was recommended that the City adopt a three-tier rate structure for single-family residential customers, based on water efficiency standards and actual customer usage characteristics. The tiered rate structure was changed to promote water conservation. The new water rates went into effect on July 1, 2020. A copy of the water amending water rate and charges is provided in Appendix N.

#### **9.2.4 PUBLIC EDUCATION AND OUTREACH**

The City provides water conservation information to its customers regarding useful water conservation practices and any updated mandatory water use reductions and restrictions.

In coordination with MWD and CBMWD, a variety of water conservation public information programs are available to the public within the City. MWD's water education programs provide free teacher workshops, classroom materials, field trips, and class instruction to schools, including water conservation related education programs. More than 20,000 people viewed student artwork from MWD's "Water is Life" Student Art and Calendar program, which stresses the importance of water conservation. MWD has an education resources website promoting its Science-Technology-Engineering-Arts-Math (STEAM) programs for kindergarten through college aged students. The website hosts downloadable curriculum regarding water's critical role in society.

CBMWD's school educational program includes a variety of elementary and high school programs within its service area, including the City. Schools located within CBMWD's service area can receive educational materials and handouts about water conservation and water awareness. CBMWD also provides information on its school education

programs through its website links. More information about CBMWD's school education programs is provided in its 2020 Plan, which is incorporated by reference.

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

The City utilizes a water leak detection program. Inspections for leaks are made daily during meter reading by trained City Personnel including both potable and reclaimed pipelines and meters. When a leak is detected, the appropriate staff is notified and a service request is generated on the City's internal computerized service request system to provide documentation and follow up. Typically, leak repairs are made the same day.

Main line water leaks are quickly detected by an observed drop in water pressure monitored by a computerized SCADA system. The SCADA system can alert water personnel about an area that is losing normal system water pressure typically caused by a leak or ruptured pipe. These types of leaks are repaired immediately.

The City will continue these programs to assess and manage distribution system real losses.

### **9.2.6 WATER CONSERVATION PROGRAM COORDINATION AND STAFFING SUPPORT**

The City has assigned the Utility Services Manager as its Conservation Coordinator to implement conservation programs within its service area. The Conservation Coordinator works collaboratively with other cities and water agencies within the region, including MWD's Conservation Coordinator, to enhance water conservation.

CBMWD's water conservation coordinator promotes conservation programs that are available to the residents of the City. CBMWD's program started in 2003. The

conservation coordinator employed by CBMWD promotes CBMWD's water conservation programs and works directly with cities and water agencies like the City on enhancing water conservation efforts. In addition, CBMWD's water conservation coordinator does research on water management practices and looks for federal, state and local funding programs that CBMWD, cities or retail water purveyors may utilize. Additional information about CBMWD's water conservation coordinator is provided in its 2020 Plan, which is incorporated by reference.

### **9.2.7 OTHER DEMAND MANAGEMENT MEASURES**

MWD provides funding to its member agencies for locally administered conservation programs including rain barrel distribution, turf replacement programs, sustainable landscape irrigation programs, customer water use messaging, as well as residential water surveys. The City also provides information to its customers about various programs available from CBMWD and MWD.

The City participates in CBMWD's high-efficiency toilet (HET), and high-efficiency clothes washer (HECW) rebate programs and will continue to do so in the future. Residents in the City's service area can participate in CBMWD's Landscape Rotating Nozzles, Weather Based Irrigation Controller, and Soil Moisture Sensor System program that offers rebates through MWD's regional rebate program. In addition, CBMWD's Turf program offers rebates through MWD's program for replacement of the irrigated area with drought tolerant landscaping.

CBMWD also offers landscape classes to residences within its service area, including the City, to teach residents about water conservation and to reduce urban runoff. Additional information on CBMWD's water conservation programs is available in CBMWD's 2020 Plan, which is incorporated by reference.

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The City plans to continue implementation of the programs described above to promote water conservation.

## 9.3 REPORTING IMPLEMENTATION

### 9.3.1 IMPLEMENTATION OVER THE PAST FIVE YEARS

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#### CWC 10631.

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

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

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The City is committed to implementing water conservation programs and works collaboratively with CBMWD to provide water conservation programs for its customers. As a sub-agency of CBMWD, the City's customers have the benefit of participating in CBMWD's conservation efforts. The highlights of DMM implementation over the past five years are described below.

