2020

URBAN WATER MANAGEMENT PLAN

City of Huntington Park, CA

WEST&ASSOCIATES
ENGINEERING, INC.

2020

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City of Huntington Park, CA

Public Works Department
6900 Bissell Street. Huntington Park, CA 90255
(323) 584-6274

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DRAFT

Prepared by:

West & Associates Engineering, Inc.
78 Anacapa Ct. Foothill Ranch, CA
(949) 716-7670
philw@westaeng.com

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ACRONYMS

AAC	All-American Canal
AF	Acre-Feet
AFY	Acre-Feet per Year
AMI	Automatic Metering Infrastructure
AP	Allocation Plan
BDCP	Bay-Delta Conservation Plan
BMP	Best Management Practice
CDP	Census Designated Place
CDPH	California Department of Public Health
CFS	Cubic Feet per Second
CII	Commercial Industrial Institutional
CIMIS	California Irrigation Management Information System
CRA	Colorado River Aqueduct
CUWCC	California Urban Water Conservation Council
CVP	Central Valley Project
CDPH	California Department of Public Health
DBPs	Disinfection Byproducts
DDW	Division of Drinking Water
DMM	Demand Management Measure
DOE	Department of Energy
DWSAP	Drinking Water Source Assessment and Protection
DWR	Department of Water Resources
EPA	Environmental Protection Agency
ETo	Evapotranspiration
GPCD	Gallons per Capita per Day
GPM	Gallons per Minute
HEN	High Efficiency Nozzle
HET	High Efficiency Toilet
HEW	High Efficiency Washer
IID	Imperial Irrigation District
IPR	Indirect Potable Reuse

IRP	Integrated Resources Plan
MBR	Membrane Bioreactor
MCL	Maximum Contaminant Level
MCLG	Maximum Contaminant Level Goal
MG	Million Gallons
MGD	Million Gallons per Day
mg/L	Milligrams per Liter
µg/L	Micrograms per Liter
MOU	Memorandum of Understanding
MWA	Mohave Water Agency
MWD	Metropolitan Water District of Southern California
ng/L	Nanograms per Liter
NPDWR	National Primary Drinking Water Regulations
NTU	Nephelometric Turbidity Units
PCA	Possible Contaminating Activities
PHG	Public Health Goal
PVID	Palo Verde Irrigation District
QSA	Quantification Settlement Agreement
RHNA	Regional Housing Needs Assessment
SDWA	Safe Drinking Water Act
SB	Senate Bill
SBx7-7	Senate Bill x7-7
SWP	State Water Project
SWRCB	State Water Resources Control Board
TDS	Total Dissolved Solid
TOC	Total Organic Carbon
ULFT	Ultra-Low-Flow Toilet
USFWS	U.S. Fish and Wildlife Service
UWMP	Urban Water Management Plan
WSAP	Water Supply Allocation Plan
WSDM	Water Surplus & Drought Management Plan
WSS	Watershed Sanitary Survey
WWTP	Wastewater Treatment Plant

Section 1
Introduction

Since 1983, the State of California requires urban water agencies to prepare Urban Water Management Plans (UWMPs). The City's 2020 UWMP is a collaborative effort involving its own staff, outside agencies, and the general public.

Section 1

INTRODUCTION

In accordance with the Water Code, an Urban Water Management Plan is required to be updated every five years.

1.1 PURPOSE AND SUMMARY

This is the 2020 Urban Water Management Plan ("UWMP" or "Plan") for the City of Huntington Park (hereinafter "City"). This Plan has been prepared in compliance with the Urban Water Management Planning Act (Act), which was established in 1983 and has been codified into the California Water Code sections 10610 through 10657. A copy of the Act can be found in **Appendix B** to this 2020 UWMP.

As part of the Act, the legislature declared that waters of the state are a limited and renewable resource subject to ever increasing demands; that the conservation and efficient use of urban water supplies are of statewide concern; that successful implementation of plans is best accomplished at the local level; that conservation and efficient use of water shall be actively pursued to protect both the people of the state and their water resources; that conservation and efficient use of urban water supplies shall be a guiding criterion in public decisions; and that urban water suppliers shall be required to develop water management plans to achieve conservation and efficient use.

The Act requires "every urban water supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually, to prepare and adopt, in accordance with prescribed requirements, an Urban Water Management Plan."

These plans must be filed with the California Department of Water Resources (DWR) every five (5) years, describing and evaluating reasonable and practical efficient water uses, reclamation, and conservation activities. DWR assigns deadlines for the submittal of the UWMPs every five years, which is either December 31st of the UWMP year or July 1st of the following year.

Figure 1.1: UWMPs are Governed by State Law

The Act has been amended multiple times since its initial passage in 1983. A summary of the amendments is provided in **Figure 1.2** on the following page. The intent of the amendments was to broaden the scope of the UWMPs, encourage public participation, and add financial incentives to the UWMPs. The most significant amendment to the Act was a 2009 amendment (Senate Bill SBx7-7) signed by former Governor Arnold Schwarzenegger. The Senate Bill, also known as the "Water Conservation Act" required that per capita water use within an urban water supplier's service area decrease by 20 percent by the year 2020 in order to receive grants or loans administered by DWR or other state agencies. Each urban retail water supplier developed water use "targets" for 2015 and for 2020. The "target" date for 2020 just passed on December 31, 2020. Urban water suppliers whose 2020 actual water use does not meet the target requirements established by this bill are not eligible for state water grants or loans This included, but was not limited to, the following funding sources:

Amendments to the Act have added financial incentives to UWMPs

- **Drinking Water State Revolving Fund**
  Primarily a source for funds to help correct deficiencies
- **Proposition 1**
  Primarily a source for funds related to supplies & infrastructure
- **Proposition 50**
  Primarily a source for funds related to security & treatment technology
- **Proposition 84**
  Primarily a source for funds related to protection from pollution

Agencies that submit their UWMPs past the July 2021 deadline are still technically eligible for grants or loans, provided that the UWMP addresses the requirements of the Act. However, applications for such funds are subject to legal challenges coming

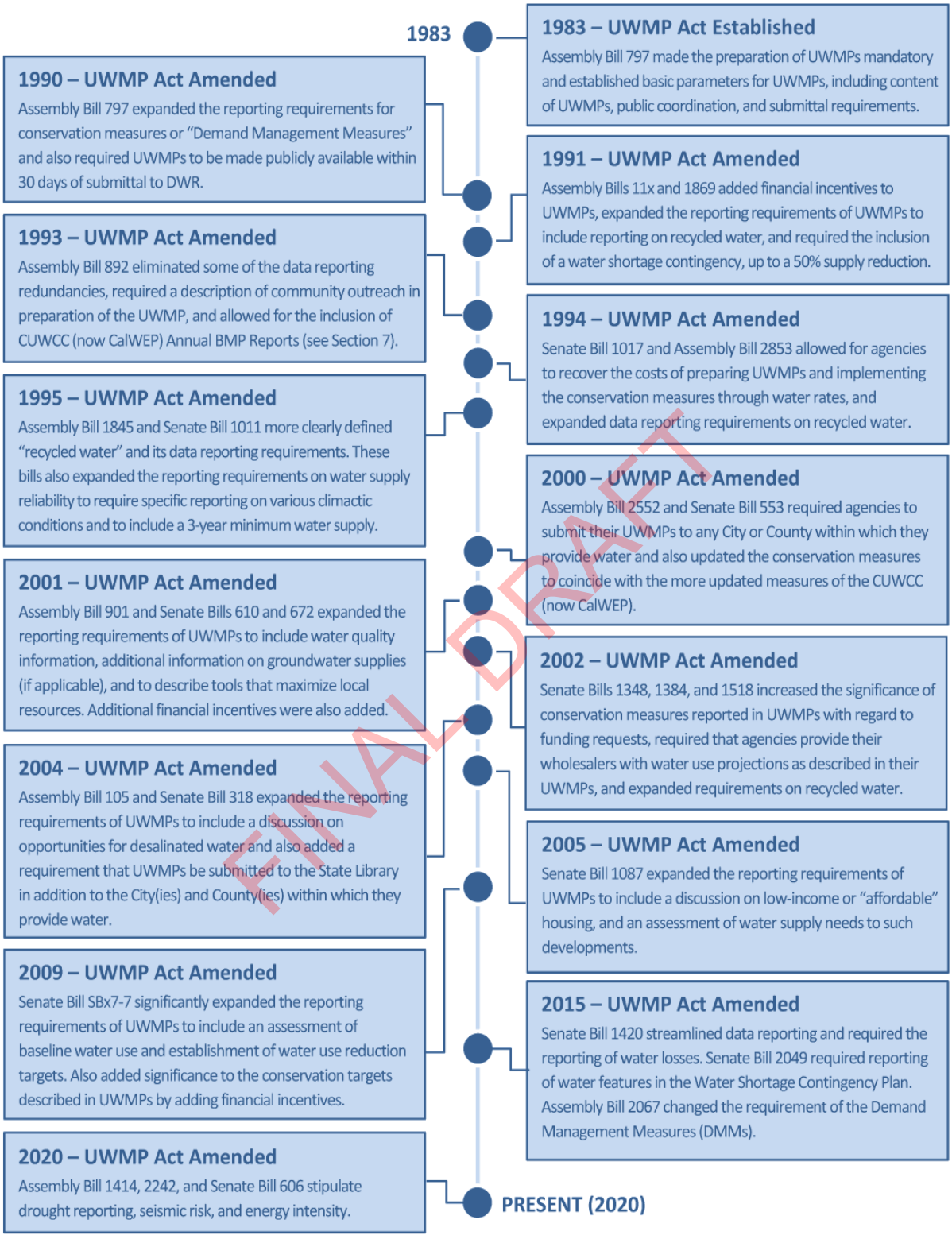


Figure 1.2: UWMP Act Establishment and Amendment

from competing agencies for the same funding, if the competing agencies become aware of the timeframe in which an UWMP was submitted.

UWMPs are considered to be a foundation document and a source of information for Water Supply Assessments (Senate Bill 610) and Written Verifications of Water Supply (SB 221). In addition, an UWMP may serve as a long-range planning document for water supply, a source of data for development of a regional water plan, and a source document for cities and counties as they prepare their General Plans. These planning documents are linked, and their accuracy and usefulness are interdependent.

One of the primary objectives of the Act is the assessment of demands and supplies over a 20-year or a 25-year planning horizon under normal rainfall conditions, as well as under various drought conditions. The Act also requires water shortage contingency planning and drought response actions be included in an UWMP. In short, this Plan is a management tool that provides a general, long-term framework for action, rather than a detailed blueprint for supply and demand management. This Plan explores whether there will be enough water for the City in future years, and what mix of programs should be explored for ensuring that such water will be available.

As part of the City's past and current water conservation policies, the City is currently implementing many facets of this plan already to achieve its water conservation goals.

1.2 COORDINATION

The process of preparing and submitting an UWMP is a transparent process that requires opportunities for outside-agency and general public involvement. In preparing this 2020 Plan, the City has encouraged broad public participation. The City notified the agencies that the City interacts with more than sixty (60) days in advance of the City Council's adoption of the Plan. The City also made the draft Plan available at City Hall and on the City's website, leading up to a public hearing on the Plan. Notices of the public hearing were published in the local press and on the City's website for a two-week period. On May 18, 2021, the City held a noticed public hearing to review and accept comments on the UWMP. Following the public hearing, the City officially adopted the 2020 Plan through Council resolution. A copy of the council resolution adopting this UWMP is included in **Appendix A.**

The City's 2020 UWMP is a collaborative effort involving its own staff, outside agencies, and the general public.

Table 1.1
Coordination and Public Involvement

Agency	Participated in Plan Preparation	Contacted for Assistance	Commented on Draft	Notified of Public Hearing	Attended Public Hearing
City Water Staff	x	x	x	x	x
City Manager's Office				x	x
City Council				x	x
The Metropolitan Water District of Southern California				x	
Central Basin Municipal Water District		x		x	
Golden State Water Company				x	
Water Replenishment District				x	
County of Los Angeles				x	
City of Bell				x	
City of Maywood				x	
City of South Gate				x	
City of Vernon				x	
City of Walnut Park				x	
General Public				x	x

Notes:

1. "60-Day" notice letters were sent out to agencies as required by CWC § 10621(b).
2. 2-week and 1-week notices were published in the local press.
3. Appendix contains copies of the 60-day notice and the 2-week and 1-week notices.

As required by the Act, the 2020 UWMP is being prepared by the City and will be submitted to DWR, the California State Library, and any city or county within which it provides water to no later than 30 days after adoption. The 2020 UWMP will be available to the public during normal business hours within 30 days of submitting the 2020 UWMP to DWR.

1.3 DWR UPDATES FOR THE 2020 UWMPS

There have been significant changes to the Water Code affecting the 2020 UWMPs. The changes include the following:

- **Water Reliability Planning:** UWMPs must extend drought planning of water sources (supplies) for periods of up to five (5) consecutive dry years. (CWC § 10635 (a))

- **Drought Risk Assessment:** UWMPs must assess water supply reliability over five (5) consecutive dry years that takes into consideration demands. (CWC § 10635(b))

- **Seismic Risk:** UWMPs must address seismic risks in the Contingency Section in the UWMP, or refer to local or regional hazard mitigation plans. (CWC § 10632.5 (a) (b) and (c))

- **Contingency Plans:** Water Shortage Contingency Plans (WSCPs) must include six (6) Standard Stages CWC § 10632(a)(3)

- **Groundwater Supply Projections:** If a Groundwater Sustainability Plan has been completed by an agency, groundwater pumping projections in the UWMP must be consistent with those Plans. (CWC § 10631(A)(B))

- **Lay Description:** UWMPs must include a less-technical summary of water service reliability, challenges, and strategies which could be read as a go-to synopsis for new staff, new governing members, customers, and the media. (CWC § 10630.5)

- **Energy Intensity:** UWMPs must report on the energy intensity of water supplies. (CWC § 10631.2 (a))

- **Land Use:** UWMPs must Include current and projected land uses in addition to population estimates. (CWC § 10631 (a))

- **Water Supply Projects:** UWMPs must include a description of potential water supply projects that may be implemented during droughts of up to five (5) years. (CWC § 10631 (f))

Of the above listed changes to the UWMPs by DWR, the contingency planning changes (i.e., changes to the City's WSCP) are the most significant updates affecting the 2020 UWMPs. These contingency planning changes were written into the Water Code in 2018, in response to the severe drought of 2012-2017. While overlapping aspects of the prior law, the new requirements have several prescriptive elements that a Water Supplier's WSCP must include.

In addition to the above, there are several optional or voluntary categorical and data reporting changes to the UWMP Act. These include an optional Planning Tool that Suppliers can use to report and assess water use and supply in order to better conduct the Reliability Assessment and Drought Risk Assessment, Potable and Non-Potable Planning Tool, and Potable and Non-Potable Submittal Tables, as well as various optional data reporting.

1.4 UPDATES TO THE CITY'S UWMP

In addition to required updates described in the previous section, the City's 2020 UWMP has undergone several changes from the 2015 UWMP. A summary of the key changes to the UWMP are as follows:

- **New Format:** Format of the UWMP has been changed to include a new look and new arrangement of sections. The new arrangement helps the discussion of certain topics which precede other topics. See **Section 1.5** for the format of this 2020 UWMP.

- **DWR & Water Code:** A listing of DWR-required UWMP updates (see previous Section).

- **City Development Growth:** An updated look at development which took place in the City since the 2015 UWMP.

- **Water Sources and Supplies:** A broader, more in-depth discussion of water sources and supplies.

- **Recycled Water:** An updated look on recycled water opportunities in the South Bay and the City.

- **Water Quality:** A broader, more in-depth discussion of water quality and treatment.

- **Water Use:** Updated information on recent water use quantities and a deeper discussion on water use parameters. Also, an updated look at SBx7-7 targets.

- **Supply v Demand:** Updated information on projected supplies vs demands, and a discussion on recent regional droughts affecting the City. There is also an expansion on the discussion of the City's source water reliability.

- **Contingency Planning:** Updated information on the City's contingency plan, including the City's Ordinances.

- **Conservation Measures:** Updated information on the City's conservation measures, which reflect the previous (2015) changes by DWR.

In addition to the above changes, there are multiple minor changes. The changes reflect both those that are required by the Water Code and those that are voluntarily included for the benefit of the City.

1.5 FORMAT OF THE 2020 UWMP

The information contained in this 2020 UWMP correspond to the items in the UWMP Act and other amendments to the Water Code. The sections of the UWMP are as follows:

Section 1 - Introduction

This section describes the UWMP Act, the UWMP preparation and adoption process, updates to the UWMP, and a lay description of this entire document.

Section 2 – Service Area Description

This section outlines the history and development of the City and the City's water supply system, a description of its existing service area, the local climate, population served, and some basic statistics on the City's water distribution system.

Section 3 – Water Sources & Supplies

This section describes the existing water supplies available to the City, including imported water from the Metropolitan Water District of Southern California (MWD) purchased through Central Basin Municipal Water District (Central Basin) and local groundwater extracted from the Central Basin. In addition, this section discusses potential future water supplies

Section 4 – Recycled Water Opportunities

This section describes the City's wastewater collection by the Los Angeles County Sanitation District (LACSD), and the uses and benefits to implementing a recycled water system. In addition, this section discusses the future outlook for the City on the possibility of using recycled water.

Section 5 – Water Quality

This section discusses the quality of the City's potable water supply sources, including imported, surface, and groundwater. This section also discusses drinking water standards and the effect that water quality has on management strategies and supply reliability.

Section 6 – Water Use

This section describes past, current and projected water usage within the City's service area. This chapter also discusses the requirement of the Water Conservation Act (SBx7-7), including the 2020 Water Use Targets.

Section 7 – Reliability Planning

This section presents an assessment of the reliability of the City's water supplies by comparing projected future water demands with expected available water supplies under three different hydrologic conditions: normal year; a single dry year; and multiple dry years. This 2020 Plan concludes that if projected imported and local supplies are developed as anticipated, no water shortages are anticipated in the City's service area during the planning period.

Section 8 – Contingency Planning

This section describes the City's response plan to water shortages, as well as those efforts that will be utilized in the event of water supply interruptions, such as power outages, earthquakes, or droughts. This section also describes regional response efforts to water supply interruptions.

Section 9 – Conservation Measures

This section addresses the City's compliance with water conservation measures that correspond to the seven (7) Demand Management Measures (DMMs) described in the 2020 UWMP Guidebook, which were previously the 14 DMMs listed in the Act. The DMMs also correspond to the current Best Management Practices (BMPs) from the California Water Efficiency Partnership (CalWEP).

Appendices

The appendices contain references and specific documents that contain reference data used to prepare this 2020 Plan.

1.6 SUMMARY AND IMPLEMENTATION

To facilitate effective and efficient management of water supplies, and in compliance with the UWMP Act and the Water Conservation Act of 2009, the City has prepared this 2020 UWMP. This UWMP includes background information regarding the City's history, water system, and water supplies. This UWMP also analyzes recent water demands and projects future water supply capacity and water demands through 2045. The effects of water quality, drought, and emergencies on the City's water supply reliability are also analyzed.

As indicated by **Section 7** of this UWMP, the City does not expect to have a water supply shortage through 2045. Furthermore, this UWMP concludes that the City's groundwater supplies are resilient to droughts. Furthermore, water quality issues impacting City wells only have a minor impact on the consistency of water supplies, since the City has the ability to pump from other wells while water treatment is constructed (i.e. granular activated carbon systems) at the wells of concern. Thus, the City's groundwater is resilient to both droughts and water quality degradation.

This UWMP recommends that the City implement water operation management tools that maximize the use of groundwater production and decrease the need for imported water. This UWMP also recommends conservation tools that will enable the City's residents to conserve water and maximize water use efficiency. These are described in **Section 9**.

If the water consumption rates in the City decrease mildly, the City can expect to have lower total water use in 2045 than in the current year (2021). This is in spite of potential mild population growth over the next 25 years. Finally, this UWMP recommends that severe droughts or sudden supply interruptions be addressed by following the criteria of the Water Shortage Contingency Plan (WSCP), as described in **Section 8** of this UWMP.

This 2020 UWMP will be implemented as described herein. Since UWMPs are due for revision every five years, this UWMP is projected to be in effect until the year's end of 2025. At that time the City's 2025 UWMP will begin development and adoption.

Section 2
Service Area Description

The City of Huntington Park's water service area (pictured) serves about 95 percent of the City's population, with three (3) portions of the City served by other water agencies. The estimated current resident population served by the City's water system is approximately 56,000 persons.

Section 2

SERVICE AREA DESCRIPTION

The City's total land area is approximately 1,926 acres or 3 square miles.

2.1 CITY BACKGROUND

The City of Huntington Park is centrally located within the greater Los Angeles metropolitan area approximately five miles southeast of downtown Los Angeles in Los Angeles County. The City is bounded on the north by the cities of Vernon and Maywood; on the south by the City of South Gate and unincorporated Los Angeles County; on the east by the cities of Cudahy, Bell, and Maywood; and on the west by the City of Los Angeles and unincorporated Los Angeles County. The City's total land area is approximately 1,926 acres or 3 square miles.

The City of Huntington Park was incorporated on September 1, 1906, with a population of 526 residents. The City began as a suburban community, providing a centralized location for workers employed in Los Angeles and the surrounding industrial cities of Commerce, Vernon, and South Gate. The City's land use and development patterns were well established by the 1930's, with a thriving downtown centered along Pacific Avenue.

Currently, the City of Huntington Park is a general-law City per the State of California Govt Code § 34102. Per the US Census Bureau, the City qualifies as an "urban area", and falls under the "urbanized area" category which was introduced with the 2010 Census to cover densely populated cities. The City of Huntington Park operates

under a City Council/City Manager form of government. The City Council consists of four Council Members elected to four-year terms, and one Mayor selected to a one-year term. The City Manager, who serves on behalf of the City Council, runs the day-to-day operations of the City. Under the City Manager's general oversight, the City's Public Works Director runs the Public Works Department, which includes the City's Water Division. The City's Water Division performs all activities related to the water system.

2.2 CURRENT WATER SERVICE AREA

The City's water system is municipally owned and operated. The Water Sewer Division of the Public Works Department provides potable water and maintains the sewer system throughout the City's service area. The City's water service area comprises about 95 percent of the population residing within the City limits and about 83 percent of the City's Boundaries. A small residential portion in the northeastern corner of the City, making up approximately 4 percent of the City's population, is served by Maywood Mutual Water Company. Another small residential portion in the southern area of the City, making up approximately 1 percent of the City's population, is served by Walnut Park Mutual Water Company. Lastly, a small industrial and commercial portion along the western boundary of the City is served by Golden State Water Company. **Figure 2.4** shows the City's boundary and the Water Service area.

The City is a retail agency and within the Central Basin Municipal Water District's (Central Basin) service area, which includes 24 cities and unincorporated parts of Los Angeles County. The City of Huntington Park along with the cities of Bell, Commerce, Cudahy, Maywood, Walnut Park, Monterey Park, Vernon, and unincorporated areas of East Los Angeles constitute Division 3 of the Central Basin's service area. The residents of each division elect a representative that serves a four-year term on the five-member Board of Directors, which governs the District policies and activities. As a result of this connection, the City is continually coordinating with Central Basin on its programs.

The residents of the Central Basin Municipal Water District Service Area elect a representative to their respective division.

Water Division staff read water meters bi-monthly for billing purposes, changes damaged water meters in order to keep accurate accounts of water consumed by our customers, and tracks water purchased from Central Basin to ensure proper delivery of purchased water and related billing. The City's Water Division staff are certified by the State of California to operate, maintain and repair the water distribution system, which

includes wells, tanks, and distribution pipelines.

The Water Division's key objectives can be summarized as follows:

- Effectively operate groundwater facilities for consistent water supply
- Collect meter data and provide billing services to customers
- Respond to water quality complaints
- Maintain and make repairs to the water distribution system, including flushing mains and replacing mains
- Comply with California Water Resources Control Board Division of Drinking Water (DDW) regulations, including laboratory testing
- Promote water certification and safety training

Since 2015, the City's water system has been operated and managed by Inframark LLC (formerly known as Severn Trent – North America). Inframark operates the City's wells, maintains pipelines and storage tanks, collects meter readings, and provides customer. Inframark also provides sewer system operation and maintenance services. These services are provided for the City on-site.

2.3 LAND USE & ECONOMY

The City of Huntington Park is one of eighty-eight (88) incorporated cities located in Los Angeles County (County). Los Angeles County encompasses a land area of about 4,060 square miles or 2.6 million acres, of which about 1,120 square miles or 716,000 acres consists of urban, developed land. The City is located within what is commonly known as the "Greater Los Angeles Area". The City's downtown is located about 3 miles from downtown Los Angeles, or a driving distance of about 4 miles.

Figure 2.1: Downtown Huntington Park: Pacific Blvd.

Table 2.1 on the following page provides some basic statistics on current land use and economy for Los Angeles County and the City of Huntington Park. **Figure 2.2** further shows the LA County Area Plan Map, which includes the unincorporated areas and supervisorial districts.

Table 2.1
Current Land Use & Economic Statistics for LA County and City of Huntington Park

Land: Total (sq. miles)		
Item	**LA County**	**City of Huntington Park**
Land Area (sq. miles)	4,060 sq. miles	3.01 sq. miles
Land Area (acres)	2.6 million acres	1,926 acres
Land: Developed (acres)		
Item	**LA County**	**City of Huntington Park**
Developed Land	716,000 acres	1,926 acres
Population		
Item	**LA County**	**City of Huntington Park**
Population	10,172,951	59,515
Housing		
Item	**LA County**	**City of Huntington Park**
Total Housing Units	3,579,329	15,178
Median Home Price	$583,200	$412,500
Owner Occupancy Rate	45.8%	27.2%
Economy		
Item	**LA County**	**City of Huntington Park**
Employed (16yrs +)	64.6%	65.2%
Median Household Income	$68,044	$42,447
Percent in Poverty	13.4%	23.6%
Economic: Production/Revenue		
Item	**LA County**	**City of Huntington Park**
Manufacturing	$163.8 billion	$441 million
Agriculture/Crops	$177.6 Million	N/A
Retail & Wholesale Sales	$321.2 billion	$1.02 billion

**Not Official City Number. Figure Estimated using GIS Mapping Instruments*
***Data not Available*

2.3.1 City Land Use & Development

The current City of Huntington Park General Plan (2030 General Plan) was recently finalized by the City. As residential housing accounts for the majority of the land use within the City, the Housing Elements are a key part of the City's General Plan. The more-recent updates from the previous General Plan the 2008-2014 Housing Element, which was approved by City Council in January, 2011, and subsequently certified by the State Housing and Community Development Department. The Housing Element was then updated in February 2014, for the period of 2013-2021. This Housing Element has since been updated for the 2030 General Plan, and is contained therein.

As required by State law, the Huntington Park 2030 General Plan contains the following elements: Land Use & Community Development, Mobility & Circulation, Resource Management, Health & Safety, and Housing. The Huntington Park Land Use Element identifies that land within the City's limits is broken down into eight (8) "zone districts" under three (3) major "base zone" districts. These districts are shown on **Figure 2.3** and described as follows:

Residential (3 Zones)

- Residential Low (RL)
- Residential Medium (RM)
- Residential High (RH)

Commercial (3 Zones)

- Commercial Professional (CP)
- Commercial Neighborhood (CN)
- Commercial General (CG)

Industrial (1 Zone)

- Manufacturing Planned Development (MPD)

Other land uses described in the General Plan 2030 but not designated as a one of the "base zones" described above include the following:

- Open Space (OS)
- Public Facilities (PF)
- Transportation (T)
- Downtown Huntington Park Specific Plan (DTSP)

Within each of the zone districts listed above, there are several types of individual developments that are included. For instance, churches are included in the CG Zone and some apartment buildings are included in the DTSP.

The Land Use Element included in the Huntington Park 2030 General Plan was meant to promote an orderly pattern of development in the City, to provide for housing opportunities, to prepare for adequate public services and facilities, and

to ensure a strong employment and commercial base to finance public improvements and services.

2.3.2 Recent and Planned Development

The City's land use and development patterns were well established by the 1930's, and has been completely urbanized since the Second World War. New developments that have taken place in the City involved the redevelopment of existing developed parcels. Commercial development is found along the major roadways that traverse the City including Slauson Avenue, Pacific Boulevard, Gage Avenue, Santa Fe Avenue, and Florence Avenue. In addition, small pockets of commercial development occupy the frontages along many of the residential streets. Single-family residential development is found primarily in the southern portion of the City. The northeastern portion of the City is generally occupied by high density residential development. New residential development may occur within properties where the existing land uses are non-residential at the present time.

The City's Housing Element also evaluates the current Regional Housing Needs Assessment (RHNA) developed by the Southern California Association of Governments (SCAG) and indicates how the City intends to accommodate the future housing demand identified by the RHNA. The RHNA calls for an additional 895 units to be provided during the planning period of the Housing Element.

The City underwent substantial re-development the 1970s and the 1980s which resulted in denser, multi-family housing throughout the City. This nearly doubled the City's population during this time period. Since 1990, the City has only experienced very mild re-development, with a decrease in population in the last 20 years. As for development in the City since the 2015 UWMP, a few highlights include those listed in **Table 2.2** below:

Table 2.2
Recent Developments in City of Huntington Park (Since 2015 UWMP)

No.	Development
1	Smart & Final Extra 3111 E Florence Ave.
2	Public Storage & Office Wearhouse 6911 & 6901 Alameda St.
3	Alta Med Building 1900 Slauson Ave.
4	Retail Building (Living Spaces) 3046 Florence Ave.

Besides the developments listed in the table above, individual residential lots have been redeveloped. However, there have not been any significant housing structures constructed since the 2015 UWMP.

Regarding future housing developments, the City anticipates only mild re-development of some commercial lots to meet affordable housing needs. The City also anticipates that property owners of apartment buildings may renovate existing apartment buildings.

Figure 2.2: New Alta Med Building

Similarly, individual property owners will likely remodel single-family homes to add additional stories, bathrooms, or "granny units" in the rear of their properties. Combined, the anticipated future housing development should only add a small amount of additional water demands to the City's water system.

2.4 CLIMATE

The City is located within the South Coast Air Basin (SCAB) that encompasses all of Orange County, and the urban areas of Los Angeles, San Bernardino, and Riverside counties. The SCAB climate is characterized by southern California's "Mediterranean" climate: a semi-arid environment with mild winters, warm summers and moderate rainfall. The area has average summer temperature of about 77°F with mild winters of about 68°F. The average annual rainfall for the region is 14.8 inches. Evapotranspiration (ETo) in the region averages approximately 50 inches annually. Historically, the City receives just under average rainfall than other cities in the region (about 0.2 inch less than the regional average of 14.6). **Table 2.3** lists the historical average rainfall for the City:

Table 2.3
Historical Climate (1906-2012)
(www.wrcc.dri.edu)
Station: Los Angeles Dwtn USC Campus (045115)

Month	Rainfall (in)	Avg. Temp (°F)
Jan	3.2	57.35
Feb	3.38	58.4
Mar	2.4	59.95
Apr	1.01	62.25
May	0.25	64.7
Jun	0.06	68.3
Jul	0.01	72.75
Aug	0.05	73.45
Sep	0.27	72.25
Oct	0.48	68.15
Nov	1.25	63.05
Dec	2.41	58.25
Totals:	**14.77**	**64.9**

As the State of California and the LA region has undergone a several-year drought, rainfall has been much lower in the City.

Recent ETo and rainfall data in the past year indicate that rainfall totals for all months, except for March and April, are lower than the normal levels. Southern California is expected to be in a moderate La Nina year for 2021. **Table 2.4** on the following page shows the recent data for the region.

Table 2.4

Recent Climate Characteristics (2021)
CIMIS Station 174 (Long Beach)
(cimis.water.ca.gov)

Month	Rainfall (in)	ETo (in)
Jan (2021)	1.46	2.34
Feb (2021)	0.10	2.91
Mar (2020)	2.88	3.34
Apr (2020)	2.72	4.06
May (2020)	0.03	5.96
Jun (2020)	0.04	5.26
Jul (2020)	0.00	6.62
Aug (2020)	0.01	6.31
Sep (2020)	0.05	4.66
Oct (2020)	0.12	3.51
Nov (2020)	0.23	2.44
Dec (2020)	1.35	2.22
Totals:	**9.0**	**49.63**

It is important to note that despite the recent drought, local rainfall has limited impacts on groundwater replenishment within the City. In general, water that infiltrates into the soil may enter groundwater aquifers. However, due to the large extent of impervious cover in southern California, rainfall runoff quickly flows to a system of concrete storm drains and channels that lead directly to the ocean. To mitigate the loss of groundwater recharge to the underlying aquifers, the Los Angeles County Department of Public Works (LACDPW) operates stormwater capture and replenishment activities at the San Gabriel River Spreading Grounds and Rio Hondo Spreading Grounds which contribute to the Central Groundwater Basin. Replenishment of the groundwater basin occurs through recycled water and untreated imported water managed by the Water Replenishment District of Southern California (WRD).

2.4.1 Climate Change

The DWR Guidebook encourages water suppliers to include a discussion of climate change in their UWMPs. The Los Angeles County Community Climate Action Plan (CAP), assesses greenhouse gas emissions, establishes an emissions reduction target, and outlines strategies to meet these goals. The County's CAP is available online and is also included in the Appendix of this UWMP.

The California Adaptive Planning Guide (2012) projects possible temperature increases throughout the South Coast

region. By 2050, average temperatures in the South Coast region could increase by 2.5˚F. The annual number of extreme heat days (with temperatures of more than 105˚F) could increase from the current number of roughly 10 to nearly 30 by 2050. Similarly, precipitation could decline by a few inches per year in 2050. Public health and safety and sensitive species could be impacted by climate change. As noted on Page 4-3 of the City's CAP lists five (5) planning strategies for mitigating climate change impacts on residents, businesses, agriculture, etc. Due to the City's proximity to the coast, the City is not as susceptible to the effects of climate change compared to inland agencies. In addition, the use of groundwater provides additional water supply reliability for the City. Climate-related impacts on water supplies are discussed in **Section 7**.

2.5 POPULATION

According to the most recent population figures from the California Department of Finance (DOF), the current 2020 resident population of the City is approximately 59,515 persons. Since the City's service area accounts for about 95 percent of the City's total residents, the total current resident population served by the City's water system is approximately 56,539 persons. This is the lowest population for the City since 2014, but is very close to the population of 56,660 in 2019. The City experienced a peak population of 58,843 in 2012, based on DoF estimates. **Table 2.5** below lists the City's recent and current (2020) populations:

Table 2.5
City of Huntington Park Current Population

Year	Service Area Population	Citywide Population
2015	56,759	59,746
2016	56,825	59,816
2017	56,783	59,772
2018	56,759	59,746
2019	56,660	59,642
2020	56,539	59,515

The City is a fairly prominent commercial center for the region, and daytime population estimates are partially higher than the City's resident population. On average over the last five (5) years commercial users accounted for about 26% of the City's total water usage.

2.5.1 Population Projections

City Population Forecasts

Due to decrease in growth since 2014, an average growth rate from 2010 to 2020 (about 0.24%) was used to project population for the City. This is in line with the latest Southern California Association of Governments (SCAG) Projections. Since the

majority of new developments will be apartments/condos, it is approximated that an average of 2-3 people per unit, or 2.5 people per unit will be added for any projected housing developments (i.e. affordable housing units). Table 2.6 below shows the projected population for the City.

