Appendix L City of Anaheim General Plan Update Water Supply Assessment

Appendices

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CITY OF ANAHEIM
GENERAL PLAN UPDATE
WATER SUPPLY ASSESSMENT

2024

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APPENDICES

Appendix A Existing and Proposed General Plan Land Use Summary
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ABBREVIATIONS/ACRONYMS

AF	Acre-feet
AFY	Acre-feet per year
APUD	City of Anaheim Public Utilities Department
BEA	Basin Equity Assessment
BPP	Basin Production Percentage
CDR	Center for Demographic Research
CEQA	California Environmental Quality Act
CGBC	California Green Building Standards Code
City, Anaheim	City of Anaheim
CRA	Colorado River Aqueduct
CVP	Central Valley Project
DLF	DisneylandForward
DU	Dwelling Unit
DWR	California Department of Water Resources
EIR	Environmental Impact Report
FY	Fiscal Year
gpd	Gallons per day
gpd/ksf	Gallons per day per thousand square feet
GPU	General Plan Update
GSP	Groundwater Sustainability Plan
GWRS	Groundwater Replenishment System
HGL	Hydraulic grade line
IRP	Integrated Resources Planning
ksf	Thousand square feet
MAF	Million acre-feet
Metropolitan, MWD	Metropolitan Water District of Southern California
MG	Million gallons
MGD	Million gallons per day
MWDOC	Municipal Water District of Orange County
MWELO	Model Water Efficient Landscape Ordinance
OC Basin	Orange County Groundwater Basin
OCSD	Orange County Sanitation District
OCWD	Orange County Water District
QSA	Quantification Settlement Agreement
RA	Replenishment Assessment
RHNA	Regional Housing Needs Assessment
SAR	Santa Ana River
SB	Senate Bill
sf	Square feet
SWP	State Water Project
SWRCB	State Water Resources Control Board
UWMP	Urban Water Management Plan
WSA	Water Supply Assessment
WSAP	Water Supply Allocation Plan

EXECUTIVE SUMMARY

This Water Supply Assessment (WSA) has been prepared for the proposed project (Project) Environmental Impact Report (EIR), in accordance with applicable sections of the California Public Resources Code and California Water Code as referenced in Senate Bill (SB) 610. Section 2.1 defines what constitutes a Project under SB 610 (i.e., a proposed residential development, having more than 500 dwelling units).

The proposed project involves a focused update to specific elements of the City of Anaheim General Plan, as well as targeted updates to the City's Zoning Code and Zoning Map. The Project area encompasses the City of Anaheim, which is approximately 35 miles southeast of downtown Los Angeles and 7 miles north of Santa Ana. Anaheim is surrounded by the cities of Fullerton, Placentia, and Yorba Linda to the north; Riverside County to the east; the cities of Orange, Garden Grove, and Stanton and unincorporated Orange County to the south; and the cities of Cypress and Buena Park to the west. The city encompasses over 32,000 acres of land, stretching nearly 20 miles along State Route 91. The project location is illustrated on Figure ES.1.

The proposed project reflects zoning and land use updates resulting from the 2021-2029 Housing Element to address the City's Regional Housing Needs Assessment (RHNA) growth allocation of 17,453 housing units. The proposed project includes land use, zoning, and policy changes in the Center City Corridors (C3) area, which the City originally intended on addressing in its own specific plan area (and EIR) but has since determined that they can be integrated into the General Plan Update (GPU). The Project area and associated water supply analysis includes the parcels that are changing land use as a result of the General Plan update.

The purpose of this WSA is to verify there is sufficient City water supply for the proposed project as well as other City water demands projected through the year 2045. This WSA estimates the additional water demand that would result from the Project land use changes and analyzes the impact it would have on the City's water supply. The proposed land use changes and commensurate additional water demand requires the preparation of a WSA. The Project land use changes would allow development of up to 20,662 additional dwelling units and 234,000 additional square feet of non-residential use. As such, the Project necessitates the preparation of a WSA because the Plan exceeds a number of minimum development thresholds per SB 610, one of which is 500 dwelling units.

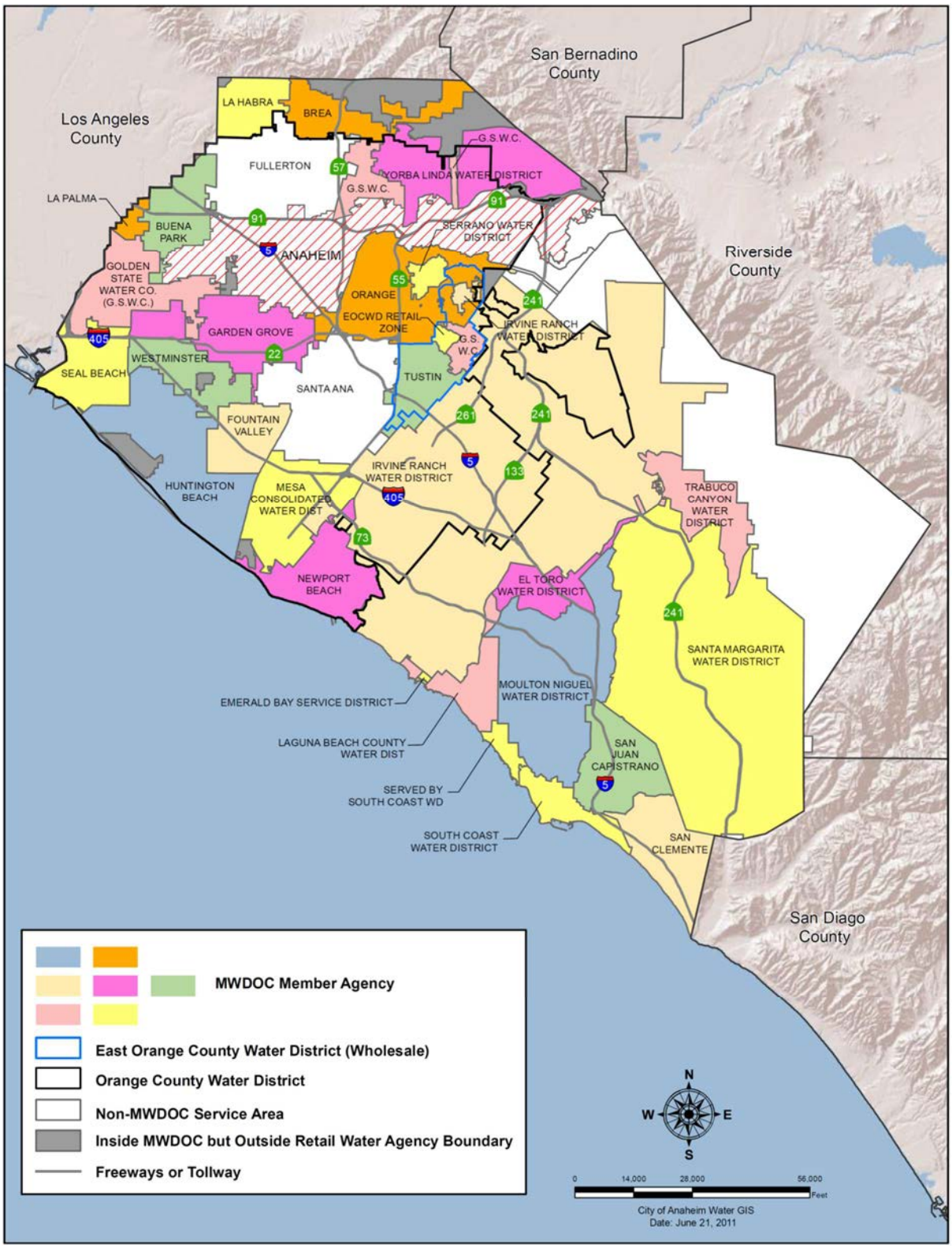
ES.1 Water Demand

Project Water Demand

Project parcels contain a wide variety of existing land uses including single family and multi-family residential use, office, retail, and industrial. It is assumed that existing land uses will gradually be replaced with Project land uses over the 20-year planning period of this WSA.

Unit water use factors developed for the City of Anaheim 2020 Urban Water Management Plan (UWMP) were used to develop projected demands for the proposed project. The net new demand for the Project will be the water demand associated with the proposed land uses minus the water demand associated with the existing land uses that will be replaced.

Figure ES.1 – Regional Project Location



The water demand increase associated with buildout of the Project is provided in Table ES.1. The estimated water demand resulting from Project buildout is projected to be 3,631 AF greater than water demands for the existing land uses designations.

Table ES.1
Project Water Demand Increase

General Plan Land Use	Existing		Proposed		Project Change	
	Residential (DU)	Non-Residential (KSF)	Residential (DU)	Non-Residential (KSF)	Residential (DU)	Non-Residential (KSF)
Residential	3,754	1,208	6,090	1,246	2,336	39
Non-Residential	13	6,578	0	291	-13	-6,287
Mixed-Use	5,673	4,342	24,012	10,824	18,339	6,482
Grand Total	**9,440**	**12,128**	**30,102**	**12,361**	**20,662**	**234**
Unit Water Use Factor (gpd/unit)					154.4	220
Water Demand Increase (gpd)					3,190,213	51,428
Total Demand Increase (AFY)						**3,631**

The Project will be implemented in multiple phases over the next 20 years or more. Development of the Project parcels and the time frames will be controlled by City decisions on parcels under their ownership and improvements to public infrastructure, as well as landowner decisions on the development of privately owned properties. Implementation of the Project will require collaborative efforts among local businesses, institutions, residents, the City, developers, the California Department of Transportation (Caltrans), Southern California Edison (SCE), and any other utility providers to the area. For the purposes of this WSA, buildout of the Project is estimated to occur by 2045.

It is assumed that 17,453 dwelling units (DUs) will be constructed by the year 2029 as part of the proposed housing element (HE) sites to meet the City's RHNA. Per the requirements of the WSA, water demands must be estimated in five-year increments beginning in 2025 and ending in 2045, consistent with the City's 2020 UWMP. Using five-year phasing increments, half of the HE DUs were assumed developed by 2025 and the other half by 2030. The remaining DUs were assumed to be constructed equally over the subsequent 15 years out to 2045. Based on the estimated Project development phasing, estimated demand phasing is shown in Table ES.2.

Table ES.2
Estimated Project Phasing of Water Demand[(a)]

Estimated Demand Phasing	2025	2030	2035	2040	2045
Dwelling Unit Phasing	8,727	17,453	18,523	19,592	20,662
Project Percent Phasing (Based on DUs)	42%	84%	90%	95%	100%
Non-Residential Phasing (KSF)	99	197	210	222	234
Demand Increase Relative to FY 2020 (AFY)	**1,534**	**3,067**	**3,255**	**3,443**	**3,631**

(a) Not including water loss

City Water Demand

City water demands were developed and projected in the City's 2020 UWMP. The City's total water use in fiscal year (FY) 2020 was 56,912 AF, an 8.3 percent decrease from FY 2015 water use reported in the previous 2015 UWMP. The water demand forecast was carried out in coordination with Municipal Water District of Orange County (MWDOC) and Orange County Water District (OCWD) as a regional effort and calculated by CDM Smith (2020) with input from the City. Demand projections were based on existing water use data as well as projected land use, population, economic growth, and future passive and active conservation measures (baseline conservation). FY 2020 and projected City water demands from the 2020 UWMP are shown in Table ES.3. All projected demands include an estimated 4.85 percent in water loss or non-revenue water consistent with the 2020 UWMP.

Table ES.3
2020 UWMP Projected City Water Demand

	2020	2025	2030	2035	2040	2045
UWMP Water Demand Projections (AFY)						
SF Housing	20,098	20,374	20,012	19,664	19,303	19,229
MF Housing	11,374	12,523	12,545	12,963	13,437	14,051
Other Potable (CII)	20,912	22,794	26,778	28,117	29,523	29,523
Large Landscape (Golf Course)	349	350	350	350	350	350
Total Potable Demand	52,733	56,041	59,685	61,094	62,613	63,153
Losses	3,282	2,717	2,895	2,964	3,038	3,064
Fire/Temp	796					
Recycled Water	101	120	120	120	120	120
Total Demand	**56,912**	**58,878**	**62,700**	**64,178**	**65,771**	**66,337**

Southern California's urban water demand has been largely shaped by the efforts to comply with The Water Conservation Act of 2009, also known as Senate Bill (SB) X7-7. SB X7-7, signed into law on February 3, 2010, required the State of California to reduce urban water use by 20 percent by the year 2020. The City has been actively engaged in efforts to reduce water use in its service area and has met the final 2020 water use target as documented in the 2020 UWMP. This was critical to ensure the City's eligibility to receive future state water grants and loans.

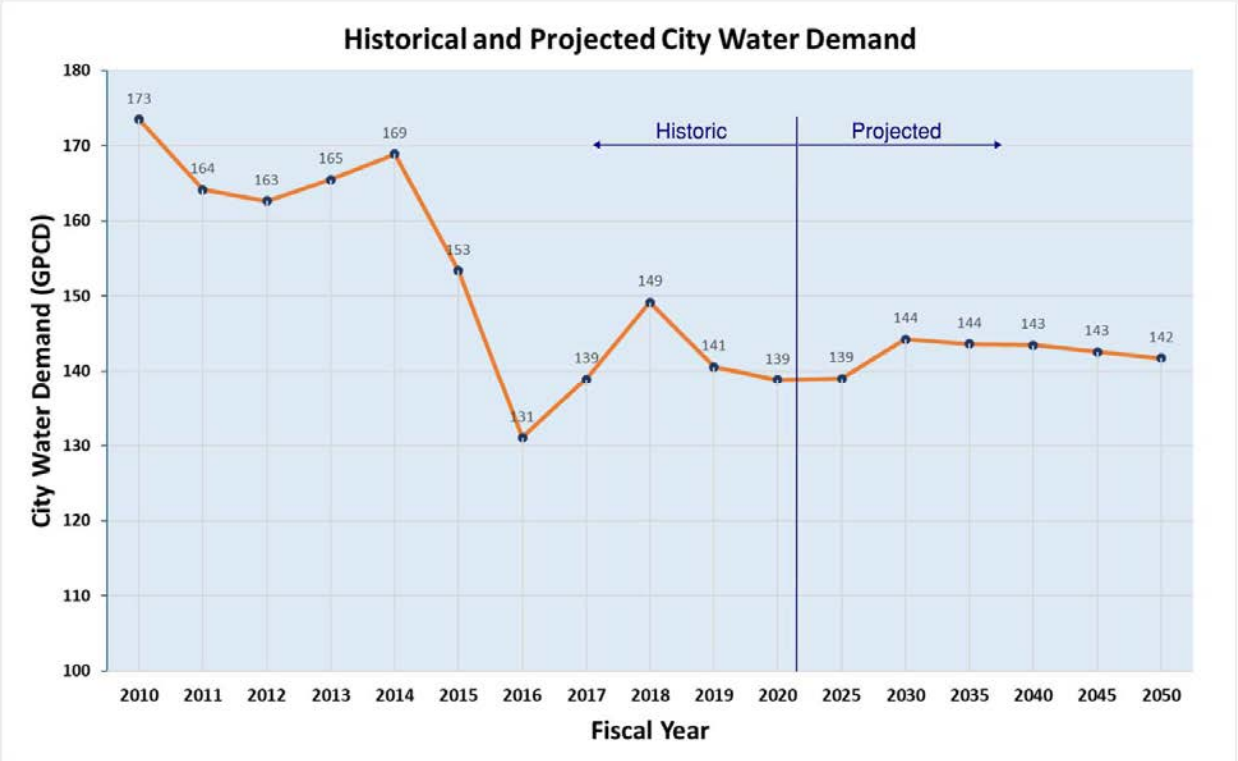
In April 2015, Governor Brown issued an Executive Order as a result of one of the most severe droughts in California's history, requiring a collective reduction in statewide urban water use of 25 percent by February 2016, with each agency in the state given a specific reduction target by the California Department of Water Resources (DWR). In response to the Governor's mandate, the City adopted Ordinance No. 6332, on May 19, 2015, establishing provisions against water waste and implementing higher (more restrictive) stages of water conservation to achieve its demand reduction target of 20 percent. The City was able to meet the mandated water use reduction from June 2015 through February 2016.