As discussed in Section 9.2.1, the City Council passed Ordinance No. 1065 on May 28, 2015, which implemented water conservation regulations (see Appendix M). In May 2020, the City adopted Resolution No. 9673, amending water rates and service charges effective June 1, 2020.

As discussed in Section 9.2.2, the City metered all customer connections, including separate metering for single-family residential, commercial, industrial, large landscape and institutional/governmental facilities during the past five years. Furthermore, if there was new development within the City, each facility was individually metered. Service charges for the City are based on the customers' connection size.

As discussed in Section 9.2.3, in May 2020, the City adopted a new tier rate structure for single-family residential customers effective June 2020. The new rate structure was changed to promote conservation.

As discussed in Section 9.2.4, the City in coordination with MWD and CBMWD, offer a variety of water conservation public information programs available to the public. During fiscal year 2015-2020, the City provided an estimated \$1.1 million in funding for outreach programs.

As discussed in Section 9.2.5, the City repairs main breaks, hydrant leaks or breaks, and meter leaks as they occur. A team of water service workers is available to permanently repair main or hydrant breaks, and promptly restore water service. Water meters that are identified to be leaking are investigated and repaired promptly. The City also replaces deteriorated water mains, which are quickly detected by an observed drop in water pressure monitored by a computerized SCADA system.

As described in Section 9.2.6, the City has assigned the Utility Services Manager as its Conservation Coordinator to implement conservation programs within its service area. The Conservation Coordinator works collaboratively with other cities and water agencies within the region, including MWD's Conservation Coordinator, to enhance water conservation.

As described in Section 9.2.7, the City participates in MWD's regional rebate program, which is available to the City's residential and commercial customers. There are rebates available for indoor plumbing including high efficiency clothes washers and toilets. Rebates are also available for outdoor plumbing include those for weather-based irrigation controllers, rotating sprinkler nozzles, and replacement of irrigated lawn with drought tolerant plants or other approved landscape options. The City's commercial customers are offered plumbing, landscaping, HVAC, and medical and dental equipment rebates.

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### 9.3.2 IMPLEMENTATION TO ACHIEVE WATER USE TARGETS

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#### CWC 10631.

*(e)(1)(A) For an urban retail water supplier, as defined in Section 10608.12, a narrative description that addresses the nature and extent of each water demand management measure implemented over the past five years. The narrative shall describe the water demand management measures that the supplier plans to implement to achieve its water use targets pursuant to Section 10608.20.*

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The Demand Management Measures implemented by the City are discussed in Section 9.2. Descriptions regarding the nature and extent of these Demand Management Measures implemented by the City over the past five years are discussed in Section 9.3. The City will continue to implement these Demand Management Measures and other water conservation programs and work collaboratively with Central Basin Municipal Water District to provide water conservation programs for its residents.

As discussed in Section 5.5, the City's per-capita water use during FY 2019-20 was 223 GPCD. The City's confirmed 2020 Water Use Target is 250 GPCD. The City's per-capita water use during FY 2019-20 meets the 2020 Water Use Target and is in compliance. The City met the 2020 Water Use Target through the implementation of the Demand Management Measures discussed in Section 9.2. Continued implementation of these Demand Management Measures will assist the City in meeting water use targets and objectives.



#### **9.4 WATER USE OBJECTIVES (FUTURE REQUIREMENTS)**

The City is currently working with DWR to develop Water Use Objectives pursuant to AB 1668 and SB 606. Beginning in 2024, water agencies, including the City, are required to begin reporting compliance of their Water Use Objectives consisting of indoor residential water use, outdoor residential water use, commercial, industrial and institutional, irrigation with dedicated meters, water loss, and other unique local uses. The City plans to meet its Water Use Objectives through continued implementation of the Demand Management Measures discussed in Section 9.2.