Table 2.6
Population Projections

Year	Service Area Population	Citywide Population
2025	57,209	60,220
2030	57,879	60,926
2035	58,549	61,631
2040	59,219	62,336
2045	59,889	63,041

As mentioned in the 2030 Housing Element, RHNA anticipates an additional 895 units to be constructed. Thus, there will be an additional 2,238 people by 2025 (251*2.5) by 2045. These people are included in the population projections listed above.

Regional Population Forecasts

The SCAG periodically forecasts population growth for incorporated and unincorporated areas within Southern California. In its latest forecast prepared in 2020, SCAG forecasted a 2045 population for the City of Huntington Park at 64,000. This is only a difference of about 1.5 percent, or 960 persons, from the projection for 2045 shown in **Table 2.6**.

2.6 WATER SYSTEM

A basic overview of the City's water system is provided herein. More information on the City's water sources, water treatment, and water demands can be found in **Sections 3 through 6** of this report. As this report is more of a water-resource-management planning document, it does not provide a great degree of technical or engineering detail on water system components.

2.6.1 City Water System Overview

Overall, the City's water system consists of the following components:

- Imported Water
- Groundwater supply wells
- Water distribution pipeline network
- Water storage facilities
- Booster stations
- Emergency interconnections

A brief description of the City's overall water system components is provided below.

2.6.2 Imported Water

The City's imported water supply is delivered through its connection to Central Basin, which receives water from MWD's Feeder

System that is fully treated at three (3) MWD water treatment plants:

- Weymouth Plant in Laverne.
- Jensen Plant in Granada Gills
- Diemer Plant in Yorba Linda

Both the Weymouth and Diemer Treatment plants receive and treat water from the Colorado River Aqueduct and the State Water Project (California Aqueduct). The Jensen plant only treats water from the State Water Project. The City receives imported water from one (1) imported connection with Central Basin, which is located on the northwest side of the City. MWD has no restriction on the amount of water that the City receives through this connection.

Figure 2.3: Weymouth Treatment Plant

The City only has one (1) pressure zone in the City's service area, which is maintained by booster stations due to the flat grade of the City. The booster stations aren't utilized for imported water. Rather, the City's connection to Central Basin involves a pressure regulating station.

2.6.3 Groundwater

The City of Huntington Park produces groundwater from four (4) active wells (Well 12, 14, 16, & 18). Based off the City's Water System Detail Report, Wells 9, 10, 11, and 17 are all inactive or abandoned. Well 9 is located at the City's Public Works Yard, and is abandoned. Well 18 was constructed in 1993 near the location of Well 9, in order to replace it. For a full list of the City's groundwater wells and their respective pumping capacity see **Table 2.7.**

Figure 2.4: TCE and GAC Treatment at Well 15

The City has the ability to lease water rights from local groundwater purveyors that are unable to extract groundwater for various reasons. The City has leased water rights in the past, but has not in recent years. This water is used to supplement local groundwater pumping rights that the City is currently allotted and decreases reliance on imported water. Leased water rights are short-term transfers as they are renewed on an annual basis. Currently, there are no additional transfer or exchange

opportunities due to capacity limitations. The City is planning to lease water rights in the near future after system improvements can accommodate increased pumping.

Localized water treatment varies by well site, with chlorination treatment at all active wells. The City also maintains other, specialized forms of treatment as follows:

- Well 15: Trichloroethylene (TCE) and Granular activated carbon (GAC) system
- Well 17: Carbon tetrachloride (CTC), nitrate, and Granular activated carbon (GAC) system

Well 15 is currently offline pending an improvement project that will be complete by 2022. Well 17 is currently inactive, pending site improvement planning for necessary treatment alternatives to return well 17 to service.

2.6.4 Distribution System

The City distributes water to residential, commercial, and other customers through approximately 5,625 service connections using a 50.2-mile network of distribution mains ranging from 4 to 16 inches in size. The majority of the current distribution pipes were installed nearly 100 years ago. The water system consists of one (1) pressure zone that provides modified pressure to customers. The water service area and zoning map are shown in **Figures 2.4 and 2.6** at end of this Section.

2.6.5 Water Storage

For storage needs, the City of Huntington Park maintains nine (9) operating reservoirs with a combined storage capacity of 6.89 million gallons (MG). **Table 2.8** on the following page provides full list of the City's reservoirs and their respective capacities.

2.6.6 Booster Stations

The City of Huntington Park maintains and operates fourteen (14) booster stations at six (6) groundwater well locations throughout its service area. Some of the booster stations at Well 17 are currently offline.

Figure 2.5: Booster Pump 14 at Well 14

Table 2.7 on the following page provides a full list of the City's booster stations and their respective pumping capacities.

2.6.7 Emergency Interconnections

In addition to its imported water connection with Central Basin, the City's water system has seven (7) emergency connections. During emergencies these seven connections allow water to flow in to and from the City's water system through an isolation valve. When flowing in the City ensures the pressure of the mains. The City's emergency connections consist of the following:

Tract 349 Mutual Water Company
Located 400 feet east of Salt Lake Ave.
Up to 250 gpm capacity.

Maywood Mutual Water Company No. 1
Located 250 feet east of Maywood Ave.
Up to 350 gpm capacity.

Walnut Park Mutual Water Company
Located at Florence Ave & Mountain St.
Up to 400 gpm capacity.

Southern California Water Company
Two (2) Florence/Graham: Located at:

1. State St and 60th St.
   Up to 350 gpm capacity
2. Gate Ave and Salt Lake.
   Up to 350 gpm capacity

City of South Gate
Located on Santa Ana and Salt Lake.
Up to 2,000 gpm to or from the City.

Table 2.7
System Facility Summary – Pump Capacity

Location (Water Yard)	Well	Well Capacity (GPM)	Booster Pump
Santa Ana	12	1,400	12
Randolph	14	1,300	14
Cottage	15	1,300	11 & 15
Bissell	18	1,800	Bear Booster Pumps
Slauson	17	2,185	1, 2, 3, 4, & 5
Bear	Bissell Well	N/A	8, 9, & 10
Salt Lake	16	1,225	6 & 7
Total	**6**	**9,210**	**14**

Note: Rows in red (if any) represent Wells and Booster Pumps that are currently offline.

Table 2.8
System Facility Summary – Storage

Location (Water Yard)	Type	Quantity	Capacity
Active Storage Reservoirs			
Santa Ana	Ground Concrete	1	396,000
Bear	Ground Concrete	1	3.0 MG
Randolph	Ground Concrete	1	396,000
Cottage	Elevated Steel & Ground Steel	2	1.6 MG
Salt Lake	Ground Steel	1	1.5 MG
	Total	**7**	**6.90 MG**

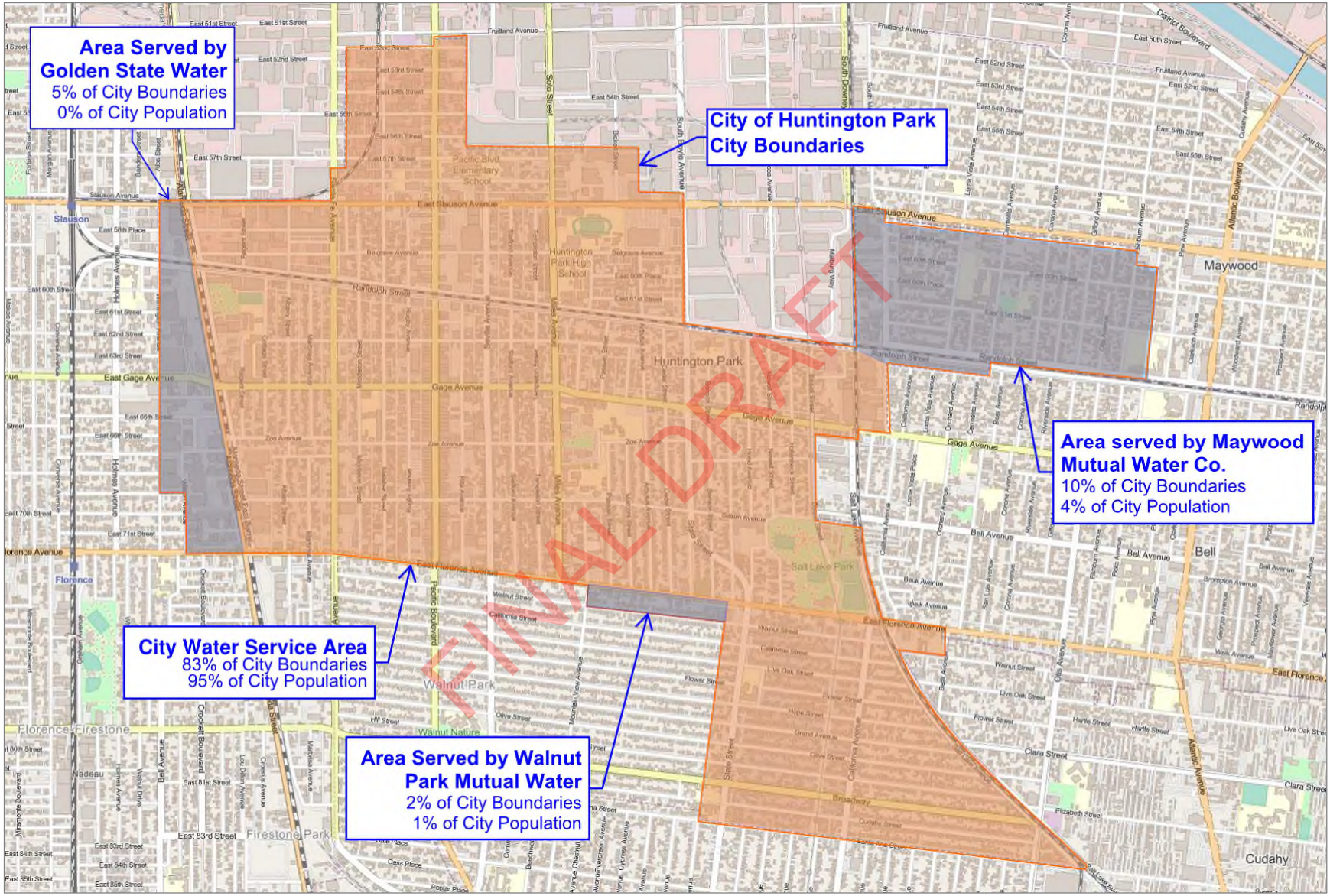
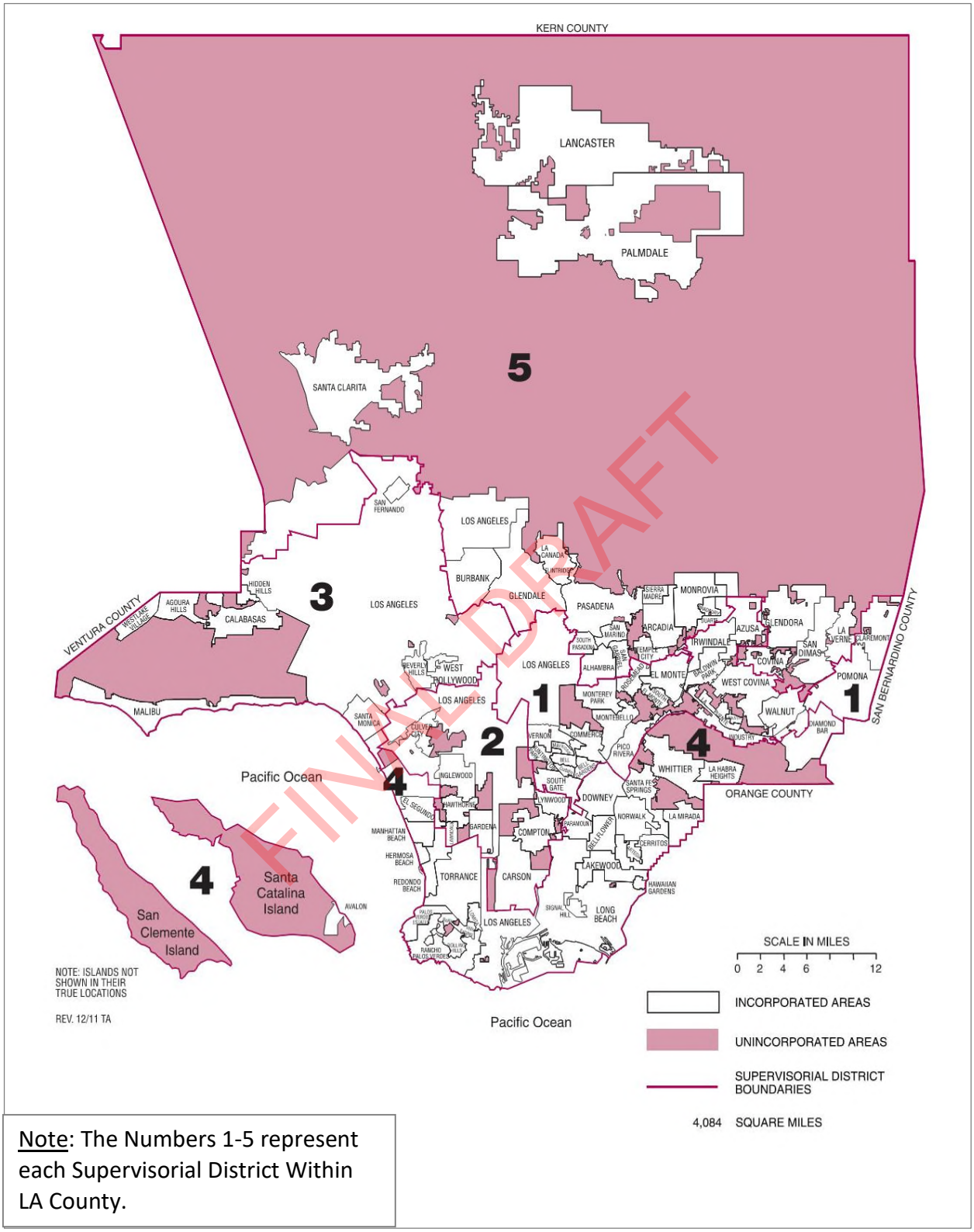


Figure 2.6: City of Huntington Park Water Service Area



Note: The Numbers 1-5 represent each Supervisorial District Within LA County.

Figure 2.7: LA County Area Plan Map (from LA County Official Website)

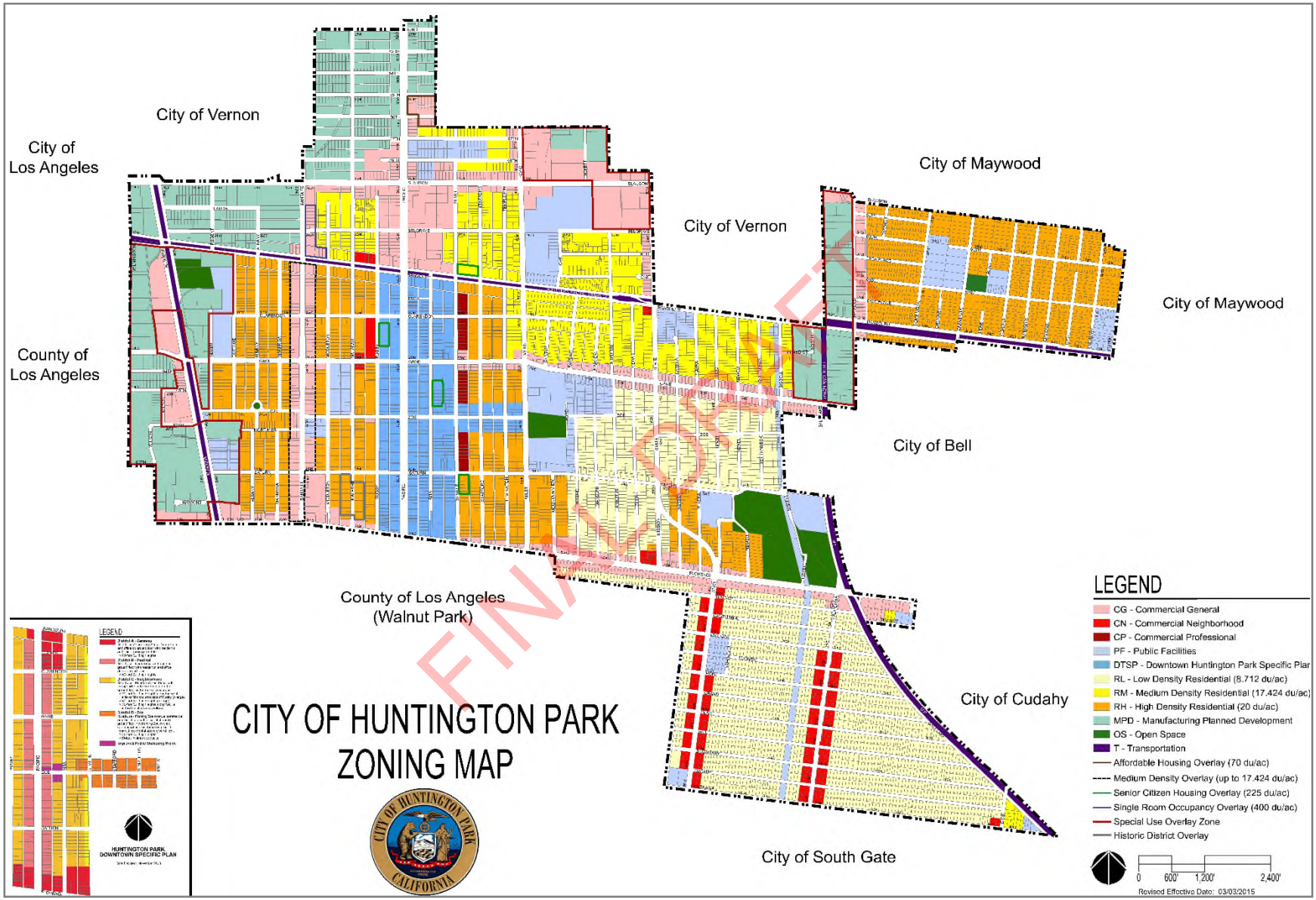


Figure 2.8: City of Huntington Park Zoning Map

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Section 3
Water Sources & Supplies

The City's Water Supply Sources Consist of Imported Water from Central Basin Municipal Water District (CBMWD) and groundwater pumped from the Central Groundwater Basin through five (5) wells, including Well No. 14 (pictured).

Section 3

WATER SOURCES & SUPPLIES

The City's water supply consists of imported water and groundwater from the City's five wells.

3.1 INTRODUCTION

This section describes the current and projected potable water resources available to the City over a 25-year period. The City currently uses potable water to meet the needs of its water service area. Potable water includes both local water sources and imported water sources. Local water consists of groundwater pumped from the Central Groundwater Basin (Central Basin) from the City's five (5) wells. Imported water consists of water the State Water Project (SWP) which originates from the Bay-Delta region of Northern California, and the Colorado River Aqueduct (CRA), which originates from the Colorado River. Imported water is provided to the City from the Central Basin Municipal Water District (Central Basin), which is received from the Metropolitan Water District (MWD).

This Section describes the current and projected water resources available to the City over a 25-year period (through 2045). This Section also provides some background information on the overall water supplies available to the region.

3.2 WATER SUPPLY SOURCES

3.2.1 Imported Water

The City's imported water originates from the Colorado River and the Sacramento-San Joaquin River Delta in Northern California.

These two water systems provide Southern California with over 2 million acre-feet (MAF) of water annually for urban uses.

Colorado River

The Colorado River supplies several states with a valuable source of water, including Colorado, Utah, Nevada, Arizona, & California. Approximately 40 million people are dependent on water from the Colorado River for agricultural, industrial, or domestic needs. Most of the river's water source is produced during winter seasons, with snow above 5,000 feet and rainfall at lower elevations in the Rocky, Uinta, and Wind River Mountains. The snowmelt and rainfall occurring in and nearby these mountains are the primary origination or source point of the Colorado River's water. Prior to the construction of major dams and canals, the Colorado River dumped about 16.3 MAF, or 5.3 trillion gallons, of water into the Gulf of California on an annual basis. The river is also historically known to be very volatile, with summer flows, known for their flood potential, far surpassing winter flows by margins of over 50 to 1. Historically, this volatility was the cause of flooding concerns for the areas lying within the floodplain of the river.

The right to water from the Colorado River is governed by numerous compacts, state and federal laws, court decisions and decrees, contracts, and regulatory guidelines collectively known as the "Law of the River." These documents apportion the water and regulate the use and management of the Colorado River among the seven basin states and Mexico.

From the Boulder Canyon Act of 1928, California's allotment from the Colorado River is about 4.4 MAF annually. Most of this (approximately 3.85 MAF) is used for agriculture in Imperial and Riverside Counties. The remaining unused portion (600,000 to 800,000 acre-feet (AF)) is used for urban purposes in MWD's service area. MWD was established around this time period to obtain an allotment of Colorado River water, and to construct and operate the Colorado River Aqueduct.

Figure 3.1: MWD Pumping Plant at Colorado River

The Colorado River Basin has been experiencing a prolonged, drought, where runoff above Lake Powell was below average for twelve of the last sixteen years, prior to the 2015 UWMP. In the last 20 years, runoff in the Colorado River Basin into

Figure 3.2: Colorado River Basin and Diversion Structures

Lake Powell has been the lowest on record. While runoff returned to near normal conditions during 2008-2010, the drought returned in 2012 with runoff in 2012 being among the driest in history. Average flows in the lower basin from 2000 to 2018 have averaged 12.4 MAFY, down from the historical average of about 15 MAFY. During these drought conditions, Colorado River system storage decreased to 50 percent of capacity. The Colorado River Basin continues to observe severe drought conditions, which are explained in more detail in **Section 7.**

During these drought conditions, Colorado River system storage has decreased to 50 capacity.

Bay Delta

In addition to the Colorado River, the Sacramento-San Joaquin River Delta provides a significant amount of supply annually to Southern California. The Delta is located at the confluence of the Sacramento and San Joaquin Rivers east of the San Francisco Bay and is the West Coast's largest estuary. The Delta supplies Southern California with over 1 MAF of water annually which has been significantly reduced in recent years.

The Delta is often considered the nexus of California's statewide water system. About half the total river flow in the State passes through this region, from which water is exported to the San Joaquin Valley, Southern California and portions of the Bay area to supply some 1,130,000 acres of farmland and 23 million people in central and Southern California. The Delta provides an estimated 7 MAF of water per year, of which about 100,000 AF are exported to the San Francisco Bay Area, 1.7 MAF are used locally, and over 5 MAF are exported to the San Joaquin Valley, coastal Central and Southern California via the State Water Project.

3.2.2 Aqueduct Systems

Colorado River Aqueduct

In order to provide Southern California imported water, two separate aqueduct systems (one for each source of supply) are utilized to obtain supplies. These two aqueduct systems convey water from each source into separate reservoirs whereupon the water is pumped to one of several treatment facilities before entering MWD's distribution system. One of these aqueduct systems is known as the Colorado River Aqueduct (CRA), and the other is known as the California Aqueduct or the State Water Project (SWP). The CRA is managed by MWD and the SWP is managed by DWR.

Figure 3.3: Sacramento-San Joaquin Bay Delta

The idea for the CRA initially began in the early 1920s. As a result of the growing water needs of the Los Angeles area, MWD was formed in 1928. The CRA was considered to be the first order of business shortly after MWD's incorporation. MWD initially considered eight different routes for the CRA, but ultimately the existing route was chosen since it was the safest and most economical. Construction began in 1933 after a $220 million bond was approved in 1931. The CRA is 242 miles long and consists of open channels, tunnels, and pipeline, two reservoirs, and five pumping stations. At the pumping stations, water is lifted up to 400 feet in order to account for the elevation differences. The CRA carries water from the Colorado River at the Parker Dam to Lake Matthews.

State Water Project

The California State Water Project is a water storage and delivery system of reservoirs, aqueducts, power-plants and pumping plants. Its main purpose is to store water and distribute it to 29 urban and agricultural water suppliers in Northern California, the San Francisco Bay Area, the San Joaquin Valley, the Central Coast, and Southern California. Of the contracted water supply, 70 percent goes to urban users and 30 percent goes to agriculture.

In 1947, the California State Legislature funded a water resources investigation that led to the development of the SWP. This investigation resulted in the publication of the California Water Plan, which presented preliminary plans to meet the State's ultimate water needs, including those facility works required for transferring surplus water from northern California to water deficient southern California.

Financing for the construction of SWP facilities was authorized in 1959, when the State Legislature enacted the California Water Resources Development Act (known as the Burns-Porter Act). The Burns-Porter Act, formally known as the California Water Resources Development Bond Act, was placed on the November 1960 ballot. Also known as Proposition One, the initial works included Oroville Dam and Lake Oroville, B.F. Sisk San Luis Dam and San Luis Reservoir, the South Bay Aqueduct, the North Bay Aqueduct, and the California Aqueduct. Construction on the Oroville site actually began even before the passage of the Burns-Porter Act. A $25 million emergency appropriation was passed in 1957 after a record late 1955-early 1956 flood, which devastated Northern and Central California. Statewide, 64 deaths were recorded, most in Sutter

The State Water Project or "SWP" is a result of decades of planning and construction dating back to the 1940s.

Figure 3.4: Aqueduct Systems in California

Figure 3.5: State Water Project

County and Yuba City, and more than $200 million of property damage

The first SWP water deliveries were made in 1962, two years after construction began The State of California Department of Water Resources (DWR) and MWD signed the first water supply contract in 1960. Today 29 agencies have long-term water supply contracts with DWR. The service areas of these long-term water supply contractors vary widely in size, location, climate, and population. The contractors' uses for SWP water also differ. In the San Joaquin Valley, SWP water is used primarily for agriculture; in the Feather River area, San Francisco South Bay, the North Bay areas, and in Southern California, SWP water is used primarily for urban and industrial needs.

Today, the SWP includes 34 storage facilities, reservoirs and lakes; 20 pumping plants; 4 pumping-generating plants; 5 hydroelectric power plants; and about 701 miles of open canals and pipelines. The SWP is owned and managed by the Department of Water Resources (DWR).

3.3 IMPORTED WATER PURCHASES

As a wholesale agency, MWD distributes

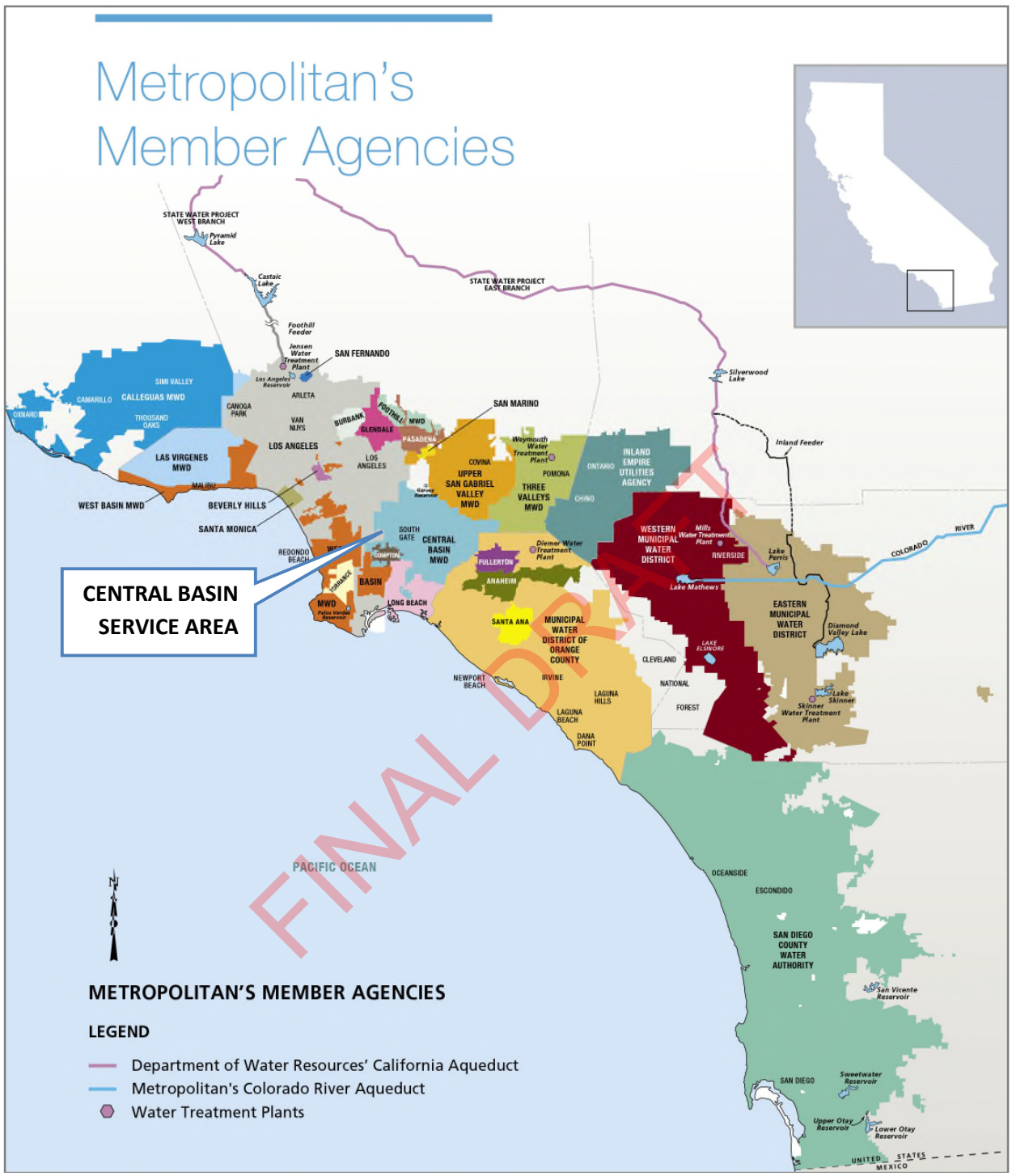

Figure 3.6: MWD Service Area Map

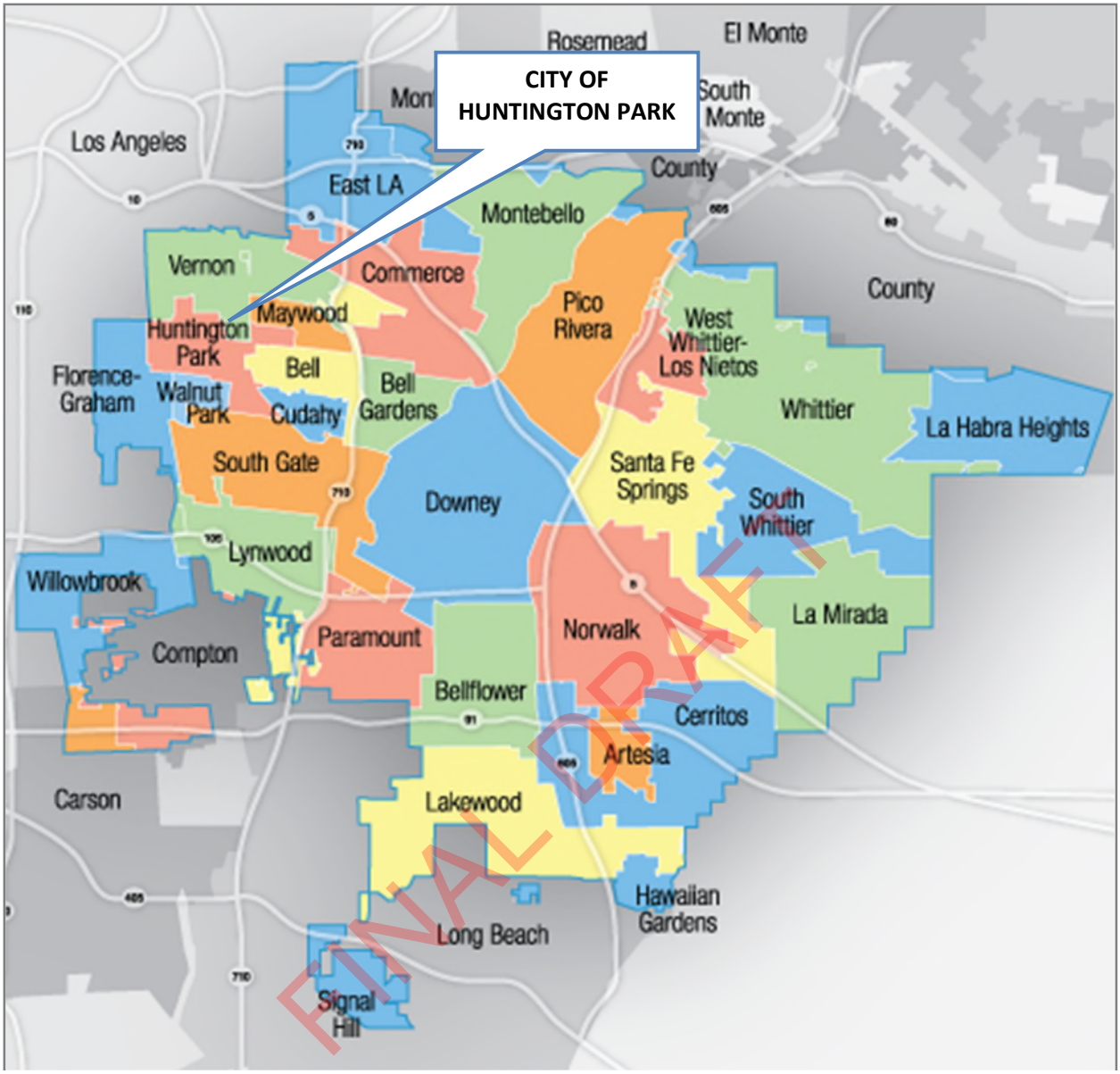

Figure 3.7: Central Basin Service Area Map

imported water to 26 member agencies throughout Southern California as shown in **Figure 3.5**. Central Basin is one of 11 wholesale agencies served by MWD. Central Basin distributes water to its 24 retail agencies, including the City of Huntington Park, as shown in **Figure 3.7**. The City has one (1) imported connection to Central Basin with a capacity of 10 cfs (about 7,200 acre-feet per year (AFY) if operated continuously). **Table 3.1** presents the City's recent imported water purchases from Central Basin for years 2016 to 2020:

Table 3.1
Imported Water Supply 2016 to 2020
(Purchases from Central Basin)

Year	Purchases (AF)
2020	1,332
2019	1,192
2018	726
2017	131
2016	1,080
Average:	**892**

Although the City's imported connection capacity is about 7,200 AFY, the amount of imported water available to the City is dependent on Central Basin's available supply from MWD. For most years, there would be no limit to the City other than the physical restriction of the connection (7,200 AFY). Under shortage conditions however, Central Basin could limit volumes by implementing MWD's Water Supply Allocation Plan (WSAP). The most recent allocations estimated by Central Basin under a WSAP scenario were about 1,100 AFY. This would apply to the City under a shortage scenario.

3.4 GROUNDWATER

The City obtains its groundwater supply from the Central Groundwater Basin, from which the City has rights to extract 3,853 AF of groundwater annually. The basin is located in western Los Angeles County and underlies all or portions of 24 cities in the central Los Angeles County region. The Basin has a surface area of nearly 280 square miles of flat to hilly terrain. The basin is bounded by the La Brea High to the North, by the Elysian and Puente Hills to the East, by the Newport Inglewood fault to the West, and by the Coyote Creek to the South. Adjacent groundwater basins include the Santa Monica, Hollywood, West Coast, and Orange County Basins as shown in **Figure 3.8** on the following page.