In 2018, Governor Brown signed into law the water conservation bills AB 1668 and SB 606. These bills were a result of an Executive Order from the Governor during the recent drought which required State agencies to develop and recommend a long-term water conservation framework to ensure adequate water supplies for the State now and in the future. The two bills establish guidelines for efficient water use and a framework for implementation and oversight of the new standards, to be in place by 2022. As part of proposed regulations, still in draft form, urban retail water suppliers will be held to "urban water use objectives" based on the sum of standard-based budgets.

In response to the last and most recent drought, Governor Newsom signed Executive Order N-7-22 on March 28, 2022, after declaring states of emergency in April, May, July, and October of 2021 due to prolonged drought conditions. The purpose of the order is to help the State achieve conservation goals by implanting various water use reduction measures including the requirement that each water supplier implement shortage response actions for a shortage level of twenty percent (a Level 2 shortage under Section 10632 of the Water Code).

Given these long-term water conservation goals, the current level of City conservation is expected to be maintained or exceeded. Projections use baseline conservation which assume the implementation of future passive measures affecting new developments, including the Model Water Efficient Landscape, plumbing code efficiencies for toilets, and expected plumbing code for high-efficiency clothes washers. It also assumes the implementation of future active measures for existing customers and the implementation of Metropolitan Water District of Southern California (Metropolitan or MWD) incentive programs at historical annual levels seen in Orange County. Figure ES.2 shows City historic and projected per capita water use based on data from the 2020 UWMP

Figure ES.2 - Historical and Projected City Per Capita Water Demand



Demographic projections from the Center for Demographic Research (CDR) were used to drive the forecast of future water demands based on land use, population, and economic growth. Because these demand projections were based on demographic forecasts from CDR, water demands for specific development was not individually identified. In addition to the proposed project, DisneylandForward allows for the continued and long-term growth of The Disneyland Resort. Projected water demands resulting from buildout of The Disneyland Resort entitled uses are documented in the DisneylandForward Subsequent EIR Water Supply Assessment dated July 2023. Proposed development within the City resulting from the Project and DisneylandForward are evaluated in this WSA to confirm that sufficient growth was accounted for in the UWMP.

Based on this analysis, the City water demand as estimated in the 2020 UWMP included sufficient increased demand to account for the combined proposed development for the Project and DisneylandForward. Therefore, the new demand from the Project and other anticipated City development is accounted for in the existing projected demand from the 2020 UWMP. The demand increase from the Project in FY 2045 is projected to be 5.8 percent of the total demand estimated for the City.

Projected normal year City water demand through FY 2045 is shown in Table ES.4 as reported in the 2020 UWMP, with Project additional water demand shown separately. All demands include an estimated 4.85 percent in water loss or non-revenue water consistent with the 2020 UWMP.

Table ES.4
Projected Normal City Water Demand (AF)

Demand[1]	2025	2030	2035	2040	2045
Total City Demand without Project[2]	57,266	59,477	60,757	62,152	62,521
Project Demand Increase[3]	1,612	3,223	3,421	3,619	3,816
Total Demand	58,878	62,700	64,178	65,771	66,337

(1) All normal-year demands include 4.85% non-revenue water (water loss) consistent with City's 2020 UWMP.

(2) Normal year demand based on the City's 2020 UWMP excluding new Project demand increase.

(3) Projected Project demand including 4.85% projected water loss

ES.2 Water Supply

The City relies on a combination of imported water, local groundwater, and recycled water to meet its water needs. The City works together with two primary agencies, Metropolitan and OCWD to ensure a safe and reliable water supply that will continue to serve the community in periods of drought and shortage. The sources of imported water supplies include the Colorado River and the State Water Project (SWP) provided by Metropolitan.

The City's main source of water supply is groundwater from the Orange County Groundwater Basin (OC Basin). The City has historically relied on approximately 70 percent groundwater (previous 10-year average) and 30 percent imported water under normal conditions. Over the 25-year planning period of the 2020 UWMP, groundwater supplies are anticipated to increase to between 80 and 85 percent of total water use. Recently, however, groundwater supply has been temporarily reduced while the City is constructing groundwater treatment facilities to treat for a group of chemicals referred to as per- and polyfluoroalkyl substances (PFAS). Recycled water represents less than 0.2 percent of the City's total water supply.

Groundwater Supply

Local groundwater from the OC Basin has been the least costly and most reliable source of supply for the City. The City has historically relied on the OC Basin for approximately 70 percent of its supply over the previous ten years. The City operates 18 active groundwater wells to supply potable water to its customers. Recently, the City has taken some of the wells out of service due to water quality concerns related to contaminants known as PFAS. The City is implementing a new Groundwater Treatment Program that will allow the City to remove PFAS to acceptable State mandated levels. It is anticipated that construction on this Groundwater Treatment Program will be completed, and all wells will be back on-line by 2024, keeping long-term costs low for customers while also providing high quality drinking water and maintaining a high degree of water supply reliability.

The OC Basin is managed by the OCWD. Pumping from the Basin is managed through a process that uses financial incentives to encourage groundwater producers to pump a sustainable amount of water. The framework for the financial incentives is based on establishing the Basin Production Percentage (BPP), the percentage of each Producer's total water supply that comes from groundwater pumped from the Basin. Groundwater production at or below the BPP is assessed a Replenishment Assessment (RA), while pumping above the BPP is assessed a Basin Equity Assessment (BEA) in addition to the RA, which is calculated based on Metropolitan's (imported water) rates.

Resolution No. 13-1-6, adopted on January 16, 2013, by the OCWD Board of Directors, stated the District's goal to develop the necessary supplies and facilities to achieve and maintain a 75 percent BPP, long-term. OCWD's transition to the 75 percent BPP was due to construction of the Groundwater Replenishment System (GWRS) Initial Expansion Project, which was completed in 2015. This expansion provided an additional 31,000 AFY of water for recharging the groundwater basin. OCWD recently completed construction of a final expansion to increase GWRS treatment capacity to 130 MGD. Currently the BPP is set at 85 percent based primarily on this final expansion of the GWRS. It is anticipated that the BPP will maintain rates as high as 85%, with 82% assumed in the 2020 UWMP for the planning period from 2025 through 2045.

Imported Water Supply

The City of Anaheim is one of only three retail member agencies of Metropolitan in Orange County. As a member agency, pursuant to the Metropolitan Act, the City has preferential rights to a certain percentage of water delivered to Metropolitan each year primarily from the State Water Project and/or the Colorado River Aqueduct as well as other Metropolitan supply/storage programs. Being a member agency of Metropolitan puts the City in a better position relative to receiving water directly from Metropolitan, as opposed to other agencies in Orange County which obtain their imported Metropolitan water through MWDOC.

Metropolitan's 2020 UWMP was developed as part of the 2020 Integrated Water Resources Plan (IRP) planning process. The IRP represents Metropolitan's comprehensive blueprint for long-term water reliability, including key supply development and water use efficiency goals. The planning and agency coordination for both the UWMP and IRP are carried out concurrently. The 2020 IRP update describes the core water resources that will be used to meet full-service demands at the retail level under foreseeable hydrologic conditions from 2020 through 2045. The foundation of Metropolitan's resource strategy for achieving regional water supply reliability has been to develop and implement water resources programs and activities through its IRP preferred resource mix. This preferred resource mix includes conservation, local resources such as water recycling and groundwater recovery, Colorado River supplies and transfers, SWP supplies and transfers, in-region surface reservoir storage, in-region groundwater storage, out-of-region banking, treatment, conveyance, and infrastructure improvements.

ES.3 Reliability of Water Supplies

As discussed above, the primary source of water for the City is the OC Basin. OCWD is responsible for the protection of water rights to the Santa Ana River in Orange County as well as the management and replenishment of the Basin. OCWD replenishes and maintains the Basin at safe levels while significantly increasing the Basin's annual yield by utilization of the best available technology. Other than recycled water, OCWD primarily recharges the Basin with water from the Santa Ana River and to a lesser extent with imported raw water purchased from Metropolitan.

OCWD continues to develop new replenishment supplies, recharge capacity, and basin protection measures to meet projected production from the OC Basin during average/normal rainfall, during drought periods, and in planning for climate change. The most significant enhancement to OC Basin supply capability is the expansion of the GWRS that recharges recycled water into the OC Basin. As stated above, the current BPP is 85 percent and is anticipated to remain flat during the next few years. Over the 25-year planning period, groundwater supplies were anticipated to average 82 percent in the City's 2020 UWMP.

Metropolitan's 2020 UWMP finds that Metropolitan can meet, full-service demands of its member agencies from 2020 through 2045 during normal years, single dry year, and multiple dry years. Metropolitan's 2020 UWMP was developed as part of the 2020 Integrated Water Resources Plan (IRP) planning process. The IRP represents Metropolitan's comprehensive blueprint for long-term water reliability, including key supply development and water use efficiency goals.

In addition to the City's groundwater and imported supplies, the City recycles a small portion of wastewater at the downtown Water Recycling Facility. A recycled water supply of 120 AFY is projected in the 2020 UWMP for the Plan period through 2045.

City water demand estimates for normal year, single-dry year, and multiple dry years through FY 2045 are estimated in the City's 2020 UWMP and are compared with projected available groundwater and imported water supplies. Demands for single dry-year and five consecutive multi-dry year scenarios were increased based on historical hydrology from MWDOC and Metropolitan, consistent with the City's 2020 UWMP. It is assumed that demands estimated for the Project and other proposed projects within the planning period of this WSA are included in the 2020 UWMP demand projections.

The City is projected to have sufficient imported and groundwater supplies to meet normal year, single-dry year, and multiple-dry year conditions. Over the 20-year planning period, groundwater supplies are anticipated to increase to 85 percent of total water use due to the recently completed final expansion of OCWD's Groundwater Replenishment System (GWRS) which recharges recycled water into the OC Basin. With the expansion of the GWRS, an estimated BPP of 82%, which is less than the current BPP of 85%, is assumed in the 2020 UWMP for the period from 2025 through 2045.

ES.4 Conclusion

The estimated buildout water supply requirement for the Project is projected to be 3,816 AFY greater (including water loss) than the water supply needed for the existing general plan land uses within the Project parcels (net new water supply requirement). This increase is only 5.8 percent of the total City supply estimated for FY 2045 in the City's 2020 UWMP.

The City is projected to have sufficient imported and groundwater supplies to meet normal year, single-dry year, and multiple-dry year conditions with the addition of the net new Project demands as well as the net new demands from other planned development within the planning period because:

1. Metropolitan has projected supply surpluses for each of these conditions.
2. The City can increase groundwater production consistent with their available well capacity, if needed.

The information included in this WSA identifies a sufficient and reliable water supply for the City, now and into the future, including a sufficient water supply for the re-developed land uses proposed for the GPU. These supplies are also sufficient to provide for overall City-wide growth at the rate projected in the City's 2020 UWMP and this WSA.

1 INTRODUCTION

1.1 Proposed Project

The proposed project involves a focused update to specific elements of the City of Anaheim General Plan, as well as targeted updates to the City's Zoning Code and Zoning Map. The Project area encompasses the City of Anaheim, which is approximately 35 miles southeast of downtown Los Angeles and 7 miles north of Santa Ana. Anaheim is surrounded by the cities of Fullerton, Placentia, and Yorba Linda to the north; Riverside County to the east; the cities of Orange, Garden Grove, and Stanton and unincorporated Orange County to the south; and the cities of Cypress and Buena Park to the west. The city encompasses over 32,000 acres of land, stretching nearly 20 miles along State Route 91 (SR-91).

The proposed project involves a focused update of the City of Anaheim General Plan that reflects zoning and land use updates resulting from the 2021-2029 Housing Element to address the City's RHNA growth allocation of 17,453 housing units. The proposed project includes land use, zoning, and policy changes in the Center City Corridors (C3) area, which the City originally intended on addressing in its own specific plan area (and EIR) but has since determined that they can be integrated into the General Plan Update. In addition to updates to the City's Zoning Code and Zoning Map to implement the 2021-2029 Housing Element, the City is updating the Circulation Element to reflect changes in transportation needs, new technologies, and future projects; and has prepared a new Environmental Justice Element, as required by state law (SB 1000).

There is no clear timeframe for buildout of the proposed general plan but, for the purposes of this WSA, it has conservatively been assumed to be completed by 2045, as that results in the highest water demand.

1.2 Water Supply Assessment (WSA) Purpose

The purpose of this WSA is to provide information that verifies sufficient City water supply for the proposed project as well as for all projected City water demands for a planning period through the year 2045. This WSA estimates the additional water demand required to serve proposed land use changes as part of the General Plan update.

2 LEGISLATION

According to the Guidebook for Implementation of Senate Bill (SB) 610 and SB 221 Water Code Section 10912, a "Project" requiring a WSA is defined by any of the following criteria:

1. A proposed residential development of more than 500 dwelling units (DU)
2. A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet (sf) of floor space
3. A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space
4. A proposed hotel or motel, or both, having more than 500 rooms
5. A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 sf of floor space
6. A mixed-use project that includes one or more of the projects specified in this subdivision
7. A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 DU project

The proposed General Plan land use changes would allow development of up to 20,662 additional dwelling units and 234,000 additional square feet of non-residential use above buildout of the current General Plan. As such, the proposed project necessitates the preparation of a WSA because the Plan exceeds a number of minimum development thresholds per SB 610 for both residential and non-residential development.