## **CHAPTER 10**

### **PLAN ADOPTION, SUBMITTAL, AND IMPLEMENTATION**

#### **LAY DESCRIPTION – CHAPTER 10**

#### **PLAN ADOPTION, SUBMITTAL, AND IMPLEMENTATION**

Chapter 10 (Plan Adoption, Submittal, and Implementation) of the City's 2020 Plan discusses and provides the following:

- The steps the City has performed to adopt and submit its 2020 Plan are detailed
- The steps the City has performed to adopt and submit its Water Shortage Contingency Plan are detailed
- The City coordinated the preparation of its 2020 Plan with the Cities of Downey, Norwalk, Santa Fe Springs, Whittier, the County of Los Angeles, and CBMWD. The City notified these agencies at least sixty (60) days prior to the public hearing of the preparation of the 2020 Plan and invited these agencies to participate in the development of the 2020 Plan.
- The City provided a notice of the public hearing to the same agencies regarding the time, date, and place of the public hearing.
- The City published a newspaper notification of the public hearing, once a week for two successive weeks
- The City conducted a public hearing to discuss and adopt the City's 2020 Plan and City's Water Shortage Contingency Plan.
- Within 30 days of adoption, the City submitted the 2020 Plan and Water Shortage Contingency Plan to the California Department of Water Resources.
- Within 30 days of adoption, the City submitted all data tables associated with the 2020 Plan to the California Department of Water Resources.

- Within 30 days of adoption, the City submitted a copy of the 2020 Plan to the State of California Library.
- Within 30 days of adoption, the City submitted a copy of the 2020 Plan (and Water Shortage Contingency Plan) to the County of Los Angeles Registrar- Recorder/ Clerk's office and the City Clerk's Office.
- Within 30 days after submittal of the 2020 Plan to the California Department of Water Resources, the City made the 2020 Plan (including the Water Shortage Contingency Plan) available at the City Clerk's Office and on the City's website.
- The steps the City will perform to amend the 2020 Plan and/or the Water Shortage Contingency Plan, if necessary, are provided.

## 10.1 INCLUSION OF ALL 2020 DATA

The data provided in the City's 2020 Plan and the Water Shortage Contingency Plan is provided on a FY basis through June 30, 2020 (as discussed in Section 2.5).

## 10.2 NOTICE OF PUBLIC HEARING

The City's public hearing notification process for its 2020 Plan and the Water Shortage Contingency Plan is discussed below.

### 10.2.1 NOTICE TO CITIES AND COUNTIES

#### [CWC 10621.](#)

*(b) Every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days before the public hearing on the plan required by Section 10642, notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan.*

**CWC 10642.**

*... The urban water supplier shall provide notice of the time and place of a hearing to any city or county within which the supplier provides water supplies. Notices by a local public agency pursuant to this section shall be provided pursuant to Chapter 17.5 (commencing with Section 7290) of Division 7 of Title 1 of the Government Code. A privately owned water supplier shall provide an equivalent notice within its service area...*

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**10.2.1.1 60 DAY NOTIFICATION**

As discussed in Section 2.6.2., the City coordinated the preparation of the 2020 Plan with Central Basin Municipal Water District. The City notified this agency, as well 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 2020 Plan and invited them to participate in the development of the Plan. A copy of the notification letters sent to these agencies is provided in Appendix D.

**10.2.1.2 NOTICE OF PUBLIC HEARING**

The City provided a notice of the public hearing to the Cities of Downey, Norwalk, Santa Fe Springs, Whittier, the County of Los Angeles, and CBMWD. The notice includes the time and place of the public hearing. To ensure that the Plan and the Water Shortage Contingency Plan were available for review, the City placed a copy of the draft 2020 Plan and the draft Water Shortage Contingency Plan at the City Clerk's Office located at City Hall and made a copy available for review on its website. Copies of the notice of the public hearing are provided in Appendix D.

**10.2.1.3 SUBMITTAL TABLES**

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

**Table 10-1 Notification to Cities and Counties**

Submittal 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>		
Downey	Yes	Yes
Norwalk	Yes	Yes
Santa Fe Springs	Yes	Yes
Whittier	Yes	Yes
County Name <i>Drop Down List</i>	60 Day Notice	Notice of Public Hearing
<i>Add additional rows as needed</i>		
Los Angeles County	Yes	Yes
NOTES:		

## 10.2.2 NOTICE TO THE PUBLIC

### CWC 10642.

*...Prior to adopting either, the urban water supplier shall make both the plan and the water shortage contingency plan available for public inspection and shall hold a public hearing or hearings thereon. Prior to any of these hearings, notice of the time and place of the hearing shall be published within the jurisdiction of the publicly owned water supplier pursuant to Section 6066 of the Government Code. The urban water supplier shall provide notice of the time and place of a hearing to any city or county within which the supplier provides water supplies.*