Water-bearing formations in the Central Basin are divided into four (4) sub-areas known as forebays and pressure areas. The two (2) forebays are unconfined aquifers capable of receiving surface recharge, whereas the two (2) pressure areas receive

Figure 3.8: Central Groundwater Basin

recharge only from the up-gradient forebays in the basin. The City is located partially in the Los Angeles Forebay and partially in the Central Pressure Area, such that a portion of the City's groundwater aquifers receive recharge only from the adjacent Montebello Forebay. The aquifers include the Gaspur, Gardena, Gage, Lynwood, Silverado, and Sunnyside aquifers, which range from 200 feet to 1,000 feet in depth. The aquifer thickness ranges from 60 feet to 350 feet. Groundwater in the Basin is replenished naturally by percolation from precipitation, by subsurface inflows from the East and by infiltration of surface inflows from the Los Angeles and San Gabriel Rivers. However, due to urban development, natural replenishment to the basin's aquifers is limited to only portions of basin soils. Therefore, the Basin receives additional replenishment through nearby spreading grounds and injection wells. In particular, the Basin has been artificially replenished through the San Gabriel River and Rio Hondo Spreading Grounds which and Rio Hondo Spreading Grounds which are owned and operated by the Los Angeles County

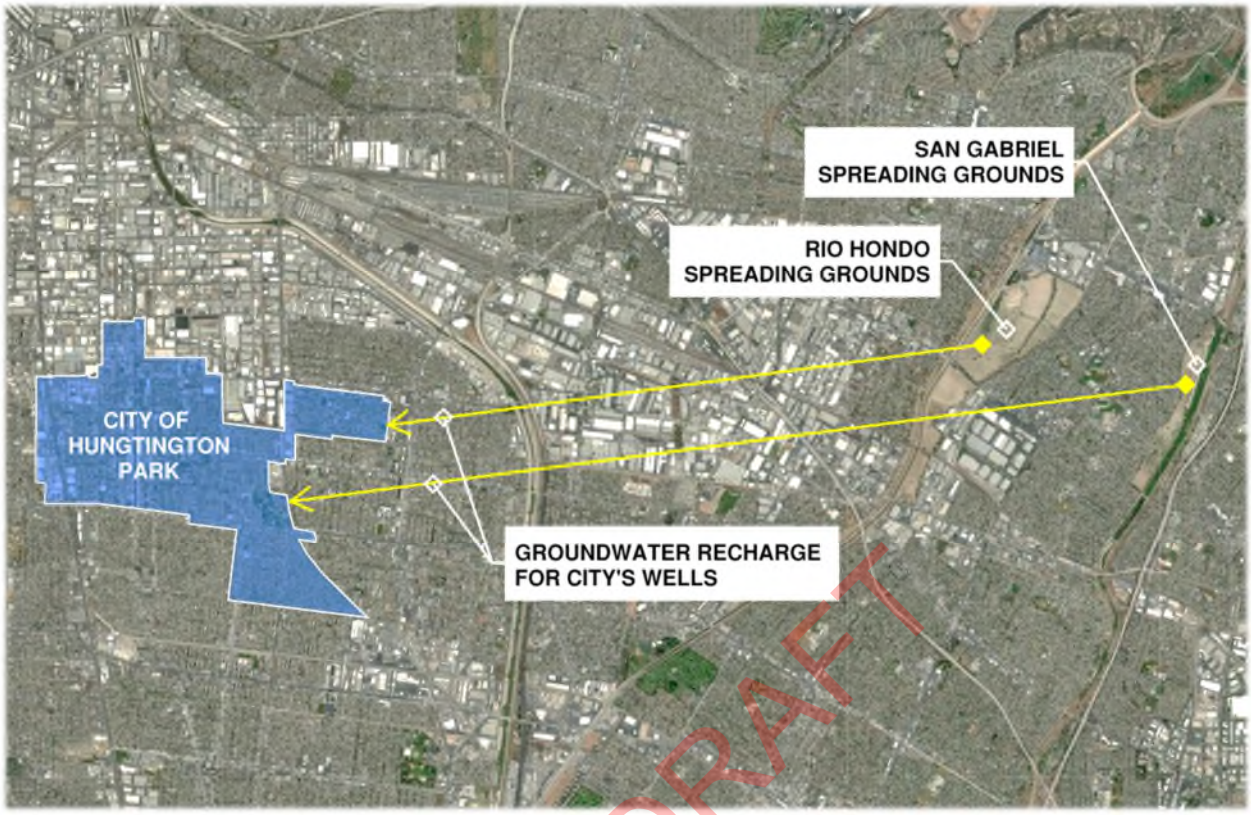

Figure 3.9: Groundwater Recharge in Central Basin

Department of Public Works (LACDPW). Currently, about 40,000 AFY of imported water and 50,000 AFY of recycled water are used for groundwater replenishment. Total natural and artificial replenishment in the Basin amounts to 200,000 AFY, with a net outflow to the West Coast Basin of about 8,000 AFY. Total storage in the basin is estimated to be approximately 13.8 MAF, with 1.1 MAF of unused storage. The safe yield in the basin is approximately 126,000 AFY, with allowable pumping at 217,000 due to artificial recharge of the Basin.

Groundwater flow in the basin is generally from east/northeast towards the west/southwest, with outflow from the Central Basin into the West Coast Basin Lower aquifers typically do not provide as much outflow into the West Coast Basin, due to the Newport-Inglewood Fault which produces uplift in the aquifers. Thus, during drier months when groundwater pumping increases, outflows into the West Coast Basin are typically less than during the wetter months.

Due to the potential for seawater intrusion, from the West Coast Basin, there are three (3) seawater intrusion barriers to prevent seawater intrusion into the Central Basin, including the West Coast Barrier Project, the Dominguez Gap Barrier Project, and the Alamitos Gap Barrier Project. The Alamitos

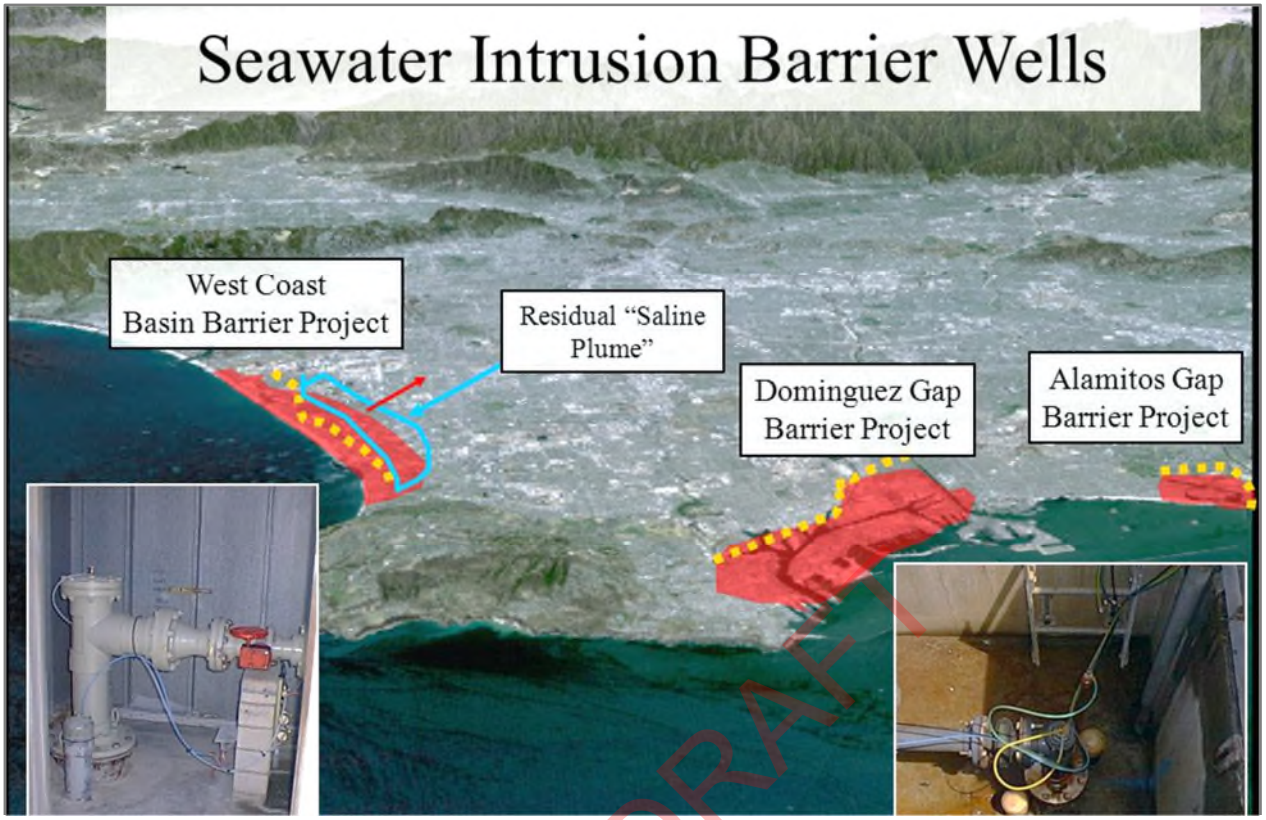

Figure 3.9: Seawater Intrusion Barriers

Gap Barrier Project is located in the southerly tip of the Central Basin, and consists of a series of injection wells aligned to form a subsurface freshwater pressure ridge. The barrier has been incrementally expanded over its nearly 60-year operation from the initial 14 injection wells to the current 41 wells as basin pumping demand increased and groundwater flow conditions changed.

As mentioned previously, the City has rights to pump 3,853 AF of groundwater annually. These rights have been given to the City under the Central Basin Judgment, which became effective in 1966. Since then, the Judgment has been amended three times. The most recent amendment The Third Amended Judgment became effective in December, 2013. This amendment allows water rights holders to have direct input into how the Judgment is administered and enforced. The amendment confirms the retirement of DWR as the Watermaster and mandates the creation of a new Watermaster with three separate bodies serving different functions. The Water Replenishment District (WRD) acts as the administrator, and effectively the Watermaster for the Basin. The amendment also permits a groundwater rights holder to store water (e.g. through stormwater infiltration) and subsequently extract that stored water without the extraction

counting against its water rights and without having to pay the Replenishment Assessment, provided regular monitoring is performed to determine the actual amount of recharged water, among other provisions.

The key characteristics of the West Coast Basin are summarized below in **Table 3.2:**

Table 3.2
West Coast Basin
Summary of Characteristics

Item	Amount
Max. Depth to Groundwater	2,000 ft.
Thickness of Aquifers	180-1,050 ft.
Storage	13.8 MAF
Natural Safe Yield	125,805 AFY
Adjudicated Rights	217,367 AFY
City of Huntington Park Rights	3,853 AFY
Spreading Basins (Total)	2
Injection Wells	Multiple Locations
Seawater Intrusion Barriers	1
Desalters	0

According to the 2019 Central Basin Watermaster Report by WRD, which acts as the Watermaster for the Central Basin, a total of 83,660 AF of water was spread in the basin last year, and a total of 16,923 AFY of water was put into storage.

3.4.1 City Wells

The City maintains four (4) active wells and two (2) inactive wells, one of which is temporarily offline pending an improvement project. The City's wells are summarized as follows:

- **Well No. 12 – 1,400 gpm**
  Santa Ana St. & Salt Lake Ave.
- **Well No. 14 – 1,300 gpm**
  Randolph St. & Bissell St.
- **Well No. 15 – 1,300 gpm**
  Cottage St. & Mortimer Ave.
- **Well No. 16 – 1,225 gpm**
  Randolph St. & Bissell St.
- **Well No. 17 – 2,185 gpm**
  Slauson Ave. & Miles Ave.
- **Well No. 18 – 1,800 gpm**
  Public Works Yard
  (Bissell St. & Saturn Ave.)

Since the 2015 UWMP, the City has not operated Well Nos. 9, 10, and 11. The City previously replaced Well No. 9 with Well No. 18 at the same location in 1993. The City is not currently operating Well No. 15 and 17, due to water quality concerns and pending equipment improvements. Well No. 15 and 17 cannot currently operate even in standby or backup function. Well

No. 15 has a GAC plant under construction. Well No. 17 is inactive due to Nitrates and requires a treatment or blending.

3.4.2 Groundwater Production

The City's wells are equipped with flowmeters to measure groundwater production. Water production is recorded monthly by City water staff and reported annually to DWR. **Table 3.3** below displays the City's groundwater production from 2016 to 2020.

Table 3.3
Groundwater-Production

Year	Production (AF)
2020	2,827
2019	2,888
2018	3,365
2017	4,137
2016	3,097
Average	**3,263**
2011-2015 Avg. (2015 UWMP)	**3,360**

As noted in the table above, groundwater production decreased slightly since the 2015 UWMP. Comparing the groundwater production for 2017 above to **Table 3.1**, it is apparent that the City compensated for a lower imported volume with additional groundwater production.

3.5 PROJECTED WATER SUPPLY

The City expects to reduce their dependency on imported water through groundwater production from its wells, particularly when Well No. 15 comes back online after improvements are complete by 2022-2023. **Table 3.4** below displays the City's projected supply availability outlook. In the near future, the City's overall water supply reliability is expected to increase due to increase in water use efficiency. That is, by maintaining its wells in good condition and maintaining access to imported water, these supplies should be able to meet demands for all climate scenarios through 2045. This is discussed in greater detail in **Section 7** of this UWMP.

Table 3.4
Projected Water Supply Availability

Year	Imported (AF)	Ground (AF)	Total (AF)
2025	1,247	3,853	**5,100**
2030	1,247	3,853	**5,100**
2035	1,247	3,853	**5,100**
2040	1,247	3,853	**5,100**
2045	1,247	3,853	**5,100**

In addition to the supplies listed above, the City has leased unused groundwater rights from adjacent agencies in the past, only as necessary. These leases, if utilized, would

be available to the City through the City of South Gate or other agencies adjacent to the City.

3.6 ALTERNATE WATER SOURCES

This section provides an overview of alternative water sources (non-potable supplemental supplies) and their potential uses. Alternative water sources include recycled water and greywater. **Section 4** provides an overview of recycled water.

3.6.1 Greywater

Greywater systems have been used in California to provide a source of water supply for subsurface irrigation and also as a means to reduce overall water use. Greywater consists of water discharged from sinks, bathtubs, dishwashers, and washing machines. Greywater systems consist of an underground tank and pumping system. Greywater is currently legal for subsurface irrigation in the State of California; however, strict regulations and high installation costs have impeded installation of professional greywater systems and have the unintended consequence of undocumented and noncompliant use of greywater.

The promotion of greywater systems as a means to reduce the City's overall water use is not recommended since the use of greywater is currently limited to subsurface irrigation and therefore the overall service area-wide reduction in water use (in AF) would be minimal at best. With the recent passage of SB 1258, however, greywater use is expected to be expanded to include use for toilet flushing, and may have its place as a potential water supply. The City does not currently have a formal program in place to support greywater use.

3.7 TRANSFERS OR EXCHANGES

3.7.1 Short Term

The City owns rights to extract 3,853 AF of groundwater annually. As a result, the City has the opportunity during periods of inactivity of groundwater production to lease some or all of its groundwater rights to other agencies to offset some of the financial burdens of purchasing imported water. Likewise, the City may be able to lease additional groundwater rights from other agencies. The City has in fact entered into lease agreements for groundwater supplies in recent years and plans to do so in the future.

Regarding imported supplies, the City has emergency interconnections with several agencies. These interconnections are capable of transferring water to the City for emergencies or short-term needs (i.e. shutdown of a well).

3.7.2 Long Term

Over the long term, the City expects to reduce dependency on imported water while increasing water use efficiency. Groundwater is expected provide the majority of the City's water supplies while imported water will be purchased to meet the gap between total demand and groundwater production. Since the City's population is not expected to increase significantly, the City does not foresee a need to lease or purchase groundwater rights as a long-term practice.

3.8 PLANNED SUPPLY PROJECTS

The City continually reviews practices that will provide its customers with adequate and reliable supplies. Trained staff continues to ensure the water quality is safe and the water supply will meet present and future needs in an environmentally and economically responsible manner. The City consistently coordinates its long-term water shortage planning with Central Basin and WRD. The City also meets with the Central Basin Water Rights Panel, which is comprised of other local water purveyors within Central Basin, to discuss local water supply and water rights issues amongst other rights holders within the Central Basin.

As noted in **Section 2** and **Section 6**, the City's projected water demands within its service area should remain relatively constant over the next 25 years. This is due to minimal population growth combined with water use efficiency measures and the continued use of recycled water. The City will only need to maintain existing supply capacity through 2045. Therefore, new water supply projects will be focused on maintaining, replacing, or upgrading insufficient wells rather than expanding supply capacity. To maintain reliability of the current supply capacity and enhance the operations of the City's facilities, the City will continue to plan for the replacement of water meters, fire hydrants, valves, and pipelines.

3.9 ENERGY INTENSITY OF SUPPLY

According to the City's groundwater production figures shown in **Table 3.3** on Page 3-16, the City utilized about 22% of its well capacity in the past five (5) years. That is, about 2,000 gpm of use out of 9,210 gpm total pumping capacity. This means that the each well motor runs for an average of 5.5 hours each day. With total (combined) horsepower of about 500 HP for all wells, the City uses about 380 kilowatts every hour, or about 2,100 kilowatt hours (kWh) per day, and about 770,000 kWh each year. The SCE emergency cost is about $0.20 per kWh (total energy cost). Thus, the typical

costs to operate the City's groundwater system are as shown in **Table 3.5** below:

Table 3.5
Annual Energy Costs to Run All Well Motors

Kilowatt-Hours (kWh)	Cost ($) per kWh	Total Cost ($)
770,000	$0.20	$154,000

The costs shown in **Table 3.5** above only include energy costs to run the motors of the wells. The costs do not include smaller miscellaneous costs such as treatment, lighting, control valves, instrumentation, and security at well sites. However, since the motor is the most significant component of the total energy costs, the costs shown in **Table 3.5** provide a rough idea of what is required to operate the City's groundwater wells each year.

According to the most-recent Central Basin rates for its member agencies, the City is billed at a rate of about $1,300 per AF of imported water. The City has used an average of 900 AFY in the past five (5) years. Thus, the City has purchased nearly $1.2 million in imported water annually over the past five years. This cost data indicates that it is much more economically feasible to produce groundwater than to purchase imported water. Thus, the City plans to continue to using groundwater and surface water.

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Section 4
Recycled Water Opportunities

The Los Angeles County Sanitation District (LACSD) provides wastewater treatment for many central basin cities at the Joint Water Pollution Control Plant (JWPCP) in the City of Carson (pictured below).

Section 4

RECYCLED WATER OPPORTUNITIES

Recycled water use has increased overall water supply reliability for Central Basin member agencies.

4.1 OVERVIEW

"Recycled" or "reclaimed" water is defined as wastewater purified through primary, secondary, tertiary, or advanced treatment. Recycled water is acceptable for most non-potable water purposes such as irrigation and commercial/industrial processes. The Southern California region, from Ventura County southward, discharges nearly 2 billion gallons of treated wastewater either to the ocean or to permitted areas each day. This is considered a reliable and drought-proof water source that reduces the region's reliance on imported water. Recycled water will continue to be a critical part of the California water picture because of the area's high likelihood of drought. As technological advancements continue to reduce treatment costs and as legislation expands the use of recycled water, more reuse opportunities should develop.

This Section describes the existing and future recycled water opportunities available to the City. The section also includes estimates of potential recycled water supply and recycled water demand through 2045 in five-year increments.

4.2 WASTEWATER COLLECTION SYSTEM

The City coordinates with the Los Angeles County Sanitation District (LACSD) to provide wastewater services within its service area. LACSD consists of 24 special

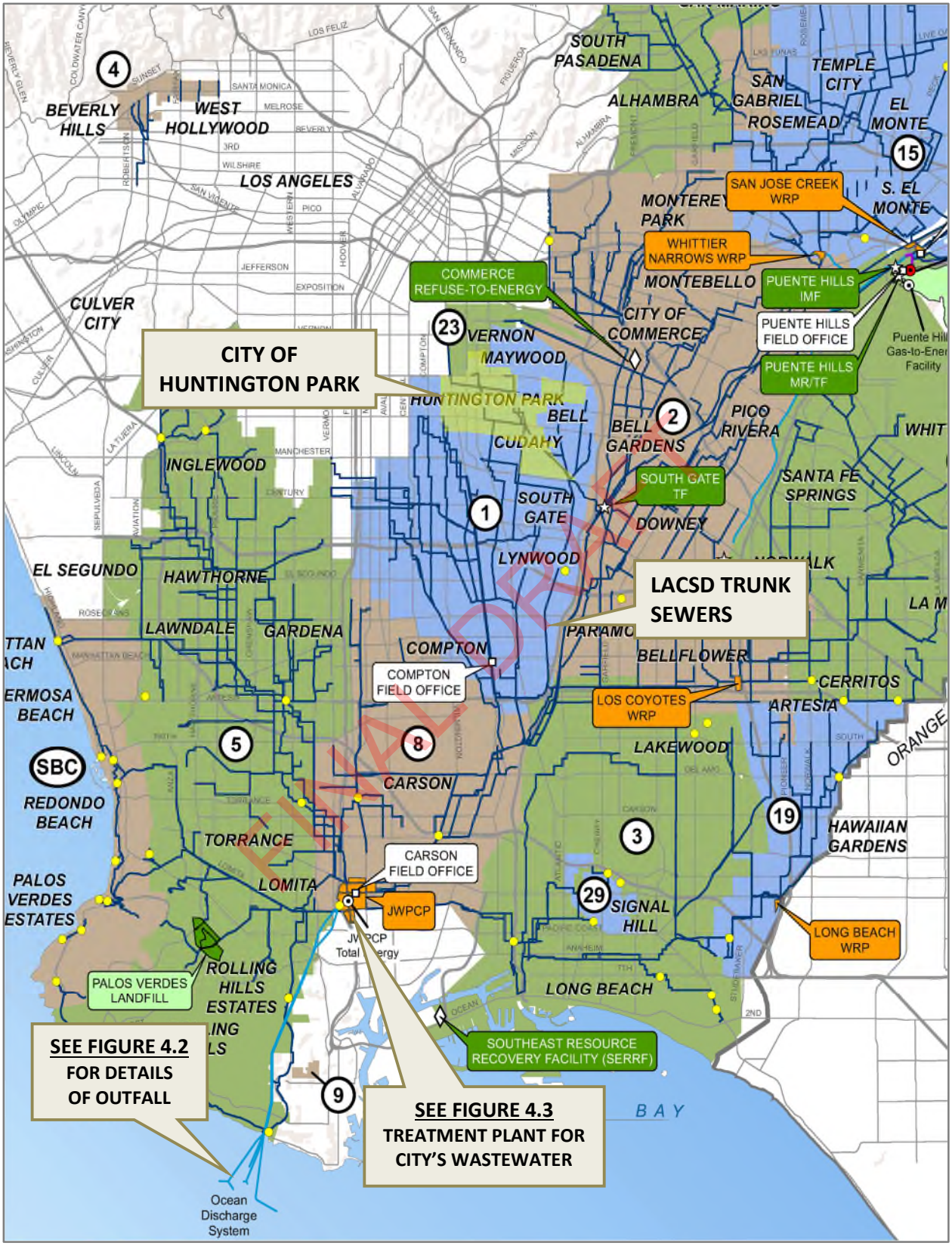

Figure 4.1: LACSD Wastewater Trunk Sewer Network

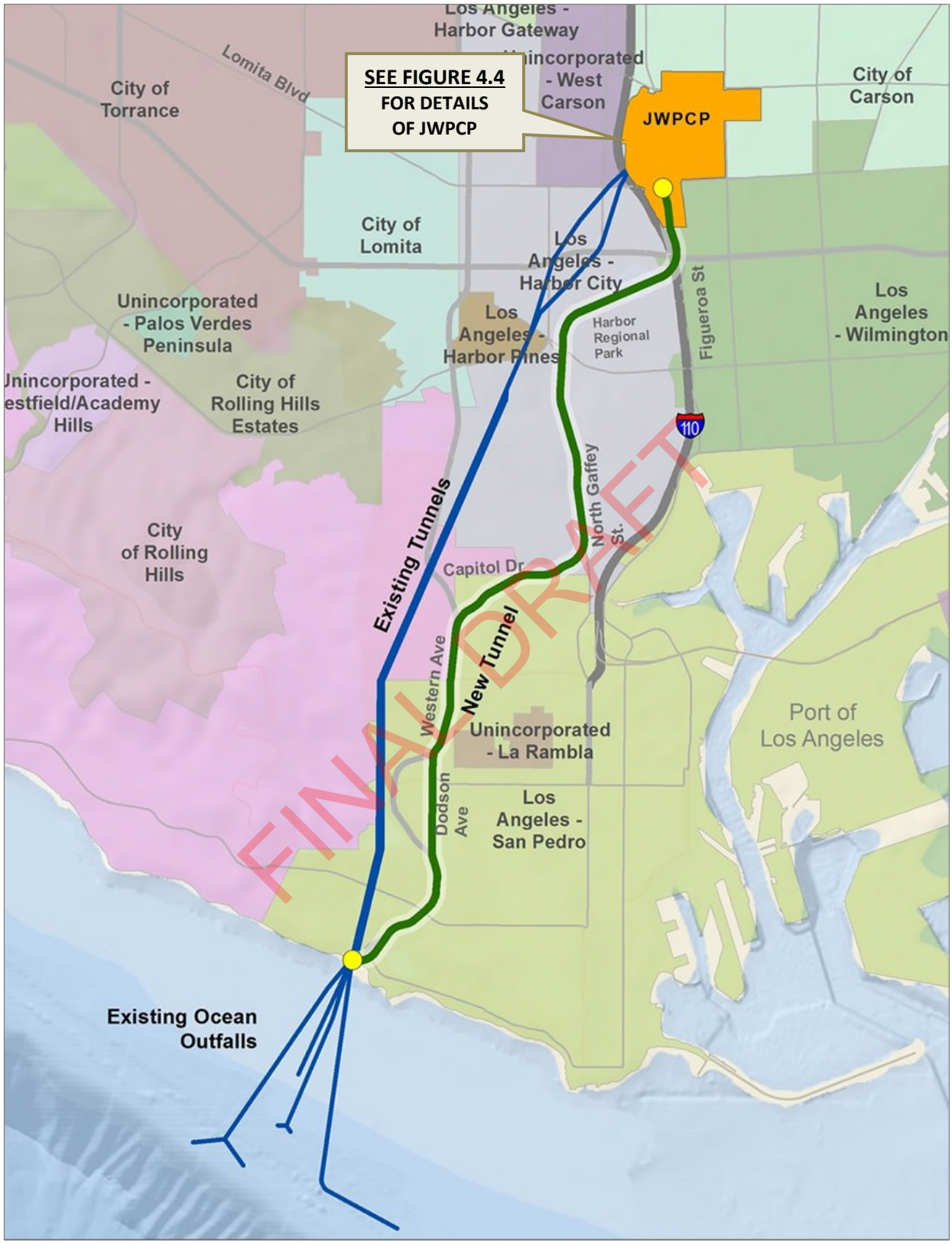

Figure 4.2: Wastewater Outfalls from JWPC

districts serving an area of 850 square miles, including 78 cities and unincorporated areas in the county. Municipal wastewater in the City is generated from a combination of residential, commercial, and institutional sewer discharges. The City does not have a large number of industrial properties that distribute high amounts of industrial wastes, such as brine.

The sewage from the City is collected from roughly 316,000 feet (60 miles) of local sewer mains that range in size from 6 inches to 18 inches. The wastewater is then discharged into larger LACSD sewer trunk mains that proceed southerly (see **Figure 4.1** on the previous page). The trunk sewers travel about fourteen (14) miles from the City to the Joint Water Pollution Control Plant (JWPCP) in the City of Carson. The JWPCP is operated by the Los Angeles County Sanitation District (LACSD). The JWPCP provides service to about 3.5 million people with the region, with a maximum design peak flow of 540 MGD, and an average flow of 280 MGD. Treated wastewater from the JWPCP is discharged through two (2) outfalls into the Pacific Ocean located about two (2) miles offshore from White Point on the Palos Verdes Peninsula. The depth of the discharge point is approximately 200 feet below sea level. The JWPCP system includes advanced primary treatment with 60 percent secondary treatment. Because all wastewater treated at the JWPCP is currently discharged to the ocean, none of the City's wastewater is treated to recycled water standards.

The City's wastewater is discharged to the JWPCP in Carson, located about 2 miles away from the City.

4.2.1 Wastewater Flows

The quantities of wastewater generated are proportional to the population and the water used in the City's service area. Estimates of the wastewater flows in the City's service area are included in **Table 4.1**. The wastewater flows were calculated assuming wastewater flow is equivalent to about 75 percent of the water demand, which is in accordance with typical municipal wastewater master plans.

Table 4.1
Wastewater Flows Collected in City

Year	Wastewater (AF)	Wastewater (MG)
2020	3,119	1,016
2019	3,060	997
2018	3,068	1,000
2017	3,201	1,043
2016	3,133	1,021
Avg:	**3,116**	**1,015**

Since development and population growth are not expected to drastically change over this UWMP planning period (2045), the City

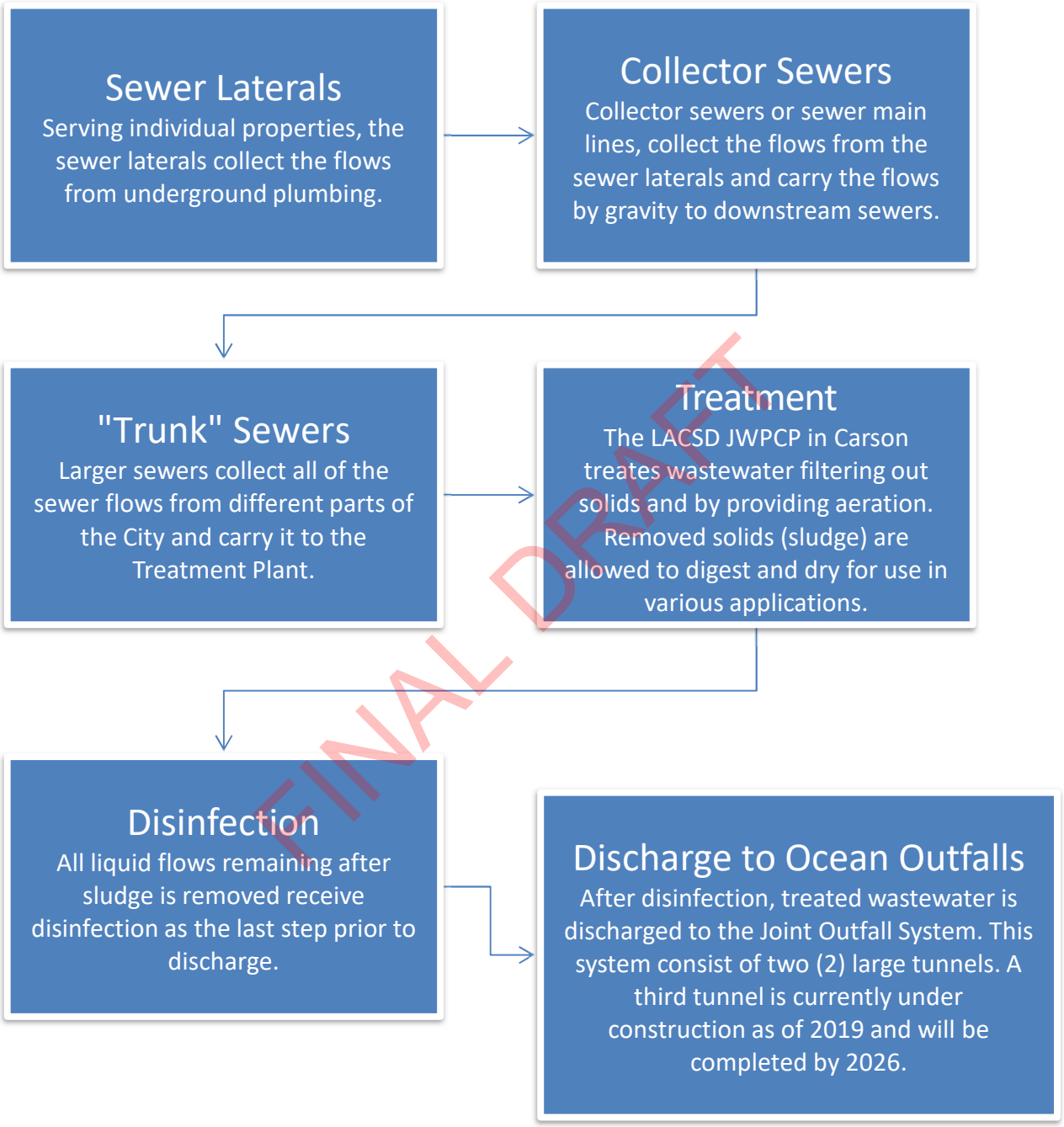

Figure 4.3: Schematic of City of Lomita Wastewater Collection System

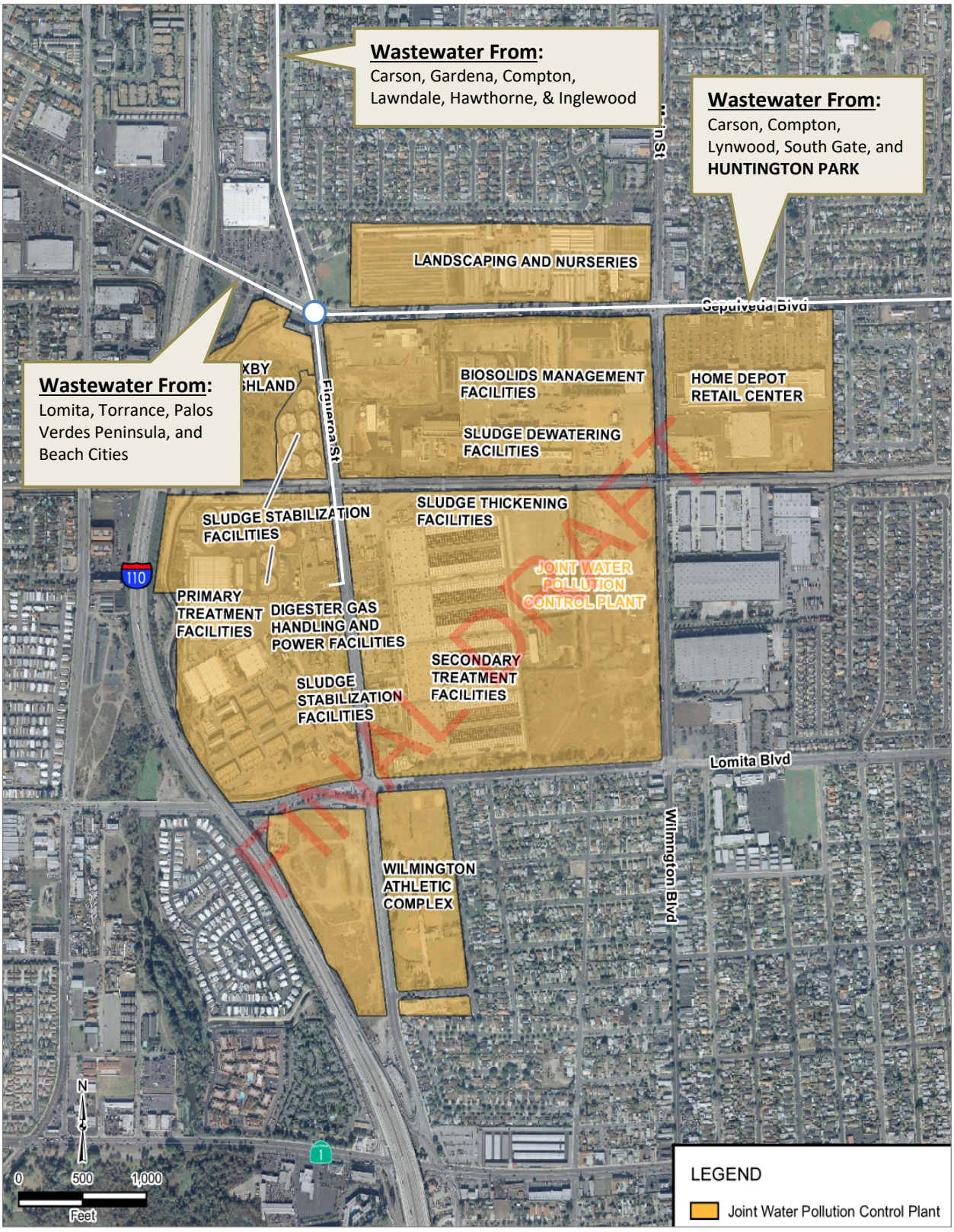

Figure 4.4: JWPCP in the City of Carson

anticipates that future wastewater flows can be estimated using the projected demands shown in **Section 6** multiplied by a return rate of 75 percent (0.75). **Table 4.2** below shows the projected wastewater flows:

Table 4.2
Projected Wastewater Flows Collected in City

Year	Flows (AF)	Flows (MG)
2025	3,292	1,073
2030	3,258	1,062
2035	3,222	1,050
2040	3,184	1,038
2045	3,145	1,025
Avg:	**3,220**	**1,049**

As indicated by **Table 4.2**, wastewater flows will only be slightly greater in 2045 than in 2020, in spite of a projected 5% growth in population as indicated in **Section 2**. This is due to increases in water use efficiency as described in **Section 6**.