2.1 SB 610 – Costa – Water Supply Planning

SB 610 was chaptered into law on October 9, 2001. It mandates that a city or county approving certain projects subject to the California Environmental Quality Act (CEQA) (i) identify any public water system that may supply water for the project, and (ii) request those public water systems to prepare a specified water supply assessment. The assessment is to include the following:

1. A discussion of whether the public water system's total projected water supplies available during normal, single-dry, and multiple-dry water years during a 20-year projection will meet the projected water demand associated with the proposed project, in addition to the public water system's existing and planned future uses, including agricultural and manufacturing.
2. The identification of existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project and water received in prior years pursuant to those entitlements, rights, and contracts.
3. A description of the quantities of water received in prior years by the public water system under the existing water supply entitlements, water rights, or water service contracts.
4. A demonstration of water supply entitlements, water rights, or water service contracts by the following means:
    a. Written contracts or other proof of entitlement to an identified water supply.

b. Copies of a capital outlay program for financing the delivery of a water supply that has been adopted by the public water system.
c. Federal, state, and local permits for construction of necessary infrastructure associated with delivering the water supply.
d. Any necessary regulatory approvals that are required to be able to convey or deliver the water supply.

5. The identification of other public water systems or water service contract holders that receive a water supply or have existing water supply entitlements, water rights, or water service contracts, to the same source of water as the public water system.
6. If groundwater is included for the supply for a proposed project, the following additional information is required:
   a. Review of any information contained in the Urban Water Management Plan (UWMP) relevant to the identified water supply for the proposed project.
   b. Description of any groundwater basin(s) from which the proposed project will be supplied. Adjudicated basins must have a copy of the court order or decree adopted and a description of the amount of groundwater the public water system has the legal right to pump. For non-adjudicated basins, information on whether the DWR has identified the basin as over-drafted or has projected that the basin will become over-drafted if present management conditions continue, in the most current bulletin of DWR that characterizes the condition of the basin, and a detailed description of the efforts being undertaken in the basin to eliminate the long-term overdraft condition.
   c. Description and analysis of the amount and location of groundwater pumped by the public water system for the past five years from any groundwater basin which the proposed project will be supplied. Analysis should be based on information that is reasonably available, including, but not limited to, historic use records.
   d. Description and analysis of the amount and location of groundwater projected to be pumped by the public water system from any groundwater basin by which the proposed project will be supplied. Analysis should be based on information that is reasonably available, including, but not limited to, historic use records.
   e. Analysis of the sufficiency of the groundwater from the basin(s) from which the proposed project will be supplied.

The WSA shall be included in any environmental document prepared for the project. The assessment may include an evaluation of any information included in that environmental document. A determination shall be made whether the projected water supplies will be sufficient to satisfy the demands of the project, in addition to existing and planned future uses.

Additionally, SB 610 requires new information to be included as part of an UWMP if groundwater is identified as a source of water available to the supplier. Information must include a description of all water supply projects and programs that may be undertaken to meet total projected water use. SB 610 prohibits eligibility for funds from specified bond acts until the plan is submitted to the State.

2.2 SB 1262 – Sustainable Groundwater Management Act

State Senate Bill 1262 adopted in September 2016 amends Section 66473.7 of the Government Code to require WSAs to address certain elements regarding groundwater sustainability if the project relies in whole or in part on groundwater as a source of supply.

For this WSA, the portions of SB 1262 that are applicable are as follows:

For a basin that has not been adjudicated that is a basin designated as high- or medium-priority pursuant to Section 10722.4, information regarding the following should be provided:

- Whether the California Department of Water Resources (DWR) has identified the basin as being subject to critical conditions of overdraft pursuant to Section 12924.
- If a groundwater sustainability agency has adopted a groundwater sustainability plan or has an approved alternative, a copy of that alternative or plan.

3 PROPOSED PROJECT

3.1 Proposed Project Location

The Project area encompasses the City of Anaheim, which is approximately 35 miles southeast of downtown Los Angeles and 7 miles north of Santa Ana. Anaheim is surrounded by the cities of Fullerton, Placentia, and Yorba Linda to the north; Riverside County to the east; the cities of Orange, Garden Grove, and Stanton and unincorporated Orange County to the south; and the cities of Cypress and Buena Park to the west. The city encompasses over 32,000 acres of land, stretching nearly 20 miles along State Route 91 (SR-91).

3.2 Proposed Project Characteristics

"Project," as defined by the CEQA Guidelines, means "the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and that is any of the following: (1)…enactment and amendment of zoning ordinances, and the adoption and amendment of local General Plans or elements thereof pursuant to Government Code Sections 65100–65700" (14 Cal. Code of Reg. 15378[a]).

The proposed project involves a focused update of the City of Anaheim General Plan that reflects zoning and land use updates resulting from the 2021-2029 Housing Element to address the City's RHNA growth allocation of 17,453 housing units. The proposed project includes land use, zoning, and policy changes in the Center City Corridors (C3) area, which the City originally intended on addressing in its own specific plan area (and EIR) but has since determined that they can be integrated into the General Plan Update.

Existing and proposed General Plan Land Use data was provided by the City in GIS and excel formats dated May 2023 and is summarized in Appendix A. The General Plan statistical data provided dwelling units and non-residential square footage by Project parcel for both existing and proposed land use designations.

3.2.1 Existing Land Use Within Proposed Project Boundary

Project parcels contain a wide variety of existing land uses including single family and multi-family residential use, office, retail, hotel, and industrial. It is assumed that existing land uses will gradually be replaced with Project land uses over the 20-year planning period of this WSA. A summary of the existing General Plan land use designations for Project parcels are included in Table 3.1. Currently, development activities in the Project area are governed by the City's adopted General Plan and Zoning Code. The existing General Plan designations for the proposed project parcels are shown on Figure 3.1.

Table 3.1
Existing General Plan Land Use

General Plan Land Use	Residential (DUs)	Non-Residential (SF)
Residential		
Corridor Density	23	
Low Density	362	782,657
Low-Medium Density	1,842	417,488
Medium Density	1,394	7,400
Medium/Low-Medium Density	133	
Non-Residential		
General Commercial	13	2,312,946
Neighborhood Center		95,234
Regional Commercial		232,398
Industrial		2,048,690
Office - High		1,360,544
Office - Low		508,470
Public / Quasi-Public - Institutional		19,320
Mixed-Use		
Mixed-Use High	2,145	676,640
Mixed-Use Medium	67	61,894
Mixed-Use Urban Core	3,461	3,603,832
Total	**9,440**	**12,127,513**

3.2.2 Proposed Project Land Use

The proposed project will update the General Plan Land Use Element to accommodate new land use designations for the Project parcels. The Project allows for a range of residential, non-residential, and mixed-use development and increased housing as shown in Table 3.2. The General Plan update would allow development on Project parcels with up to 20,662 additional dwelling units and 234,000 additional square feet of non-residential use. A comparison of existing and proposed dwelling units and non-residential square footage is provided in Table 3.3. Proposed general plan land use for Project area is shown on Figure 3.2.

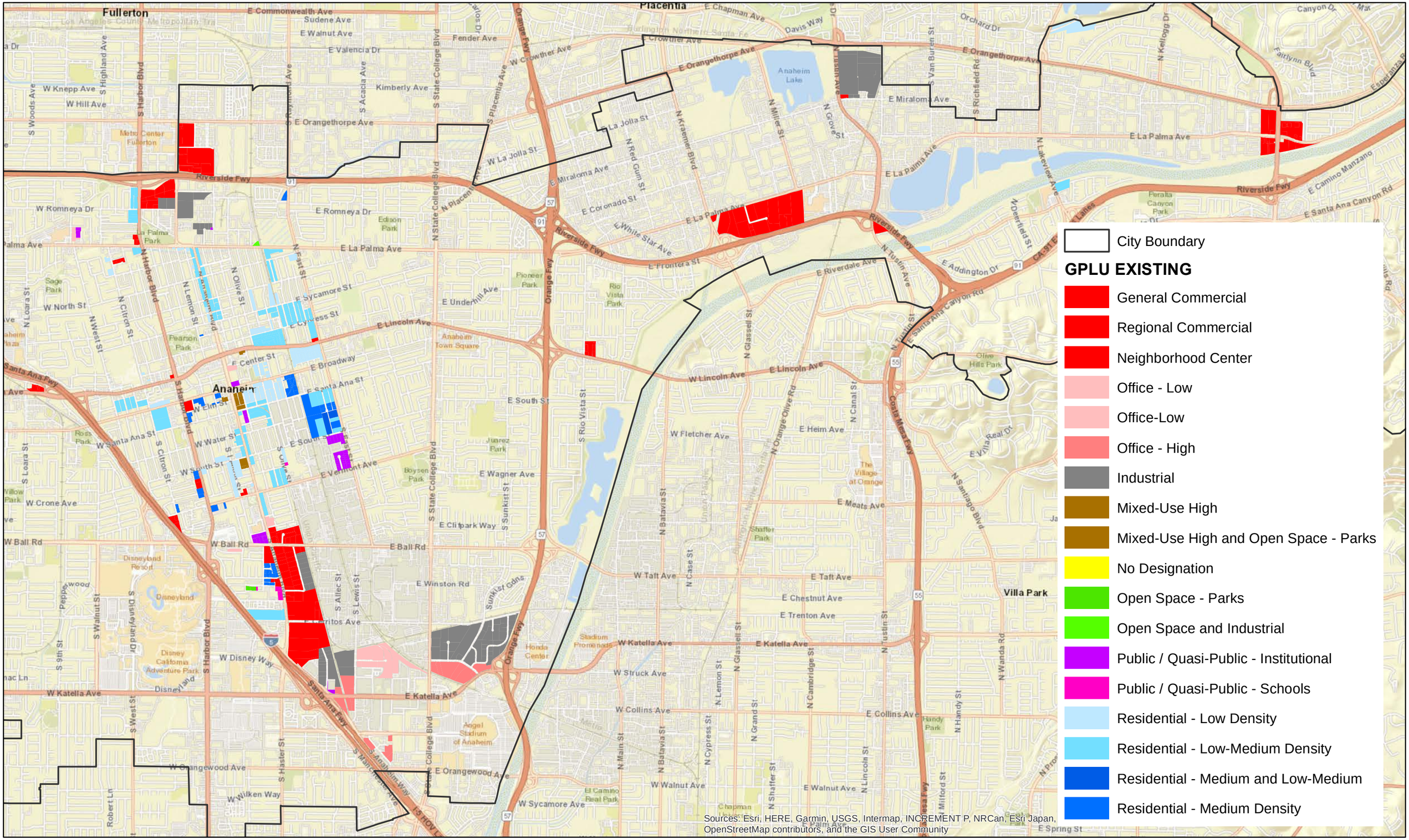
As seen in Table 3.3, the General Plan update more than doubles the number of housing units within the Project parcels, with an increase of 219%. The Project provides for a small increase in non-residential square footage of 2%. The square footage within dedicated non-residential land uses is reduced and replaced with an increase in square footage within mixed-use designations.

Table 3.2
Proposed General Plan Land Use

General Plan Land Use	Residential (DUs)	Non-Residential (SF)
Residential		
Residential - Corridor Density	18	
Residential - Low Density	74	
Residential - Low-Medium Density	693	555,587
Residential - Medium Density	3,685	467,925
Residential - Mid Density	1,620	222,875
Non-Residential		
General Commercial	0	104,341
Industrial	0	157,565
Office-Low	0	8,504
Public / Quasi-Public - Institutional	0	20,124
Mixed-Use		
Mixed-Use High	7,792	1,903,129
Mixed-Use Industrial	305	989,531
Mixed-Use Low-Medium	243	215,490
Mixed-Use Medium	9,152	3,840,462
Mixed-Use Mid	362	145,033
Mixed-Use Urban Core	6,158	3,730,711
Grand Total	**30,102**	**12,361,277**

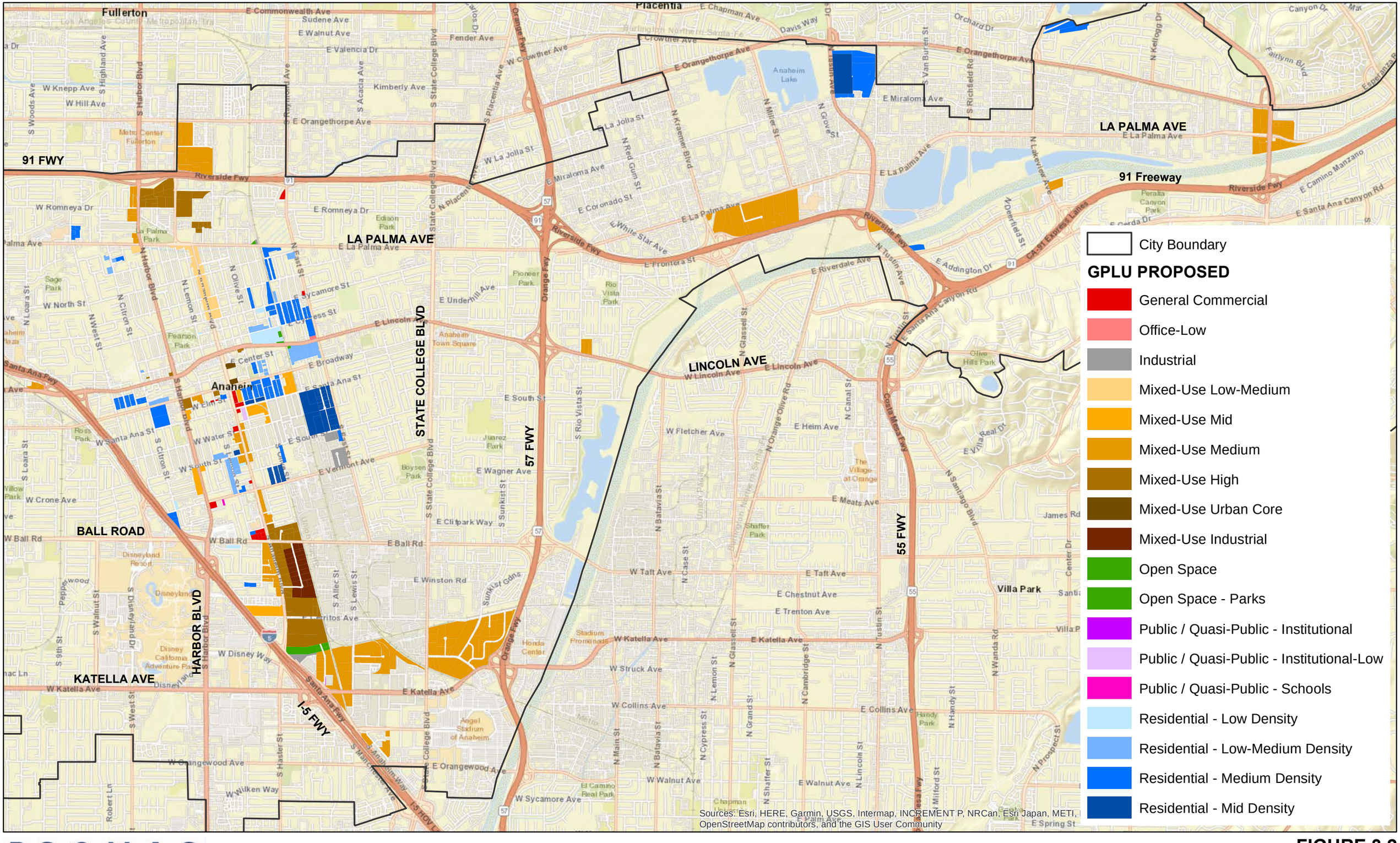
Table 3.3
Existing and Proposed Land Use Comparison