### Government Code 6066.

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

The City 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 July 1, 2021, July 6, 2021, and July 13, 2021. A notice of public hearing was also provided to the City Clerk's office and was posted throughout the City of Santa Fe Springs and on the City's website. A copy of the published notice is provided in Appendix D. To ensure the draft 2020 Plan and the draft Water Shortage Contingency Plan were available for review, the City placed a copy 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

#### CWC 10642.

*...Prior to adopting either, the urban water supplier shall make both the plan and the water shortage contingency plan available for public inspection and shall hold a public hearing or hearings thereon.*

#### CWC 10608.26.

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

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

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

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

#### 10.3.1 PUBLIC HEARING

Prior to adopting the draft 2020 Plan and the draft Water Shortage Contingency Plan, the City held a public hearing on July 20, 2021 which included input from the community

regarding the City's draft 2020 Plan and the draft Water Shortage Contingency Plan. As part of the public hearing, the City adopted a method to determine of its water use targets through selection of Target Method 1 (see Section 5.2.1 and Appendix G). In addition, the City considered the economic impacts of meeting these water use targets; including measures described in Section 8.8.

### 10.3.2 ADOPTION

#### CWC 10642.

*... After the hearing or hearings, the plan or water shortage contingency plan shall be adopted as prepared or as modified after the hearing or hearings.*

Following the public hearing, the City adopted both the draft 2020 Plan and the draft Water Shortage Contingency Plan (included in Chapter 8). A copy of the resolution adopting the 2020 Plan and the Water Shortage Contingency Plan is provided in Appendix O.

### 10.4 PLAN SUBMITTAL

#### CWC 10621.

*(e) Each urban water supplier shall update and submit its 2020 plan to the department by July 1, 2021.*

#### CWC 10644.

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

#### CWC 10635.

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

The City's submittal process for its 2020 Plan and the Water Shortage Contingency Plan is discussed below.

#### **10.4.1 SUBMITTING A UWMP AND WATER SHORTAGE CONTINGENCY PLAN TO DWR**

Within 30 days of adoption of the 2020 Plan by the City Council, the City submitted the adopted 2020 Plan (including the Water Shortage Contingency Plan) to DWR. The 2020 Plan and Water Shortage Contingency Plan were submitted through DWR's "Water Use Efficiency (WUE) Data Portal" website.

DWR developed a checklist which was used by the City to assist DWR with its determination that the City's 2020 Plan has 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 2020 Plan (See Appendix C).

#### **10.4.2 ELECTRONIC DATA SUBMITTAL**

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##### **CWC 10644.**

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

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Within 30 days of adoption of the 2020 Plan, the City submitted all data tables associated with the 2020 Plan through DWR's "Water Use Efficiency Data Portal" website.



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### **10.4.3 SUBMITTING A UWMP, INCLUDING WSCP, TO THE CALIFORNIA STATE LIBRARY**

Within 30 days of adoption of the 2020 Plan by the City Council, a copy (CD or hardcopy) of the 2020 Plan was 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 2020 Plan will be mailed to the following address if sent by regular mail:

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

The 2020 Plan will be mailed to the following address if sent by courier or overnight carrier:

California State Library  
Government Publications Section  
Attention: Coordinator, Urban Water Management Plans  
900 N Street  
Sacramento, CA 95814

### **10.4.4 SUBMITTING A UWMP TO CITIES AND COUNTIES**

Within 30 days of adoption of the 2020 Plan (including the Water Shortage Contingency Plan) by the City Council, a copy of the 2020 Plan was 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.

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## 10.5 PUBLIC AVAILABILITY

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### CWC 10645.

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

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

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Within 30 days after submittal of the 2020 Plan to DWR, the City made the 2020 Plan (including the Water Shortage Contingency Plan) available at the City Clerk's Office located at City Hall during normal business hours and on the City's website.

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## 10.6 NOTIFICATION TO PUBLIC UTILITIES COMMISSION

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### CWC 10621.

*(c) An urban water supplier regulated by the Public Utilities Commission shall include its most recent plan and water shortage contingency plan as part of the supplier's general rate case filings.*

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The City is not regulated by the California Public Utilities Commission.

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## 10.7 AMENDING AN ADOPTED UWMP OR WATER SHORTAGE CONTINGENCY PLAN

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### CWC 10621.