4.3 RECYCLED WATER

As mentioned in the previous section, the City does not own or maintain any sewer collection or treatment facilities. The JWPCP is the only wastewater treatment facility for the City. The JWPCP currently provides only secondary treatment, and the treated wastewater does not meet Title 22 Standards. However, as a member of Central Basin, the City uses recycled water produced from the Los Coyotes Water Reclamation Plant in the City of Cerritos and the San Jose Creek Water Reclamation Plant in the City of Whittier. Based on the location of Central Basin's recycled water pipelines (see **Figure 4.5**), only the Los Coyotes Plant provides the City with recycled water.

The Los Coyotes WRP has a wastewater treatment capacity of 37.5 million gallons per day (MGD) and produces approximately 21.20 MGD of recycled water. The recycled water provides irrigation for schools, golf courses, parks, nurseries and greenbelts as well as industrial use at companies for carpet dying and concrete mixing throughout the region. The recycled water produced at the Los Coyotes Plant undergoes tertiary treatment and denitrification. Tertiary treatment provides additional treatment to secondary effluent with coagulation, filtration and disinfection. Tertiary treated water can be used for a wide variety of industrial and irrigation purposes where non-potable water can be used.

The Los Coyotes Wastewater Treatment Plant is the sole source of recycled water for the City.

Central Basin's recycled water system (also known as the Ibbetson Century Recycled Water Project) serves recycled water to the City's service area through one (1) branch

extension from the recycled water transmission line in Randolph Street. The recycled water is provided to the City from a recycled water pump station located at the intersection of Otis Street and Elizabeth Avenue.

The City meters the recycled water flow in their system. The City's recycled water distribution system provides irrigation to the Salt Lake Municipal Park. The City has been using recycled water since 1992. **Table 4.3** indicates the recent recycled water purchases from Central Basin:

Table 4.3
Recycled Water Use in City

Year	Recycled Water Produced or Used (AF)
2020	44
2019	37
2018	197
2017	282
2016	49
Average:	**122**

As indicated by **Table 4.3** above, recycled water fluctuated significantly from 2016 to 2017. This was due in part to landscaping changes that were made at the Salt Lake Park. The amount of recycled water used by the City over the last five years has exceeded the projections for recycled water use in the 2015 UWMP.

4.3.1 Projected Recycled Water Use

There are no current plans by the City to use additional amounts of recycled water at Salt Lake Park. In addition, due to lack of existing piping infrastructure and financing, the City is not planning on expanding the use of recycled water to other customers in the City's water service area. For these reasons, the City projects to use the following amounts of recycled water through 2045:

Table 4.4
Projected Recycled Water Use

Year	Recycled Water Production/Use (AF)	Recycled Water Production/Use (MG)
2020	52	17
2025	52	17
2030	52	17
2035	52	17
2040	52	17

As indicated by **Table 4.4** above, the amount of recycled water used at the park would be about 300,000 gallons per week. The expansion of recycled water use beyond this amount would be possible if the funding for recycled water pipeline infrastructure was covered by Central Basin and/or private developers, and an agreement was in place for the use of recycled water, the City would then be able to expand the use of recycled water.

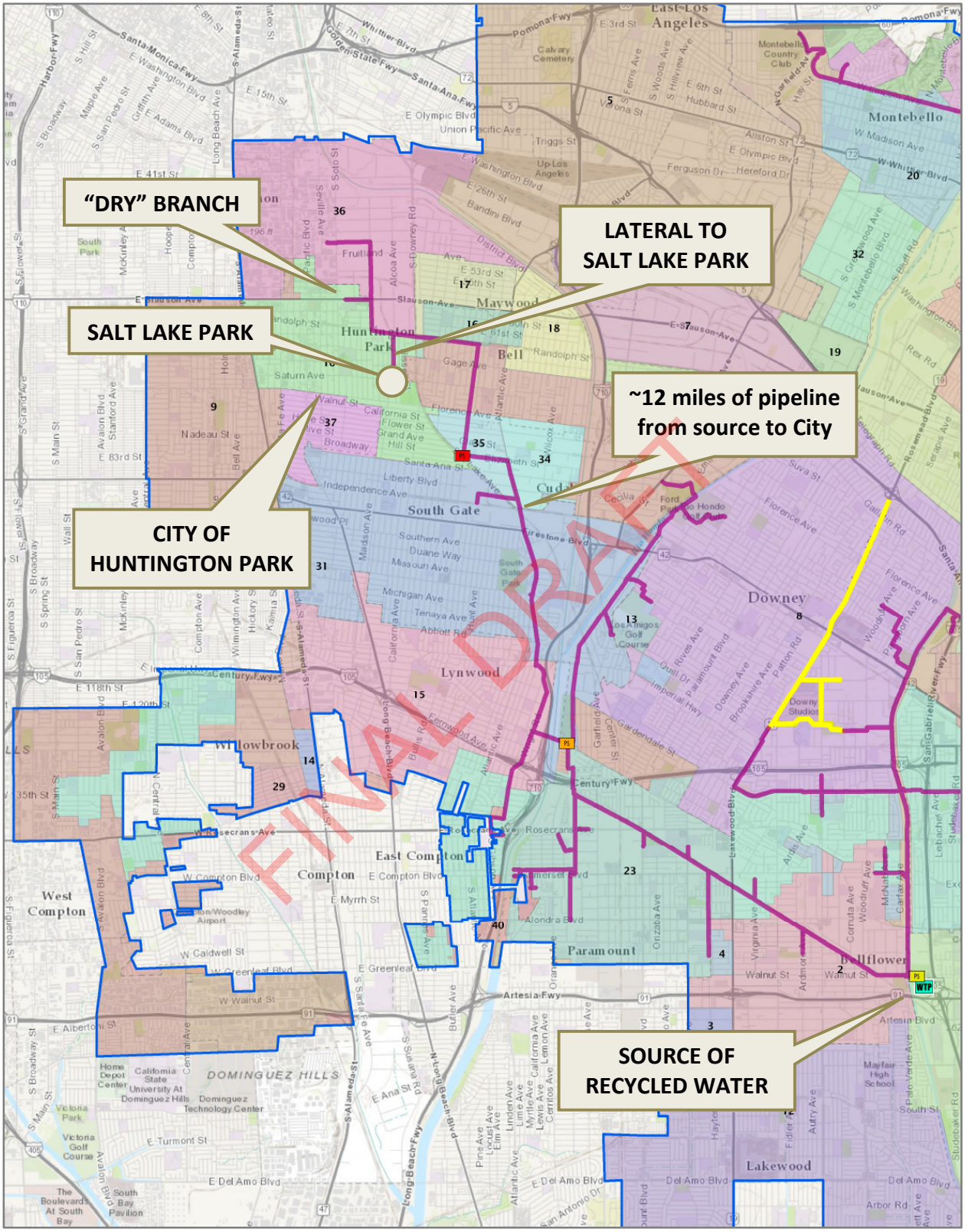

Figure 4.5: Wastewater Outfalls from JWPC

4.3.2 Planned Recycled Water Infrastructure

Currently, there is existing recycled water infrastructure owned and maintained by Central Basin within the City. There are also planned recycled water improvements that are projected to be constructed within a few miles of the City. The projected facilities include planned Central Basin facilities and planned facilities that will be jointed owned and maintained by MWD and LACSD via a partnership agreement.

Gateway Cities Recycled Water Expansion

The Central Basin planned improvements are collectively known as "*Gateway Cities Recycled Water Expansion*", and will consist of three (3) key pipeline extensions within the vicinity of the City. These pipeline extensions include:

- 20-inch Diameter Pipeline in the City of South Gate
- 12-inch Diameter Pipeline in the City of Lynwood
- 16-inch Diameter Pipeline in the City of Bell Gardens

These projects have received environmental clearance in 2018 and are "shovel ready" as of this 2029 UWMP. These three (3) projects are shown in **Figure 4.6**. These pipeline expansions will provide recycled water to businesses, parks, and schools. Amongst these proposed pipelines, the closest pipeline extension to the City is located on Ardmore Avenue and California Avenue, which is about a half-mile from the City. However, this extension will not be able to serve the City, since there are no potential recycled water users within the vicinity of this pipeline extension. Further, this extension is considered a "branch" extension that will only serve recycled water customers in the City of South Gate. If the City were to utilize recycled water from this planned expansion project, the City would have to connect to the 20-inch transmission line along Southern Avenue. For these reasons, this planned project will not likely result in additional recycled water use by the City.

MWD/LACSD Regional Facility

The Regional Recycled Water Program, a partnership with MWD and LACSD, plans to produce recycled water from the JWPCP. The program will start with a demonstration facility and could eventually become one of the largest advanced water treatment plants in the world. The facility would take wastewater treated at the JWPCP (water that is currently sent to the ocean outfalls) and purify it using reverse osmosis and other processes. The recycled water could be sent to the West Coast Groundwater Basin, allowing for additional natural filtration

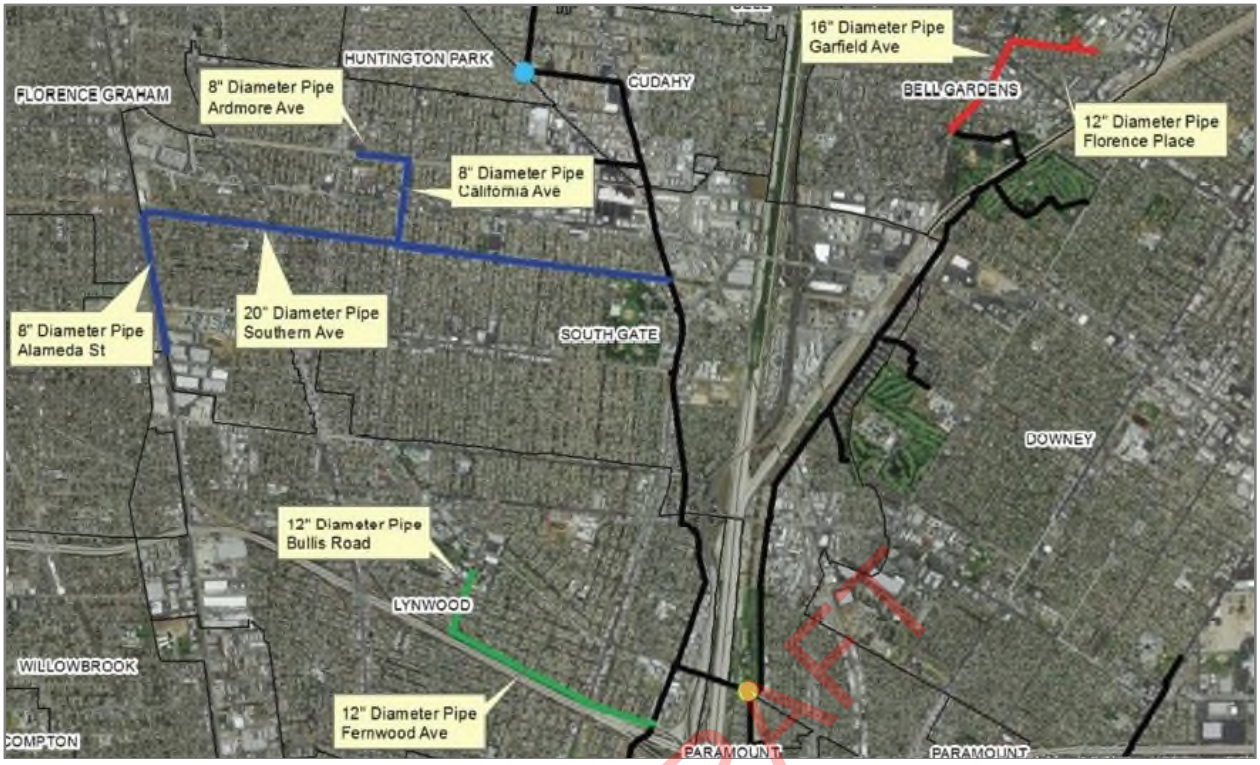

Figure 4.6: Gateway Cities - Planned Recycled Water Expansion

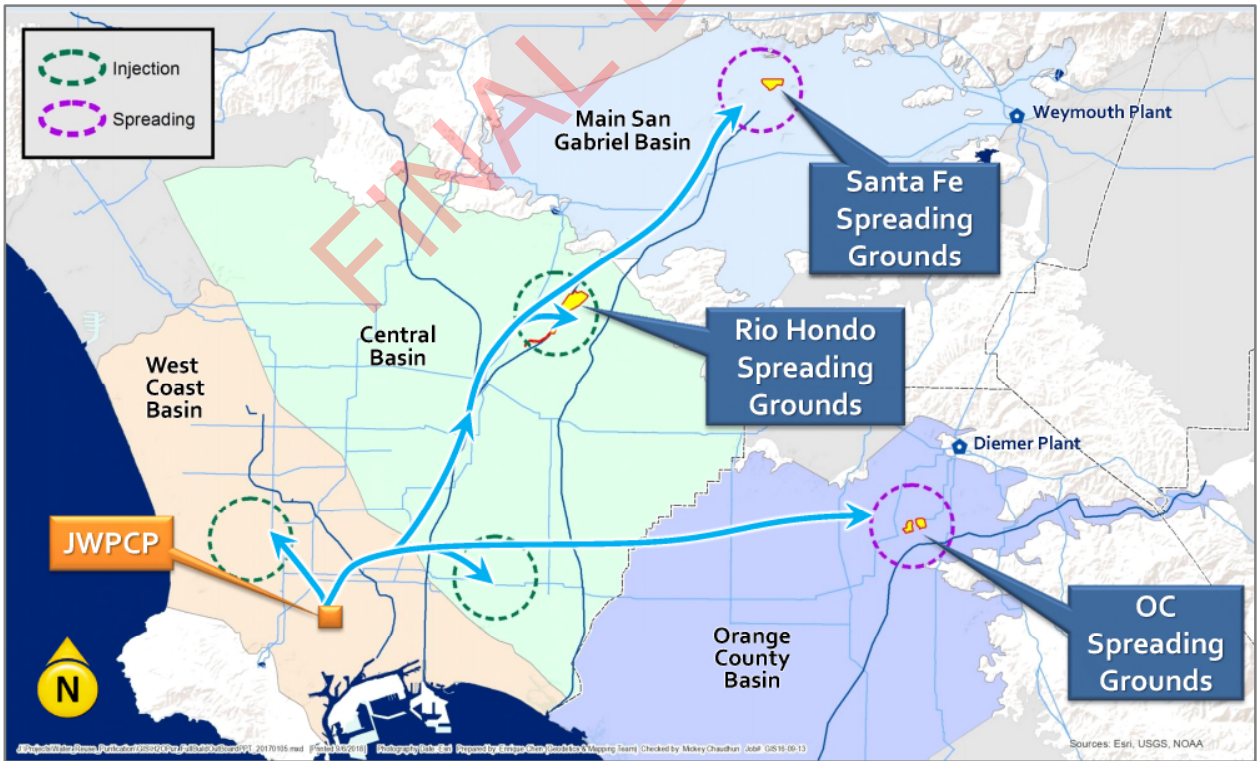

Figure 4.7: MWD/LACSD Planned Regional Facility

and storage. The full-scale program, as envisioned, would produce and distribute up to 150 million gallons of purified water per day to groundwater basins, enough to serve 335,000 homes.

Feasibility studies completed in late-2016 estimate the full program would cost approximately $2.7 billion to build. Based on those estimates, water produced by the program would cost about $1,600 an acre-foot, which is comparable to other new local supplies.

As of 2019, MWD and LACSD completed a demonstration facility, which produces up to 0.5 MGD of recycled water per day. The demonstration facility will be operated for at least one year to generate information needed for the potential construction of a full-scale recycled water plant.

Due to the proximity of the proposed injection sites to the City, this result in indirect recycled water opportunities for the City. The aquifers underlying the City would receive additional replenishment which could give the City potential "storage" rights in addition to the City's adjudicated pumping rights.

4.3.3 Potential Recycled Water Use

A recycled water master plan has not been prepared for the City to date, and the City has not made a formal identification of potential recycled water users. However, typical potential recycled water users include the following:

- Landscape Users (parks, sports fields)
- Commercial/Manufacturing Users
- Energy/Power Production

The City has large landscape municipal customers such as parks and schools. Theoretically, there would be existing customers available to purchase recycled water if and/or when recycled water infrastructure is in place. More specifically, the City will be able to identify existing or future potential recycled water users through the following means:

- Existing water consumption records *(determine high volume users of water)*
- Existing commercial website data *(to determine potential use of recycled water)*

Finally, the City can look into activating the existing branch extension on Slauson Avenue. Currently, this branch extension is "dry" in the sense that the valve for this branch is closed and there is no water in this pipeline. This pipeline could be extended down Slauson Avenue to Miles Avenue and Gage Avenue. This would then allow the City to serve recycled water to Huntington Park High School, City Hall, and Gage Middle School.

4.4 ALTERNATIVE "RECYCLED" WATER

4.4.1 Santa Monica Example

The City of Santa Monica completed its Santa Monica Urban Runoff Recycling Facility (SMURRF) in 2002. The primary objectives of the facility were to eliminate contamination of the Santa Monica Bay caused by urban runoff, increase water conservation awareness, and to provide cost-effective treatment for producing high-quality water for reuse in landscape irrigation and indoor plumbing.

Figure 4.8: Water Treatment at SMURRF Facility

The facility treats urban runoff. The treated water is then pumped through a City-wide distribution system that serves parks, medians, Woodlawn Cemetery, and dual-plumbed buildings. The facility has helped the City in increasing land use densities while decreasing its need for additional potable supplies.

4.4.2 Potential Use of Recycled Stormwater

The Huntington Park city boundaries, unlike the City of Santa Monica, do not extend to the ocean. Thus, there are no environmental motives for the City to recycle stormwater. The construction and maintenance costs associated with a stormwater recycling plant would prohibit the City from considering such a facility as a means to provide an alternative water supply.

4.5 ENCOURAGING AND OPTIMIZING RECYCLED WATER USE

The City does not have a recycled water optimization plan as there is only site that uses recycled water. Analyses have indicated that present worth costs to expand the recycled water distribution system within the City are not cost effective at the current time (i.e. relative to the cost of potable water). Nevertheless, the City will continue to conduct feasibility studies for recycled water use in the City, including identification of potential recycled water users.

The City can encourage recycled water use by restructuring its water rates and service charges for customers who use recycled water; however, recycled water use will be limited to those customers who are within close proximity to a recycled water pipeline.

Once the City has the capacity to provide recycle water to a specific area, then they would consider incentives to encourage and optimize recycled water use. The exact incentive method would be developed as the expansion of the existing recycled water infrastructure progresses. This may include (1) monitoring, enforcement and training for recycled water use, and (2) delivery of recycled water at a reduced rate or a rate less than that of potable water for an initial period of time.

Section 5
Water Quality

The City of Huntington Park treats groundwater produced from Well Nos. 15 and 17 with a Granular Activated Carbon (GAC) system (pictured below).

Section 5

WATER QUALITY

Treatment of groundwater helps ensures high quality drinking water for the City.

5.1 OVERVIEW

The quality of a natural body of water varies over time. During periods of intense rainfall or snowmelt, tributaries for surface water can change, resulting in new constituents or diluting existing constituents in the receiving waters. Conversely, during times of drought, contaminants may increase in concentration without additional flows available to dilute the concentration of contaminant levels. As groundwater levels rise and fall, groundwater will pass through different layers of rock and sediment and will receive different constituents from those strata. Likewise, groundwater wells that have not been utilized over periods of time can see water quality issues resulting from stagnant water. In summary, the quality of water changes over the course of a time and location, and these variables must be recognized by water agencies. For these reasons, City of Huntington Park monitors its wells for water quality as required by State and Federal regulations.

This Section provides a general description of the City's water sources, water quality monitoring and reporting, and water treatment. Groundwater, local surface water, and imported (recharge) water are discussed in this Section. A discussion of potential water quality impacts on the reliability of supplies is also provided.

5.2 WATER QUALITY STANDARDS

5.2.1 Federal Regulations

In 1974, Congress passed the Safe Drinking Water Act (SDWA) in order to protect public health by regulating the nation's municipal drinking water supply. As part of the SDWA, powers were given to the Environmental Protection Agency (EPA) to regulate drinking water. The 1996 amendment to the SDWA required monitoring of new types of contaminants. Since the 1996 amendment to the SDWA, the EPA has identified over 90 contaminants in its National Primary Drinking Water Regulations (NPDWR) or "primary standards"). The main categories that the EPA has identified include: biological microorganisms, disinfectants, disinfection byproducts, inorganic chemicals, organic chemicals, and radionuclides. As required by the SDWA, water agencies must provide annual Water Quality Reports to its customers.

As part of Federal EPA standards, water agencies are required to prepare annual water quality reports.

5.2.2 State Regulations

Water quality regulations have changed since the Safe Drinking Water Act in 1974. Several state, regional and county agencies have jurisdiction and responsibility for monitoring water quality. The actual regulations on water quality have also changed over the years. This is the result of the discovery of new contaminants, changing understanding of the health effects of previously known as well as new contaminants, development of new analytical technology, and the introduction of new treatment technology. All water purveyors are subject to drinking water standards set by the Federal Environmental Protection Agency (EPA) and the State Water Resources Control Board (SWRCB). The California Department of Public Health (CDPH) previously oversaw the water quality of the State's drinking water program and the environmental lab accreditation program. As of July 2014, those programs were transferred to the SWRCB. Under the SWRCB, the Division of Drinking Water (DDW) regulates public drinking water systems, including setting the maximum contaminant levels (MCLs) and regulating the operation of water systems. In addition to the SWRCB, several regional and county agencies have jurisdiction and responsibility for monitoring water quality and contaminant sites.

In 2014, the State's drinking water program was transferred from the Health Department to the State Water Resources Control Board.

5.2.3 State Drinking Water Standards

The State of California has established two (2) main types of drinking water standards:

1. Maximum Contaminant Level (MCL)
2. Public Health Goal (PHG)

MCLs are the regulations aimed to be health protective drinking water standards to be met by public water systems. The levels set by the State take into account a contaminant's health risk, detectability, treatability, and costs of treatment. MCLs are further broken down into the following two (2) types:

1. Primary MCL – Health Related
2. Secondary MCL – Taste & Odor

Secondary MCLs are not federally enforceable according to the most recent SDWA amendments. However, they are regulated by the State of California. DDW publishes a list of Secondary MCLs, which include Copper, Iron, and Zinc.

PHGs are established by the Office of Environmental Health Hazard Assessment (OEHHA). They are concentrations of drinking water contaminants that pose no significant health risk if consumed for a lifetime. Public water systems use PHGs to provide information about drinking water contaminants in their annual water quality reports. Certain public water systems must provide a report to their customers about health risks from a contaminant that exceeds its PHG and about the cost of treatment to meet the PHG, and hold a public hearing on the report.

5.2.4 City Standards

To ensure quality of its water, the City conducts sampling and testing of water on a weekly, monthly, and quarterly basis. Testing is performed at several locations of the City's distribution system, as well as at the source (City wells). Results of the water quality testing are posted annually to the City's website. The City's water quality reports since 2004 (a total of 15 reports), are archived at the following link:

http://hpca.gov/605/Consumer-Confidence-Report

The testing is conducted on several parameters, including organic & inorganic chemicals, bacteriological contaminants, pesticides & herbicides, and radiological contaminants. The City contracts with certified laboratories to perform water quality testing. The City's Annual Water Quality Reports (also known as "Consumer Confidence Reports") are filed with DDW and released to customers. The annual reports identify regulated substances (Primary MCLs), secondary substances

(Secondary MCLs), unregulated substances (PHGs), and other constituents of interest (such as calcium and magnesium). The City identifies all detected substances the annual reports. In addition, every three (3) years, at least 30 residences are tested for lead and copper at-the-tap. According to the City's 2019 Annual Report, the most recent results for this type of testing (performed in 2019) indicate that lead was not detected above the MCL in any of the thirty (30) homes tested. Likewise, copper was not detected above the MCL in any of the thirty (30) homes tested.

In addition to regular testing, the City tests for lead and copper every three (3) years at the tap.

5.3 QUALITY OF SOURCES

The two sources of water supply for the City, as mentioned in **Section 3**, are imported water from the Central Basin Municipal Water District (Central Basin) and groundwater from the Central Groundwater Basin. The quality of water delivered to the City's customers is related to the quality of these sources.

5.3.1 Imported Water Quality

Central Basin is a wholesale agency that provides water received from the Metropolitan Water District (MWD) to its 24 member agencies. Central Basin's service area is located in the portion of MWD's service area that is a "central pool", in the sense that the area is served by three (3) MWD water treatment plants as follows:

- Jensen Plant in Granada Hills
- Weymouth Plant in La Verne
- Diemer Plant in Yorba Linda.

These plants serve localized areas as well as a portion of a common area or "central pool", which includes nearly all of Central Basin's service area.

MWD imports water from Sacramento and San Joaquin Rivers through the State Water Project and the Colorado River via the Colorado River Aqueduct . These two sources have different water quality issues. Based on a previous source water assessment prepared by MWD, Colorado River water is considered to be most vulnerable to recreation, urban and storm water runoff, increasing urbanization in the watershed, and wastewater. In general, water obtained from the Colorado River tends to have high salinity and also has been known to contain harmful metallic elements. The State Water Project is considered to be most vulnerable to urban and storm water runoff, wildlife, agriculture, recreation, and wastewater. The SWP tends to have high biological loads due to farming activities in the San Joaquin

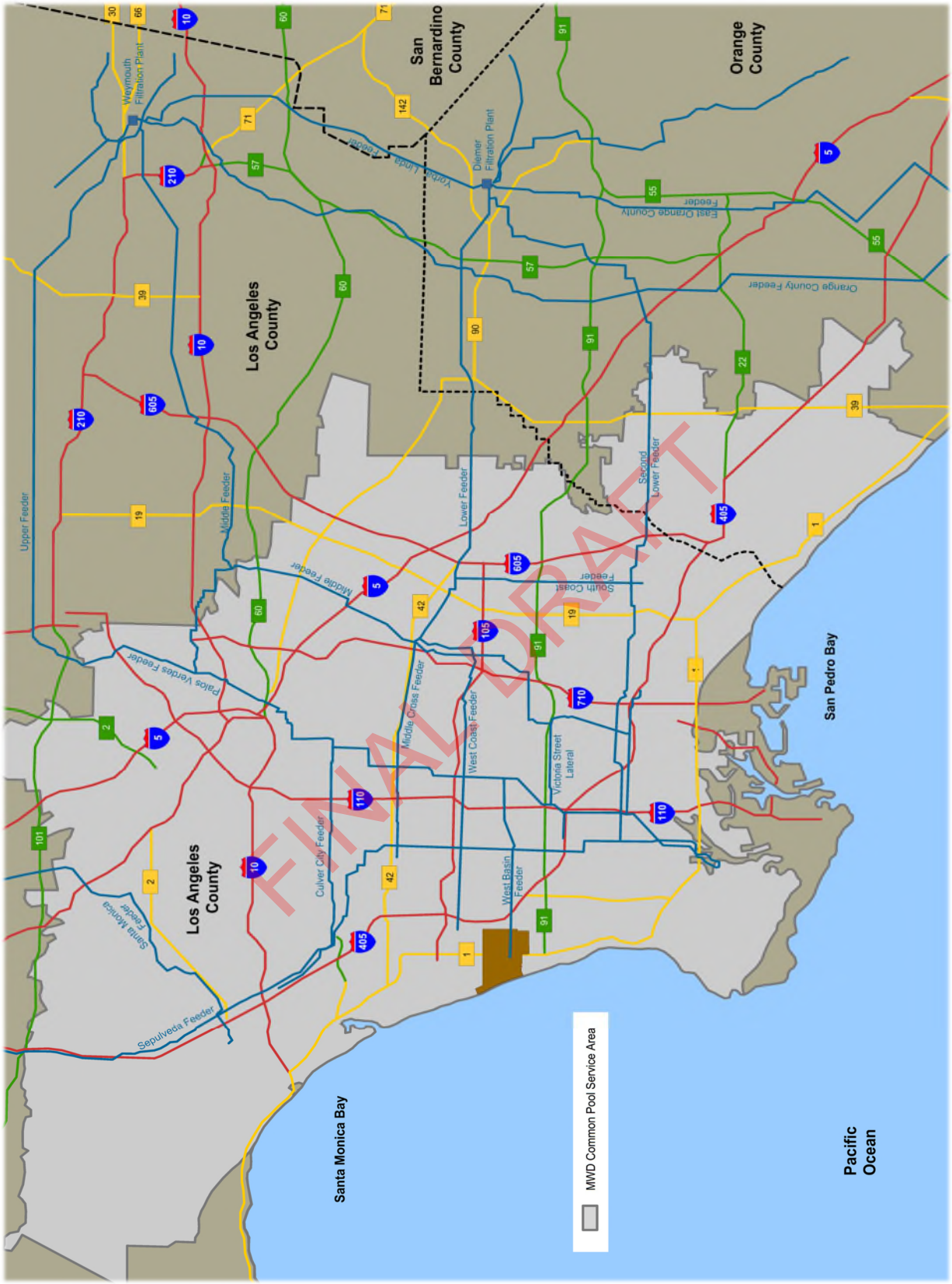

Figure 5.1: MWD's "Central Pool" Receives a Blend of Water from Three (3) Treatment Plants

Valley. Water containing high biological loads tends to have higher treatment costs than water with low biological loads.

In summary, the major regional water quality concerns include the following:

- Salinity
- Perchlorate
- Total organic carbon and bromide
- Nutrients (algal productivity)
- Arsenic
- Uranium
- Chromium-6
- 1,2,3-trichlorpropane
- Constituents of Emerging Concern

The City's latest annual report (2019) has listed, but not detected, most of the above contaminants in its water. MWD has taken several actions and adopted programs to address these contaminants and to ensure a safe and reliable water supply.

Colorado River Salinity

Water imported from the Colorado River via the CRA has the highest level of salinity of all of MWD's sources of supply, averaging around 630 milligrams per liter (mg/L). The salts in the Colorado River system are indigenous and pervasive, mostly resulting from saline sediments in the Basin that were deposited in prehistoric marine environments. They are easily eroded, dissolved, and transported into the river system. To offset these salinity levels, CRA water must be blended (mixed) with lower-salinity water from the SWP to meet MWD's flow-weighted TDS standard of 500 mg/L for blended imported water.

Figure 5.2: Colorado River & Sedimentary Rock

Concern over salinity levels in the Colorado River has existed for many years. To foster interstate cooperation on this issue, the seven basin states formed the Colorado River Basin Salinity Control Forum (Forum). In 1975, the Forum proposed, the states adopted, and the EPA approved water quality standards, including numeric criteria and a plan for controlling salinity increases. The standards require that the plan ensure that the flow-weighted average annual salinity remain at or below the 1972 levels, while the Basin states continue to develop their apportioned water supply. The Forum selected three stations on the main stream of the lower Colorado River as appropriate points to measure the river's salinity. These stations and numeric criteria are (1) below Hoover Dam, 723 mg/L; (2) below Parker Dam, 747 milligrams per liter (mg/L); and

(3) at Imperial Dam, 879 mg/L. The numeric criteria are flow-weighted average annual salinity values. According to recent reports from the US Bureau of Reclamation, average annual flows tested for salinity at Imperial Dam were reported to have concentrations of about 700 mg/L, a 372 mg/L increase over the natural salinity. TDS in Lake Havasu was measured at 662 mg/L in October 2015 and was 592 mg/L in October 2019. Under the recent drought conditions (2020), Lake Powell has received higher salinity water, and as the system normalizes, salinity is expected to increase in the lower Colorado River as water from Lake Powell is released downstream.

According to 2019 estimates by MWD, concentrations of salts in the Colorado River cause approximately $450 million in quantified damages in the lower Colorado River Basin each year. However, the salinity control program has proven to be very successful and cost-effective. Salinity control projects remove over a million tons of salts from the Colorado River water annually, resulting in reduced salinity concentrations of over 100 mg/L as a long-term average.

Uranium in Colorado River

Uranium can infiltrate a water source either directly or indirectly through groundwater seepage. Due to past uranium mill activities near the Colorado River, a previous 16-million-ton pile of uranium mill tailings was located that has the potential for contamination. Rail shipment and disposal of the uranium mill tailings pile from the Moab site began in April 2009 using American Recovery and Reinvestment Act 2009 funding which helped to accelerate initial cleanup efforts.

Figure 5.3: Uranium Tailings Near Colorado River

Through September 2020, the Department of Energy (DOE) has shipped over 10.9 million tons of mill tailings to the Crescent Junction disposal cell. DOE estimates completing movement of the tailings pile by 2034, depending on annual appropriations. Although uranium levels measured at MWD's intake are below State MCL levels, MWD has only limited ability to remove uranium through traditional treatment, and thus mitigation methods are crucial to avoiding uranium contamination. In 2020, the DOE released a strategy to revive and expand nuclear fuel production which would be of interest to MWD if projects are in proximity to the Colorado River.

Total Organic Carbon and Bromide in SWP

Due to the natural habitat of the Bay-Delta region water in the SWP contains higher levels of Total Organic Carbon (TOC) and Bromide. Water containing high levels of TOC and Bromide, once treated with disinfectants such as chlorine or ozone, can lead to the production of Disinfection by-products (DBPs). DBPs are known to cause certain cancers and pose a concern to the City's imported water supply. MWD manages DBP levels by participating in the CALFED Bay-Delta Program to safeguard SWP source water and also by providing advanced treatment operations. Further, MWD has made improvements to its treatment plants to utilize ozone more than as its primary disinfectant. To maintain the byproducts at a level consistent with federal law, MWD limited the percentage of water from the SWP for plants utilizing chlorine as the primary disinfectant. As of 2017, MWD completed ozone upgrades at Skinner, Diemer, and Weymouth water treatment plants, respectively. The estimated ozone retrofit cost for all five treatment plants is over $1.1 billion. The SWP has also experienced lower alkalinity concentrations during years with increased snowmelt, particularly in 2017 and 2019.