General Plan Land Use	Existing		Proposed		Project Change	
	Residential (DU)	Non-Residential (KSF)	Residential (DU)	Non-Residential (KSF)	Residential (DU)	Non-Residential (KSF)
Residential	3,754	1,208	6,090	1,246	2,336	39
Non-Residential	13	6,578	0	291	-13	-6,287
Mixed-Use	5,673	4,342	24,012	10,824	18,339	6,482
Grand Total	**9,440**	**12,128**	**30,102**	**12,361**	**20,662**	**234**



PSOMAS

FIGURE 3.1
EXISTING GENERAL PLAN LAND USE



PSOMAS

FIGURE 3.2
PROPOSED GENERAL PLAN LAND USE

3.2.3 Proposed Project Phasing

The proposed General Plan identifies the location and type of desired development and within Project parcels. Implementation of the Plan will require a concerted public and private effort to achieve the development envisioned, and the necessary improvements to the public infrastructure serving the area. The phasing of new development and revitalization of existing buildings on private properties will occur incrementally overtime, as landowners and developers respond to new market opportunities. Development of city-owned sites by the City of Anaheim Housing Authority will occur as funding allows or joint partnerships are formed. In addition to investment in properties within the Project area, there are also improvements needed for enhanced mobility and infrastructure. As such, development is expected to occur in market-driven phases over several decades.

Per the requirements of the WSA, water demands must be estimated in five-year increments beginning in 2025 and ending in 2045, consistent with the City's 2020 UWMP. Assumed project phasing was coordinated with City Planning staff with full Project buildout conservatively assumed to occur by 2045. New residential density in the Project area is included in the 6th Cycle Housing Element (HE) as Candidate Sites with 17,453 dwelling units on properties being redesignated by the Land Use Plan update. Development by 2025 is estimated to include half of the HE dwelling units with the other half developed by 2030. The remainder of the Project will build out over the following 15 years with full buildout by 2045. The estimated Project phasing is shown in Table 3.4

Table 3.4
Estimated Project Phasing

Estimated Demand Phasing	2025	2030	2035	2040	2045
Dwelling Unit Phasing	8,727	17,453	18,523	19,592	20,662
Percent Phasing (Based on DUs)	42%	84%	90%	95%	100%
Non-Residential Phasing (KSF)	99	197	210	222	234

3.3 Project Water Demand

City water demand was developed and projected in the City's 2020 UWMP in coordination with MWDOC and OCWD as a regional effort and calculated by CDM Smith (2020) with input from City staff. A water demand base-year was chosen as an average of FY 2018 and FY 2019 as FY 2020 water use by user class was likely impacted by COVID-19. Demographic projections from the Center for Demographic Research (CDR) at California State University, Fullerton were used to drive the forecast. The major focus was on single-family (SF) and multifamily (MF) residential demand as the primary water demand in the City and the relative consistency of commercial/institutional/industrial (CII) demands over the years.

The base-year demand was divided by the residential housing units to determine the total use per housing unit in gallons per home per day. The existing, 2020, indoor use was estimated based on current efficiency at a rate of 55.3 gallons per capita per day (gpcd) applied to the estimated persons per unit for SF and MF housing from CDR. The outdoor use was then determined by subtracting the indoor use from the total household use for each housing type. For existing homes, the per

capita indoor water use was then ramped down to 51.1 gpcd by 2030 and outdoor use reduced by 5 percent by 2050 for baseline water conservation. For new homes, the residential water use was set equal to 51.1 gpcd (based on 2018 plumbing code) through the entire planning period with outdoor use reduced by 25 percent compared to existing homes. These rates were applied to the projected residential growth forecast from the CDR. The City's CII demand was estimated to increase annually by one (1.0) percent based on the projected increase in employment numbers from CDR. Projected distribution system losses were set equal to the current average losses based on FY 2018 and FY 2019 used as the water demand base year in the CDM Smith analysis. The CDM Smith future demand projections were reviewed and accepted by the City as a basis for the 2020 UWMP.

FY 2020 water demand for existing land use within the Project parcels was accounted for in the City's 2020 UWMP along with projected water use based on forecasted growth. The net new demand for the Project will be the water demand associated the proposed land uses minus the water demand associated with the existing land use that will be replaced. The increase in potential dwelling units and non-residential square footage as part of the Project are provided in Table 3.4 along with the corresponding increase in water demand.

Table 3.5
Estimated Project Buildout Water Demands

General Plan Land Use	Project Change	
	Residential (DU)	Non-Residential (KSF)
Residential	2,336	39
Non-Residential	-13	-6,287
Mixed-Use	18,339	6,482
Total	**20,662**	**234**
Unit Water Use Factor (gpd/unit)	154.4	220
Water Demand Increase (gpd)	3,190,213	51,428
Total Demand Increase (AFY)		**3,631**

The increase in residential water use is estimated using the per dwelling unit factors developed for new homes in the 2020 UWMP as described above. The proposed increase in residential units includes multi-family housing of varying densities with single family housing reduced as part of the Project. As such, the multi-family unit demand factor for new homes was utilized in the water demand projection.

The 2020 UWMP did not develop specific factors for non-residential land uses which has been estimated based on building square footage. The non-residential use is estimated using 220 gallons per day per thousand square-feet (gpd/ksf) based on employee water use of 87 gpd per employee used in MWDOC's OC Reliability Study and the General Plan employee generation equal to building square footage divided by 400 (Employee = sq. ft./400). The project reduces non-

residential square footage within commercial, industrial, and office land use designations and increases square footage under mixed-use designations, with an overall increase of only 2 percent.

Based on the Project land use phasing, estimated water demand phasing is shown in Table 3.6, to match demand projections in 5-year increments in the City's 2020 UWMP, with Project buildout to occur by 2045. The projected demands include an estimated 4.85 percent in water loss or non-revenue water, consistent with the 2020 UWMP, increasing needed water supply to 3,816 AFY.

Based on the land use phasing as shown in Table 3.4, estimated water demand phasing is shown in Table 3.6 (excluding water loss) with buildout assumed to occur by 2045.

Table 3.6
Estimated Project Phasing of Water Demand

Estimated Demand Phasing	2025	2030	2035	2040	2045
Demand Increase Relative to FY 2020 (AFY)	1,534	3,067	3,255	3,443	3,631
Project Supply (with 4.85% Water Loss)	1,612	3,223	3,421	3,619	3,816

4 CITY WATER SYSTEM

4.1 City Water System Characteristics

The City's Water Service Area consists of virtually the entire area within the City limits; however, the Service Area excludes some areas that are inside or within the Anaheim City limits but serviced by other water purveyors, and includes some areas that are outside the City limits but serviced by the APUD. The City's water use sectors mainly include single family residential, multi-family residential and general services (i.e., commercial, industrial, municipal, and institutional consumers).

As the City has developed, the APUD has increased its connections to imported water supplies, increased the number of its wells, replaced old wells with higher producing wells, built a series of reservoirs, and greatly expanded the transmission and distribution system to meet the water service requirements of a growing number of customers.

The City's current major water system facilities consist of eight imported water service connections to Metropolitan (one untreated water and seven treated water connections), 18 active wells, one 920 million gallon (MG) reservoir for untreated water, one 20 MGD water treatment plant, 13 treated water reservoirs with 38.75 MG of total storage capacity, permanent chlorination facilities at various sites, nine booster pump stations, approximately 758 miles of water mains and approximately 7,950 fire hydrants.

Figure 4.1 depicts the location of the City's major water supply, treatment and storage facilities, the Water Service Area, and each of the inclusion/exclusion areas mentioned above. The water system service area has elevations ranging from less than 60 feet to over 1,200 feet above sea level. To provide appropriate operation pressures for a wide range of service elevations, the water system is divided into 19 pressure zones. The lowest pressure zone operates at a static hydraulic grade line (HGL) elevation of 220 feet above sea level, and the highest pressure zone operates at a static HGL elevation of 1,320 feet above sea level.

The City's water distribution system is generally divided into two main geographic areas: the "Flatland Area" (i.e. 555 HGL elevation and below) and the "Hill and Canyon Area" (i.e. the 585 HGL elevation and above). The Flatland Area is approximately 22,500 acres, situated generally north and west of the Santa Ana River (SAR), and is almost entirely served by groundwater (with Metropolitan imported water supplemented, as necessary). The Hill and Canyon Area is approximately 9,060 acres, situated generally south and east of the SAR, and served primarily by imported water from Metropolitan.

The City's water service area population was 365,987 in 2020 according to the Center of Demographics Research (CDR) at California State University, Fullerton. CDR population projections are based on the City's water service area using a benchmark based on September 2020. CDR projected the City's water service area population to increase to 415,345 by 2045. The City also attracts a significant number of visitors year-round due to the many entertainment options and convention/conference center that contribute to increased water demands.

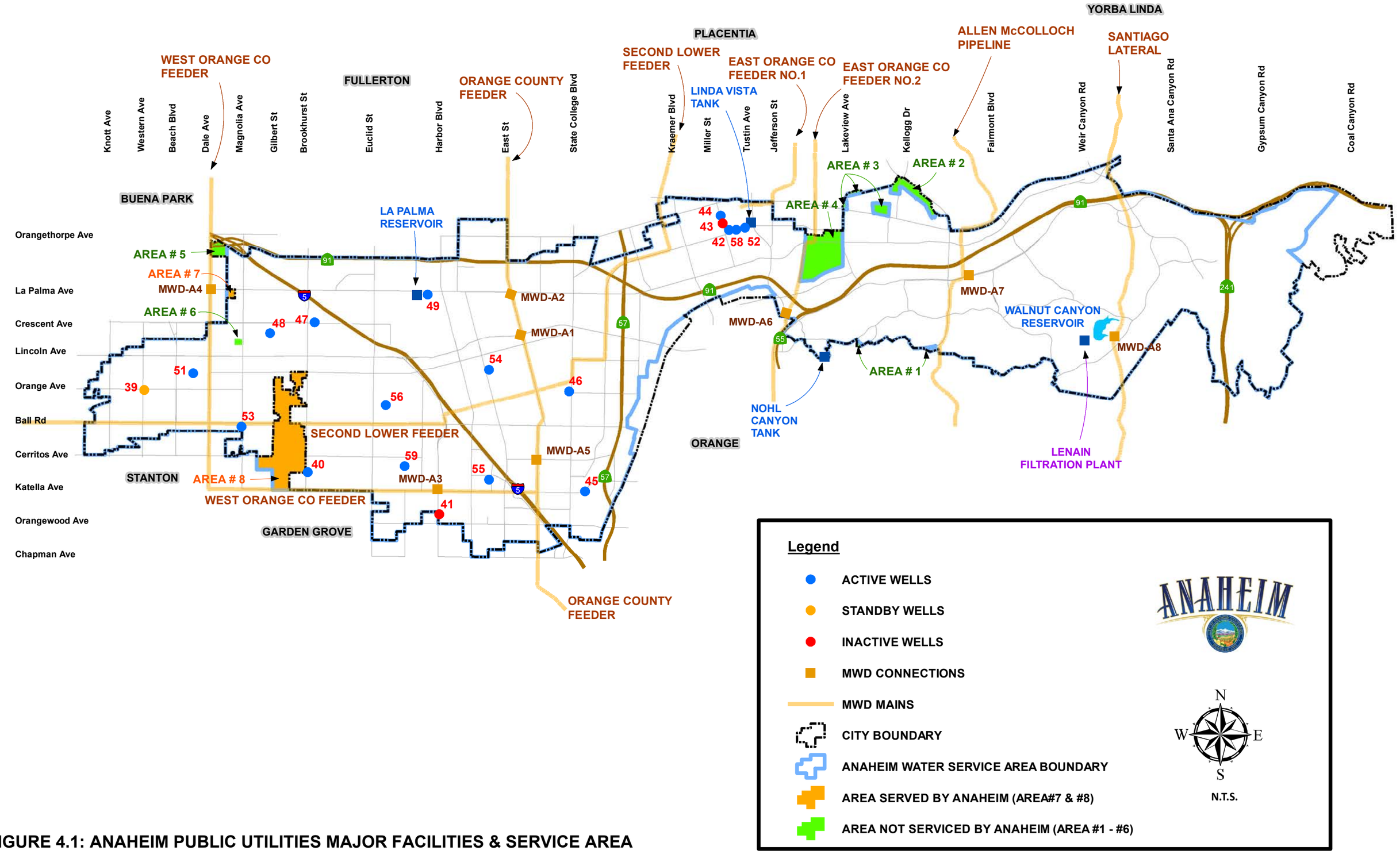


FIGURE 4.1: ANAHEIM PUBLIC UTILITIES MAJOR FACILITIES & SERVICE AREA

4.2 City Water Demands

4.2.1 Historic Water Use

Southern California's urban water demand has been largely shaped by the efforts to comply with SBx7-7. This law requires all California retail urban water suppliers serving more than 3,000 acre-feet per year (AFY) or 3,000 service connections to achieve and maintain a 20 percent water demand reduction (from a historical baseline) by 2020. The City has been actively engaged in efforts to reduce water use in its service area to meet the final 2020 water use target. Meeting and maintaining this target is critical to ensure the City's eligibility to receive future state water grants and loans.

In April 2015 Governor Brown issued an Executive Order as a result of one of the most severe droughts in California's history, requiring a collective reduction in statewide urban water use of 25 percent by February 2016, with each agency in the state given a specific reduction target by DWR. In response to the Governor's mandate, the City adopted Ordinance No. 6332, on May 19, 2015, establishing provisions against water waste and implementing higher (more restrictive) stages of water conservation to achieve its demand reduction target of 20 percent. The City was able to meet the mandated water use reduction from June 2015 through February 2016.