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

**CWC 10644.**

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

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The City's amendment process for its 2020 Plan is discussed below.

**10.7.1 AMENDING A UWMP**

If the City amends the adopted 2020 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 / Recorders office, and the City Clerk's Office.

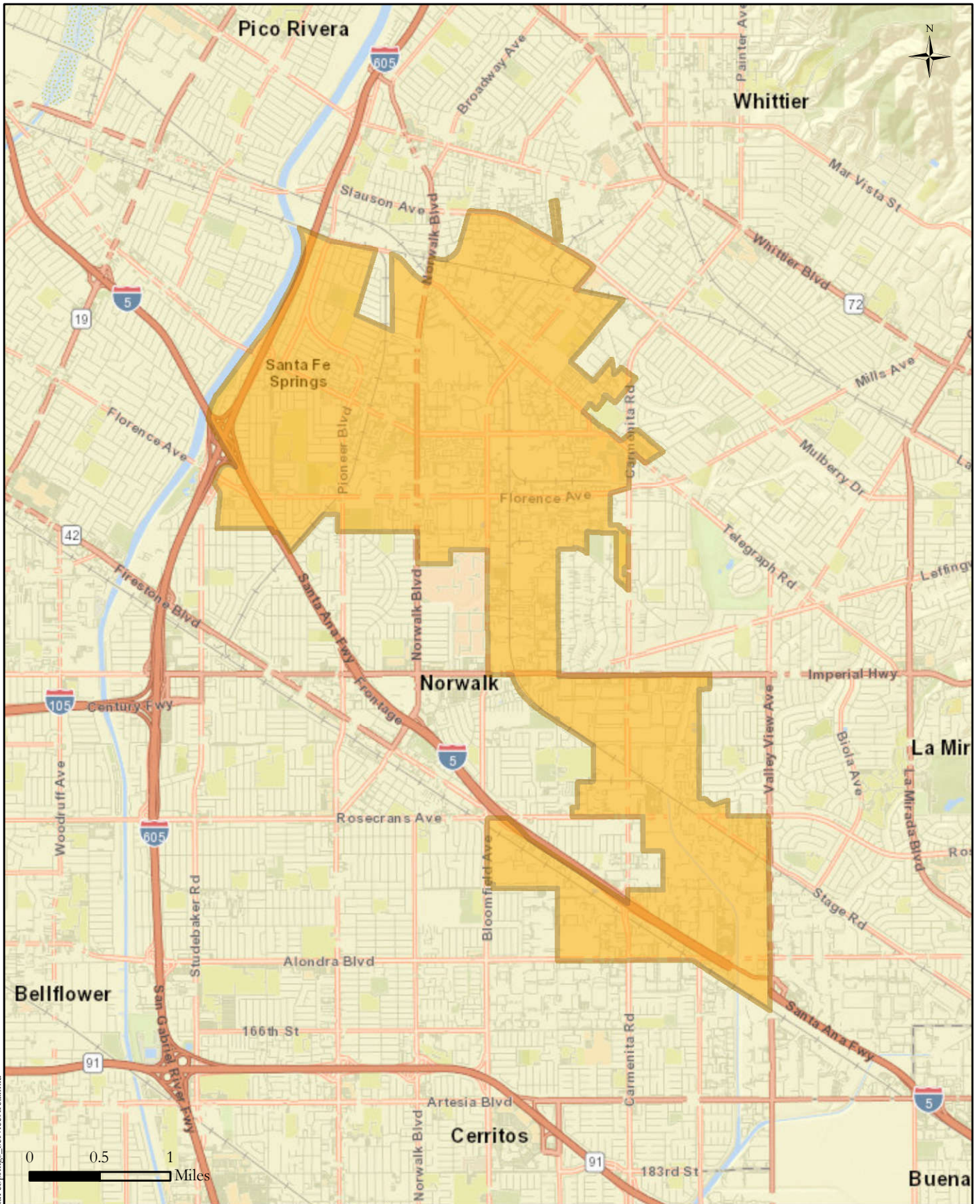
**10.7.2 AMENDING A WATER SHORTAGE CONTINGENCY PLAN**

**CWC 10644.**

*(b) If an urban water supplier revises its water shortage contingency plan, the supplier shall submit to the department a copy of its water shortage contingency plan prepared pursuant to subdivision (a) of Section 10632 no later than 30 days after adoption, in accordance with protocols for submission and using electronic reporting tools developed by the department.*