MWD has reduced the concentration of DBPs by using ozone as the primary treatment for SWP water.

Nutrients (Algal Productivity) in SWP

Elevated nutrient levels in the SWP can adversely affect the City's imported water quality by stimulating biomass growth such as algae and aquatic weeds. Nutrients can also provide a source of food leading to the growth of nuisance biological species. This can lead to taste and odor concerns and can impede normal treatment operations.

Figure 5.4: Algal Growth in State Water Project

MWD reservoirs receiving SWP water have experienced several taste and odor episodes in recent years. For example, between 2015 and June 2020, MWD reservoirs experienced 13 taste and odor events requiring treatment. A taste and odor event can cause a reservoir to be bypassed and potentially have a short-term effect on the availability of that supply. MWD has a comprehensive program to monitor and manage algae in its source water reservoirs. This program was developed to provide an early warning of algae related problems and taste and odor

Figure 5.5: MWD's Diemer Treatment Plant in Yorba Linda, CA

events to best manage water quality in the system. Further, MWD offsets the nutrient rich SWP water by blending it with CRA water in MWD's blend reservoirs. Although nutrient loading is a concern, MWD does not anticipate any effects on its supplies from the SWP.

Arsenic (Colorado River and SWP)

Arsenic is a naturally occurring element found in rocks, soil, water, and air. It is used in wood preservatives, alloying agents, certain agricultural applications, semi-conductors, paints, dyes, and soaps. Arsenic can get into water from the natural erosion of rocks, dissolution of ores and minerals, runoff from agricultural fields, and discharges from industrial processes. Long-term exposure to elevated levels of arsenic in drinking water has been linked to certain cancers, skin pigmentation changes, and hyperkeratosis (skin thickening).

In April 2004, OEHHA set a public health goal for arsenic of 0.004 µg/L. The MCL for arsenic in domestic water supplies was lowered to 10 µg/L on January 2006 in the federal regulations and on November 2008 in the California regulations. The standard impacts both groundwater and surface water supplies. Historically, MWD's water supplies have had low levels of this contaminant and would not require treatment changes or capital investment to comply with this new standard.

The DLR for arsenic is 2 µg/L. Between 2010 and June 2020, arsenic levels in MWD's water treatment plant effluents ranged from non-detect (< 2 µg/L) to 3.3 µg/L. For MWD's source waters, levels in Colorado River water have ranged from 2.2 to 2.8 µg/L, while levels in SWP water have ranged from non-detect (< 2 µg/L) to 4.8 µg/L.

Other Imported Water Constituents

Through advances in technology and research over time, new contaminants are discovered and existing contaminants are more readily detected. Some of the current contaminants not previously mentioned that pose a threat to the City's imported water supplies include, but are not limited to: Chromium VI, N-nitrosodimethylamine (NDMA), and Pharmaceuticals & Personal Care Products (PPCPs). Continued mitigation efforts by MWD should lead to a decrease in the threat level of these contaminants, even if the City may experience water quality concerns in the short term over the course of this UWMP planning period.

5.3.2 Groundwater Quality

In general, groundwater in the main producing aquifers of the Central and West Coast basins is of good quality with average TDS concentrations around 500 mg/L. Localized areas of marginal to poor water quality exist primarily on the basin margins and in the shallower and deeper aquifers impacted by seawater intrusion.

As part of the Basin's groundwater quality monitoring, WRD and the USGS began a cooperative study in 1995 to improve the understanding of the geohydrology and geochemistry of Central and West Coast Basins. Out of this effort came WRD's geographic information system (GIS) and the Regional Groundwater Monitoring Program.

As of the current year (2021), WRD maintains a total of 335 monitoring wells at 60 locations throughout the Central and West Coast Basins. These wells allow water quality and groundwater levels to be evaluated on an aquifer-specific basis. Regional Groundwater Monitoring Reports are published by WRD for each water year. The most recent Groundwater Monitoring Report for the Central and West Coast Basin was published by WRD in March 2021.

Groundwater Monitoring

Historically, WRD performed groundwater sampling of its monitoring wells on a semi-annual basis, and has compiled an enormous database of analytical results over the past few decades. In 2018, WRD conducted an intensive review of this database specifically to determine if the

frequency of sampling could be reduced at some wells without compromising its current high-quality assessment of groundwater conditions in the West Coast Basin. WRD was able to identify 11 monitoring wells where the sampling frequency could be reduced from semi-annual to annual.

From 2017 to 2020, WRD collected groundwater samples collected from 112 of WRD's monitoring wells. The samples were submitted to a State certified laboratory for analysis for select constituents of interest. Over two-hundred (200) production wells were also tested. The eleven (11) major regional water quality concerns include the following:

1. Total Dissolved Solids (TDS)
2. Iron
3. Manganese
4. Chloride
5. Nitrate
6. Trichloroethylene (TCE)
7. Tetrachloroethylene (PCE)
8. Arsenic
9. Perchlorate
10. Hexavalent Chromium
11. 1,4 Dioxane

Out of the eleven (11) constituents listed above, eight (8) were detected above the MCL in the 112 monitoring wells. Likewise, eight (8) constituents were detected above the MCL in the roughly 200 production wells. **Table 5.1** below lists the constituents that were detected above the MCL:

Table 5.1
2019-2020 Testing Results
West Coast Basin Production Wells

Constituent	Wells Exceeding MCL (No./ No. Tested)
Total Dissolved Solids (TDS)	0/211
Iron	17/217
Manganese	42/216
Chloride	0/211
Nitrate	1/221
Trichloroethylene (TCE)	20/224
Tetrachloroethylene (PCE)	12/224
Arsenic	9/215
Perchlorate	6/219
Hexavalent Chromium	0/210
1,4 Dioxane	54/78

According to the City's 2019 Annual Water Quality Report, the City did not detect any of the above constituents exceeding the MCL or SMCL. However, this is due in part to the City's advanced treatment and blending operations with imported water from Central Basin.

Groundwater Monitoring

Per the 2015 UWMP, the operations of the previous Omega Chemical Corporation have affected a good portion of the Central Basin. Drums of waste solvents and other

chemicals from various industrial activities processed at this facility were leaked into the basin, which have resulted in concentrations of PCE and TCE, which currently affect some of the City's wells. However, the City has installed wellhead treatment such as granular activated carbon (GAC) at the impacted wells.

5.4 IMPACTS OF WATER QUALITY

The quality of water dictates management strategies the City will implement, including, but not limited to, the selection of water sources, treatment alternatives, blending options, and modifications to existing treatment facilities. A direct result from the degradation of a water source, including groundwater, is increased treatment cost before consumption. The poorer the quality of the source water, the greater the treatment cost. This in turn can decrease water supply reliability by potentially decreasing the total supply.

5.4.1 Impacts of Abandoned Wells

The presence of abandoned groundwater wells represents a potential hazard to the quality of the groundwater basin. Abandoned and improperly destroyed wells can act as conduits for contaminants to reach drinking water supplies. It is vital for the long-term protection of the basin that abandoned wells be located and destroyed.

While it is the owner's responsibility to destroy an abandoned well, local water agencies should be proactive about making sure that abandoned wells are in fact destroyed. The destruction of abandoned groundwater wells should be performed in accordance with state standards. California Water Code Section 13750.5 requires that those responsible for the destruction of water wells possess a C-57 Water Well Contractor's License. Whenever a water well is destroyed, a report of completion must be filed with the California DWR within 60 days of the completion of the work. DDW and Riverside County (County) is responsible for permitting and inspecting construction and destruction of wells.

The City policy is for all functional and abandoned wells, a "well site control zone," the area immediately surrounding the well alternatively referred to as the "wellhead," needs to be established. The purpose of this zone is to provide protection from vandalism, tampering, or other threats at the well site. The size of this zone can be determined by using a simple radius, or an equivalent area. The well site control zone should be managed to reduce the possibility of surface flows reaching the wellhead and traveling down the unprotected casing. SWRCB-DDW

Abandoned wells can pose a water quality concern if left unaddressed.

regulations recommend a minimum radius of 50 feet for well site control zones for all public water systems in the state. The Program applies to the abandoned wells as well as functional activities that could potentially lead to "source water contamination" according to EPA regulations.

5.4.2 Groundwater Contamination Response

Currently, the City has a Hazard Mitigation Plan (HMP), and maintains a framework for the management of the City during an emergency. The City also has a Water Shortage Contingency Plan (WSCP) in place to deal with the effects of a potential groundwater contamination that reduces overall water supplies. This information is provided in **Section 8**.

5.4.3 DDW Sanitary Surveys

A Watershed Sanitary Survey is a document that examines the potential sources of contaminants in the watersheds and includes recommendations for managing these effects. Per DDW guidelines, the Watershed Sanitary Surveys are supposed to be updated every five years. In the City's case, the City does not use any surface water, so the City does not prepare Watershed Sanitary Surveys. However, the City is still subject to periodic inspections by DDW staff every three years. The Sanitary Surveys conducted by DDWR include inspection and evaluation of the following:

1. Water Sources
2. Treatment
3. Distribution System
4. Finished Water Storage
5. Pumping Facilities
6. Monitoring & Reporting
7. System Management/Operation
8. Operator Compliance

The City's previous Sanitary Survey Inspection occurred in December, 2019. The next inspection by DDW staff will take place around December, 2022.

5.4.4 Impacts on Management & Reliability

As a result of the City's imported water connection with Central Basin, the City has redundancy in its water supplies. The City has been able to meet water demands since Well No. 15 and Well No. 17 have been offline (as mentioned in **Section 2**). Once the wells are brought back online, additional groundwater will be available to supplement the City's water supply. With modest population growth and increased water use efficiency, the City expects to total water demands to decrease over this UWMP planning period (see **Section 7**). Therefore, the City does not anticipate water quality to impact water supply over the course of this UWMP planning period.

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Section 6
Water Use

The residential sector accounts for over two-thirds of total water use in the City. The commercial sector accounts for about 25 percent of the total water use in the City.

Section 6

WATER USE

Splash pads at the City's parks provide a relief from hot summer weather.

6.1 OVERVIEW

As a fully developed City, water consumption is not subject to significant change from year to year. However, water use within the City's service area is variable each month based on climate conditions. This section explores the water usage trends in the City and quantifies total usage per customer type. In addition, the provisions of the Water Conservation Act of 2009 (Senate Bill 7x7) are explored in detail.

6.2 RECENT STATEWIDE WATER-USE CHANGES

As a result of the Coronavirus Disease 2019 (COVID-19) Pandemic, Commercial and Institutional water use has declined. On March 19, 2020, an Executive Order and Public Health Order directed all Californians to stay home, except to go to an essential job or to shop for essential needs. It was then modified on May 4, 2020. The Regional Stay Home Order, announced December 3, 2020, triggered additional restrictions after a region was announced to have less than 15% ICU availability. It prohibited private gatherings of any size, closed sector operations except for critical infrastructure and retail, and required 100% masking (with certain exceptions as indicated in guidance for use of face coverings) and physical distancing. The Regional Stay Home Order was lifted January 25, 2021. During his 2021 State of Governor Gavin Newsom reported that

California has administered nearly eleven (11) million doses of the vaccine, and that the State was well on its way to seeing an end to this pandemic.

The State Water Resources Control Board – Division of Drinking Water (DDW) has stated that the public water systems (PWS) operations are designated as essential functions and staff and suppliers are not restricted by any current orders. This has allowed for water system operators and maintenance workers to successfully keep the PWS providing safe and clean drinking water to their customers.

The full extent of impacts of the coronavirus pandemic on the water sector are still emerging, but one area that has come to the fore is the effect on municipal water demand. Available data indicate that residential water demand has increased while non-residential demand has decreased. In San Francisco, California, residential demand increased by ten (10) percent, while non-residential demand declined by 32 percent. Residential communities have experienced either modest increases or the smallest decreases. Utilities where total water use has declined during the coronavirus pandemic will see a drop in revenue. Moreover, as businesses reopen and implement hygiene and disinfection practices and as temperatures rise, water use may rise dramatically. Such rapid and dramatic changes in water use can exacerbate existing and reveal new system weaknesses.

The Covid-19 Pandemic has impacted water use in the residential and commercial sectors.

6.3 CITY WATER NEEDS

6.3.1 Past City Water Needs

At the time of incorporation, the City of Huntington Park was a streetcar suburb of the Los Angeles railway for industrial workers. When the City was incorporated in 1906, the City's population was under 2,000 persons. The population grew steadily until the early 1990s, when the City reached "built-out" conditions. Although the population has grown by 0.20 percent annually since 1990 (about 6 percent total), the City's population has decreased slightly since 2015.

As mentioned, the City has been in "built-out" conditions since the early 1990s. For this reason, development is expected to consist only of minor infill re-development in the coming decades. Future water demand increases will be attributable to these minor redevelopments as well as increases in household densities in existing developments. Due to this slowed growth, the City's water use over the past 10 years has been fairly consistent, with less than 5

percent fluctuation in annual water use. Recent total water consumption reported for calendar year 2020 is slightly less than total water consumption reported for 2010.

6.3.2 Current Water Needs

The City supports the water needs of its residents and businesses while maintaining the beauty of its community parks, schools, and recreational facilities both in the private and in the public sector. Since the City is zoned mainly for residential use, there are personal-use water needs (i.e. showers, toilets, and clothes washers) and non-personal water-use needs (i.e., irrigation, car washing, etc.). The City has a significant number of residential lots which require consistent irrigation to maintain landscapes. However, the volume of non-person water use needs is amongst the lowest of comparable cities in the Los Angeles region.

In the commercial and institutional sector, water needs vary as customers range from restaurants to offices and from retail stores to schools. Office buildings and retail stores require significantly less water than restaurants and schools and are not usually the key focus of water conservation efforts. The key focus for the City in the commercial sector will be to maintain a consistent water supply to businesses along Pacific Boulevard. Since this street is a key source of sales revenue for the City.

To maintain civic pride and a sense of community, City parks and other City right of ways (medians, etc.) require consistent irrigation. To prevent water waste, the City follows an irrigation schedule that limits the length of irrigation to avoid overspray runoff and also evapotranspiration from daytime watering.

Figure 6.1: Salt Lake Park

Overall, water needs within the City's service area are significantly lower than most Southern California agencies. Nevertheless, the City has passed conservation ordinances similar to other agencies which limits or restricts non-personal water use during periods of drought. This ensure that water is conserved for the more important health and safety needs of its customers. The City's Conservation Ordinance is discussed in greater detail in **Section 8.**

6.4 CLIMATE IMPACTS ON WATER USE

California faces changes in water use habits due to a variety of issues including population growth, regulatory restrictions

and climate change (including the recent severe drought of 2011-2016). More specifically, weather unpredictability (more extreme drought and flood events) poses additional challenges to water agencies, not only due to impacts on water supplies but also due to impacts on water demands.

During and since the preparation of the 2015 UWMP, there have been local and statewide influences on water use in the City. In January of 2014, Governor Brown declared a state of emergency and directed state officials to take all necessary actions to prepare for water shortages. As the drought prolonged into 2015, to help cope with the drought, Governor Brown gave an executive order in April 2015 which mandated a statewide 25% reduction in water use, with each agency assigned specific target reductions.

Figure 6.2: Executive Order B-29-15 (2015)

Changes in water usage habits have a special concern for the State due to the inter-dependence of many agencies for the transfer and use of water. For instance, some agencies are unable to produce water locally and thus entirely dependent on imported water sources, while others are able to produce all water locally (groundwater).

Due to varying impacts on agencies, the next plan to reduce water demands should be tailored to reduce adverse financial impacts on agencies.

Further, some agencies are able to reduce water demands with only minimal impacts (i.e. water sales revenues), while other agencies will incur more significant impacts if water consumption is reduced. This would include agricultural and heavy industrial users. Thus, the State will likely face challenges in the near future to find the correct balance of water supply allocations to meet demands under various weather conditions.

6.4.1 California Water Plan Update 2018

DWR's California Water Plan Update 2018 is a resource guide for local agencies on water management planning. It sets goals for developing new water resources and maximizing existing water resources. It also provides information on funding available to local agencies in meeting sustainability goals. Since the Water Plans are updated every five (5) years during non-UWMP years, the information contained in these plans is helpful for water agencies in water resource planning in the UWMPs.

6.5 WATER USE

6.5.1 Past Water Use

Although the population of the City has increased by about 5% over the past two decades, overall water use within the City's service area has declined steadily. This is a result of water conservation, as water use efficiency has outweighed the additional water users. **Table 6.1** below presents past water consumption from 2001 to 2015:

Table 6.1
City Past Water Use

Year	Total Consumption (AF)
2015	4,474
2014	4,873
2013	4,774
2012	4,797
2011	4,855
2010	4,843
2009	5,067
2008	5,242
2007	5,395
2006	5,441
2005	5,490
2004	5,800
2003	5,776
2002	5,987
2001	5,948
Average:	**5,251**

As the table suggests, water use began to trend downward since 2002. This correlates to the water use efficiency that is described in this Section. Based on the numbers in **Table 6.1**, water use had decreased by nearly 25% since the peak water consumption in 2002.

6.5.2 Recent Water Use

Table 6.2 below shows the City's water consumption over the past five (5) years. Water consumption since 2015 has been consistent, with a fluctuation of only 5% each year.

Table 6.2
City Recent Water Use

Year	Total Potable Consumption (AF)	Per Capita (GPCD)
2020	4,357	69
2019	4,462	70
2018	4,132	65
2017	4,210	66
2016	4,330	68
Average:		**68**
2020 Water Use Target:		**109**
Central Basin Regional Target		**111**

As indicated by **Table 6.2** above, the City has already reached their 2020 water use reduction target. Further, as indicated by the Central Basin Regional Target, the City's water use is more efficient than the Central Basin agencies.

6.6 WATER USE BY SECTOR

6.6.1 Service Connections/Accounts

The City maintains records of water consumption and bills its customers on a bi-monthly basis for its water service. The City maintains approximately 6,600 water service accounts with a mixture of residential, commercial, institutional, and industrial customers. The City maintains single-family and multi-family accounts as separate sectors. Commercial and institutional accounts are the other two accounts metered in the City's billing system. As of 2020, the current breakdown of accounts is shown in **Table 6.3**:

Table 6.3
Number of Service Connections (2020)

Sector	Service Accounts
Single Family Residential	1,700
Multi-Family Residential	4,100
Commercial	800
Institutional (School)	50
Total Connections:	**6,650**

Nearly 90 percent of the total service connections are residential (single or multi-family), since the City consists primarily of residential properties. Commercial and institutional accounts comprise the remaining 10 percent of the total accounts.

In addition to the accounts listed above, the City's 2015 UWMP identified Industrial, Landscape, and Agricultural accounts. These accounts are not listed explicitly in the City's billing system, but are estimated in **Section 6.6.2** on the following page.

In general, the total number of active accounts does not necessarily represent the total number of actual service connections tapped into the City's distribution mains. The total number of active accounts varies on a monthly basis based on occupancy of a dwelling unit or commercial property.

6.6.2 Water Use

The City records water use per sector and bills customers based on a tiered water rate structure. Water sales data is recorded by City water staff monthly, billed b-monthly, and submitted to DWR annually. The total water consumption by customer type since 2015 is shown on **Table 6.4** on the following page. As noted by the table, Multi-Family Residential accounts are the highest consuming sector in the City, since most of the City consists of multi-family accounts. The number of multi-family residential accounts has increased significantly since the 2015 UWMP. This is a result of the City modifying their billing system to classify certain properties that were previously considered single-family accounts as multi-family accounts. This has also resulted in fewer single-family accounts.

Table 6.4
Recent Water Use by Sector

Sector	2016	2017	2018	2019	2020
Metered Water Sales					
Single Family Residential	828	847	896	839	881
Multi-Family Residential	1,963	2,014	1,994	2,267	2,135
Commercial	1,254	1,108	992	1,004	979
Institutional/Governmental	73	83	92	69	76
Total Metered Sales	**4,118**	**4,052**	**3,974**	**4,179**	**4,071**
Estimated Use (Included as Part of Metered Use Above)					
Industrial	49	48	48	47	47
Landscape Irrigation	15	14	14	14	14
Other	49	48	48	47	47
Agricultural	2	2	2	2	2
Total Estimated Use	**115**	**112**	**112**	**110**	**110**
Losses					
Unaccounted for Water	212	158	158	283	286
Total Water Consumption (Total Supply into System):	**4,330**	**4,210**	**4,132**	**4,462**	**4,357**

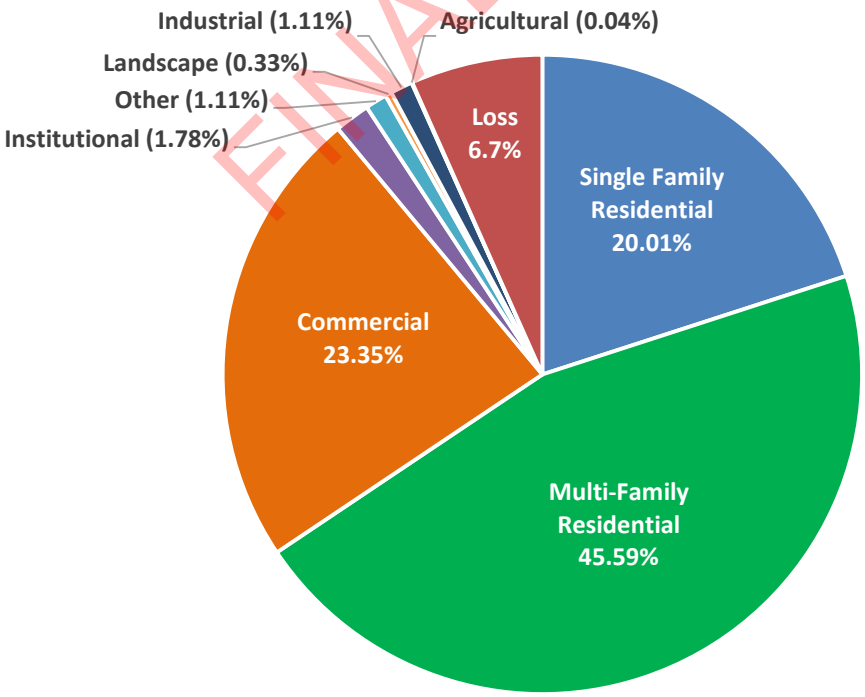

Figure 6.3: Projected Water Demand by Sector (in 2045

As indicated by **Table 6.4**, the City's water "losses" (unaccounted for water) averaged 220 AF, which is about 7 percent of the total water supply into the City's distribution system. Unaccounted for water consists of routine flushing, unmetered use, and water losses. Although water losses have cost impacts on water agencies, they cannot be prevented entirely. Instead, effort is given to controlling the quantity of water losses (to a cost-effective extent) in order to reduce the cost impact of such losses on water operations. For this reason, the City has prepared water loss audits using AWWA software. The water audits for 2016 to 2019 are provided in the Appendix of this UWMP. The 2019 Audit shows that the City's Leakage Index (the ratio of real loss to unavoidable loss) was 3.0, which is an average score for water agencies.

6.7 WATER CONSERVATION ACT

6.7.1 Act Background (SBx7-7)

Due to reductions of water in the San Joaquin Delta, the Legislature drafted the Water Conservation Act of 2009 (SBx7-7) to protect statewide water sources. The legislation called for a 20 percent reduction in water use in California by the year 2020. The legislation amended the water code to call for 2020 and 2015 water use targets in the 2010 UWMPs, updates or revisions to these targets in the 2015 UWMPs and allows the Department of Water Resources (DWR) to enforce compliance to the new water use standards. Beginning in 2016, failure to comply with interim and final targets will make the City ineligible for grants and loans from the State needed to attain water self-sufficiency by 2020. Failure to comply with interim and final targets will make the City ineligible for grants and loans from the State needed to attain water self-sufficiency by 2020.

In addition to an overall statewide 20 percent water use reduction, the objective of SBx7-7 is to reduce water use within each hydrologic region in accordance with the agricultural and urban water needs of each region. Currently, the Department of Water Resources (DWR) recognizes 10 separate hydrologic regions in California as shown in **Figure 6.4**. Each hydrologic region has been established for planning purposes and corresponds to the State's major drainage areas. The City of Huntington Park is in the South Coast Hydrologic Region (HR), which includes all of Orange County, most of San Diego and Los Angeles Counties, parts of Riverside, San Bernardino, and Ventura counties, and a small amount of Kern and Santa Barbara Counties. The South Coast HR is shown in **Figure 6.5.**

Per capita water use, measured in gallons per capita per day (GPCD), in the South Coast HR varies between different water

Figure 6.4: California's 2020 Water Conservation Goals

Figure 6.5: South Coast Hydrologic Region

agencies depending on the geographic and economic conditions of the agency's service area. The South Coast HR has an overall baseline per capita water use of 180 GPCD and DWR has established a regional target of 149 GPCD for the region as a compliance target to satisfy SBx7-7 legislation.

The *Methodologies* guidebook made provisions that allowed a water supplier to meet the target requirements by achieving one of four (4) different targets, provided that the water supplier's baseline water use was low enough relative to the region within which it supplies water. For most agencies, the two most common options are 1) 20% reduction or 2) 5% reduction from the Hydrologic Region.

Exempt Agencies

If an agency has a baseline per capita water use of 100 GPCD or less, that agency will not have to adhere to any reduction targets as that agency is already considered water efficient. In such a case, that agency must document in subsequent UWMPs that its water usage is still under 100 GPCD.

6.7.2 SBx7-7 Baseline & Target

The basic procedure for determining the applicable water reduction target is illustrated by **Figures 6.6 and 6.7** on the following page. The City previously established water use targets for 2015 and 2020. DWR provided guidelines for determining these targets in its *Methodologies* guidebook for the 2010 and 2015 UWMPs. In the 2010 and 2015 UWMPs, the City's baseline water use and targets were determined based on the procedures shown in **Figures 6.6 and 6.7**.

If an agency's 10-year baseline is slightly higher than the Hydrologic Region's target, that agency still must achieve a five percent reduction from its 5-year baseline. If an agency has a per capita water use of 100 GPCD or less, that agency will not have to adhere to any reduction targets as that agency is already considered water efficient.

Since the City does not use recycled water, a 10-year instead of a 15-year rolling average was previously calculated. The City's baseline water use is 126 GPCD, which was obtained from the 10-year period January 1, 1995 to December 31, 2004.

Table 6.5 shows historic (1995 to 2009) water use and provides the base period ranges used to calculate the baseline water use for the City. The data was used to calculate the continuous 10-year and 5-year average baseline. Moreover, regardless of the compliance method adopted by the City it will need to meet the minimum water use

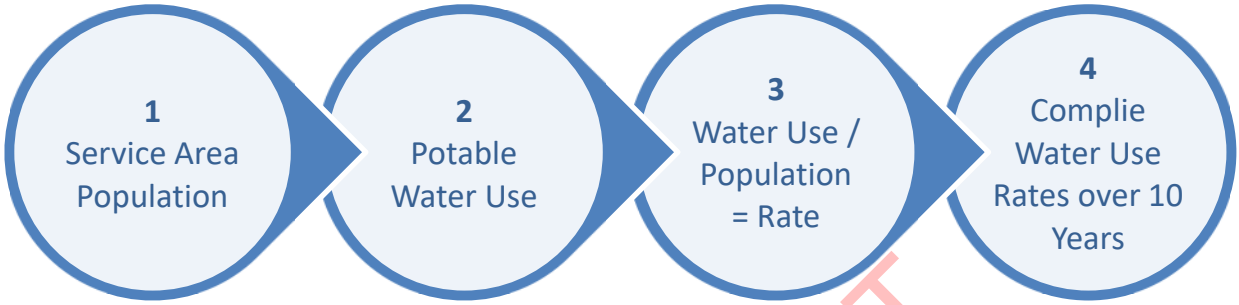

Figure 6.6: Procedure for Determining Baseline Per Capita Water Use

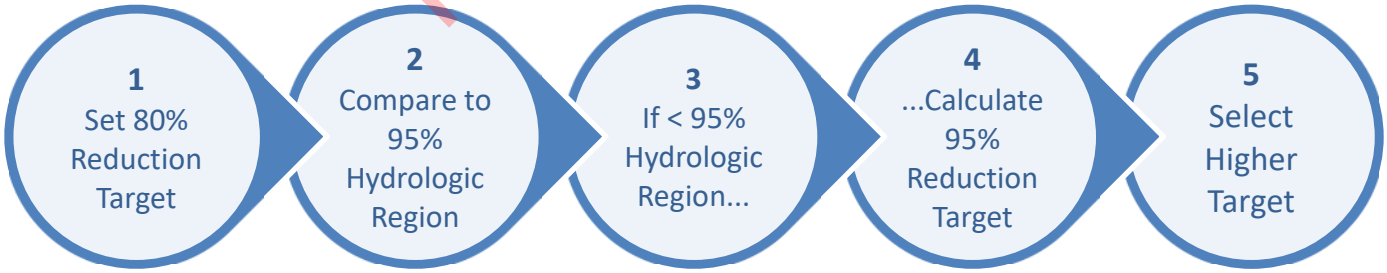

Figure 6.7: Procedure for Determining Target Per Capita Water Use

target of 5 percent reduction from a 5-year baseline as calculated.

Table 6.5
City of Huntington Park Water Use

Year	Total Potable Consumption (AF)	Per Capita (GPCD)
2015	4,474	70
2014	4,873	77
2013	4,774	76
2012	4,797	77
2011	4,855	78
2010	4,843	67
2009	5,067	70
2008	5,242	73
2007	5,395	75
2006	5,441	75
2005	5,490	76
2004	5,800	81
2003	5,776	81
2002	5,987	85
2001	5,948	86
10-yr. Baseline (1995-2004) (SB7: 10608.20)		**77**
5-yr. Baseline (2003-2007) (SB7: 10608.22)		**76**
South Coast HR:		**180**

As shown in **Table 6.5** above, the City's 10-yr and 5-yr baselines were determined to be 77 GPCD and 76 GPCD, respectively.

The City's baseline water use was then compared to the regional compliance target to determine the applicable reduction amounts per the SBx7-7 additions to the water code. The legal stipulations applicable to the City and the required target to be enforced by DWR are shown in **Table 6.6** below:

Table 6.6
City of Huntington Park
SBx7-7 2020 Water Use Targets

Min. Reduction Requirement (10608.22)	20% Target (10608.20) (b)(1)	5% Reduction from Regional Target (10608.20) (b)(3)
N/A	**N/A**	**141.5**
2020 Per Capita Target:		**141.5**
Interim (2015) Target:		**109**

Since the City's baseline water use is under 100 GPCD, the City is technically exempt from the requirements of SBx7-7, per Section 10608.22 of the Water Code. However, since the City established a target in the 2015 UWMP, this 2020 UWMP hereby reaffirms the targets listed in the 2015 UWMP. That is, the City's 2020 target is hereby reaffirmed to be 141.5 GPCD (5 percent reduction from the South Coast Hydrologic Region target of 149 GPCD). This is in accordance with Target Method 3, per Section 10608.20(b)(3) of the Water Code.

6.7.3 SBx7-7 Target Compliance

It is noteworthy to mention that the City has seen a 25 percent increase in water efficiency in the past 20 years. This is due to stricter conservation measures, more of water-saving plumbing fixtures, and overall water conservation awareness. As indicated by **Table 6.2** on **Page 6-5**, the City has already achieved not only its interim (2015) target, but also its final 2020 target. The City can maintain its consumption rates below the SBx7-7 target by continuing to focus on water conservation.

6.7.4 Regional Central Basin Alliance Target

In addition to having its own 2020 target, Central Basin created the Gateway Regional Alliance to establish a regional baseline of water use and 2015 and 2020 conservation targets. A total of twelve (12) agencies participated in the Gateway Regional Alliance. The regional alliance targets were calculated to be as follows:

- Regional Alliance Baseline: 128 GPCD
- 2015 Interim Target: 120 GPCD
- 2020 Compliance Target: 111 GPCD

The City did not participate in the Gateway Regional Alliance and is not held to the requirements of this target. Further, the City's compliance and interim targets are lower than the regional alliance targets.

6.8 PROJECTED WATER DEMAND

Future water use projections must consider significant factors on water demand, such as development and/or redevelopment, and climate patterns, among other less significant factors that affect water demand. Rainfall will continue to be a major influence on demand as drought conditions will increase demand at a time when these supplies are limited. Redevelopment is expected to be an ongoing process, but it is not expected to significantly impact projected water use since the City is already in a "built-out" condition.

6.8.1 Passive Savings

As the City's population continues to grow mildly over time and as water conservation measures continue to be implemented, the City should experience only mild increases in its water consumption over the long term in spite of overall population increases. This is due to "passive savings". That is, over time, homes will be equipped with water-saving fixtures and landscapes. Also, over time, residents will become more aware of water conservation and City water code policies such as limitations on landscape irrigation and car washing. This "passive savings" will help offset new water demands stemming from any population growth in the City.

6.8.2 Low-Income Water Demands

Senate Bill 1087 and California Water Code Section 10631.1 require that water use projections of a UWMP include the projected water use for single-family and multi-family residential housing for lower income households as identified in the housing element of any city, county, or city and county in the service area of the supplier. The City has a civic and legal responsibility to provide for the water-related health and safety of the community. One of the City's objectives is to provide its customers with an adequate and reliable supply of high-quality water to meet present and future needs in an environmentally and fiscally responsible manner. As such, water use priority does not differ based on income level.

According to the Housing Element of the City's 2030 General Plan, prepared in 2020, there are about 15,000 total housing units in the. The low-income units in the City are as follows:

- **Extreme/Very-Low Income**
  About 5,500 Homes
- **Low-Income**
  About 3,750 Homes

Thus, there are a total of 9,250 low-income housing units in the City. This represents about 62 percent of the total housing needs in the City. With an estimated 4 persons per household and a consumption rate of 70 GPCD, the City requires about 2,900 AFY of water to meet the needs of these residents.

Regarding projected low-income water needs, the population projections shown in **Section 2** of this UWMP indicate that population will increase by about 2,500 people by 2045. This means that about 1,550 additional low-income persons will require water in the City. This amounts to about 120 AFY of additional water to meet low-income housing needs. Finally, according to the 2030 Housing Element, Page 6-70, there are a total of 557 affordable housing units projected to be developed by 2030. This would add about 1,200 to 1,500 people to the City within the next decade. If constructed, the City would need about 100 to 120 AFY of additional water to meet the needs of these residents. These low-income water demands are included in future projections for single family and multi-family homes listed in **Table 6.7** on the following page.

6.8.3 Projected Water Use by Sector

For planning purposes, the City's projected water use for 2025-2045 is broken down by sector in **Table 6.7** on the following page. The estimates per sector are based on the ratios of the sectors shown in **Table 6.4** and **Figure 6.3** on Page 6-7.