On May 9, 2016 Governor Brown issued Executive Order B-37-16 that builds on temporary statewide emergency water restrictions to establish longer-term water conservation measures, including permanent monthly water use reporting, new permanent water use standards in California communities and bans on clearly wasteful practices. Through a public process and working with partners such as urban water suppliers, local governments, and environmental groups, DWR and the State Water Resources Control Board (SWRCB) are implementing new water use efficiency targets as part of a long-term conservation framework for urban water agencies. The program framework, "Making Water Conservation a California Way of Life" (April 2017), goes beyond the 20% reduction in per capita urban water use by 2020 that was embodied in SBx7-7.

In 2018, Governor Brown signed into law the water conservation bills AB 1668 and SB 606 add sections to the Water Code regarding Urban Water Use Objectives and Water Use Reporting. These bills were the result of Executive Order B-37-16 requiring State agencies to develop and recommend a long-term water conservation framework to ensure adequate water supplies for the State now and in the future. The two bills establish guidelines for efficient water use and a framework for implementation and oversight of the new standards, to be in place by 2022. As part of proposed regulations, still in draft form, urban retail water suppliers will be held to "urban water use objectives" based on the sum of standard-based budgets.

In response to the last drought, Governor Newsom signed Executive Order N-7-22 on March 28, 2022, after declaring states of emergency in April, May, July, and October of 2021 due to prolonged drought conditions. The purpose of the order is to help the State achieve conservation goals by implanting various water use reduction measures including the requirement that each water supplier implement shortage response actions for a shortage level of twenty percent (a Level 2 shortage under Section 10632 of the Water Code).

In addition to local water conservation ordinances, the City has engaged in activities that range from being a signatory member of the California Water Efficiency Partnership's (formerly California Urban Water Conservation Council) Best management Practices (BMP) Memorandum of Understanding since 2000 to partnering with Metropolitan on educational programs, indoor retrofits and training.

The California Green Building Standards Code (CGBC) has a direct impact on new residential and non-residential building and water conservation in the State. The 2016 California Green Building Standards Code, which became effective on January 1, 2017, aims to cut indoor water consumption by 20 to 35 percent from standards in place prior to the adoption of the first CGBC that became effective August 1, 2009, primarily through more efficient indoor water fixtures. The 2016 California Green Building Standards Code also includes outdoor water conservation by reducing the area devoted to high-irrigation use lawns and plants, emphasizing natural drought-tolerant plantings and the installation of irrigation controls that respond to local weather conditions. This is consistent with the Model Water Efficient Landscape Ordinance (MWELO), which was adopted by the State on July 15, 2015 and corresponding ordinance adopted by the City on January 26, 2016 (Ordinance No. 6355).

Historic water use by sector for the past five years, since the previous UWMP, is shown in Table 4.1. Total water use, including non-revenue water, has decreased from 62,053 AF in fiscal year 2015 to 56,912 AF in fiscal year 2020 or an 8.3 percent decrease.

Table 4.1
Historical City Water Demand

Customer Class	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20
Single Family	23,126	18,524	19,277	21,339	19,939	20,098
Multi-Family	12,668	11,247	11,424	11,837	11,403	11,374
CII[(1)]	24,068	20,325	21,876	23,670	22,247	20,912
Fire/Temp	844	807	788	837	803	796
Total Sales[(1)]	**60,706**	**50,903**	**53,365**	**57,683**	**54,392**	**53,180**
Non-Revenue Water[(2)]	924	1,845	2,908	2,790	2,679	3,282
Potable System Demand	**61,630**	**52,748**	**56,273**	**60,473**	**57,071**	**56,462**
Recycled Water	71	79	106	114	110	101
Irrigation Well Production[(3)]	352	319	332	366	306	349
Total Demand	**62,053**	**53,145**	**56,711**	**60,953**	**57,488**	**56,912**

(1) Excludes Recycled Water but includes raw water delivery to Anaheim Hills Golf Course.
(2) The non-revenue water calculated in the water loss audits is discussed in Section 4.3.
(3) Pumping from the well at Dad Miller Golf Course (DMGC) for irrigation.

4.2.2 Projected Water Use

As described in Section 3.3, City water demand was developed and projected in the City's 2020 UWMP in coordination with MWDOC and OCWD as a regional effort and calculated by CDM Smith (2020). A water demand base-year was chosen as an average of FY 2018 and FY 2019 as FY 2020 water use by user class was likely impacted by COVID-19. Demographic projections

from the CDR were used to drive the forecast. The major focus was on single-family (SF) and multifamily (MF) residential demand as the primary water demand in the City and the relative consistency of commercial/institutional/industrial (CII) demands over the years.

Future City water demands were projected based on land use, population and economic growth. Baseline conservation was assumed and includes the implementation of future passive measures affecting new developments, including the Model Water Efficient Landscape, plumbing code efficiencies for toilets, and expected plumbing code for high-efficiency clothes washers. It also assumes the implementation of future active measures for existing customers and assuming the implementation of Metropolitan incentive programs at historical annual levels seen in Orange County.

City water demands projected in the City's 2020 UWMP for the years 2025 through 2045 are shown in Table 4.2. All projected demands include an estimated 4.85 percent in water losses. Because these demand projections were based on demographic forecasts from CDR, water demands for specific projects were not individually identified. Therefore, it was not clearly apparent if the demands from the project and other anticipated City development were sufficiently accounted for. As such, this WSA evaluates the projected demands for this Project and the DisneylandForward project to determine if the UWMP provides for sufficient growth. Based on this analysis, presented below, the net new water demand for the Project of 3,816 AFY (including water losses) is assumed to be included in the 2020 UWMP demand projections in Table 4.2.

Table 4.2
2020 UWMP Water Demand Projections

	2025	2030	2035	2040	2045
Single Family Housing	20,374	20,012	19,664	19,303	19,229
Multi-Family Housing	12,523	12,545	12,963	13,437	14,051
Other Potable (CII)	22,794	26,778	28,117	29,523	29,523
Large Landscape (Golf Course)	350	350	350	350	350
Total Potable Demand	56,041	59,685	61,094	62,613	63,153
Losses	2,717	2,895	2,964	3,038	3,064
% Losses	*4.85%*	*4.85%*	*4.85%*	*4.85%*	*4.85%*
Recycled Water	120	120	120	120	120
Total Demand	**58,878**	**62,700**	**64,178**	**65,771**	**66,337**

The proposed General Plan Update includes growth within the City to address the City's RHNA growth allocation of 17,453 housing units. In addition to the proposed project, DisneylandForward allows for the continued and long-term growth of The Disneyland Resort. Projected water demands resulting from buildout of The Disneyland Resort entitled uses are documented in the DisneylandForward Subsequent EIR Water Supply Assessment dated July 2023.

The phased water demand increases for the Project (Table 3.6) and the Disneyland Resort Entitled Use from the DisneylandForward Subsequent EIR Water Supply Assessment are totaled in Table 4.3 and compared to the projected water demand increases reported in the City's 2020 UWMP. The increase in demand for each 5-year period represents the cumulative demand increase relative to 2020 demands. The comparison in Table 4.3 shows sufficient demand increases from the 2020

UWMP, based on demographic data, to accommodate water demands for planned development from the General Plan update and DisneylandForward. Based on the remaining available water supply at the end of the planning horizon in 2045 (1,599 AF), after buildout of the Project and DisneylandForward, there is capacity for an additional 9,200 multi-family units.

Table 4.3
Projected Demand Increase Comparison

Demand Increase (AFY)	2025	2030	2035	2040	2045
2020 UWMP	**1,966**	**5,788**	**7,266**	**8,859**	**9,425**
Project	1,612	3,223	3,421	3,619	3,816
DisneylandForward	0	2,274	2,853	3,431	4,010
Total Planned	**1,612**	**5,497**	**6,274**	**7,050**	**7,826**
Difference[(1)]	354	291	992	1,809	1,599
% Difference	18%	5%	14%	20%	17%

(1) Positive value represents additional demand accounted for in the UWMP, beyond planned development.

The increase in demands resulting from the proposed updates to the General Plan remain within the projected demand increases presented in the UWMP, therefore, the net new water demand for the Project of 3,816 AFY (including water losses) is assumed to be included in the 2020 UWMP demand projections in Table 4.2.

4.3 City Water Supply

The City relies on a combination of imported water, local groundwater, and recycled water to meet its water needs. The City works together with two primary agencies, Metropolitan and OCWD to ensure a safe and reliable water supply that will continue to serve the community in periods of drought and shortage. The sources of imported water supplies include the Colorado River and the SWP provided by Metropolitan.

The City's main source of water supply is groundwater from the OC Basin. The City has historically relied on approximately 70 percent groundwater (previous 10-year average) and 30 percent imported water under normal conditions. Over the 20-year planning period, groundwater supplies are anticipated to increase to between 80 and 85 percent of total water use due to the expansion of the GWRS discussed in Section 6.4 of the City's 2020 UWMP. The City is currently using a small amount of recycled water directly and is planning to maintain limited direct use into the 25-year planning period.

City water supply by potable source (groundwater and imported water) and non-potable source (groundwater for irrigation and recycled water) for FY 2015 through FY 2020 is shown in Table 4.4.

Table 4.4
Historical City Water Supply (AF)

	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Groundwater	46,937	42,909	43,963	33,331	45,122	33,944
Imported	14,693	9,839	12,310	27,142	11,950	22,518
Subtotal Potable	61,630	52,748	56,273	60,473	57,071	56,462
Recycled Water	71	79	106	114	110	101
Groundwater[(a)]	352	319	332	366	306	349
Subtotal Non-Potable	424	398	438	480	416	450
Total Supply	62,053	53,145	56,711	60,953	57,488	56,912
Percent Groundwater	76%	81%	78%	55%	78%	60%

(a) Production from Dad Miller Golf Course Well used for irrigation on course.

4.3.1 Groundwater Supply

The information in this section is intended to furnish the information required by Water Code section 10910(f).

Local groundwater has been the least costly and most reliable source of supply for the City. The City has historically relied on the OC Basin for approximately 70 percent of its supply over the previous ten years. The City operates 18 active groundwater wells to supply potable water to its customers. Recently, the City has taken some of its wells out of service due to water quality concerns related to contaminants known as PFAS, discussed in Section 7.2 of the 2020 UWMP. The City is implementing a new Groundwater Treatment Program that will allow the City to remove PFAS to acceptable State mandated levels. This program is anticipated to be complete by 2024 and will keep long-term costs low for customers while also providing high quality drinking water and maintaining a high degree of water supply reliability.

Basin Characteristics

The OC Basin underlies the northerly half of Orange County beneath broad lowlands. The OC Basin, managed by OCWD, covers an area of approximately 350 square miles, bordered by the Coyote and Chino Hills to the north, the Santa Ana Mountains to the northeast, and the Pacific Ocean to the southwest. The OC Basin boundary extends to the Orange County-Los Angeles Line to the northwest, where groundwater flows across the county line into the Central Groundwater Basin of Los Angeles County. The total thickness of sedimentary rocks in the OC Basin is over 20,000 feet, with only the upper 2,000 to 4,000 feet containing fresh water. The Pleistocene or younger aquifers comprising this Basin are over 2,000 feet deep and form a complex series of interconnected sand and gravel deposits. The OC Basin's full volume is approximately 66 million acre-feet (MAF).

The OC Basin is made up of three major aquifer systems, the Shallow Aquifer system, the Principal Aquifer system, and the Deep Aquifer system. These three aquifer systems are hydraulically connected as groundwater can flow between these aquifers through intervening aquitards or discontinuities in the aquitards. The Shallow Aquifer system occurs from the surface to approximately 250 feet below ground surface. Most of the groundwater from this aquifer system

is pumped by small water systems for industrial and agricultural use. The Principal Aquifer system occurs at depths between 200 and 1,300 feet below ground surface. Over 90 percent of groundwater production is from wells that are screened within the Principal Aquifer system. Only a minor amount of groundwater is pumped from the Deep Aquifer system, which underlies the Principal Aquifer system and is up to 2,000 feet deep in the center of the OC Basin.

Basin Production

The OCWD was formed in 1933 by a special legislative act of the California State Legislature to protect and manage the County's vast, natural, groundwater supply using the best available technology and defend its water rights to the OC Basin. This legislation is found in the State of California Statutes, Water – Uncodified Acts, Act 5683, as amended. The OC Basin is managed by OCWD under the Act, which functions as a statutorily imposed physical solution.

Groundwater levels are managed within a safe basin operating range to protect the long-term sustainability of the OC Basin and to protect against land subsidence. OCWD regulates groundwater levels in the OC Basin by regulating the annual amount of pumping. The OCWD Groundwater Management Plan was adopted in June 2015 (OCWD, Groundwater Management Plan 2015 Update, June 2015).

Pumping from the OC Basin is managed through a process that uses financial incentives to encourage groundwater producers to pump a sustainable amount of water. The framework for the financial incentives is based on establishing the basin production percentage (BPP), the percentage of each Producer's total water supply that comes from groundwater pumped from the OC Basin. Groundwater production at or below the BPP is assessed a Replenishment Assessment (RA). While there is no legal limit as to how much an agency pumps from the OC Basin, there is a financial disincentive for pumping above the BPP. Pumping above the BPP is also assessed a Basin Equity Assessment (BEA), in addition to the RA, which is calculated based on Metropolitan's rates.

The BPP is set based on groundwater conditions, availability of imported water supplies, and basin management objectives. The supplies available for recharge must be estimated for a given year. The supplies of recharge water that are estimated are: 1) Santa Ana River stormflow, 2) Natural incidental recharge, 3) Santa Ana River baseflow, 4) GWRS supplies, and 5) other supplies such as imported water and recycled water purchased for the Alamitos Barrier.

OCWD determines the optimum level of storage for the following year when it sets the BPP each year. The OC Basin is managed to maintain water storage levels of not more than 500,000 AF below full condition to avoid permanent and significant negative or adverse impacts. Operating the OC Basin in this manner enables OCWD to encourage reduced pumping during wet years when surface water supplies are plentiful and increase pumping during dry years to provide additional local water supplies during droughts. When the OC Basin storage approaches the lower end of the operating range, immediate issues that must be addressed include seawater intrusion, increased risk of land subsidence, and potential for shallow wells to become inoperable due to lower water levels.

In 2013, OCWD's Board of Directors adopted a policy to establish a stable BPP with the intention to work toward achieving and maintaining a 75 percent BPP by FY 2015-16 due to construction

of the GWRS Initial Expansion Project, which was completed in 2015. Currently the BPP is set at 85 percent and with the recently completed construction of the final expansion of the GWRS, it is anticipated that the BPP remain relatively flat over the next few years and into the future, with a conservative value of 82% assumed in the City's 2020 UWMP for the planning period from 2025 through 2045. PFAS impacts have reduce groundwater production in Anaheim over the past few years, but the PFAS treatment program is anticipated to restore groundwater supply to regular production levels by the end of 2024.