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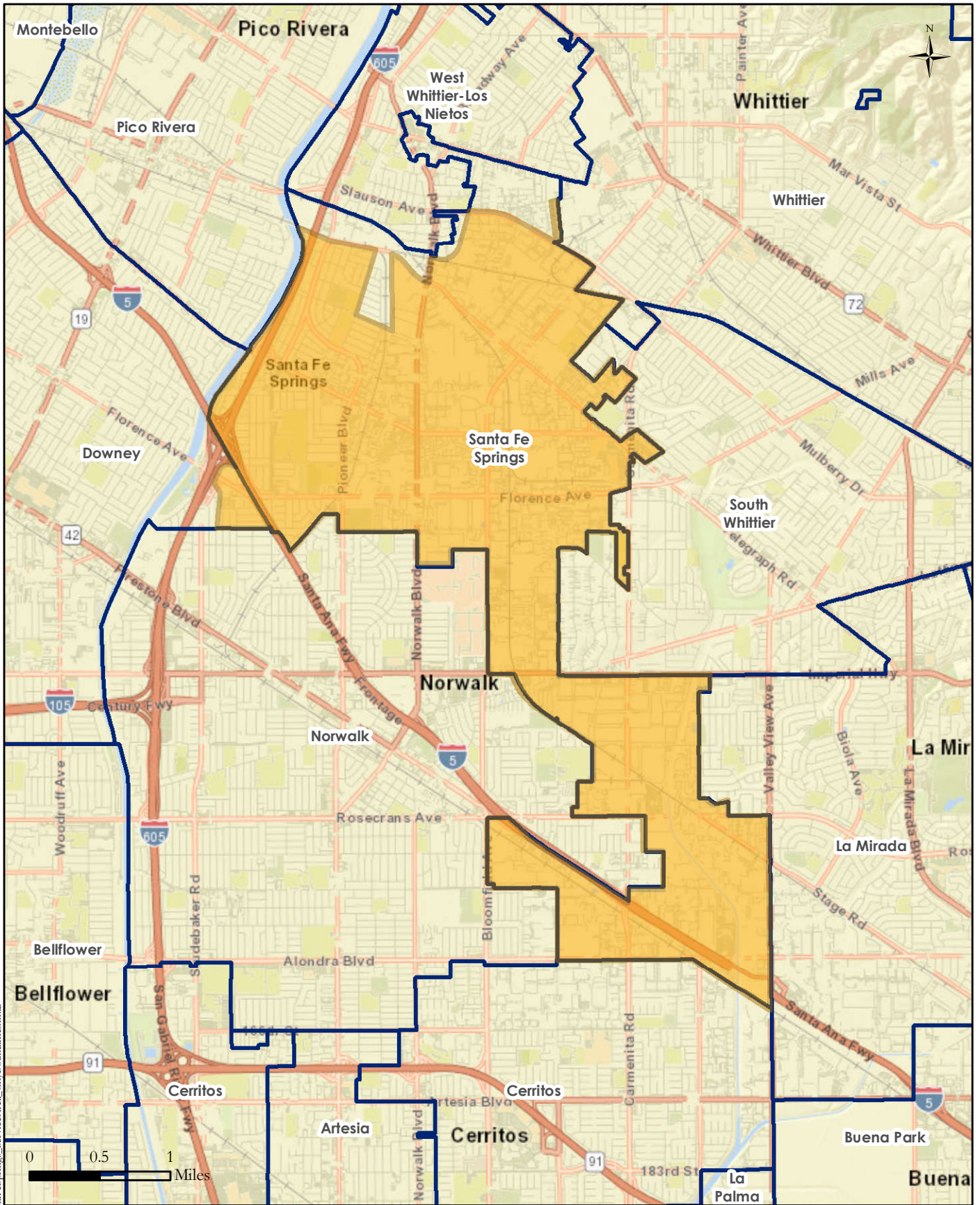
If the City amends the adopted 2020 Plan (including the Water Shortage Contingency Plan), the amended Plan (and Water Shortage Contingency Plan) will undergo adoption by the City's governing board. Within 30 days of adoption, the amended Plan (and Water Shortage Contingency Plan) will then be submitted to DWR, the State of California Library, the County of Los Angeles Registrar / Recorders office, and the City Clerk's Office.