Table 6.7
Projected Water Demand by Sector

Sector	2025	2030	2035	2040	2045
Water Service Area Population	57,209	57,879	58,549	59,219	59,889
Consumption Rate (GPCD) *Including 0.5% Annual Passive Savings*	68.5	67	65.5	64	62.5
Demands					
Single Family Residential	879	869	860	850	839
Multi-Family Residential	2,001	1,980	1,958	1,935	1,911
Commercial	1,025	1,014	1,003	991	979
Institutional/Governmental	78	77	76	76	75
Industrial	49	48	48	47	47
Landscape Irrigation	15	14	14	14	14
Other	49	48	48	47	47
Agricultural	2	2	2	2	2
Total Water Sales:	**4,097**	**2,195**	**2,155**	**2,116**	**2,077**
Unaccounted for Water	293	135	133	130	128
Total Water Consumption (Total Supply into System):	**4,390**	**4,344**	**4,296**	**4,245**	**4,193**

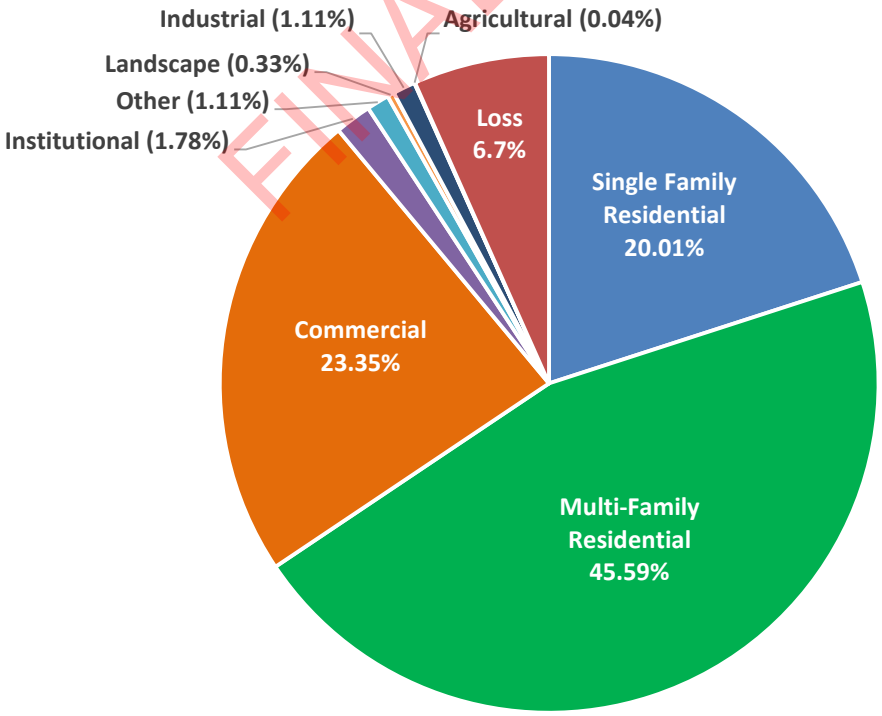

Figure 6.8: Projected Water Demand by Sector (in 2045)

Section 7
Reliability Planning

Former Gov. Schwarzenegger's signing of the 2009 Water Conservation Act enforces a mandatory conservation of up to 20% by 2020 that applies to Urban Water Management Plans. Severe droughts, including the most recent State drought of 2011-2017, highlight the need for strong water supply management and storage, including groundwater recharge at the Rio Hondo (shown below).

Section 7

RELIABILITY PLANNING

The Rio Hondo Spreading Grounds (pictured) provide groundwater recharge for the Central Basin.

7.1 OVERVIEW

Drought conditions continue to be a critical issue for Southern California's water supply. The current drought of 2020-2021 is impacting deliveries of imported water to Southern California cities. The documented deliveries of water from the State Water Project (SWP) for Water Year 2020 (October 1st 2019 to September 30 2020) indicate that the volume of water delivered to SWP Contractors was the lowest since Water Year 2015. Therefore, it is important that agencies manage water consumption and reduce reliance on imported water through local groundwater and surface water supplies. Water agencies should prepare for prolonged droughts for up to five (5) years to ensure a reliable supply of water.

This section discusses local and regional efforts to ensure a reliable supply of water. This section also compares projected supply to projected demand over a 25-year planning period (through 2045) for various climate scenarios. Demand and supply projections are provided in **Tables 7.1** - **7.9**.

7.2 HISTORIC DROUGHTS

Climate data has been recorded in California since 1858. Since then, California has experienced several periods of severe drought, including: 1928-34, 1976-77 and

1987-91, 2007-2009, and most recently in 2011-2017. In addition to these, California has also experienced several periods of less severe drought. Among the aforementioned droughts, the year 1977 is still considered to be the driest year of record in the Four Rivers Basin by DWR (these rivers flow into the Delta and are the source of water for the State Water Project).

In 1983, as a result of previous droughts, the State legislature enacted the UWMP Act, which requires the preparation of this UWMP. Several subsequent amendments have been made to the Act to ensure such items as public coordination, recycled water, and contingency response plans are included in UWMPs, among other items.

In 1991, as a result of the 1987-1991 drought, over 100 water agencies and environmental groups came together to form the California Urban Water Conservation Council (CUWCC) to manage the impacts of drought and promote water conservation. In January 2018, the CUWCC became the California Water Efficiency Partnership (CalWEP), and consists of over 200 water agencies and private companies. CalWEP assists its member agencies with public policy, research, and education tools.

As a result of the drought of 2007-2009, Governor Arnold Schwarzenegger signed the Water Conservation Act of 2009 (SBx7-7), which is perhaps the strongest piece of legislation to date on water conservation, requiring mandatory water conservation up to 20 percent by 2020.

At the local level, water agencies have enacted their own ordinances to deal with the impacts of drought. **Section 6.5 of the City's Municipal Code** deals with Water Conservation. In addition, the City has adopted several recent ordinances in response to the recent drought of 2011-2017. This includes the recent resolution 2014-25 as indicated in the City's 2015 UWMP. More on the City's code and ordinances can be found in **Section 8**.

7.3 RECENT DROUGHT (2011-2017)

A significant and prolonged drought hit the state of California in 2011-2017. The drought depleted reservoir levels all across the state, as reflected by **Figure 7.1** on the following page. In January of 2014, Governor Brown declared a state of emergency and directed state officials to take all necessary actions to prepare for water shortages. As the drought prolonged into 2015, Governor Brown gave an executive order in April 2015 which mandated a statewide 25% reduction in water use.

In January of 2016, DWR and the U.S. Bureau of Reclamation finalized the 2016 Drought Contingency Plan that outlined State

Figure 7.1: Lake Oroville During Recent State Drought of 2011-2017

Water Project and Central Valley Project operations for February 2016 to November 2016. The plan was developed in coordination with staff from State and federal agencies. One of the key purposes of the plan was to communicate goals for water management and the potential operations needed to achieve those goals for water resources stakeholders and the public. The plan was updated in 2020 to reflect the recently dry conditions of 2019-2020.

Although the recent droughts have more significantly impacted northern and central-valley agencies that use SWP water for agriculture, the City is indirectly impacted by the recent drought conditions on Northern California Waters because this water source is the major supply of water imported from Central Basin (via MWD).

To date, California agencies have reduced water use by about 25 percent since the emergency conservation regulations took effect in June of 2015. This continues to meet Governor Brown's 25 percent mandate (despite a decline in the statewide water-savings rate for the last two months).

7.4 STATE WATER SUPPLY RELIABILITY

As a result of continued drought challenges to the State's water supplies, SWP Contractors understand the unpredictability of imported water allocations from the SWP.

Figure 7.2: Lake Oroville at End of State Drought (Feb 2017)

With participation of the SWP Contractors, DWR strives to meet the water needs of Southern California by developing new projects to increase the capacity of its supplies while encouraging its member agencies to develop local supply projects to meet the needs of its customers. Also, DWR is committed to developing and maintaining high-capacity storage reservoirs, including both those which are DWR-owned and Contractor-owned (such as Diamond Valley Lake, an MWD-owned reservoir -the largest in Southern California), to meet the needs during times of drought and emergency.

The large reservoirs help to avoid the repercussions of reduced supplies not only from the SWP, but also the Colorado River Aqueduct (CRA). Throughout the Los Angeles Region, a total of three (3) DWR-owned reservoirs, nine (9) MWD-owned reservoirs, and twenty-four (24) SDCWA reservoirs contain up to 2.2 million acre-feet (MAF) of water storage.

7.4.1 State Water Project (SWP) Reliability

As a SWP contractor, MWD has a "Table A" allocation of up to 1.8 MAF (million acre-feet). Since MWD began receiving SWP water in 1976, the average amount of SWP water received by MWD each year is just under 1.0 MAF. On an annual basis, each of the 29 SWP Contractors, request an amount

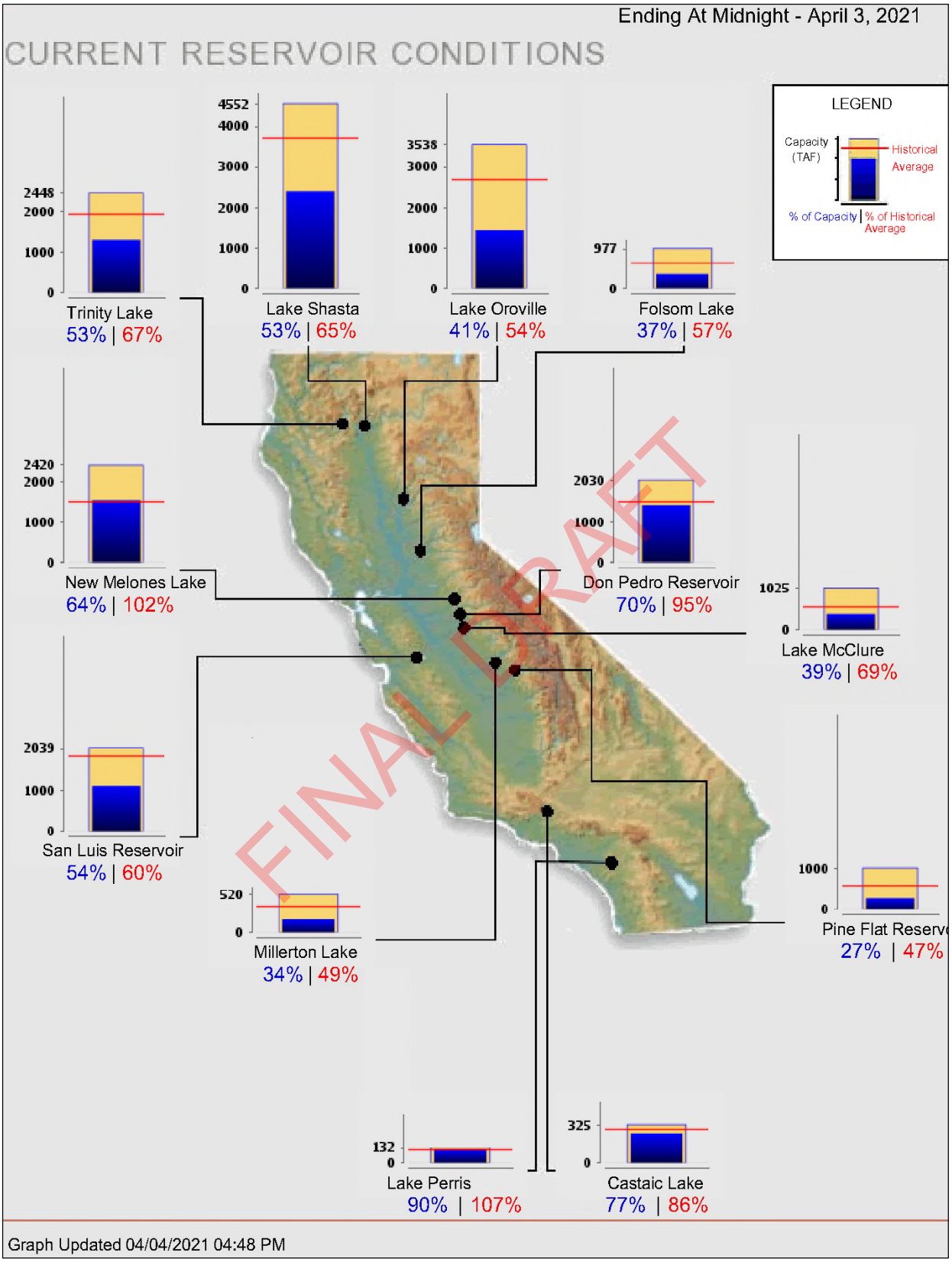

Figure 7.3: California State Reservoir Levels (April 2021)

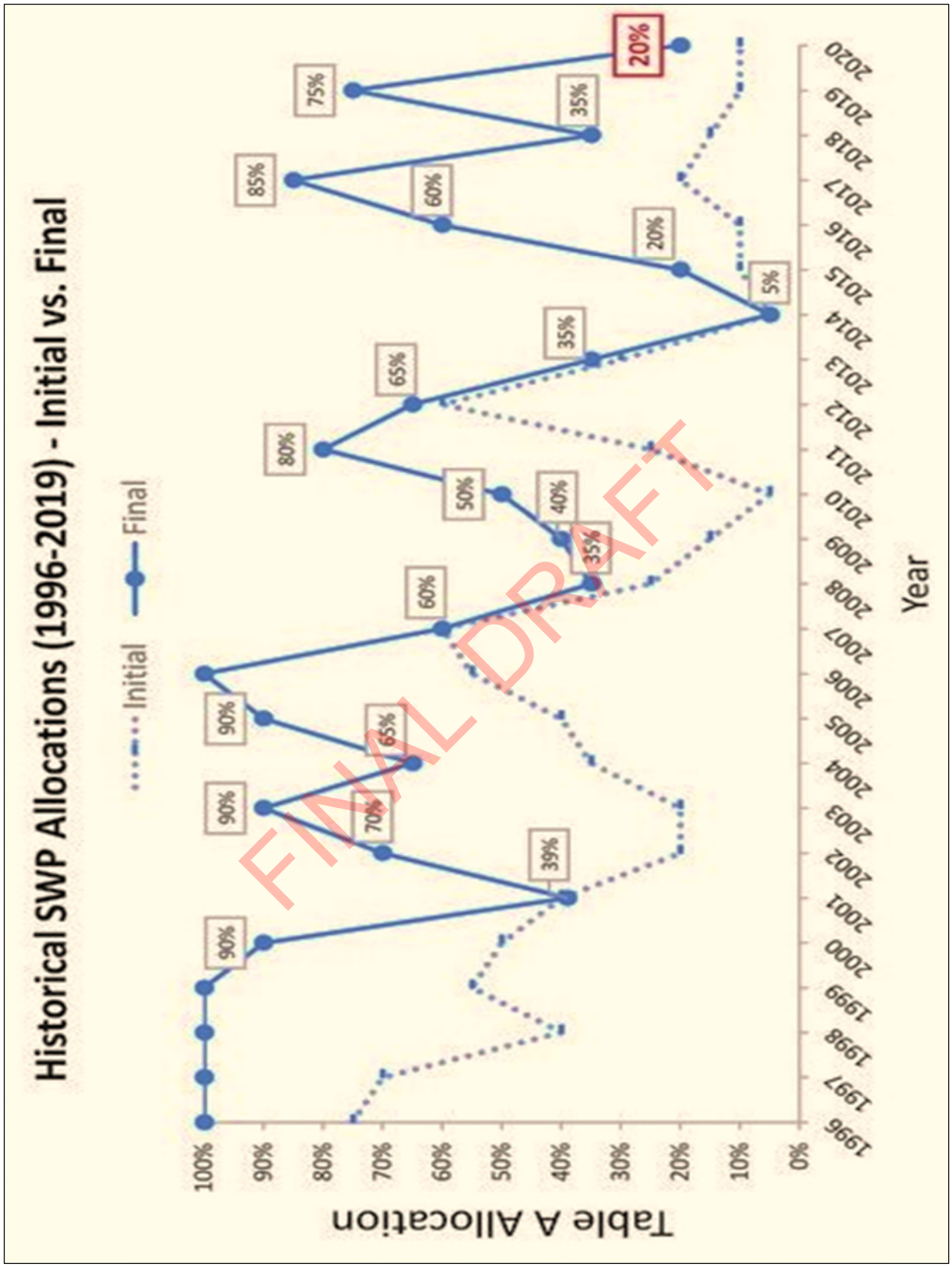

Figure 7.4: SWP Table A Deliveries

of SWP water based on their anticipated yearly demand. Each SWP contractor's Water Supply Contract contains a "Table A" amount that identifies the maximum amount of water that a contractor may request. However, the amount of SWP water actually allocated to contractors each year is dependent on a number of factors than can vary significantly from year to year. The availability of SWP supplies is generally less than their full Table A amounts in many years and can be significantly less in very dry years. After receiving the requests, DWR assesses the amount of water supply available based on precipitation, snow pack on Northern California watersheds, volume of water in storage, projected carry over storage, and Sacramento-San Joaquin Bay Delta regulatory requirements. For example, according to the State Water Project Delivery Reliability Report 2019, the total SWP annual delivery of water to contractors ranged from a low of 477 TAF in 2014 to a high of 3.4 MAF in 2017.

SWP supplies are typically less than the maximum "Table A" amounts requested by the Contractors each year.

Due to the uncertainty in water supply, contractors are not typically guaranteed their full Table A amount, but instead a percentage of that amount based on available supply. For instance, the current DWR Notice to Contractors 20-06 (December 2020) indicates that the initial allocation is set at 10%, which is down from the Contactor's request for a 15% initial allocation. for all Contractors. For MWD, the initial allocation is set at 191 TAF.

The reliability of the SWP impacts the Contractors ability to plan for future growth and supply. SWP Contractors such as MWD can seek out other local supply sources or transfer agreements (such as transfers with Colorado River rights holders). Although not directly important for the City, matters involving the SWP do impact the City and Central Basin indirectly.

7.4.2 Colorado River Reliability

Water supply from the Colorado River continues to be a critical issue for MWD as the state of California as a whole competes with several other States for Colorado River water supplies. The hydrology of the Colorado River Basin is known to be highly variable. In the past 20 years, the Lower Colorado River Basin has been suffering from its own drought (in addition to the droughts across California). Average flows in the lower basin from 2000 to 2018 have averaged 12.4 MAFY (million-acre-feet-per-year), down from the historical average of about 15 MAFY. Recent data indicated that total Colorado River Basin storage (primarily Lake Powell and Lake Mead) was 29 MAF at

Figure 7.5: Colorado River Basin

Figure 7.6: All-American Canal Lining Project Improves Reliability of Colorado River Supplies

the beginning of water year 2021. This was a decrease of about 2.8 MAF of total storage that was in the system at the beginning of water year 2020 (about 32 MAF). Both of these volumes are just half of the capacity of the system (about 60 MAF).

As a result of the ongoing drought in the lower basin, in 2014, the Secretary of the Interior tasked the Colorado River Basin States with developing drought contingency plans. As part of this process, the Lower Basin States (California, Arizona, and Nevada) signed a Memorandum of Understanding (MOU) which seeks to ensure an additional 3.0 MAF of water would be preserved in Lake Mead through 2019. As for California parties, the needs of the Colorado River water users, including MWD, will continue to be met due to the security provided by the Law of the River as well as effective implementation of conservation and transfer agreements.

Improving Colorado River Supply Reliability

Studies in the 1990s concluded that up to 70,000 acre-feet per year of water was lost due to seepage along a 23-mile section of the All-American Canal running through the sand dunes before reaching the Imperial Valley. For years, the costs to solve this

issue were prohibitive. In 1998, however, $235 million was appropriated for a water project that ensures continued flows from the Colorado River. This included lining of the All-American Canal or to recover seepage from it. Of that appropriation, $200 million was used to concrete line part of the All-American Canal and its Coachella branch. The remaining $35 million went to increase underground water storage along the Colorado River aqueduct (north of the Canal).

Construction on the All-American Canal began in 2007 which consisted of a new 23-mile concrete canal parallel to the existing earthen canal. The project was completed in 2009, and the flows were then transferred to the concrete lined canal. The new concrete lined section of the All-American Canal will conserve about 70,000 acre-feet per year of Colorado River water that was previously lost to seepage.

Canal lining or re-lining can save thousands of acre-feet of water per year.

7.5 COMPETITION FOR WATER RIGHTS

For Colorado River rights holders, the *Law of the River* is essentially a compilation of numerous compacts, state and federal laws, court decisions and decrees, contracts, and regulatory guidelines which define rights to water from the Colorado River. These documents apportion the water and regulate the use and management of the Colorado River among the seven basin states and Mexico. A brief listing of these items is as follows:

- Colorado River Compact (1922)
- Boulder-Canyon Project Act (1928)
- CA Seven Party Agreement (1931)
- Arizona v. California (1964)
- CO River Basin Project Act (1968)
- Arizona v. California (1979)
- Quantification Settlement Agreement (2003)

Per the 2003 Quantification Settlement Agreement (QSA), California's allocation has been confirmed at 4.4 MAF per year (per the 1931 Agreement). MWD maintains a "4th Priority" right of 550 TAF, and a "5th" priority right of 662 TAF. The 5th priority right is only available to MWD if surpluses are declared in the Colorado River Basin storage or if unused supplies from other rights holders in the State are available. agencies have significant influence over water supply policy in Southern California.

7.6 CITY SUPPLY RELIABILITY

As the City obtains its water sources from local groundwater and imported water, MWD's reliability of supply has direct

impact on the City. Population growth will also continue to be a factor in future reliability projections. Since the City is pursuing 100 percent local groundwater sustainability, having continued access to imported water increases the City's supply reliability.

Figure 7.7: SBx7-7 Conservation Requirements

Tables 2.4 to 2.6 of MWD's 2020 UWMP shows supply reliability projections for average, single-dry, and multiple-dry years through the year 2045. The data in these tables is important to effectively project and analyze supply and demand over the next 25 years for many regional agencies. As indicated in these tables, projected supply will exceed projected demands in all years. The data contained in these tables has an effect on the City's imported supply capacity, and thus this data will also be used to develop the City's projected supply and demand over the next 25 years. As such, the data contained in these tables is consolidated into **Tables 7.1 and 7.2** on the following pages.

7.6.1 Supply vs. Demand Comparisons

Future supply and demand conditions can be determined from the following data:

- Population forecasts
- Water supply capacity
- Recent water use trends

The data described above has been provided in the previous sections of this UWMP, including Section 3 (Water Sources & Supplies), and Section 6 (Water Use). The projected comparisons in this Section are based on data from those previous sections.

Basis for Projected Demands

To project future demands, it will be assumed that total demand will change annually based on changes in population multiplied by the individual demand per-person (also known as the "per-capita" consumption rate -see **Section 6**). The per-capita rates used in the future projections will be based on actual water use data from the recent past. In particular, the City's averages for the last ten (10) years will be used as the basis to project demands through the year 2045. To project demands and supplies, the following is assumed:

- Consumption rate of 70 gallons per capita per day (GPCD) in 2020. This is the average consumption of the City in the last 20 years.

- *Decreasing* consumption rate (from 70 GPCD) starting in 2021 with a passive savings of 0.5% annually.

Although a constant consumption rate provides a more conservative result, the decreasing consumption rate scenario provides a realistic basis for planning purposes since it considers gradual improvements in water-use efficiency. In the past 20 years, the City has seen a decrease in water consumption rates.

For drought-time demands, is expected that there will be a small degree of increase due to the lack of rainfall on landscapes. To project demands during single and multiple (five) year drought periods, the following increase factors will be assumed:

- Dry Year: 5%
- Multiple Dry Years: 5%, 8%, and 2%

During the drought of 2011 to 2017, the region experienced an increase in per-capita demands ranging from about 2% to 8% or more. In two of these years (2014 & 2015), the per-capita demands decreased for some agencies, due to the State's water emergency declaration and efforts to reduce water use. Nevertheless, the increase factors listed above are reasonable for the purposes of demand and supply projections since the increase factors provide reasonable estimates of increases in water use for irrigation during dry-years.

Basis for Projected Supplies

As for projected supplies, the City can expect imported supplies to be based off of the capacity of its connection with Central Basin and its adjudicated groundwater pumping rights. As mentioned in **Section 3**, additional supplies may be available through unused groundwater rights from adjacent agencies. However, the City's current pumping capacity is unable to extract additional volumes beyond its adjudicated rights. Therefore, the City can expect up to 5,100 AFY of water to be available to the City. A breakdown of the supply described above is provided under **Table 7.3** on Page 7-15.

Tabular Comparisons

Tables **7.3** to **7.9**, shown on the following pages, provide an analysis of the City's supply and demand projections through the year 2045. **Figures 7.8 to 7.10** show a visual pie-chart for different water year scenarios. Based on the data contained in these tables, the City can expect to meet future demands for all climate conditions through 2045. The surplus in supply for the City indicates that the City can focus its efforts more on water conservation as opposed to new water supply projects.

Table 7.1
MWD Regional Imported Water Supply Reliability Projections
Normal Water Year (AF)

Region Wide Projections	2025	2030	2035	2040	2045
Supply Information					
Projected Supply	3,932,000	3,962,000	3,960,000	3,598,000	3,622,000
Demand Information					
Projected Demand	1,274,000	1,256,000	1,273,000	1,294,000	1,319,000
Surplus					
Projected Surplus	**2,658,000**	**2,706,000**	**2,687,000**	**2,304,000**	**2,303,000**
Programs Under Development					
Projected Capability of Programs	47,000	13,000	13,000	372,000	347,000
Potential Surplus					
Projected Surplus: Average Year	**2,705,000**	**2,719,000**	**2,700,000**	**2,676,000**	**2,650,000**
Comparisons					
Projected Normal Yr. Supply/Demand (%)	**309%**	**315%**	**311%**	**278%**	**275%**

Notes:

1. Data is Taken from Tables 2-5 and 2-6 of MWD's 2020 Urban Water Management Plan.
2. Table shows that MWD has the capacity to meet demand for all years under normal climatic conditions.
3. As a member agency of MWD, Central Basin can expect 100% reliability in its supplies from MWD through 2045.
4. As a retail agency of Central Basin, City can expect 100% reliability of its imported supplies from Central Basin under normal climatic conditions.

Table 7.2
MWD Regional Imported Water Supply Reliability Projections
Multiple Dry Years (AF)

Region Wide Projections	2025	2030	2035	2040	2045
Supply Information					
Projected Supply	2,198,000	2,210,000	2,209,000	1,973,000	1,995,000
Demand Information					
Projected Demand	1,412,000	1,414,000	1,435,000	1,457,000	1,484,000
Surplus					
Projected Surplus	**786,000**	**796,000**	**774,000**	**516,000**	**511,000**
Programs Under Development					
Projected Capability of Programs	10,000	0	0	235,000	213,000
Potential Surplus					
Projected Surplus: Multiple Dry Years	**796,000**	**796,000**	**774,000**	**751,000**	**724,000**
Comparisons					
Projected Mult. Dry Yrs. Supply/Demand (%)	**156%**	**156%**	**154%**	**135%**	**134%**

Notes:

1. Data is Taken from Tables 2-5 and 2-6 of MWD's 2020 Urban Water Management Plan.
2. Table shows that MWD has the capacity to meet demand for all years under multiple dry year conditions.
3. As a member agency of MWD, Central Basin can expect 100% reliability in its supplies from MWD through 2045.
4. As a retail agency of Central Basin, City can expect 100% reliability of its imported supplies from Central Basin during multiple dry year conditions.

Table 7.3
City of Huntington Park Water Supply Availability & Demand Projections
Normal Water Year (AF)

Water Sources	2025	2030	2035	2040	2045
Population					
Water Service Area Population	57,209	57,879	58,549	59,219	59,889
Consumption Rate (GPCD) *Including 0.5% Annual Passive Savings*	68.5	67	65.5	64	62.5
Supply					
Imported Water (Central Basin)	1,247	1,247	1,247	1,247	1,247
Groundwater (Adjudicated Wells)	3,853	3,853	3,853	3,853	3,853
Total Supply	**5,100**	**5,100**	**5,100**	**5,100**	**5,100**
Demand					
Total Normal Demand	**4,390**	**4,344**	**4,296**	**4,245**	**4,193**
Compare to Avg. Demand for Previous 5 Yrs. (4,155 AF)	106%	105%	103%	102%	101%
Supply/Demand Comparison					
Supply-Demand (Difference)	710	756	804	855	907
Supply/Demand (%)	116%	117%	119%	120%	122%

Notes:

1. Total Demand = Consumption Rate x Population
   a. Average consumption rate of last 20 years: Approx. 70 gallons per capita per day
   b. Starting Consumption Rate in 2021: 70 gpcd
   c. Projected "passive" savings: 0.5% per year = 62.5 gpcd by 2045.
2. Groundwater Supplies based on the City's adjudicated pumping right of **3,853 AFY**.
3. Imported Water Supply represents supply available to City, if needed, based on the total capacity of the City's imported connection with Central Basin (10 cfs), operating during daytime hours (12 hours) for about four (4) months per year (1,205 AFY). This number is increased slightly to 1,247 AFY to make total supply rounded to an even number of 5,100 AFY.
   a. Rated capacity = 10 cfs gpm (4,488 gpm) = 7,239 AFY
   b. 7,239 AFY x 50% (Daytime Hours) x 33% (Wet Months) = 1,205 AFY.
   c. Round to **1,247 AFY**
4. Total available supply in all years: 3,853 AFY + 1,247 AFY = **5,100 AFY**.

Table 7.4
City of Huntington Park Water Supply Availability & Demand Projections
Single Dry Year (AF)

Water Sources	2025	2030	2035	2040	2045
Population					
Water Service Area Population	57,209	57,879	58,549	59,219	59,889
Consumption Rate (GPCD) *Including 0.5% Annual Passive Savings*	68.5	67	65.5	64	62.5
Supply					
Imported Water (Central Basin)	1,247	1,247	1,247	1,247	1,247
Groundwater (Adjudicated Wells)	3,853	3,853	3,853	3,853	3,853
Total Supply	**5,100**	**5,100**	**5,100**	**5,100**	**5,100**
Normal Year Supply	5,100	5,100	5,100	5,100	5,100
% of Normal Year	100%	100%	100%	100%	100%
Demand					
Total Dry Demand	**4,609**	**4,561**	**4,510**	**4,458**	**4,402**
Normal Year Demand	4,390	4,344	4,296	4,245	4,193
% of Normal Year	105%	105%	105%	105%	105%
Supply/Demand Comparison					
Supply/Demand Difference	491	539	590	642	698
Supply/Demand (%)	111%	112%	113%	114%	116%

Notes:

1. Total Demand = Consumption Rate x Population x Single Dry Year Increase of 105%.

2. All other items derived in similitude to Table 7.3.

Table 7.5
City of Huntington Park Water Supply Availability & Demand Projections
Multiple Dry Years (2021-2025) (AF)

Water Sources	2021	2022	2023	2024	2025
Population					
Water Service Area Population	56,680	56,822	56,964	57,107	57,209
Consumption Rate (GPCD) *Including 0.5% Annual Passive Savings*	70.0	69.7	69.3	69.0	68.5
Supply					
Imported Water (Central Basin)	1,247	1,247	1,247	1,247	1,247
Groundwater (Adjudicated Wells)	3,853	3,853	3,853	3,853	3,853
Total Supply	**5,100**	**5,100**	**5,100**	**5,100**	**5,100**
Normal Year Supply	5,100	5,100	5,100	5,100	5,100
% of Normal Year	100%	100%	100%	100%	100%
Demand					
Total Dry Year Demand	**4,667**	**4,788**	**4,510**	**4,499**	**4,477**
Normal Year Demand	4,444	4,433	4,422	4,411	4,390
% of Normal Year	105%	108%	102%	102%	102%
Supply/Demand Comparison					
Supply/Demand Difference	433	312	590	601	623
Supply/Demand (%)	109%	107%	113%	113%	114%

Notes:

1. Total Demand = Consumption Rate x Population x Multiple Dry Year Increases of 105%, 108%, and 102%.

2. All other items derived in similitude to Table 7.3.

Table 7.6
City of Huntington Park Water Supply Availability & Demand Projections
Multiple Dry Years (2026-2030) (AF)

Water Sources	2026	2027	2028	2029	2030
Population					
Water Service Area Population	57,352	57,495	57,639	57,783	57,879
Consumption Rate (GPCD) *Including 0.5% Annual Passive Savings*	68.3	67.9	67.6	67.2	67.0
Supply					
Imported Water (Central Basin)	1,247	1,247	1,247	1,247	1,247
Groundwater (Adjudicated Wells)	3,853	3,853	3,853	3,853	3,853
Total Supply	**5,100**	**5,100**	**5,100**	**5,100**	**5,100**
Normal Year Supply	5,100	5,100	5,100	5,100	5,100
% of Normal Year	100%	100%	100%	100%	100%
Demand					
Total Dry Year Demand	**4,605**	**4,725**	**4,451**	**4,440**	**4,431**
Normal Year Demand	4,386	4,375	4,364	4,353	4,344
% of Normal Year	105%	108%	102%	102%	102%
Supply/Demand Comparison					
Supply/Demand Difference	495	375	649	660	669
Supply/Demand (%)	111%	108%	115%	115%	115%

Notes:

1. Total Demand = Consumption Rate x Population x Multiple Dry Year Increases of 105%, 108%, and 102%.

2. All other items derived in similitude to Table 7.3.

Table 7.7
City of Huntington Park Water Supply Availability & Demand Projections
Multiple Dry Years (2031-2035) (AF)

Water Sources	2031	2032	2033	2034	2035
Population					
Water Service Area Population	58,024	58,169	58,314	58,460	58,549
Consumption Rate (GPCD) *Including 0.5% Annual Passive Savings*	66.6	66.2	65.9	65.6	65.5
Supply					
Imported Water (Central Basin)	1,247	1,247	1,247	1,247	1,247
Groundwater (Adjudicated Wells)	3,853	3,853	3,853	3,853	3,853
Total Supply	**5,100**	**5,100**	**5,100**	**5,100**	**5,100**
Normal Year Supply	5,100	5,100	5,100	5,100	5,100
% of Normal Year	100%	100%	100%	100%	100%
Demand					
Total Dry Year Demand	**4,544**	**4,662**	**4,392**	**4,381**	**4,382**
Normal Year Demand	4,327	4,316	4,305	4,295	4,296
% of Normal Year	105%	108%	102%	102%	102%
Supply/Demand Comparison					
Supply/Demand Difference	556	438	708	719	718
Supply/Demand (%)	112%	109%	116%	116%	116%

Notes:

1. Total Demand = Consumption Rate x Population x Multiple Dry Year Increases of 105%, 108%, and 102%.

2. All other items derived in similitude to Table 7.3.

Table 7.8
City of Huntington Park Water Supply Availability & Demand Projections
Multiple Dry Years (2036-2040) (AF)

Water Sources	2036	2037	2038	2039	2040
Population					
Water Service Area Population	58,695	58,842	58,989	59,137	59,219
Consumption Rate (GPCD) *Including 0.5% Annual Passive Savings*	64.9	64.6	64.3	64.1	64.0
Supply					
Imported Water (Central Basin)	1,247	1,247	1,247	1,247	1,247
Groundwater (Adjudicated Wells)	3,853	3,853	3,853	3,853	3,853
Total Supply	**5,100**	**5,100**	**5,100**	**5,100**	**5,100**
Normal Year Supply	5,100	5,100	5,100	5,100	5,100
% of Normal Year	100%	100%	100%	100%	100%
Demand					
Total Dry Year Demand	**4,482**	**4,599**	**4,332**	**4,331**	**4,330**
Normal Year Demand	4,269	4,258	4,248	4,246	4,245
% of Normal Year	105%	108%	102%	102%	102%
Supply/Demand Comparison					
Supply/Demand Difference	618	501	768	769	770
Supply/Demand (%)	114%	111%	118%	118%	118%

Notes:

1. Total Demand = Consumption Rate x Population x Multiple Dry Year Increases of 105%, 108%, and 102%.

2. All other items derived in similitude to Table 7.3.

Table 7.9
City of Huntington Park Water Supply Availability & Demand Projections
Multiple Dry Years (2041-2045) (AF)