OCWD Engineer's Report

The OCWD Engineer's Report reports on the groundwater conditions and investigates information related to water supply and Basin usage within OCWD's service area. The most recent report is the 2022-23 Engineer's Report released in February 2024. The BPP for the 2022-23 water year was initially established at 77.0 percent by the OCWD Board of Directors, but effectively increased to 85% in February 2023 for the remainder of the water year. The overall BPP achieved within OCWD for non-irrigation use in the 2022-23 water year was 73.3 percent. The achieved pumping is less than assigned BPP for the water year primarily due to the water quality impacts of PFAS. For the water year which ended on June 30, 2023, the "annual overdraft" (annual basin storage decrease without supplemental replenishment water) was 52,250 AF. Based on the groundwater basin conditions for this past water year, OCWD may purchase up to 123,000 AF of water for groundwater replenishment during the ensuing water year, beginning on July 1, 2024, pursuant to the District Act.

Sustainable Groundwater Management Act of 2014

Historically, California had never managed its groundwater supplies on a state-wide basis. That has now changed. As of January 1, 2015, the Sustainable Groundwater Management Act (SGMA), signed by Governor Edmund G. Brown in September 2014, regulates the use of groundwater on a more universal scale. At the heart of the new law is a requirement the implementation of a Groundwater Sustainability Plan (GSP) for most groundwater basins throughout the state, including many on which California's agricultural community are highly dependent. These plans can vary from simple basin-wide plans developed and implemented by individual local agencies, to multiple plans by different local agencies operating in the same basin, to state-imposed plans where no sufficient local plan exists.

The OC Basin is unadjudicated and is therefore subject to implementation of a GSP. DWR approved an alternative to a Groundwater Sustainability Plan (GSP) for the OC Basin. The alternative plan was submitted to DWR to meet requirements of the SGMA and demonstrate how water managers have already achieved or will achieve sustainable groundwater management. DWR received 15 alternative plans and nine were approved. The plan's approval is a testament to OCWD's stewardship of the OC Basin since 1933.
The alternative report that was approved by DWR, entitled Basin 8-1 Alternative, was prepared in collaboration with the City of La Habra and Irvine Ranch Water District. OCWD has an adopted Groundwater Management Plan but elected to create a new report in a format that mirrors a GSP, which is required under SGMA.

4.3.2 Imported Water (Surface Water)

The information in this section is intended to provide the information required by Water Code section 10910(d).

The City supplements its local groundwater with imported water purchased from Metropolitan. Imported water has historically represented approximately 30 percent of the City's total water supply under normal conditions. Metropolitan's principal sources of water are the Colorado River via the Colorado River Aqueduct (CRA) and the Lake Oroville watershed in northern California through the SWP. The raw water obtained from these sources is, for Orange County, treated at the Robert B. Diemer Filtration Plant located north of Yorba Linda. Typically, the Diemer Filtration Plant receives a blend of Colorado River water from Lake Mathews through the Metropolitan Lower Feeder and SWP water through the Yorba Linda Feeder. Water is delivered through five major feeders: The East Orange County Feeder, Orange County Feeder, Second Lower Feeder, West Orange County Feeder, and Allen-McColloch Pipeline. The City maintains seven connections to the Metropolitan feeders and one connection to untreated non-potable water. The total available capacity is approximately 170 cubic feet per second (cfs).

The City of Anaheim is one of only three retail member agencies of Metropolitan in Orange County. As a member agency, pursuant to the Metropolitan Act, the City has preferential rights to a certain percentage of water delivered to Metropolitan each year primarily from the State Water Project and/or the Colorado River Aqueduct as well as other Metropolitan storage programs. Being a member agency of Metropolitan puts the City in a better position relative to receiving water directly from Metropolitan, as opposed to other agencies in Orange County which obtain their imported Metropolitan water through Municipal Water District of Orange County (MWDOC).

Colorado River Supplies

The Colorado River was Metropolitan's original source of water after Metropolitan's establishment in 1928. The CRA, which is owned and operated by Metropolitan, transports water from the Colorado River to its terminus at Lake Mathews in Riverside County. The actual amount of water per year that may be conveyed through the CRA to Metropolitan's member agencies is subject to the availability of Colorado River water for delivery.

The CRA includes supplies from the implementation of the Quantification Settlement Agreement (QSA) and related agreements to transfer water from agricultural agencies to urban uses. The 2003 QSA enabled California to implement major Colorado River water conservation and transfer programs, stabilizing water supplies for 75 years and reducing the state's demand on the river to its 4.4 million acre-feet (MAF) entitlement. Colorado River transactions are potentially available to supply additional water up to the CRA capacity of 1.25 MAF on an as-needed basis. Water from the Colorado River or its tributaries is available to users in California, Arizona, Colorado, Nevada, New Mexico, Utah, and Wyoming, as well as to Mexico. California is apportioned the use of 4.4 MAF of water from the Colorado River each year plus one-half of any surplus that may be available for use collectively in Arizona, California, and Nevada. In addition, California has historically been allowed to use Colorado River water apportioned to but not used by Arizona or Nevada. Metropolitan has a basic entitlement of 550,000 AFY of Colorado River water, plus surplus water up to an additional 662,000 AFY (Metropolitan, 2020 UWMP) when available under specified conditions.

With the long-term challenges of water demand exceeding available supply from the Colorado River, and additional uncertainties due to climate change, Metropolitan has developed a number of supply and conservation programs to increase the amount of supply available from the Colorado River. These are discussed in Chapter 3 of the Metropolitan 2020 UWMP which also quantifies the volume of water available through these programs to meet expected CRA deliveries equal to its annual capacity of 1.25 MAF. The amount of supplies available to Metropolitan for the 2020 UWMP planning period was based on the latest modeling available from USBR.

State Water Project Supplies

The construction of the SWP was authorized by the State Legislature in 1951. Eight years later, the Legislature passed the Burns-Porter Act, which provided a mechanism for bonds to be issued to pay for the construction of certain portions of the SWP facilities. The DWR has entered into contracts with water districts and regional agencies (SWP Contractors) specifying the amount of SWP water to be delivered to each SWP Contractor. Each SWP Contractor was provided with a contract amount (Table A Amount) and capacity rights to the SWP aqueduct and storage system in return for payments intended to cover operation and maintenance, bondholder obligations, and repayment of moneys loaned from the California Water Fund. DWR water supply contracts contemplate that the SWP would deliver 4.17 million AFY to 29 SWP Contractors.

The SWP consists of a series of pump stations, reservoirs, aqueducts, tunnels, and power plants operated by DWR and is the largest state-built, multipurpose, user-financed water project in the United States. The primary purpose of the SWP is to divert and store water during wet periods in northern and central California and distribute it to areas of need in northern California, the San Francisco Bay area, the San Joaquin Valley, the Central Coast, and Southern California.

The availability of water supplies from the SWP can be highly variable. A wet water year may be followed by a dry or critically dry year and fisheries issues can restrict the operations of the export pumps even when water supplies are available.

The Sacramento-San Joaquin River Delta (Delta) is key to the SWP's ability to deliver water to its agricultural and urban contractors. All but five of the 29 SWP contractors receive water deliveries below the Delta (pumped via the Harvey O. Banks or Barker Slough pumping plants). However, the Delta faces many challenges concerning its long-term sustainability such as climate change posing a threat of increased variability in floods and droughts. Sea level rise complicates efforts in managing salinity levels and preserving water quality in the Delta to ensure a suitable water supply for urban and agricultural use. Furthermore, other challenges include continued subsidence of Delta islands, many of which are below sea level, and the related threat of a catastrophic levee failure as the water pressure increases, or because of a major seismic event.

Ongoing regulatory restrictions, such as those imposed by federal biological opinions (Biops) on the effects of SWP and the federal Central Valley Project (CVP) operations on certain marine life, also contributes to the challenge of determining the SWP's water delivery reliability. In dry, below-normal conditions, Metropolitan has increased the supplies delivered through the California Aqueduct by developing flexible CVP/SWP storage and transfer programs. The goal of the storage/transfer programs is to develop additional dry-year supplies that can be conveyed through the available Harvey O. Banks pumping plant capacity to maximize deliveries through the California Aqueduct during dry hydrologic conditions and regulatory restrictions. In addition, the

California State Water Resources Control Board (SWRCB) has set water quality objectives that must be met by the SWP including minimum Delta outflows, limits on SWP and CVP Delta exports, and maximum allowable salinity level.

"Table A" water is the maximum entitlement of SWP water for each water contracting agency. Currently, the combined maximum Table A amount is 4.17 MAFY. Of this amount, 4.13 MAFY is the maximum Table A water available for delivery from the Delta pumps as stated in the State Water Contract. However, deliveries commonly are less than 50 percent of the Table A.

SWP contractors may receive Article 21 water on a short-term basis in addition to Table A water if requested. Article 21 of SWP contracts allows contractors to receive additional water deliveries only under specific conditions, generally during wet months of the year (December through March). Because an SWP contractor must have an immediate use for Article 21 supply or a place to store it outside of the SWP, there are few contractors like Metropolitan that can access such supplies.

Carryover water is SWP water allocated to an SWP contractor and approved for delivery to the contractor each year but not used by the end of the year. The unused water is stored in the SWP's share of San Luis Reservoir, when space is available, for the contractor to use in the following year.

Turnback pool water is Table A water that has been allocated to SWP contractors that has exceeded their demands. This water can then be purchased by another contractor depending on its availability.

SWP Delta exports are the water supplies that are transferred directly to SWP contractors or to San Luis Reservoir storage south of the Delta via the Harvey O. Banks pumping plant. Estimated average annual Delta exports and SWP Table A water deliveries have generally decreased since 2005, when Delta export regulations affecting SWP pumping operations began to become more restrictive due to the Biops.

Metropolitan's 2020 UWMP provides details on the factors that affect the ability to estimate existing and future water delivery reliability. In summary, they include water availability at the source, water rights with priority of the SWP, climate change, regulatory restrictions on SWP Delta exports, ongoing environmental and policy planning efforts, and Delta levee failure. Metropolitan estimated SWP supplies using the 2019 SWP Delivery Capability Report distributed by DWR in August 2020. The Delivery Capability Report presents the current estimate of the amount of deliveries for current (2020) conditions and conditions 20 years in the future.

Storage

Storage is a major component of Metropolitan's dry year resource management strategy. Metropolitan's likelihood of having adequate supply capability to meet projected demands, without implementing its Water Supply Allocation Plan (WSAP), is dependent on its storage resources. Under some conditions, Metropolitan may choose to implement the WSAP to preserve storage reserves for a future year rather than using the full supply capability.

Lake Oroville is the SWP's largest storage facility, with a capacity of about 3.5 MAF. The water is released from Oroville Dam into the Feather River as needed, which converges with the

Sacramento River while some of the water at Bethany Reservoir is diverted from the California Aqueduct into the South Bay Aqueduct. The primary pumping plant, the Harvey O. Banks pumping plant, pumps Delta water into the California Aqueduct, which is the longest water conveyance system in California.

4.3.3 Recycled Water Supply

The City recycles a small portion of wastewater at the downtown Water Recycling Facility; however, the City sends most of its collected wastewater to Orange County Sanitation District (OCSD) for treatment and disposal. The downtown Water Recycling Facility treats wastewater diverted from a sewer line to produce recycled water. The waste generated from this facility is disposed back to the City's sewer system for delivery to the OCSD for treatment. OCWD manages the OC Basin and strives to maintain and increase basin reliability through replenishment with imported water, stormwater, and advanced treated wastewater. OCWD and OCSD have jointly constructed two water recycling projects to meet this goal that include: 1) Green Acres Project (GAP) and 2) GWRS.

Green Acres Project

OCWD owns and operates the GAP, a water recycling system that provides up to 8,400 AFY of recycled water for irrigation and industrial uses. GAP provides an alternate source of water that is mainly delivered to parks, golf courses, greenbelts, cemeteries, and nurseries in the Cities of Costa Mesa, Fountain Valley, Newport Beach, and Santa Ana. Approximately 100 sites use GAP water, current recycled water users include Mile Square Park and Golf Courses in Fountain Valley, Costa Mesa Country Club, Chroma Systems carpet dyeing, Kaiser Permanente, and Caltrans. The City does not receive any GAP water.

GWRS

Anaheim indirectly participates in regional water recycling through the GWRS. The GWRS receives secondary treated wastewater from OCSD and purifies it to levels that meet and exceed all state and federal drinking water standards. The GWRS Phase I plant has been operational since January 2008 and uses a three-step advanced treatment process consisting of microfiltration, reverse osmosis (RO), and ultraviolet (UV) light with hydrogen peroxide. A portion of the treated water is injected into the seawater barrier to prevent seawater intrusion into the groundwater basin. The other portion of the water is pumped to ponds where the water percolates into deep aquifers and becomes part of Orange County's water supply. The treatment process is described on OCWD's website (OCWD, 2022).

With the GWRS initial expansion, completed in 2015, it had a production capacity of approximately 103,000 AFY (online 90% of the time). In 2022, the GWRS produced approximately 30,465 AF of the highly purified water that was pumped into the injection wells and 66,852 AFY pumped to the Kraemer, Miller, Miraloma and La Palma Basin percolation ponds where the water is naturally filtered through sand and gravel to deep aquifers of the groundwater basin. From OCWD's GWRS 2022 Annual Report, the total 2022 GWRS production of 97,393 AF was approximately 3 percent higher than the 2021 production, recognizing that both year's production rates were impacted by GWRS final expansion construction. The OC Basin provides approximately 77 percent of the potable water supply for 2.5 million people in north and central Orange County.

The design and construction of the first phase (78,500 AFY) of the GWRS project was jointly funded by OCWD and OCSD; Phase 2 expansion (33,600 AFY) was funded solely by OCWD. The final expansion came on-line in December 2022, increasing the replenishment capacity from 100 MGD to 130 MGD. The GWRS is the world's largest water purification system for Indirect Potable Reuse (IPR).

In 2011, the City began purchasing GWRS water for use at its Canyon Power Plant, making the City the first industrial user of GWRS water. This water is used to control and/or reduce air emissions and for landscape irrigation at the Canyon Power Plant located near the northwest corner of Kraemer Boulevard and Miraloma Avenue. In 2014, the City began delivering GWRS water to the newly constructed ARTIC for cooling tower makeup water, toilet flushing, and landscape irrigation.