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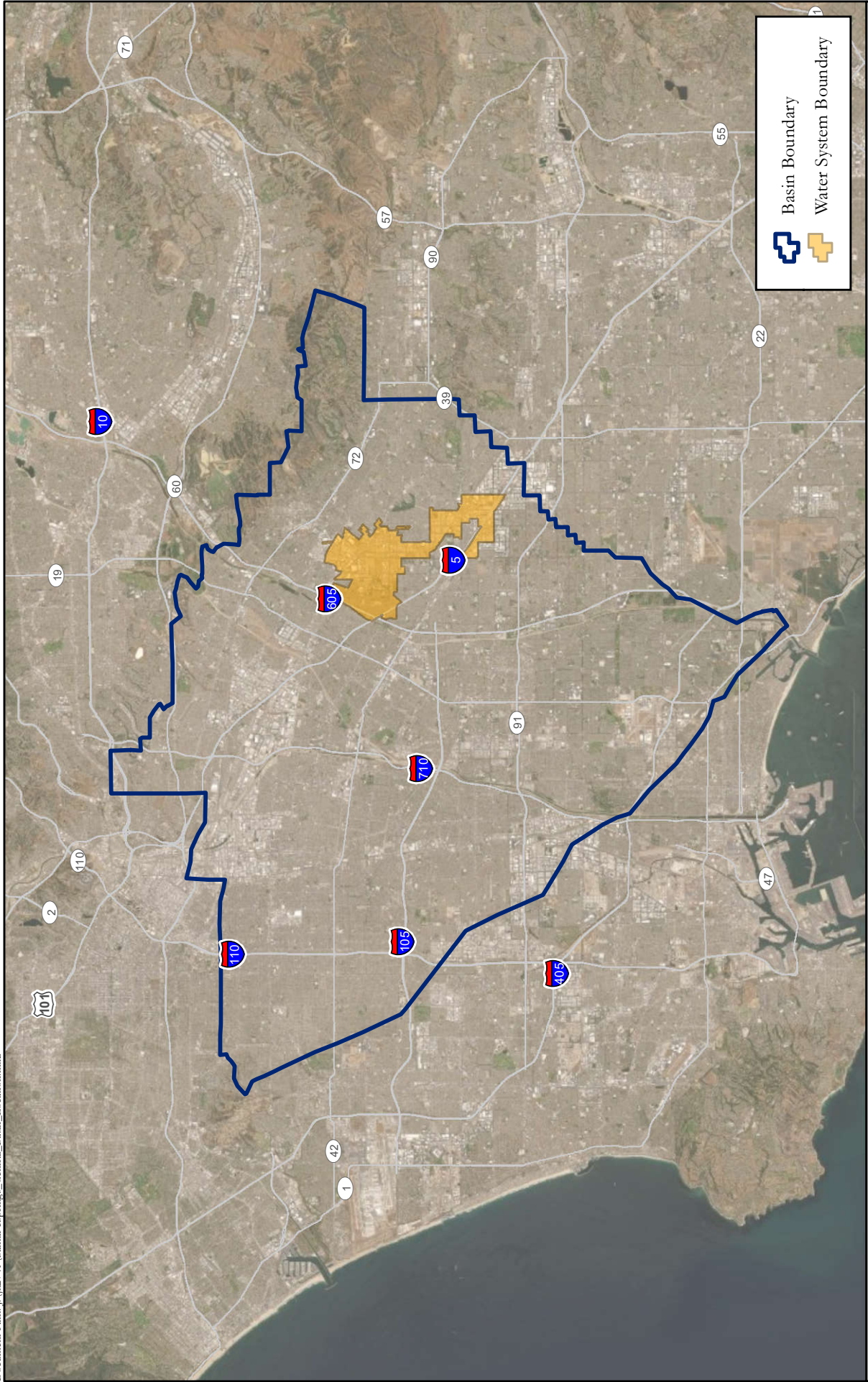
**CITY OF SANTA FE SPRINGS  
WATER SERVICE AREA**



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**CITY OF SANTA FE SPRINGS  
WATER SERVICE AREA  
AND CITY BOUNDARIES**



CITY OF SANTA FE SPRINGS  
CENTRAL BASIN LOCATION