Water Sources	2041	2042	2043	2044	2045
Population					
Water Service Area Population	59,367	59,515	59,664	59,813	59,889
Consumption Rate (GPCD) *Including 0.5% Annual Passive Savings*	63.6	63.3	63.0	62.7	62.5
Supply					
Imported Water (Central Basin)	1,247	1,247	1,247	1,247	1,247
Groundwater (Adjudicated Wells)	3,853	3,853	3,853	3,853	3,853
Total Supply	**5,100**	**5,100**	**5,100**	**5,100**	**5,100**
Normal Year Supply	5,100	5,100	5,100	5,100	5,100
% of Normal Year	100%	100%	100%	100%	100%
Demand					
Total Dry Year Demand	**4,441**	**4,556**	**4,292**	**4,282**	**4,277**
Normal Year Demand	4,229	4,219	4,208	4,198	4,193
% of Normal Year	105%	108%	102%	102%	102%
Supply/Demand Comparison					
Supply/Demand Difference	659	544	808	818	823
Supply/Demand (%)	115%	112%	119%	119%	119%

Notes:

1. Total Demand = Consumption Rate x Population x Multiple Dry Year Increases of 105%, 108%, and 102%.

2. All other items derived in similitude to Table 7.3.

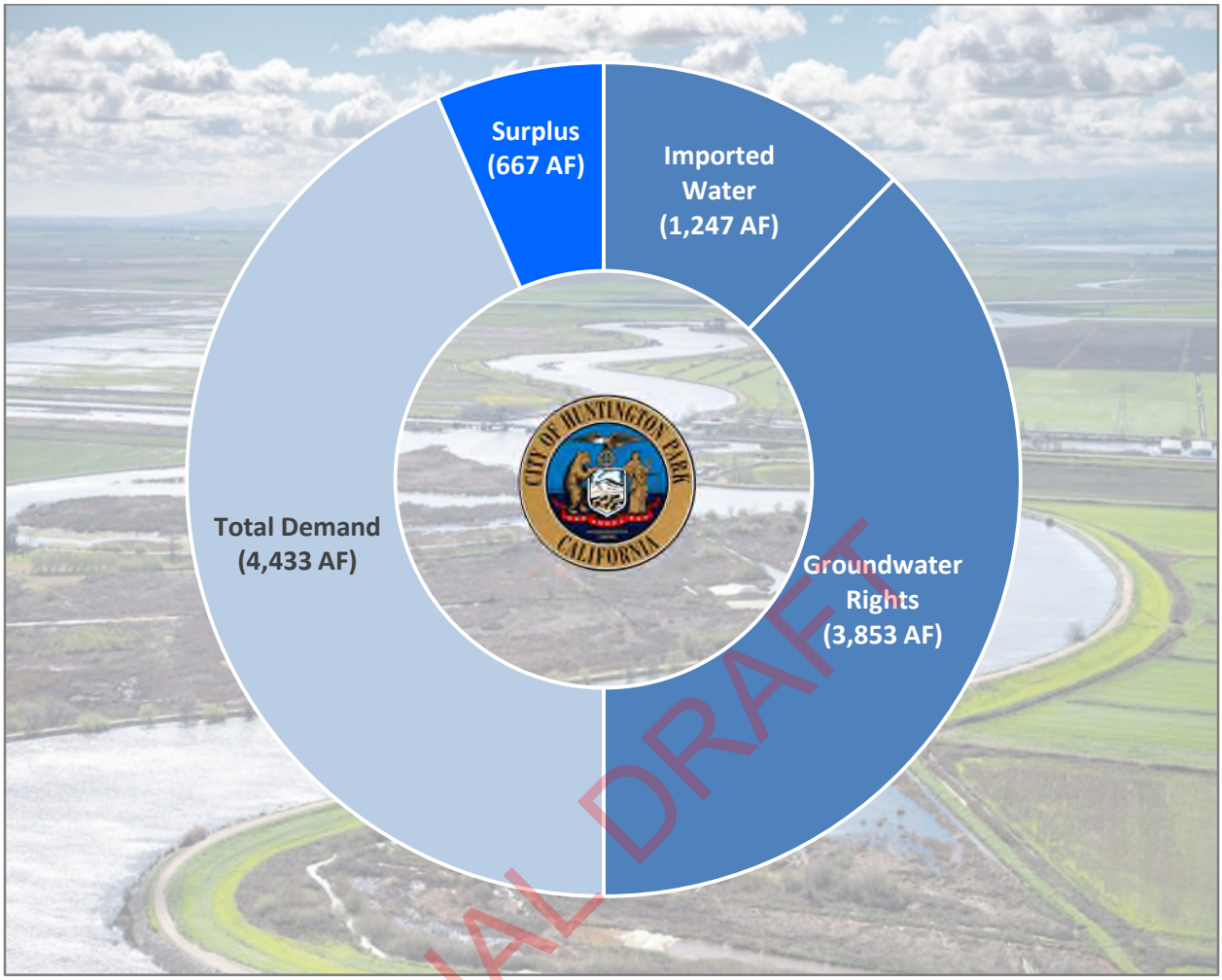

Figure 7.8: Projected Normal Water Scenario: Year 2022

Notes:

1. See Notes Under Table 7.3.
2. Surplus = Total Available Supply – Total Demand = 5,100 AF – 4,433 AF = 667 AF.

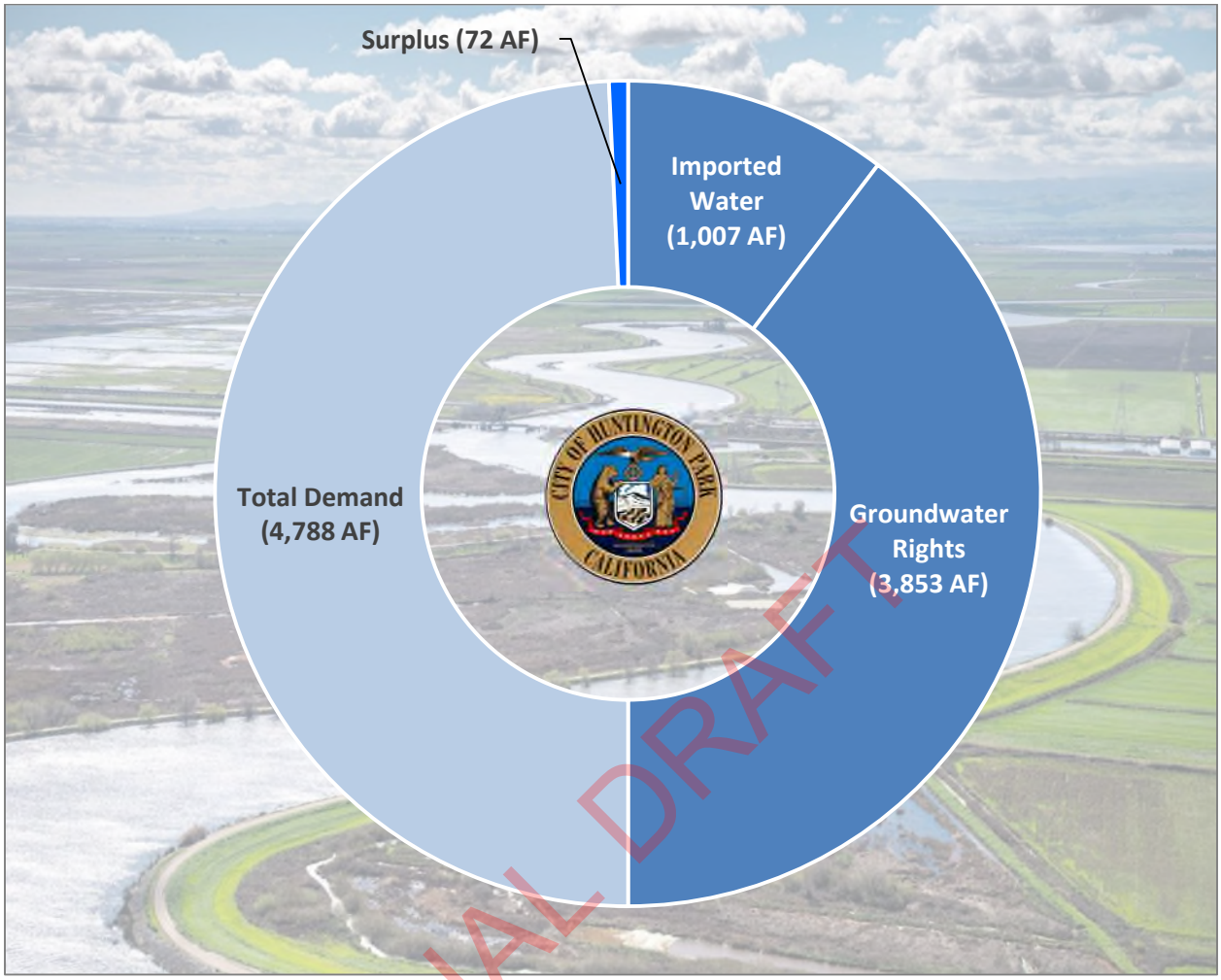

Figure 7.9: Projected Minimum 3-Year Water Scenario: Years 2022 - 2024

Notes:

1. See Notes Under Table 7.3.
2. Under this Scenario, Groundwater Lease from the City of South Gate would be Unavailable.
3. Under this Scenario, the MWD Water Supply Allocation Plan (WSAP) would be Implemented. Per Central Basin's Water Supply Allocation Model (Last Updated in Central Basin's 2015 UWMP), the City's Allocation would be Limited to 1,007 AF.
4. Surplus = Total Available Supply – Total Demand = 4,860 AF – 4,788 AF = 72 AF.

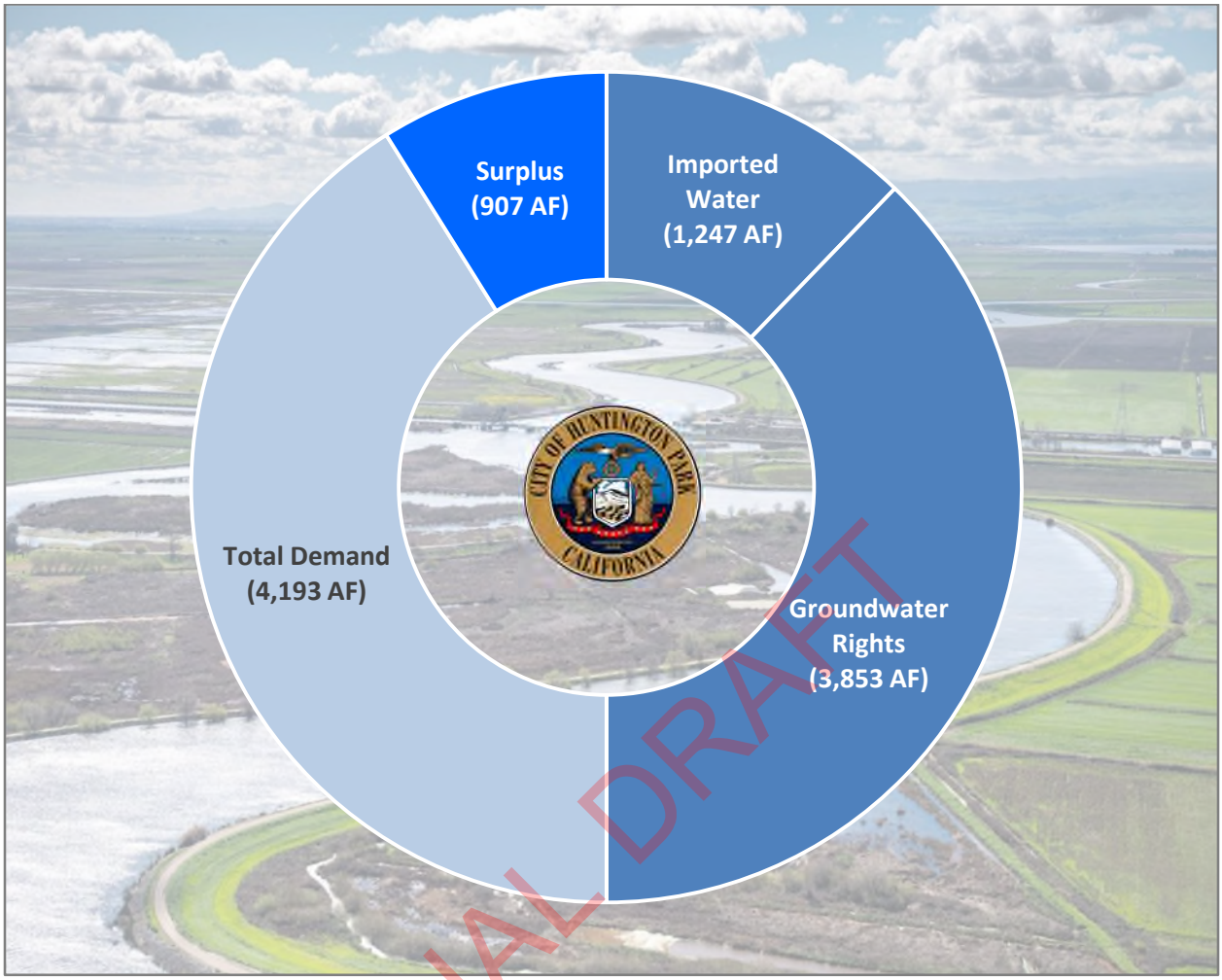

Figure 7.10: Projected Normal Water Scenario: Year 2045

Notes:

1. See Notes Under Table 7.3.
2. Surplus = Total Available Supply – Total Demand = 5,100 AF – 4,213 AF = 1,887 AF.

7.7 ENSURING ADEQUATE SUPPLY

As indicated by the tables on the previous pages, the City does not expect to have a water supply shortage through 2045. Groundwater supplies are not expected to be affected during droughts lasting up to five years. Likewise, as indicated by MWD's 2020 UWMP (shown in **Tables 7.1 and 7.2**), the City's imported supplies are expected to remain fully available during droughts lasting up to five years. Furthermore, droughts will be addressed by following the criteria of the City's Water Shortage Contingency Plan (WSCP) along with implementation of the regional contingency plans. These programs are discussed in **Section 8**. For these reasons, the City is confident that water supplies are adequate to meet demands for all weather conditions through 2045.

7.8 WATER SUPPLY OPPORTUNITIES

7.8.1 City Projects

Other than replacement wells, the City does not have any plans for water supply projects at the current time. However, the City continually reviews practices that will provide its customers with adequate and reliable supplies. As mentioned in **Section 2**, Well No. 15 and 17 are currently inactive. Well No. 15 is scheduled to be brough back online by 2022-2023, whereas the City is planning for treatment alternatives to return well 17 to service. After these wells are returned to service, the City will focus efforts on identifying new water supply projects. This may include additional wells, alternative water supply projects, and the leasing of additional groundwater rights from other agencies to meet demand.

7.8.2 Regional Projects (MWD)

On behalf of its member agencies, MWD is implementing water supply programs or strategies for the region to increase water supply reliability in the future. Some of these strategies include:

- Seawater Desalination
- Conservation
- Water Recycling
- Groundwater recovery
- Local Surface Water
- Graywater
- Storage Related to SWP and CRA
- Other (Outside of Region)

MWD is currently updating its Integrated Resource Plan (IRP), which should be released in 2021. The 2020 IRP will be a brand-new IRP that will incorporate different scenarios for the future. The 2020 IRP will be based on long-term, diversified strategies outlined in Gov. Newsom's Water Resilience Portfolio Initiative.

7.8.3 Local Projects

Central Basin and the Water Replenishment District (WRD) have recently partnered for several groundwater protection and replenishment programs that help member agencies to maximize groundwater supplies. Central Basin does not directly recharge the Central Groundwater Basin. WRD purchases untreated, imported water from Central Basin and recycled water from LACSD to recharge the Central Basin. As of 2019, WRD's groundwater replenishment is entirely sourced from local recycled water and captured stormwater. WRD initiated the “Win 4 All” program in 2019 to help its member agencies to fully utilize groundwater storage space by replenishing the Central Basin through additional stormwater capture and recycled water supplies. WRD’s goals with the “Win 4 All” program is to help improve groundwater reliability through the development of storage accounts for use in drier years.

WRD is also currently constructing a groundwater extraction and treatment system to reduce concentrations of contaminants within the perchlorate "hot spot" to help prevent any further migration into the CBWCB. This project will be completed by 2022. Additional data will be collected during construction to help in identifying the perchlorate source and yet to be determined responsible party.

Finally, WRD is working with the Los Angeles County Department of Public Works (LACDPW) on several design projects for the Rio Hondo and San Gabriel Coastal Spreading Grounds with the goal of increasing the capture of stormwater for groundwater recharge.

These programs will provide additional groundwater supply reliability for the City since additional groundwater will be recharged in the Central Basin each year. Further, WRD’s groundwater contamination remediation and prevention programs will help agencies to more quickly address water quality concerns that affect groundwater supply reliability.

Section 8
Contingency Planning

Diesel-powered generators, such as the one pictured below, can provide a backup supply of water in case of power outages to water wells or booster station pumps.

Section 8

CONTINGENCY PLANNING

Diesel-powered pumps can provide emergency water supplies during sudden catastrophes.

8.1 INTRODUCTION

In addition to the drought concerns facing the State discussed in **Section 7**, water supplies may be suddenly interrupted in a number of sudden, catastrophic ways, such as an earthquake which damages water delivery or storage facilities, a regional power outage, a toxic spill that affects water quality, or structural failure of water facilities. It is important that every water agency have a plan in place in order to properly manage its water system during natural or man-made crises. This will ensure a reliable supply of water is continued to residents and businesses. Long term, water shortages can be addressed through conservation and supply augmentation. Short term, water shortages are best handled though a "contingency plan". This Section describes how the City plans to respond to droughts and also to sudden, irregular interruptions of water supply.

The City's response to an emergency will be a coordinated effort between its own staff and other local and regional water agencies. During water shortage emergencies, the City will implement a "Water Conservation and Drought Management Plan", which is codified as **Section 6-5 of the City's Municipal Code**. The intent of the plan is to

Figure 8.1: Lake Oroville Failure (February 2017)

reduce the effect of shortage water supplies on the City's customers during water shortage emergencies. In compliance with the Water Code requirements, this plan imposes a 50 percent reduction in the total water supply. The City will also coordinate with Central Basin to implement water shortage plans on a regional level.

8.2 RECENT WATER SUPPLY CONCERNS

The recent drought of 2011-2017, as discussed in **Section 6**, significantly depleted the State's supply of water and posed a challenge to many agencies throughout the State. Following the drought, the State experienced a wet winter in 2017. This resulted in flooding in parts of the State. Several dams overflowed and caused the evacuation of thousands of residents. For example, in February of 2017, the Oroville Reservoir experienced a moderate structural failure of its spillway. This resulted in heavy flooding, damage to farmland, and the evacuation of nearly 200,000 residents. As a result of the crisis, DWR prepared a Lake Oroville Flood Season Operations Plan in order to operate the reservoir during construction of the repairs. The failure of the reservoir highlighted the need for improvements to regional and local contingency plans.

8.2.1 Recent Water Code Amendments

As a result of the recent drought and flooding in the State, the following changes have recently been made to the Water Code which affect Water Shortage Contingency Plans (WSCPs):

- *CWC § 10632 (a)(3):* Water Shortage Contingency Plans must include six (6) Standard Stages
- *CWC § 10632.5 (a):* Water Shortage Contingency Plans must include Seismic Risk Assessment

In addition to the changes in the Water Code, the following measures were taken by State officials:

- In 2014, the State Water Resources Control Board (SWRCB) issued Resolution 2014-0038
- In 2015, Gov. Brown issued Executive Order B-29-15 (temporary reduction in water use by up to 25%)

8.3 REGIONAL CONTINGENCY PLANS

A significant portion of the City's water supply comes from Central Basin, which receives water from MWD. Thus, the reliability of the City's water supply during a shortage is based partly on the actions of MWD during water shortages. Recently, MWD updated its Water Shortage Contingency Plan (WSCP) to improve preparedness for droughts and other impacts on water supplies by describing the process used to address varying degrees of water shortages.

8.3.1 MWD Contingency Plan

MWD's WSCP is designed to be consistent with the Water Surplus & Drought Management (WSDM) Plan and the Water Supply and Allocation Plan (WSAP). The 2008 WSAP is MWD's policy and formula for equitably allocating available water supplies during extreme water shortages. The 1999 WSDM Plan provides policy guidance for managing regional water supplies during surplus and shortage conditions. Similar in concept to the WSCP, the WSDM Plan provides an overall vision for operational supply management and characterizes a flexible sequence of actions to minimize the probability of severe shortages and reduce the likelihood of extreme shortages. The WSDM Plan principles guide the specific actions to be taken under WSCP shortage stages. Data collection, continual analysis, and monthly reporting processes of the WSDM Plan implementation form the basis

MWD's 2020 WSCP builds on the foundation of the 1999 WSDM Plan and the 2008 WSAP.

for MWD's Annual Water Supply and Demand Assessment that will be provided annually to the state beginning in July 2022. Because managing MWD's water supply resources requires timely and accurate information on supply and demand conditions that change throughout the year, MWD evaluates available water supplies and existing water storage levels on a monthly basis to determine the appropriate actions identified in the WSDM Plan. The WSAP is integral to the WSCP's shortage response strategy in the event that MWD determines that supply augmentation (including storage) and demand reduction measures would not be enough to meet a projected shortage. The WSDM Plan and WSAP are included as appendices to this WSCP.

8.3.2 Central Basin Contingency Plan

Central Basin is a member agency of MWD and receives nearly 100% of its potable water supply from MWD. As a result, Central Basin operates in conjunction with MWD's water resource management planning documents. MWD's prior WSDM and WSAP plans have been a part of Central Basin's previous UWMPs. Since MWD has recently updated its WSCP to include DWR's standard six (6) shortage stages, Central Basin is subsequently impacted. As a member of Central Basin, the policies and actions of Central Basin impact the City's water management policies. Thus, the City's contingency policies will be best aligned with Central Basin's contingency policies if DWR's standard six (6) stages are included as part of the City's revised 2020 WSCP described in this section.

Central Basin relies on MWD for 100% of its potable water supply.

8.4 CITY CONTINGENCY PLAN

Since the drought period of the early 1990s, the City has implemented a water conservation program to reduce water use during shortages. The "Water Conservation and Drought Management Plan" was originally adopted as Section 6-5 of the City's Municipal Code. This Section hereby updates the Plan to provide the City with the authority and guidance to implement a phased approach depending on the severity of a water shortage. In the event of a water shortage, the City Council will implement the appropriate water conservation phase by resolution.

The objectives of the response plan are to:

1. Prioritize essential uses of water
2. Maximize local municipal water supplies
3. Eliminate water waste city-wide
4. Minimize adverse financial effects

Regarding Objective No. 1, priorities for use of available potable water during shortages are based partly on California Water Code, Sections 350-358. Water allocations are established for all customers according to the following ranking system:

1. **First Priority**: Minimum health and safety allocations for interior residential needs.

2. **Second Priority**: Commercial, industrial, institutional/governmental operations.

3. **Third Priority**: Existing landscaping.

4. **Fourth Priority**: New customers, proposed projects, etc.

Regarding the 1st Priority specified above, as noted in **Section 6**, 95% of the City's water service connections consist of residential accounts. As a result, the City can use its population estimates to assess water use needs during a shortage.

8.4.1 Health & Safety (1st Priority)

In 2018, the State adopted Assembly Bill 1668, which amends Section 10608.20 of the Water Code to stipulate an indoor water use standard of 55 gallons per capita per day. However, this standard is subject to adjustment. Thus, the City is obligated to determine the minimum health and safety water needs for its residents. To assess the minimum amount of water that should be available (1st Priority Level), the amount of personal hygiene household water use must be quantified. Based on common indoor residential water use in the United States, health and safety water use is estimated to be as follows:

Table 8.1
Water Fixtures: Health & Safety
Personal Use (gal/day)

Item	Regular	Voluntary Conservation
Toilet	14	10.5
Shower	15	12
Washer	12	11
Kitchen	4	3
Other	4	4
Total	**49 gal**	**40.5 gal**

Since the City has a population of about 57,000 residents, at a rate of 40 GPCD, the City will need up to **7 AF (2.3 MG) per day** to provide for the health and safety of its residents (if conservation is voluntary). Since the City's reservoirs have a combined capacity of **13.8 MG (42 AF)**, the City can provide for about **six (6) days of water supply** to its residents. However, the ability to meet the needs of its residents during a severe shortage may prove to be difficult unless the City's citizens are aware of the water supply shortage. Thus, public outreach must be a top priority for the City during a water shortage.

8.4.2 Stages of Action

During water shortages, the City has the ability to meet water demands by applying a six-phase conservation plan. The UWMP guidebook refers to this plan as the "Water Shortage Contingency Plan" or "WSCP". The City's WSCP imposes six (6) stages of increasing restrictions on water use and management responses based on the severity of the drought conditions or supply shortage. The stages are based on DWR's established criteria as shown in **Table 8.1** below:

Table 8.2
Water Shortage Stages & Reduction Targets

Shortage Stage	Restriction Type	Water Supply Reduction Target
I	Mandatory	10%
II	Mandatory	20%
III	Mandatory	30%
IV	Mandatory	40%
V	Mandatory	50%
VI	Mandatory	>50%

The City of Huntington Park's City Council will formally declare the stage of the water shortage, following a public hearing, upon determination from City water staff that the projected water shortage and the appropriate measures should be implemented. Following Council declaration of a shortage stage, the stage shall become effective no sooner than the first billing period commencing on or after the date of publication of the measures adopted. **Table 8.2** indicates the water supply reduction in percent of average water supply, as described in Section 6-5 of the City's Municipal Code, which is included in the Appendix.

Figure 8.2: 1.6 MG Steel Tank at Well 15

The type of event that may prompt the City Council to declare a water shortage and implement the WSCP includes:

- Drought
- State or local emergency
- Natural Disaster
- Local Crisis

Declaration of a water shortage can also be due to less-severe issues, including: water quality, damage to storage facilities, or damages to the water distribution system.

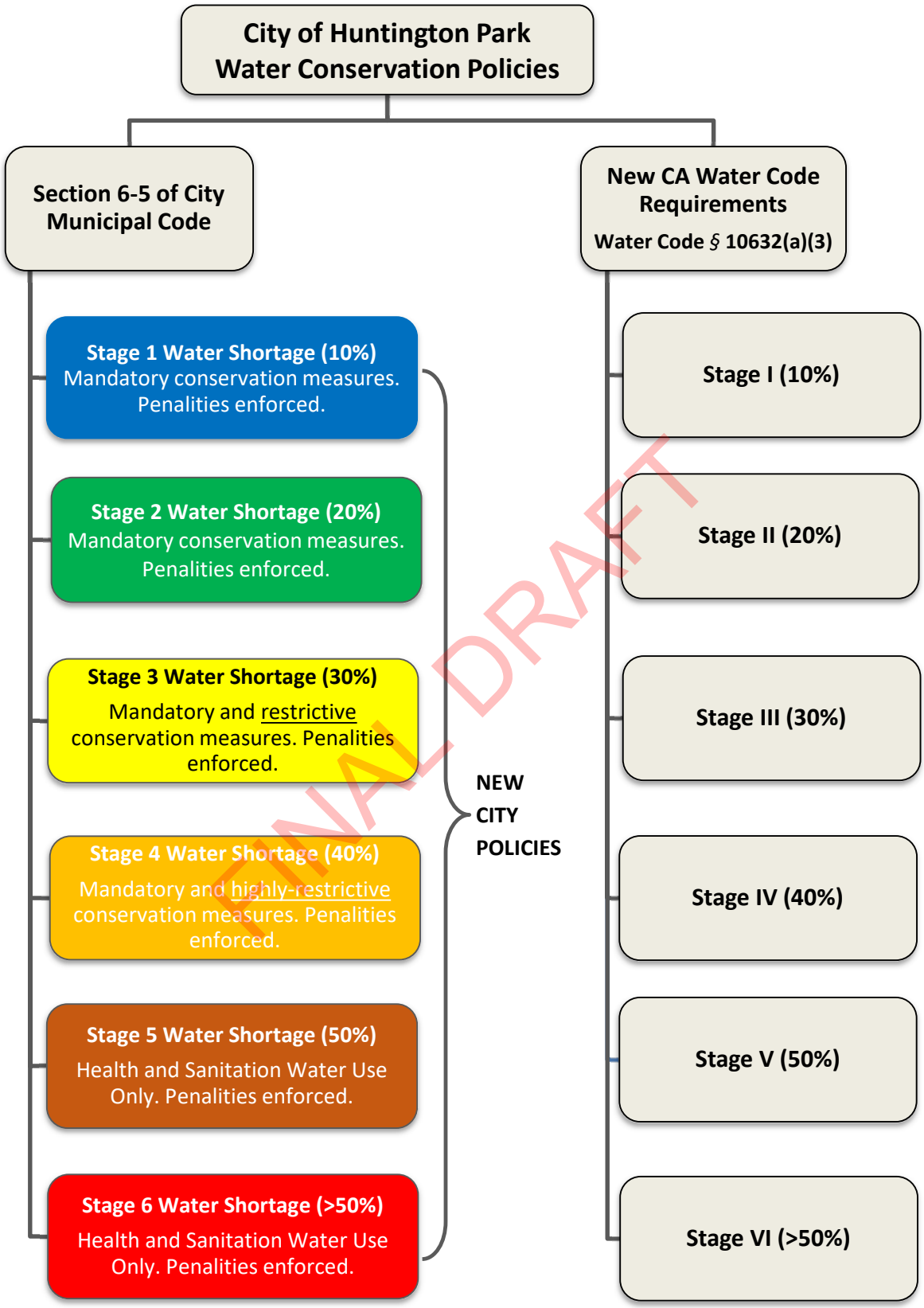

Figure 8.3: City Water Shortage Contingency Plan

8.4.3 Limitations/Prohibitions

Prohibitions on water use, include, but are not limited to, the following:

1. Allowing irrigation runoff
2. Landscape irrigation for more than 15 minutes (except drip irrigation)
3. Irrigation on rainy days or within specified hours of a rain event.
4. Failure to repair leaks in a timely manner
5. Washing of automobiles without a bucket or hand-held hose equipped with a positive shutoff nozzle
6. Restaurants serving water to their customers, except when specifically requested by their customers
7. Operating a decorative water fountain without re-circulated water
8. Operating a commercial car wash without re-circulated water
9. Operating a single-pass cooling system
10. Hotels, motels and other commercial lodging establishments shall not launder towels and linens daily, except when specifically requested by their customer.

Additional prohibitions may also be enforced, depending on the declared stage shown in **Table 8.2**. Moreover, the prohibitions listed above may also be adjusted depending on the severity of the declared stage. For instance, irrigation may be entirely prohibited under Stage 3 or 4, until the shortage is rescinded by City Council.

8.4.4 Penalties for Non-Compliance

Per City Code 6-5.410 "Failure to Comply", the penalties for non-compliance of the City's Water Shortage Contingency Plan will be as follows:

1) *First Violation. The City shall issue a written notice of the fact of a first violation to the customer.*
2) *The first violation after written notice to customer shall result in a One Hundred and no/100ths ($100.00) Dollars fine for that first issued citation.*
3) *Two Hundred and no/100ths ($200.00) fine for the second citation issued.*
4) *Five Hundred and no/100ths ($500.00) fine for the third and subsequent citations issued.*

The penalties listed above may be waived if a customer completes a written request to a hearing and provides supporting documentation for proof of hardship.

8.5 DISASTER MANAGEMENT

During a water shortage, the City has the following tools available to restrict water use to health and safety uses only:

- Expanding public outreach
- More frequent meter readings
- Fines and penalties
- Flow-restriction devices
- Moratorium on service connections

The City's Natural Hazard Mitigation Plan (HMP), adopted in October of 2004, addresses the planned response to extraordinary emergency situations associated with natural disasters. Other City planning tools, such as the City's Risk and Resiliency Assessment (RR) and Emergency Response Plan (ERP), are currently being updated. The City maintains an emergency preparedness or the most effective and economical allocation of resources for the maximum benefit and protection of life, property, and the environment during an emergency. During an emergency, the City Administration staff, Fire Department, and Police Department will work in union to help allocate resources such as bottled water to residents. If water supplies are affected, the City's water staff shall maintain water operations as follows:

The City's HMP, RRA, and ERP assist the City in dealing with emergencies.

- All on-duty personnel are expected to remain on duty until relieved of duty
- Off-duty personnel will be expected to return to work or be "on-call"
- While in a disaster mode, operational shifts will be 12 hours for the duration of the event

The City's Water Operations Manager will be responsible for carrying out the following operations:

- Assess impact of incident
- Establish liaison with California Water Company.
- Identify need for and prioritize locations for water distribution
- Provide for water quality assurance or prepare public notices for water quality
- Evaluate, plan, and implement actions to acquire and distribute alternative water

- Determine the need to staff a water task group and secure resources through the Logistics Section

- Provide informational status to nearby water agencies, including:

    - Central Basin
    - City of South Gate
    - Tract 349 Mutual Water
    - Walnut Park Mutual Water
    - Maywood Mutual Water
    - Southern California Water

- Provide information to media as appropriate.

In the event of damage to any wells that restricts groundwater supplies, additional supply could be imported from Central Basin or the above-mentioned water agencies until the wells are back online.

8.5.1 Assistance During Disasters

Central Basin and MWD are available to assist the City to facilitate the flow of information and provide emergency supplies. MWD has established an Emergency Operations Center (EOC) to assist its staff and its member agencies during a water supply emergency. In 2019, MWD started a new five-year emergency exercise plan that will allow all of its member agencies to participate in at least one of MWD's annual emergency exercises. MWD has conducted over 100 exercises since February 2018. MWD's EOC also conducts monthly communication tests, which include MWD's emergency two-way radio system, on-line WebEOC system, Met-Alert mass notification system, and satellite phones. These monthly tests reach out to the member agencies, Treatment Plant Control Centers, ICPs, MWD management, and the Department of Water Resources. These regular exercises help prepare MWD and its member agencies to respond to future emergencies.

Figure 8.4: Diamond Valley Lake

In the event of an MWD supply shortage, the City will indirectly rely on MWD's catastrophic event plan to utilize the Diamond Valley Lake reservoir, which can provide six months of emergency supply. If there were a catastrophic failure of the California Aqueduct or the CRA conveyance facilities, MWD could draw on emergency supplies in Diamond Valley Lake. The City will be informed indirectly during a

catastrophic event that affects MWD's water supplies. Locally, Central Basin, as the MWD member agency, will utilize the Met-Alert system to immediately contact its customer agencies about potential interruption of services.

Additional emergency services in the State of California include the Master Mutual Aid Agreement and the California Water Agency Response Network (CalWARN). The Master Mutual Aid Agreement includes all public agencies that have signed the agreement and is planned out of the California Office of Emergency Services. CalWARN includes all public agencies that have signed the agreement to WARN and provides mutual aid assistance. It is managed by a State Steering Committee and Regional Chairs.

8.5.2 Emergency Water Supply

The City's distribution system has seven (7) emergency connections. The emergency interconnections include the City of Vernon, City of South Gate, Maywood Mutual Water Company, Walnut Park Mutual Water Company, Southern California Water Company, and Tract 349 Mutual Water Company. The connections have capacities of 250 to 400 gpm, with the City of South Gate connection having a capacity of 2,000 pm. These connections can allow water to flow in either direction through a flow control valve.