4.3.4 Projected City Water Supply

A summary of the current and planned sources of water for the City is shown in Table 4.4. The projected supply was developed in coordination with OCWD, MWDOC, and Metropolitan. The Metropolitan water supply and demand forecast for Anaheim projected the local groundwater supply as the amount needed to meet projected demands after subtracting the available supply from Metropolitan (14,000 AFY) and recycled water supply (120 AFY), rather than using the amount of groundwater available to the City based on the BPP. The projected groundwater supply available to the City, shown in Table 4.5, is based on the projected BPP of 82%, consistent with the City's 2020 UWMP. The City will utilize local groundwater supplies first and supplement with imported water as needed to meet demands.

Table 4.5
Projected Normal City Water Supply (AFY)

Supply Sources/Demands	FY 2025	FY 2030	FY 2035	FY 2040	FY 2045
Supply[(a)]	Normal Year				
Imported	14,000	14,000	14,000	14,000	14,000
Recycled	120	120	120	120	120
Local (Groundwater)	48,182	51,316	52,528	53,834	54,298
Total Supply	62,302	65,436	66,648	67,954	68,418

(a) From Table 6-7, City of Anaheim 2020 UWMP

5 RELIABILITY OF WATER SUPPLIES

Every urban water supplier is required to assess the reliability of their water service to its customers under normal, dry, and multiple dry water years. The City depends on a combination of imported and local supplies to meet its water demands and has taken numerous steps to ensure it has adequate supplies. There are various factors that may impact reliability of supplies such as legal, environmental, water quality, and climatic. With the projects and programs implemented by Metropolitan, OCWD, and the City, the water supplies are projected to meet full-service demands.

Metropolitan's 2020 UWMP finds that Metropolitan can meet full-service demands of its member agencies from 2020 through 2045 during normal years, single dry year, and multiple dry years. Metropolitan's 2020 UWMP was developed as part of the 2020 Integrated Water Resources Plan (IRP) planning process. The IRP represents Metropolitan's comprehensive blueprint for long-term water reliability, including key supply development and water use efficiency goals. Though the 2020 IRP document has not been released, the planning and agency coordination for both the UWMP and IRP were carried out concurrently.

As documented in Metropolitan's 2020 UWMP, the 2020 IRP update describes the core water resources that will be used to meet full-service demands at the retail level under foreseeable hydrologic conditions from 2020 through 2045. The foundation of Metropolitan's resource strategy for achieving regional water supply reliability has been to develop and implement water resources programs and activities through its IRP preferred resource mix. This preferred resource mix includes conservation, local resources such as water recycling and groundwater recovery, Colorado River supplies and transfers, SWP supplies and transfers, in-region surface reservoir storage, in-region groundwater storage, out-of-region banking, treatment, conveyance, and infrastructure improvements.

Unlike previous IRP updates, the 2020 IRP incorporates an explicit scenario planning step with the purpose of understanding plausible, yet uncertain, future conditions affecting both supplies and demands. This approach is an improvement over the single outcome approach used and previous IRP updates and in the UWMP requirements. Metropolitan's UWMP assumptions fall within the plausible future outcomes; however, the IRP goes beyond these requirements to prepare Metropolitan and its member agencies for a wider range of future conditions.

As discussed in Section 4.2, the City's primary source of water supply is groundwater from the OC Basin. OCWD, which is responsible for the management of the OC Basin, replenishes and maintains the basin at safe levels while significantly increasing the annual yield by use of the best available technology. OCWD continues to develop new replenishment supplies, recharge capacity, and basin protection measures to meet projected production from the OC Basin during average/normal rainfall, during drought periods, and in planning for climate change. The most significant enhancement to OC Basin supply capability is the expansion of the GWRS that recharges recycled water into the OC Basin. Over the 25-year planning period, groundwater supplies are anticipated to increase from 77 percent to between 80 and 85 percent of total water use.

The factors impacting the reliability of the City's imported and groundwater supplies are discussed in Section 4.3. The following are additional factors that may have an impact on the reliability of Metropolitan and local supplies.

5.1 Factors Impacting Reliability

It is important to note the factors that impact the reliability of water supplies and to plan accordingly. The factors impacting the reliability of the City's imported and groundwater supplies are discussed in Section 4.3. The following are additional factors that may have an impact on the reliability of Metropolitan and local supplies.

5.1.1 Environment

Endangered species protection needs in the Delta have resulted in operational constraints to the SWP system, as discussed in the Imported Water Supplies Section 4.3.2. Metropolitan incorporates restrictions on both SWP and CVP operations in its water supply forecasting based on water quality objectives established by the State Water Resources Control Board, the biological opinions of the U.S. Fish and Wildlife Service and National Marine Fisheries Service issued on October 21, 2019, and the Incidental Take Permit issued by the California Department of Fish and Wildlife on March 31, 2020.

5.1.2 Regulatory Considerations

The addition of more species under the Endangered Species Act and new regulatory requirements could impact SWP operations by requiring additional export reductions, releases of additional water from storage or other operational changes impacting water supply operations.

An urban water supplier that anticipates participating in or receiving water from a proposed project (covered action) in the Delta should provide information in their 2015 and 2020 Urban Water Management Plans (UWMP's) that can be used to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance. The information on reduced reliance provided in the UWMP can then be used in the covered action process to demonstrate consistency.

The City receives water from the Delta through Metropolitan and could benefit from a future covered action. As such, Appendix K of the City's 2020 UWMP provides the analysis and documentation to demonstrate the City's measurable reduction in reliance on Delta water supplies and improved regional self-reliance to support a certification of consistency for a future covered action. This appendix is also included as an addendum to the 2015 UWMP.

5.1.3 Water Quality

5.1.3.1 Imported Water

Metropolitan is responsible for providing high quality potable water throughout its service area. Metropolitan performs extensive water quality testing for regulated contaminants and additional contaminants of concern to ensure the safety of its waters. Metropolitan's supplies originate primarily from the CRA and from the SWP. A blend of these two sources, proportional to each year's availability of the source, is then delivered throughout Metropolitan's service area.

Metropolitan's primary water sources face individual water quality issues of concern. The CRA water source contains higher total dissolved solids (TDS) and the SWP contains higher levels of organic matter, lending to the formation of disinfection byproducts. To remediate the CRA's high

level of salinity and the SWP's high level of organic matter, Metropolitan blends CRA and SWP supplies and has upgraded all its treatment facilities to include ozone treatment processes. In addition, Metropolitan has been engaged in efforts to protect its Colorado River supplies from threats of uranium, perchlorate, and chromium VI while also investigating the potential water quality impact of emerging contaminants, N-nitrosodimethylamine (NDMA), and pharmaceuticals and personal care products (PPCP). While unforeseeable water quality issues could alter reliability, Metropolitan's current strategies ensure the deliverability of high-quality water.

The presence of Quagga mussels in water sources is a water quality concern. Quagga mussels are an invasive species that was first discovered in 2007 at Lake Mead, on the Colorado River. This species of mussels forms massive colonies in short periods of time, disrupting ecosystems and blocking water intakes. They can cause significant disruption and damage to water distribution systems. Controlling the spread and impacts of this invasive species within the CRA requires extensive maintenance and results in reduced operational flexibility. It also resulted in Metropolitan eliminating deliveries of CRA water into Diamond Valley Lake (DVL) to keep the reservoir free from Quagga mussels.

5.1.3.2 Groundwater

OCWD is responsible for managing the OC Basin. To maintain groundwater quality, OCWD conducts an extensive monitoring program that serves to manage the OC Basin's groundwater production, control groundwater contamination, and comply with all required laws and regulations. A network of nearly 700 wells provides OCWD a source for samples, which are tested for a variety of purposes. OCWD collects approximately 20,000 samples each year to monitor Basin water quality. These samples are collected and tested according to approved federal and state procedures as well as industry-recognized quality assurance and control protocols.

Salinity is a significant water quality problem in many parts of southern California, including Orange County. Salinity is a measure of the dissolved minerals in water including both TDS and nitrates. OCWD continually monitors the levels of TDS in wells throughout the OC Basin. California Secondary Drinking Water Standards for TDS currently has recommended limit of 500 mg/L and an upper limit of 1,000 mg/L. The portions of the OC Basin with the highest levels are generally located in the Cities of Irvine, Tustin, Yorba Linda, Anaheim, Placentia, and Fullerton. There is also a broad area in the central portion of the OC Basin where TDS ranges from 500 to 700 mg/L. Sources of TDS include the water supplies used to recharge the OC Basin and from onsite wastewater treatment systems, also known as septic systems. The TDS concentration in the OC Basin is expected to decrease over time as the TDS concentration of GWRS water used to recharge the OC Basin is approximately 50 mg/L. The average groundwater TDS concentration for the Basin for 2020-21 was 406 mg/L (compared to 429 mg/L reported for 2019-20), ranging from a low of 237 mg/L in coastal areas, such as Seal Beach, to a high of approximately 679 mg/L in certain inland areas (OCWD, 2022).

Nitrates are one of the most common and widespread contaminants in groundwater supplies, originating from fertilizer use, animal feedlots, wastewater disposal systems, and other sources. The Maximum Contaminant Level (MCL) for nitrate in drinking water is set at 10 mg/L. OCWD regularly monitors nitrate levels in groundwater and works with producers to treat wells that have exceeded safe levels of nitrate concentrations. OCWD manages the nitrate concentration of water recharged by its facilities to reduce nitrate concentrations in groundwater. This includes the

operation of the Prado Wetlands, which was designed to remove nitrogen and other pollutants from the Santa Ana River before the water is diverted for percolation into OCWD's surface water recharge system.

Manufacturing industries, which operated back in the 1950's, 60's, and 70's, improperly disposed of chemical solvents and other compounds, which now threaten to contaminate the groundwater basin and drinking water supplies in the northern part of the OC Basin. More information can be found on OCWD's website (www.ocwd.com/what-we-do/water-quality/groundwater-cleanup/north-basin). The Volatile Organic Compounds (VOC) pollution in the North Basin (near Fullerton, Anaheim, and Placentia) has affected an estimated 109,000 acre-feet of groundwater in the principal and shallow aquifer. This is an amount equal to about one-third of the water served by OCWD in Orange County in a year. OCWD is working with the U.S. Environmental Protection Agency (EPA) to remediate the VOC contamination and to ensure that the appropriate expertise is being used to secure the best solution for a problem that poses significant risk to the OC Basin. Initial cleanup efforts have been focused on cutting off and preventing the spread of contamination before the plumes created by past manufacturing travel further into the main aquifer supplying hundreds of potable supply wells. Manufacturing contaminants that have become increasingly a concern in the OC Basin and many other areas are in a group of chemicals referred to as per-and polyfluoroalkyl substances (PFAS), discussed below.

- **Per-and polyfluoroalkyl substances (PFAS)**

  Perfluorooctanoic acid (PFOA) and perflourooctane sulfonate (PFOS) are industrial chemicals that are prevalent in the environment and were once commonly used in many consumer products. They are a part of a larger group referred to PFAS. In July 2019, the State Water Board's Division of Drinking Water (DDW) updated its guidelines for local water agencies to follow in detecting and reporting the presence of these chemicals in drinking water. The guidelines lower the notification levels from 14 parts per trillion (ppt) to 5.1 ppt of PFOA and from 13 ppt to 6.5 ppt for PFOS. Notification levels are non-regulatory, precautionary measures for concentrations of chemicals in drinking water that warrant further monitoring and assessment. In February 2020, the Board announced new response levels (RLs) of 10 ppt for PFOA and 40 ppt for PFOS. Previously, the RL was 70 ppt for the total concentration of the two contaminants combined. A RL is set higher than a notification level and represents a concentration at which DDW recommends a water system consider taking a water source out of service or providing treatment.

  Effective January 1, 2020, legislation requires that water systems that detect levels of PFAS that exceed their respective RL must either take a source out of use or provide specified public notification. Additionally, the State Water Board has requested that the Office of Environmental Health Hazard Assessment (OEHHA) develop public health goals (PHGs) for both constituents which is the next step in the process of establishing maximum contaminant levels (MCLs) in drinking water. As of this report, draft PHGs have not been released.

  Agencies across California, including OCWD and the City, are encountering PFAS in water supplies. OCWD became the first public agency in California to achieve state certification to analyze PFAS in drinking water. The City conducts regular testing for PFOA and PFOS in the groundwater from its wells to ensure the City's water meets or exceeds state and federal guidelines. New PFAS monitoring guidelines impact 15 suppliers in OCWD's service area and a total of 86 individual wells, including wells in the City of Anaheim.

Anaheim operates 18 active groundwater wells to meet approximately 77 percent of the City's water demand. The remaining 23 percent is served with imported water from Metropolitan. However, due to the new State guidelines, the City has taken 14 wells that exceed the RL set by the DDW out of service. The reduction in groundwater supply is temporarily being replaced with imported water.

The City is implementing a new Groundwater Treatment Program that will allow the City to remove PFAS to acceptable State mandated levels. This program will keep long-term costs low for customers while also providing high quality drinking water and maintaining a high degree of water supply reliability. It is anticipated that construction on this Groundwater Treatment Program will be completed and all wells will be back on-line in 2024

As of December 2023, with some of the wells out of service, approximately 55 percent of the City's supply is from groundwater, as opposed to 77 percent under past normal conditions and the current 2023/2024 BPP of 85 percent.

Other contaminants that OCWD monitors within the OC Basin include:

- **Methyl Tertiary Butyl Ether (MTBE) –** MTBE is an additive to gasoline that increases octane ratings but became a widespread contaminant in groundwater supplies. The greatest source of MTBE contamination comes from underground fuel tank releases. The primary MCL for MTBE in drinking water is 13 µg/L.

- **Volatile Organic Compounds (VOC) –** VOCs come from a variety of sources including industrial degreasers, paint thinners, and dry-cleaning solvents. Locations of VOC contamination within the OC Basin include the former El Toro Marine Corps Air Station, the Shallow Aquifer system, and portions of the Principal Aquifer system in the Cities of Fullerton, Placentia, and Anaheim.

- **NDMA –** NDMA is a compound that can occur in wastewater that contains its precursors and is disinfected via chlorination and/or chloramination. It is also found in food products such as cured meat, fish, beer, milk, and tobacco smoke. The California Notification Level for NDMA is 10 ng/L and the Response Level is 300 ng/L. In the past, NDMA has been found in groundwater near the Talbert Barrier, which was traced to industrial wastewater dischargers.

- **1-4-Dioxane –** 1-4-Dioxane is a suspected human carcinogen. It is used as a solvent in various industrial processes such as the manufacture of adhesive products and membranes.

- **Perchlorate –** Perchlorate enters groundwater through application of fertilizer containing perchlorate, water imported from the Colorado River, industrial or military sites that have perchlorate, and natural occurrence. Perchlorate was not detected in 84 percent of the 219 production wells tested between the years 2010 through 2014.

- **Selenium –** Selenium is a naturally occurring micronutrient found in soils and groundwater in the Newport Bay watershed. The bio-accumulation of selenium in the food chain may result in deformities, stunted growth, reduced hatching success, and suppression of immune systems in fish and wildlife. Management of selenium is difficult as there is no off-the-shelf treatment technology available.