8.6 METHODS TO ASSESS REDUCTIONS

Using the City's water billing records, the City will be able to identify not only the conserved volumes, but also the customers which are in violation of the provisions of this chapter. In particular, the City can review data from the following sources:

- **Production Meters**: Provides an account of daily water production
- **Customer Meters**: Provides an account of monthly consumption

With AMI meter technology, if the City desires to determine irrigation violations, the City can monitor AMI meters which will allow the City to view consumption on a daily or hourly basis.

In addition to monitoring customer use, the City also has the ability to monitor production volumes to determine if the well supplies have been reduced. Under normal conditions, potable water production figures are recorded daily. Weekly and monthly reports are prepared and monitored. This data will be used as a baseline to measure the effectiveness of any water shortage contingency stage that may be implemented.

During rationing conditions, the water budget will be monitored on a weekly, daily, or hourly basis depending on the severity of the drought. During a disaster shortage,

production figures will be monitored on an ongoing basis. The City's monitoring system will warn of any critical conditions instantly. In addition, meter readings will be performed more frequently than the normal bi-monthly schedule.

8.7 FISCAL IMPACTS

8.7.1 Impacts to Revenue

During a water shortage, revenue generated through water sales will be impacted. Based on the City's total water revenue and operating expenses, demand reductions will likely result in negative net cash provided by operating activities. **Table 8.3** below lists the current residential water rates, which are the greatest source of income for the City's water system:

Table 8.3
Current Residential Water Rates

Account	Pricing (per HCF)
Tier 1 (0–10 HCF)	$4.70

Based on the rates above, a 50% decrease in residential use (about 1,450 AF or 327,000 HCF) would result in:

- **$247,000** in lost revenue per month
- **$3 million** annual lost revenue

Fiscal impacts can be mitigated by considering changes to the City's water rate fee structure. For instance, a fixed base rate could replace the current rate of $4.70 per HCF. The base rate would cover a fixed volume of water and would allow the City to not be impacted by revenue losses during water shortages.

In addition, the following actions could take place under such circumstances:

- Implement a conservation surcharge
- Delay capital improvement projects
- Consider temporary increase of water rates to meet operation and maintenance costs.

A combination of the measures outlined above may be used to offset or diminish the effects of lost revenues. Capital construction projects may be deferred as appropriate. The base water rate may be increased to cover the general operation, maintenance, system upgrades, and capital expenditures. An increase in the base rate would be temporarily employed and then returned to pre-shortage rates when conditions improve.

8.7.2 Impacts to Reserve Funds

The City carries reserves in the water system accounts, to fund for needed improvements to its water system. The balance of reserves the City is maintained

primarily for facility repair and replacement. Under a shortage crisis, some flexibility would exist to dip into these reserves to help offset loss of revenue.

8.8 THREE-YEAR MINIMUM SUPPLY

During a three-year drought, the City may import water to meet demands in excess of its adjudicated pumping right of 3,853 AFY as necessary. However, unlike groundwater, imported supplies are subject to shortages. Nevertheless, Central Basin projects full supply reliability through the year 2045 for all climatic conditions. Based on the conditions described above, the City anticipates the ability to meet water demand for all climatic conditions for the near future. **Table 8.4** below displays the minimum water supply available to the City based on a three-year dry period over the next three years:

Table 8.4
Three-Year Minimum Supply (AF)

Year	Import (AF)	Wells (AF)	Total Supply (AF)	Demand (AF)
2022	1,007	3,853	4,860	4,667
2023	1,007	3,853	4,860	4,788
2024	1,007	3,853	4,860	4,510

Based on the above analysis, the City should expect 100 percent supply reliability during a drought lasting over the next three years. Furthermore, the supplies will be sufficient to meet demands over the next three years.

Figure 8.5: Huntington Park Water Tower

It is important to note that the 3-year minimum supplies shown above are worst-case drought scenarios. This does not take into consideration catastrophic interruptions to local or imported supplies, or emergency power outages. Such catastrophic scenarios may limit supplies even more than those shown in **Table 8.4** above.

8.9 COUNCIL RESOLUTION

On May 18, 2021, the City Council adopted a Resolution No. 2021-## (included in **Appendix #**) approving an update to Section 6-5 of the City's municipal code and this Section of the UWMP. **Tables 8.5 & 8.6** on the following pages provide a summary of the prohibitions and City response actions to the water shortage stages listed in **Table 8.2** on **Page 8.6**. This information is also provided in Section 6-5 of City's municipal code in written form.

Table 8.5
City Code Prohibitions on Water Use During Water Shortages

Prohibitions Explicitly Listed or Implied by Section 6-5 of Municipal Code		
Stage	**Prohibition/Restriction**	**Penalty**
Stage 1 (≤10%)	• No Irrigation between 10 am to 8 pm • No Person Shall Operate a Decorative Water Feature (Fountains, Ponds, etc.) that Does Not have a Recirculating System • All Landscape Irrigation Limited to No More than Three (3) Days per Week from June 1 to Oct 31 and No More than Once per Week from Nov 1 to May 31 • All Landscape Irrigation Limited to No More than 15 minutes per Station per Watering Day • Repair or Isolate Leaks within 72 Hours of Notification by the City • No Washing Sidewalks and Driveways with Water • Car Washing Only with Bucket or a Hose with Shutoff Valve or Nozzle • Excess Irrigation Runoff is Prohibited • No Landscape Irrigation During or Within 48 hours of a Rain Event • Restaurants to Serve Water Only Upon Request • Restaurants to Wash Kitchen and Dining Room with Bucket or Specialized Water Broom Only • Hotels/Motels to Provide Customer Option of Daily Laundry • Automobile Wash Business Must Use Water Recycling Systems	Yes
Stage 2 (10% to 20%)	• All Landscape Irrigation Limited to No More than Two (2) Days per Week from June 1 to Oct 31 and No More than Once per Week from Nov 1 to May 31 • All Landscape Irrigation Limited to No More than 10 minutes per Station per Watering Day • No Refilling of Ornamental Lakes or Ponds, Except to Sustain Aquatic Life • Repair or Isolate Leaks within 48 Hours of Notification by the City • Pools or Spas to have a Cover to Prevent Evaporation • Cease All Operation of a Decorative Water Features (Fountains, Ponds, etc.) • No Landscape Irrigation During or Within 72 hours of a Rain Event • Commercial Nurseries shall Use Water Only During the Hours from Midnight to 6 am • Commercial Landowners to Allow Tenants the Option of Replacing Lawns & Landscapes	Yes
Stage 3 (20% to 30%)	• All Landscape Irrigation Limited to No More than Once per Week from June 1 to Oct 31 and No Irrigation from Nov 1 to May 31 • All Landscape Irrigation Limited to No More than 8 minutes per Station per Week • Repair or Isolate Leaks within 24 Hours of notification by the City • Car Washing Limited to Only Automobile Washes that Use Water Recycling Systems • No Landscape Irrigation During or Within 1 Week of a Rain Event • Restaurants to Wash Dining Room Once Daily (after Close of Business) and Only with Bucket or Specialized Water Broom • Restaurants to Pre-Soak Dishes	Yes

Table 8.5
City Code Prohibitions on Water Use During Water Shortages

Prohibitions Explicitly Listed or Implied by Section 6-5 of Municipal Code		
Stage	**Prohibition/Restriction**	**Penalty**
Stage 3 (20% to 30%)	• Restaurants to Install Solenoid Valve for Sinks with Garbage Disposals • No Commercial Window-Washing • Apartment Buildings to Certify Low-Flow Fixtures (Showerheads and Faucets) are Installed prior to Leasing Apartments • Commercial Buildings and Restaurants to Replace/Install Waterless Urinals • Commercial Buildings and Restaurants to Replace/Install Low-Flow Toilets • Hotels/Motels to Wash Laundry Only After Change of Customer	Yes
Stage 4 (30% to 40%)	• Cease All Irrigation Except by Reclaimed Water or Except for Crops or Horticulture (Nurseries) or for Fire or Erosion Maintenance • No Refilling of Pools or Spas • Commercial Landscape to be Replaced with CA-Friendly Landscape	Yes
Stages 5 & 6 (50% or more)	• N/A (Same Requirements as Stages 1 to 4 Above) • This Stage Involves Only Operational/Management Response Actions	Yes

Table 8.6 City Water Department Response Actions		
Methods Explicitly Listed or Implied by Section 6-5 of Municipal Code		
Stage	**City Water Department Response Action**	**Additional Info**
Stage 1 (<10%)	• Begin an Enhanced Public Awareness Campaign	Increased Expense for City Use Financial Reserve Funds
Stage 2 (10% to 20%)	• No Refilling of Municipal Ornamental Lakes or Ponds, Except as Necessary to Sustain Aquatic Life • Reduced Flushing Frequency • No New Potable Water Service • No New Temporary Meters or Permanent Meters • No Statements of Immediate Ability to Serve or Provide Potable Water Service • (Will Serve Letters, Certificates, Or Letters of Availability) • Suspend Consideration of Annexations to the City's Water Service Area • Establish a Water Allocation for Certain Properties Within the City's Jurisdiction	Increased Expense for City Use Financial Reserve Funds
Stage 3 (20% to 30%)	• Increase Groundwater Pumping • Issue Water Quality Notices (if Necessary) in Case Additional Pumping Creates Water Quality Issues • Coordinate with Adjacent Agencies to Prepare for Possible Need of Emergency Water when/if Conditions Worsen • Notify customers immediately of suspected leaks in their plumbing • Repair or Isolate Water Main Leaks within 24 Hours • Provide Letters to Certain Properties for Allocations Established in Stage 2 Informing Reduction of 10% in Allocation of Tiered Rate • Elimination of Specific Municipal Uses such as Hydrant Flushing, Street Cleaning, and Water-Based Recreation	Increased Expense for City Use Financial Reserve Funds

Table 8.6 City Water Department Response Actions		
Methods Explicitly Listed or Implied by Section 6-5 of Municipal Code		
Stage	**City Water Department Response Action**	**Additional Info**
Stage 4 (30% to 40%)	• Rate Increase Study to Mitigate Loss of Revenue • Further Increase in Rates for Certain Over-Allocation Properties Issued Warnings/Notices in Stage 3 • Increase Frequency of Meter Readings to Once Monthly in Order to Allow Staff and Customers to Track Progress • Implement Water Waste Patrols (Once Monthly) • Coordinate with Adjacent Agencies to Receive Emergency Water via Emergency Interconnections • Deter Flushing of Mains Until Maximum Allowable Time for Quality/Safety • Coordinate with Manufacturers and/or Governing Agencies to Receive Fleet of Potable Water Trucks	Increased Expense for City Use Financial Reserve Funds Defer Capital Projects
Stage 5 (40% to 50%))	• Systemwide Rate Increase to Achieve Necessary Reduction and to Mitigate Loss of Revenue • Notices on Government Access Channel (TV) • Hand-Post Drought Notices on all Customer Properties (Residential Homes & Commercial Buildings)	Increased Expense for City Use Financial Reserve Funds Defer Capital Projects
Stage 6 (>50%)	• Mobilize Potable Water Trucks • Decrease Pressure in Water Mains	Increased Expense for City Use Financial Reserve Funds Defer Capital Projects

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Section 9
Conservation Measures

The City's ordinances, adopted by Council, have strict provisions which encourage the efficient use of water while penalizing wasteful use. The City's water staff are also committed to water use efficiency through the use of management practices and customer assistance programs.

Section 9

CONSERVATION MEASURES

Conservation measures, including those aimed at leak detection (pictured) are an essential part of the City's policies.

9.1 OVERVIEW

As a result of seasonal droughts and continued housing development, water conservation is important to California's sustainability. To help conserve California's water resources, several public water agencies came together to form the California Urban Water Conservation Council (CUWCC). The CUWCC was officially formed in 1991 when the agencies signed a Memorandum of Understanding (MOU) on urban water conservation. In January 2018, the CUWCC became the California Water Efficiency Partnership (CalWEP). Currently, over 200 water agencies are members of CalWEP. The main focus of CalWEP is to assist its member agencies with public policy, research, and education tools. Regarding the UWMPs, CalWEP works with DWR in order to help form BMP/DMM policies contained in the UWMPs.

At that time, the MOU established 14 Best Management Practices (BMPs) which are defined roughly as policies, programs, practices, rules, regulations, or ordinances that result in the more efficient use or conservation of water. The BMPs were equivalent to the 14 Demand Management Measures (DMMs) defined in the UWMP Act, until 2015. As of the 2015 UWMPs, the Department of Water Resources (DWR) streamlined the 14 DMMs into six (6)

generalized categories, with an additional seventh (7th) optional category. According to the 2020 UWMP Guidebook, DWR has confirmed that the Water Code has not updated the reporting requirements for the DMMs in the 2020 UWMPs.

The City acknowledges that efficient water use is the foundation of its current and future water planning and operations policies. The City implements water conservation through a combination of programs, resources, and policies.

9.2 DWR DMMs FOR 2020 UWMPs

The DMMs are intended to reduce long-term urban demands from what they would have been without their implementation. The DMMs are in addition to programs which may be instituted during occasional water supply shortages.

i. Water Waste Prevention Ordinances

ii. Metering

iii. Conservation Pricing

iv. Public Education & 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 with previous UWMPs, agencies that are members of CalWEP can submit the BMP annual reports in lieu of providing a description of each DMM in the agency's UWMP.

9.3 CalWEP BMPs

An active member of the CalWEP is one that signs the MOU and implements the water conservation measures stipulated by the CalWEP. According to CalWEP, an agency "implements" a conservation measure by achieving *and* maintaining the level of activity called for in each BMP's definition as described in the MOU. This requires a minimum level of staffing and funding efforts. To document the implementation, an agency is required to submit annual BMP reports to CalWEP that document the implementation of each BMP.

CALIFORNIA WATER EFFICIENCY PARTNERSHIP
A Chapter of the Alliance for Water Efficiency

Figure 9.1: CUWCC became CalWEP in January 2018

The City is not currently a member of CalWEP. However, Central Basin is a member of CalWEP and implements many of the BMPs on behalf of its member

agencies, including the City. As a result, the City either directly or indirectly implements all of the measures with good faith effort by achieving and maintaining the staffing, funding, and in general, the priority levels necessary to achieve the level of activity called for in each BMP's definition as described in the MOU.

9.3.1 2020 Updates to CalWEP BMPs

The CalWEP BMPs changed significantly for the 2015 UWMPs. The recent change for the 2020 UWMPs revises the order of the CalWEP BMPs as follows:

- **BMP 1**: Utility Operations
  1.1. Operations Practices
  1.2. Water Loss Control
  1.3. Metering w/ Commodity Rates
  1.4. Retail Conservation Pricing
- **BMP 2**: Education
  2.1 Public Outreach
  2.2 School Education Programs
- **BMP 3**: Residential Programs
- **BMP 4:** Landscape Programs
- **BMP 5**: Commercial, Institutional, and Industrial (CII) Programs

The CUWCC/CalWEP BMPs are broad measures aimed at reducing water use either directly (rebates and fixture changes), or indirectly (through utility management or educational awareness). The first two BMPs (Utility Operations and Education) focus on the actions that water agencies can take to reduce water use. The last three BMPs (Residential, Landscape, and CII Programs) focus on tools, rebates, and plumbing fixtures that agencies can provide for customers. **Figure 9.2** on the next page provides a comparison of the DWR and CalWEP conservation measures.

9.4 CITY CONSERVATION MEASURES

As a member of Central Basin, the City of Huntington Park benefits from regional conservation programs offered by Central Basin on behalf of its member agencies. Current Central Basin conservation and water recycling programs are saving billions of gallons of imported water each year. These savings relate directly to additional available water for use within the Central Basin service area, including the City. The City has continued to work with Central Basin towards implementing the DMMs.

The City is unique compared to other, larger cities in the region. Therefore, the City's conservation efforts are tailored to address the characteristics of their specific community. This section presents a description of the DMM activities implemented in coordination with Central Basin and the City, including regional and local programs, which benefit the City.

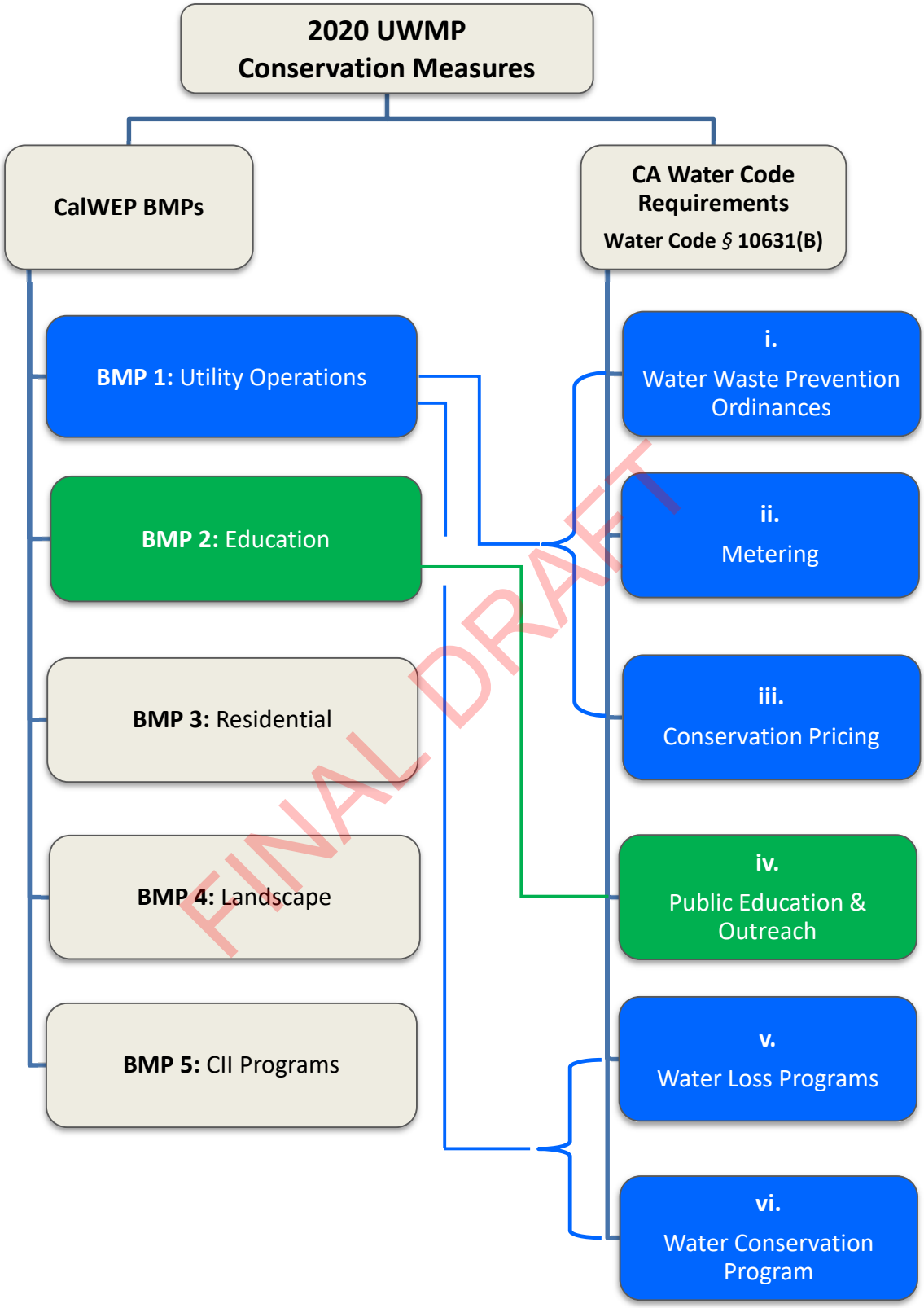

Figure 9.2: Conservation Measures for 2020 UWMPs: CalWEP and DWR Compared

DMM No. 1 Water Waste Prevention

City Ordinance No. 484 was adopted by the City Council in 1991, prohibiting the waste of water. The ordinance was codified into City Municipal Code (Section 6-5.401). This section of the City's code describes actions that are considered a waste of water. The code enforces the prohibition of water waste under penalty of law ($100) in accordance with Section 6-5.410 of the City code, if a 2nd violation were to occur.

Figure 9.3: Water Waste

Similar to water waste prohibitions, the 1990 Water Conservation in Landscaping Act was passed, requiring local agencies to adopt a model water efficiency landscape ordinance that is at least as effective as the State's model water efficiency landscape ordinance. This requirement was amended in 2006 by Assembly Bill 1881. The City's municipal code Sections 9-3.401 to 9-3.412 meet these requirements.

The City is currently preparing an update to Section 6-5.401 of the City's code to include new prohibitions on water use, depending on drought severity. This pertains to updates to CA Water Code § 10632(a)(3), which was amended by Sente Bill 606 in 2019.

DMM No. 2: Metering

All of the City's water service connections, for all customer sectors, are metered. The City bills its customers according to meter consumption. In addition, the City encourages the installation of dedicated landscape meters, which allows the City to recommend the appropriate irrigation schedules through future landscape programs. Meter calibration and periodic replacement ensures that customers are paying for all of the water they consume, and therefore encourages conservation. The City will continue to meter all new water service connections.

In recent years, the City has considered plans for a transition to a drive-by Automatic Meter Read (AMR) system that allows the City to more easily monitor each customer account for water conservation. The AMR system readings could also more readily show the functionality of the meters, which allows the City to change out faulty meters in a timelier manner.

Although the current system meets the City's needs, a fix-based AMI system could be helpful for the City during a prolonged water shortage. That is, instead of picking up meter readings manually and then downloading the readings after returning to the office, the City can obtain meter readings from a remote location.

Figure 9.4: AMI-Style Water Meter

The fixed system involves placing antennas throughout the City that would collect data from the water meters at set intervals. The data would then be downloaded to the City's SCADA network and transferred to a server for access by City staff on a desktop computer. The data is computed for individual users for billing purposes or for alerting the City if set water use thresholds have been exceeded. This would signal a possible leak on the property. If this condition arises, the owner of the property would be notified by either email or phone call.

DMM No. 3: Conservation Pricing

Central Basin currently bills the City under a two-tiered rate structure for imported water. The two-tiered rate structure was last adjusted in January of this year (2021). The Tier rate is $1,302 per acre-foot (AF) for Tier 2 rate is $1,344 per AF. The Tier 1 allotment for the City from Central Basin is about 1,400 AF per year. The City is also charged a fixed monthly meter charge of $11,000 from Central Basin. This recent change by Central Basin will be factored into the City's future water rates. As of this 2020 UWMP, the City has a three-tiered increasing rate structure that applies to all customers for each month, and billed on a bi-monthly basis. The current rate structure was last updated in 2016 and includes the following rates:

Table 9.1
City of Huntington Park Monthly Water Rates
(Billed Bi-Monthly)

Tier	Pricing (per HCF)
Tier 1 (0-10 HCF)	$4.70
Tier 2 (11-20 HCF)	$5.64
Tier 3 (>21 HCF)	$6.86

The new rate structure was established as part of the previous water rate study that was approved in 2011. The measure of effectiveness of the rate structure in terms of acting as a catalyst for water

conservation will be assessed based on decreases in the total amount of consumption since the charges are based on total consumption rates.

DMM No. 4: Public Education & Outreach

Through Central Basin, the City provides educational programs to the general public and to local schools in the City. The City will continue to coordinate with Central Basin to provide water education and outreach programs. Due to budget cuts last year (2020), Central Basin made changes to the programs offered to its member agencies. As of this year (2021), the current programs offered by Central Basin include:

1. Water is Life Student Art Contest
2. Inspection Trips (Tours)
3. Gardening Workshops
4. Demonstration Gardens
5. Caucus Meetings
6. Speaker's Bureaus
7. Community Outreach Booths
8. Bottled Water Donation Program
9. Max the Water Dog Mascot
10. Solar Cup Boat Building Competition

The following is a brief overview of each program:

Water is Life Student Art Contest

This art challenge inspires students to learn about limited water resources while thinking of creative ways to promote the contest theme "Water is Life." The contest is open to 3rd – 12th grade students attending schools located in the Central Basin service area. Fifteen (15) student winners (one grand prize winner and four honorable mentions in each elementary, middle, and high school grade category) will be selected by a panel of judges in April. Each winner will be given a new Apple iPad.

Inspection Trips (Tours)

Field trip program that includes a tour of Southern California's water delivery systems. During the tours, community leaders can interact with industry experts to discuss pressing water issues and policies. Tours highlight the massive infrastructure that brings water straight to our homes.

Figure 9.5: Inspection Tour of Colorado River Intake

The inspection trips include: the Colorado River Aqueduct, State Water Project and Diamond Valley Lake. Local tours to Central Basin's facilities are also offered.

Gardening Workshops

Central Basin, in partnership with LA County and MWD, host free gardening workshops to educate individuals on simple gardening techniques that will conserve water and energy while their garden flourishes. The hands-on workshops are typically between an hour and a half to two hours long.

As of 2020, due to the COVID-19 pandemic, in-person classes are currently postponed until further notice. There are currently four (4) free webinars offered by Central Basin. The free webinars help beautify home and garden. The webinars are approximately 45 minutes followed by a 15-minute period to answer questions and take orders for compost bins. Four subjects are offered including Intro to Composting, Water-wise Gardening, Organic Gardening, and Small-space Gardening.

Demonstration Gardens

DWR awarded Central Basin with a grant for five (5) demonstration gardens in cities throughout the Central Basin service area. The gardens highlight the state's native plants and serve as a water efficient model for outdoor landscape design. The demonstration gardens were created to motivate community members to use sustainable landscaping. In an average household, the majority of water is consumed outdoors, particularly on grass lawns. Replacing water-thirsty grass with drought tolerant landscape makes sustainable gardening second nature.

Construction has been completed at the historic Sanchez Adobe in Montebello, South Gate Park in South Gate and Clara Park in Cudahy. Construction is nearly complete at Laurel Station along the Greenway Trail in Whittier and will soon start at El Rancho Verde Park in Cerritos.

Figure 9.6: South Gate Park Demonstration Garden

There are no demonstration gardens in the City, but the closest demonstration garden is South Gate Park in the City of South Gate (pictured above in **Figure 9.5**).

Caucus Meetings

The Central Basin Caucus Meetings are a partnership between Central Basin and Upper San Gabriel Valley MWD (Upper District) that brings between 40 to 50 stakeholders including local, state and federal elected officials to discuss water

issues. These caucuses aim to create networks that will help the agencies of the Central Groundwater Basin better represent their stakeholders.

Speakers Bureaus

Through this program, Central Basin assigns an industry expert to speak on a number of topics related to the water industry and water conservation. Member agencies of Central Basin can request a speaker to come and speak on a set day and time.

Community Outreach Booths

Upon request, Central can assign a booth with Central Basin staff to attend community events and present information on water conservation.

Bottled Water Donation Program

Upon request, Central can provide pallets of water bottles for community events and provide hand-out information on water conservation.

Max the Water Dog Mascot

Upon request, Central can assign Central Basin staff to attend community events as "Max the Water Dog" mascot and provide hand-out information on water conservation.

Solar Cup Boat Building Competition

Program where high school students will learn skills by working as a team and selecting from a menu of activities that cover a wide range of STEAM fields including robotics, solar power vehicles, utilizing CAD software, building online gaming, social media messaging, visual arts and dream job skills. As of 2021, this program will include a virtual element. At the end of the Solar Cup 2021 program, teams will virtually race the solar vehicle kits they built during the program. program is funded by MWD and its member agencies including Central Basin.

DMM No. 5: Programs to Assess and Manage Distribution System Real Loss

The City's surveillance of its water system to detect leaks is an on-going operation. The City recognizes the urgency of repairing leaks and responds to any leak in an expedient manner. Field employees are trained in detection of leaks and signs of unauthorized uses of water. In addition, the customer billing system flags high or unusual water bills, which are then investigated for possible leaks in customer piping. When a leak is first noticed, the pipeline is inspected and promptly repaired.

Likewise, the full water system audit is performed by tracking the total Citywide

metered water use, which can be compared to total well production and total imported water metered at the City's connection to Central Basin. Well production meters and imported purchases are tracked monthly and reviewed annually to determine if the system exhibits significant losses. The City has prepared annual water audits since the 2015 UWMP. The audits were prepared in accordance with CWC Section 10631(d)(3)(B), using methods and a worksheet developed by the American Water Works Association (AWWA). The AWWA audit worksheets require a detailed approach to separate apparent water losses from overall water loss totals to reveal the actual "Real Losses" as well as the "Non-Revenue Water". The AWWA audit defines the following:

- **Water Losses**: Water supplied minus authorized (metered) consumption.
- **Apparent Losses**: Unauthorized or un-metered consumption and inaccuracies or errors.
- **Real Losses**: Water losses minus apparent losses. The actual volume of water lost through leaks, breaks, etc.
- **Non-Revenue Water**: Real water losses plus apparent losses plus unbilled metered and unbilled unmetered consumption

Based on the results of the 2016-2020 water audits, copies of which are included in Appendix #, the City's water system losses were as follows:

Table 9.2
Distribution System Losses (AF)

Year	Loss (AF)	Percent of Total
2015	250	5.5%
2016	212	5.1%
2017	158	3.9%
2018	158	4.0%
2019	283	6.8%

The results of the last few audits indicate that the City has made improvements on testing, repairs, and record keeping. In addition, the City has recently replaced older, leaky water mains.

DMM No. 6: Water Conservation Program Coordination and Staffing Support

The City's Water Department Staff collectively serve as the City's Conservation Coordinator. The role of the Water Department entails consistent water code enforcement, and as a result, regular communication with customers is provided. Since 1992, the responsibilities of the Field Operations Manager have included the conservation coordinator duties. The associated costs are approximately $75,000 per year.

Additionally, Central Basin has assigned a Conservation Coordinator to work with its member agencies, including the City, to enhance their conservation efforts. Central Basin's Conservation Coordinator also investigates Federal, State, and local funding to develop new programs throughout its service area.

DMM No. 7: Other Measures

In addition to the Conservation Measures listed above, the City also maintains the following conservation programs:

Residential Surveys

On behalf of its member agencies, Central Basin acts as the liaison to MWD to offer funding to its member agencies for residential survey devices. As a member agency of Central Basin, the City may receive funding through MWD. The City also responds to customer inquiries to high water bills that prompt informal water surveys to be completed by trained City water staff. A high-water bill triggers the City to inspect the accuracy of the water meter, conduct a flow test, and then suggest possible sources of water leaks or excessive water use.

Home surveys result in an average of 21 gallons per day (gpd) per household (about 4 to 5 gallons per person) total savings for future projections. This rate allows for the calculation of estimated total water savings that result from completion of residential water surveys. For the City, 21 gallons per household provides significant returns as the City is one of the most water efficient cities of Central Basin.

Figure 9.7: Residential Water Survey

The City will measure the effectiveness of water survey programs through analyzing the number of surveys distributed and the difference in water consumption for the families after the surveys are conducted.

Save Our Water Campaign

The "Save Our Water" campaign, formerly known as the "California Water Awareness Campaign", is an association formed to coordinate efforts throughout the state during Water Awareness Month and throughout the year. An increase in participation and distribution of materials will indicate heightened public water

conservation awareness and may correlate with decrease water demand.

Rebates & Incentives

In addition, Central Basin collaborates with MWD on its SoCal Water$mart program, which is a rebate program for residential and commercial properties. The rebates offered for residential customers include:

- High-Efficiency Clothes Washer
- Premium High-Efficiency Toilet
- Weather-Based Irrigation Controllers
- Soil Moisture Sensor System
- Rotating Sprinkler Nozzle
- Rain Barrels & Cisterns
- Turf Removal

Central Basin also offers rebates to commercial customers, through its member agencies. The rebates include:

- High-Efficiency Toilets
- Waterless Urinals
- Flow-Control Valves
- Food Steamers
- Ice Machines
- Laminar Flow Restrictors

In addition to the DMMs described above, the City posts water conservation tips and other information on its website. The City also provides additional conservation information and answers questions from its customers upon request. The City has developed a hotline for customer use in reporting leaks, overwatering, and other misuse of water.

9.5 OTHER LOCAL CONSERVATION MEASURES

Other local programs may be available through MWD, the Water Replenishment District (WRD), or West Basin MWD. These programs may be helpful to the City to inquire about and implement into its conservation programs in upcoming years.

9.5.1 West Basin, WRD, & MWD Programs

Water Bottle Filling Station

As of 2020, this is a new West Basin program that helps provide local students with access to safe and reliable tap water to refill personal, reusable bottles. West Basin grants are available – up to $2,000 per applicant – for the purchase of an indoor or outdoor filling station at public schools within our service area.

Water Industry Careers Guest Panel

As of 2019, this is a new program hosted by West Basin and the Water Replenishment District (WRD), is designed to encourage students in 6th grade through community college to explore career options in the water industry. Since 2020, this guest panel

is being offered virtually as an alternative in-lieu of an in-person guest panel.

Teach and Test Program

This program allows high school students to volunteer to monitor water quality in the Santa Monica Bay by collecting and processing water samples. During the program, students collect, prepare and analyze water samples at 21 coastal locations. Then they are tested for bacteria levels. The results are published to an online database. At the end of the year, school teams are required to conduct a final presentation that connects the project findings to other environmentally sustainable efforts around the Santa Monica Bay. This program is currently on hiatus for the 2020-2021 school year.

Drop in the Bucket Program

Offered in partnership with The Wildwoods Foundation, this a free program for 3rd-8th grade teachers in the West Basin service area! A program instructor joins the classroom, where students will participate in lessons exploring Southern California's water resources and learn about practical water conservation methods. As of 2020, this tour is offered virtually as an alternative to in-person tours, upon request

9.6 CONTINUED IMPLEMENTATION

As described in Chapter 6 herein, the City's per capita water use in 2020 was **66 GPCD**, which demonstrates that the **City has met its 2020 urban water use target (SBx7-7)**. Although the City has met its target year water use, the City plans to continue its conservation efforts described herein. The City will continue to track all program activities. Program effectiveness and per capita water use will be monitored through the billing system. For example, the City can measure impacts of infrastructure, repairs and replacements, including leaky mains, by comparing water apparent water losses from the previous month. For this reason, the City will continue to develop its metering and billing system as a tool to measure effectiveness of all DMMs.

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APPENDICES A - P

Appendix A: Council Resolution Adopting 2020 UWMP

City of Huntington Park 2020 Urban Water Management Plan

Appendix B: Council Resolution Adopting 2020 WSCP

City of Huntington Park 2020 Urban Water Management Plan

Appendix C: UWMP Act

City of Huntington Park 2020 Urban Water Management Plan

Appendix D: Dept. of Water Resources UWMP Checklist

City of Huntington Park 2020 Urban Water Management Plan

Appendix E: Dept. of Water Resources UWMP Data Tables

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Appendix F: Dept. of Water Resources SBx7-7 Data Tables

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Appendix G: AWWA Water Loss Audits

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Appendix H: Land Use Element – 2030 City General Plan

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Appendix I: Housing Element – 2030 City General Plan

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Appendix J: 2019 Consumer Confidence Report

City of Huntington Park 2020 Urban Water Management Plan

Appendix K: Div. of Drinking Water Sanitary Survey Report

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Appendix L: Los Angeles County Community Climate Action Plan

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Appendix M: UWMP Notices: 60-Day, 2-Week, & 1-Week

City of Huntington Park 2020 Urban Water Management Plan

Appendix N: Central Basin Judgment

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Appendix O: Final Transmittals to County and State Library

City of Huntington Park 2020 Urban Water Management Plan

Appendix P: References

City of Huntington Park 2020 Urban Water Management Plan

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ENGINEERING, INC.