- **Constituents of Emerging Concern (CEC) –** CECs are either synthetic or naturally occurring substances that are not currently regulated in water supplies or wastewater discharged but can be detected using very sensitive analytical techniques. The newest group of CECs include pharmaceuticals, personal care products, and endocrine disruptors. OCWD's laboratory is one of a few in the state of California that continually develops capabilities to analyze for new compounds (OCWD, Groundwater Management Plan 2015 Update, June 2015).

In order to enhance reliability of the water system and minimize the risk of losing wells to contamination, the City operates its own water quality laboratory to test wells the City operates, in addition to the tests conducted by OCWD's laboratories. The water quality laboratory routinely files results with the State Water Resources Control Board, Division of Drinking Water (DDW, formerly Department of Public Health). Metropolitan and OCWD also monitor the Department's imported and groundwater supplies, respectively. The Department consistently delivers high quality water that meets or surpasses all federal and state drinking water regulations.

5.1.4 Climate Change

Water supply planning has largely been based on historical hydrological data as a foundation for both the severity and frequency of drought conditions and the frequency and abundance of above-normal rainfall years. Climate change threatens to shift weather patterns and thus adds uncertainty to water supply planning. Research has identified areas of concern regarding California water supply that include reduced Sierra Nevada snowpack, increased intensity of extreme weather events, prolonged drought periods, changes in runoff patterns, rising sea levels, and changes in water demand levels and patterns.

The City is considering the impacts of climate change on its water resources as an integral part of its long-term water supply planning. Though it is not possible to measure the risk associated with climate change, water supply reliability is more secure with a long-term plan that recognizes such risk and provides the development of resources to offset that risk.

Metropolitan continues to incorporate current climate change science into its planning efforts. The potential impacts of climate change on CRA and SWP supplies are discussed in Section 4.3. Metropolitan has developed a Robust Decision Making (RDM) approach which is a comprehensive technical process to identify key vulnerabilities to regional reliability. This approach has been incorporated into the IRP process and Metropolitan's forecast modeling. Metropolitan assembled a panel of climate change experts to translate how specific climate change impacts would be quantified and to what degree. A wide range of water management strategies are evaluated to develop robust and adaptive plans that will ultimately perform under a wide range of future conditions. As such, climate change has been incorporated within the availability of supplies to the City from Metropolitan.

Local groundwater storage allows flexibility to manage water supplies under varying climate conditions. To the extent that the basin has water in storage, it provides a valuable water supply asset during drought conditions. OCWD works to ensure that the basin can provide a buffer against drought by maintaining sufficient water in storage that can be pumped out in time of need, having a reserve account with sufficient funds to purchase imported water to recharge the basin, operating the basin at the lower storage levels in a safe manner, and having a plan to refill the basin. The basin does rely on a significant amount of water supplies from annual precipitation. Precipitation could diminish if climate patterns continue to become hotter and dryer. For this reason,

groundwater recharge and replenishment programs, as described in Sections 4.3.1 and 4.3.3, are an essential component in managing the basin and maintain the reliability of this valuable local supply under potential climate change conditions.

With Metropolitan and OCWD water management programs in place, it is projected that water supplies will meet demands under anticipated climate change conditions within the 2020 UWMP planning period and within the planning period of this WSA.

5.1.5 Supply Diversification

Metropolitan's 2020 UWMP describes their plans to meet full service demands at the retail level under all foreseeable hydrologic conditions from 2020 through 2045. Meeting the single-dry year and multiple-dry year reliability is based upon this projection. As previously stated herein, the City has historically obtained approximately 30 percent of its supply from imported water and 70 percent of its water from groundwater. The OCWD is currently contracted to purchase, on average, 65,000 acre-feet per year from Metropolitan for groundwater replenishment. This makes the City, to some extent, vulnerable to water supply shortages if there is a problem with Metropolitan. Water supply reliability is sensitive to a portfolio composition with interrelationships of supplies. Any two supply sources with a positive correlation will produce a combined supply with higher variance than either of the two sources individually; the volatility of the correlated sources amplifies when combined. This has been observed in the last five-year drought ending about five years ago when little replenishment water has been available, and the groundwater basin was near an all-time storage low. Therefore, finding an alternative supply to be used when needed (not necessarily regularly), that is not related to Metropolitan would improve overall reliability. OCWD alternate replenishment programs, such as the GWRS, provide such sources.

The City is projected to receive approximately 18 percent of its water supply from Metropolitan. Metropolitan has supply capabilities to meet projected demands during various hydrologic conditions as presented in Sections 2.3 and 2.4 of their 2020 UWMP. As shown in their water reliability assessment, Metropolitan anticipates being able to meet water demands with adequate supplies across the single driest year and droughts lasting five consecutive years through 2045 as shown in Table 5.1. More detailed information on Metropolitan's forecasts can be found in their 2020 UWMP. In all scenarios shown in Table 5.1 there is a projected surplus, even without Metropolitan's Supplies under Development and Potential Supplies.

Table 5.1
Metropolitan Regional Water Supply and Demand (AF)

Single Dry Year MWD Supply Capability and Projected Demands (1977 Hydrology)					
Fiscal Year	**2025**	**2030**	**2035**	**2040**	**2045**
Capability of Current Supplies	2,772,000	2,761,000	2,760,000	2,760,000	2,757,000
Projected Demands	1,544,000	1,500,000	1,473,000	1,496,000	1,525,000
Projected Surplus	1,228,000	1,261,000	1,287,000	1,264,000	1,232,000
Projected Surplus %[(a)]	80%	84%	87%	84%	81%
Supplies under Development	0	0	0	0	0
Potential Surplus	1,228,000	1,261,000	1,287,000	1,264,000	1,232,000
Potential Surplus %[(a)]	80%	84%	87%	84%	81%
Multiple Dry Year MWD Supply Capability and Projected Demands (1988-1992 Hydrology)					
Fiscal Year	**2025**	**2030**	**2035**	**2040**	**2045**
Capability of Current Supplies	2,178,800	2,219,000	2,241,000	2,263,000	2,239,000
Projected Demands	1,592,000	1,570,000	1,537,000	1,539,000	1,564,000
Projected Surplus	586,800	649,000	704,000	724,000	675,000
Projected Surplus %[(a)]	37%	41%	46%	47%	43%
Supplies under Development	0	0	0	0	0
Potential Surplus	586,800	649,000	704,000	724,000	675,000
Potential Surplus %[(a)]	37%	41%	46%	47%	43%
Average Year MWD Supply Capability and Projected Demands (1922-2017 Hydrology)					
Fiscal Year	**2025**	**2030**	**2035**	**2040**	**2045**
Capability of Current Supplies	3,899,000	3,893,000	3,890,000	3,888,000	3,885,000
Projected Demands	1,427,000	1,388,000	1,362,000	1,378,000	1,403,000
Projected Surplus	2,472,000	2,505,000	2,528,000	2,510,000	2,482,000
Projected Surplus %[(a)]	173%	180%	186%	182%	177%
Supplies under Development	13,000	13,000	13,000	13,000	13,000
Potential Surplus	2,485,000	2,518,000	2,541,000	2,523,000	2,495,000
Potential Surplus %[(a)]	174%	181%	187%	183%	178%

(a) As a percentage of projected demand

Source: 2020 Metropolitan Urban Water Management Plan

5.2 City of Anaheim Reliability Measures

The diversification and reliability of the City's water supply sources are discussed in Sections 4.3 and 5.1. Another important measure of reliability is a water purveyor's success in managing water shortages. Water supplies may be interrupted or reduced by droughts, earthquakes, and power outages which hinder a water agency's ability to effectively deliver water. Drought impacts increase with the length of a drought, as supplies in reservoirs and other storage programs are depleted and water levels in groundwater basins decline. The ability to manage water supplies in times of drought or other emergencies is an important part of water resource management for a community. City's Water Shortage Contingency Plan (WSCP), included as Chapter 8 of the 2020 UWMP, describes the water supply shortage policies the City has in place to respond to events including reductions and catastrophic interruption in water supply. The City has strategies to manage water demand with respect to frequency and magnitude of supply deficiencies.

During a water shortage period, the City will determine the extent of the conservation required based on water supply availability from its groundwater and imported water sources. As a Metropolitan member agency, the City will follow Metropolitan's adopted WSCP and required actions. Depending on the severity of the water shortage, the City Council may adopt a Water Reduction Plan, as detailed in City Ordinance No. 6332, that is necessary to address the level of water shortage. Additionally, in an emergency which leads to catastrophic supply interruption, the City has an emergency response plan in place to respond to catastrophic interruption and supply shortages greater than 50 percent.

In 1991, the City adopted Municipal Code section 10.18, which consisted of three Water Shortage Plans that could be implemented during declared water shortages. This action was a result of the severe drought the City experienced initiating in 1987. In response to the Governor's and State Water Board's actions, the City of Anaheim adopted Ordinance No. 6332, on May 19, 2015, amending Chapter 10.18 of Title 10 of the Anaheim Municipal Code relating to Water Conservation and Water Shortage Contingency Rules and Regulations. The ordinance establishes provisions for prohibitions against water waste and water supply shortage contingency implementation plans, ranging from voluntary measures in level 1 to mandatory measures in response to a level 4 emergency water shortage condition. A copy of Ordinance No. 6332 is included as Appendix B. On July 12, 2016, the City Council adopted Resolution 2016-123 ordering implementation of level 2 (Water Reduction Plan II), and on July 25, 2017, adopted Resolution 2017-121 implementing Water Reduction Plan I, which is comprised of voluntary conservation measures. In response to the Governor's Executive Order N-7-22 issued March 28, 2022, the City Council adopted Resolution No. 2022-047 implementing Water Reduction Plan II comprised of mandatory conservation measures.

In response to DWR's adoption of the State MWELO in July 2015, the City Council amended Chapters 10.19 and 18.46 of the Anaheim Municipal Code relating to landscape water efficiency through Ordinance No. 6335 adopted January 26, 2016. This ordinance and the guidelines that go along with it are included in Appendix B. Collectively, the ordinance and guidelines should reduce landscape water usage on new and remodeled landscaping by approximately 25 percent based on DWR estimates.

The City of Anaheim has had a successful track record in implementing water conservation programs. In response to prior voluntary calls for conservation and the new ordinance adopted in

2009, 2010/11 demands were reduced approximately 16 percent over the high of four years prior. And in response to the Governor's April 1, 2015, call for a 25 percent statewide reduction and the State Water Board's target conservation set for Anaheim of 20 percent below demands of 2013, the City exceeded their reduction target and through February 2016, reduced water demands by a cumulative 22 percent, or 2.0 percent better than their target.

The Water Conservation Act of 2009, also known as Senate Bill (SB)x7-7, signed into law on February 3, 2010, required the State of California to reduce urban water use by 20 percent (from a historical baseline) by the year 2020. The City has been actively engaged in efforts to reduce water use in its service area to meet the final 2020 water use target, which it accomplished. The City's 2020 water use target was 162 gallons per capita per day (gpcd) with actual 2020 use equal to 107 gpcd, showing significant reduction in per capita water use.

5.3 Normal, Dry Year and Multiple-Dry Year Supply Reliability

5.3.1 Normal-Year Reliability

Normal-year water demand forecasting was developed for agencies within MWDOC and OCWD service areas, including Anaheim, by CDM Smith (2020) for the 2020 UWMP planning period as described in Section 4.2. These normal-year demands use the average of 2018 and 2019 and the current base year and forecast future demands based on demographics and expected conservation. The projected normal-year water use by sector is shown in Table 4.2.

A water demand forecasting model was developed as part of MWDOC's 2016 Orange County Reliability Study to project the 25-year demand for Orange County water agencies (CDM Smith, Final Technical Memorandum #1 of Orange County Reliability Study, April 2016). The demand forecast was also used in the 2018 update. The model defined average (normal) conditions as represented by the average water demand for 1990 through 2014. In Metropolitan's reliability analysis, a normal year is based on the average hydrology from 1922 through 2017. These hydrologic periods may then be used, by comparison, to determine the impacts of single-dry year and multiple dry year conditions discussed in Sections 5.3.2 and 5.3.3.

City demands are projected to be met with groundwater, imported water, and recycled water supplies with available Metropolitan surplus supplies. Recycled water supply and demand (120 AF) are assumed to remain unchanged. Imported water supply quantities were provided by Metropolitan (equal to 14,000 AF for each of the planning periods) and groundwater supply is based on the BPP of 82 percent, as discussed in Section 4, for all planning periods.

The City demands include the increased demands attributable to the Project. The supplies are consistent with the normal year supplies estimated for imported water and recycled water in the City's 2020 UWMP. City normal year supplies and demands were discussed in Section 4.0 and are again presented in Table 5.2.

Table 5.2
City Projected Normal Year Water Supply and Demand (AF)

Supply Sources/Demands	2025	2030	2035	2040	2045
Supply	Normal Year				
Imported[a]	14,000	14,000	14,000	14,000	14,000
Recycled[a]	120	120	120	120	120
Local (Groundwater)[b]	48,182	51,316	52,528	53,834	54,298
Total Supply	62,302	65,436	66,648	67,954	68,418
Demand[c]	Normal Year				
Total City Demand without Project and DLF[d]	57,266	57,203	57,904	58,721	58,511
Additional Project Demand[e]	1,612	3,223	3,421	3,619	3,816
DisneylandForward Add'l Demand[f]	0	2,274	2,853	3,431	4,010
Total Demand	58,878	62,700	64,178	65,771	66,337
Difference (Supply - Demand)	3,424	2,736	2,470	2,183	2,081
[a] From Table 6-9, City of Anaheim 2020 UWMP					
[b] Groundwater supply based on a BPP of 82% of potable demand for 2025 through 2045.					
[c] All normal-year demands include 4.85% non-revenue water (water loss) consistent with City's 2020 UWMP					
[d] This figure represents normal year demand based on the City's 2020 UWMP excluding Project and DisneylandForward (DLF) demand increase.					
[e] Additional demand based on increase in land use intensification as a result of the Project.					
[f] Additional demand resulting from DisneylandForward.					

The City is 100 percent reliable for normal year demands from 2025 through 2045. The City has entitlements to receive imported water from Metropolitan via connections to Metropolitan's regional distribution system. Although pipeline and connection capacity rights do not guarantee the availability of water, per se, they do guarantee the ability to convey water when it is available to the Metropolitan distribution system. All imported water supplies are assumed available to the City from existing water transmission facilities. The demand and supplies listed also include local groundwater supplies that are available to the City through OCWD by a pre-determined pumping percentage. The available supply shown in Table 5.2 does not include reserves available from Metropolitan and local groundwater.

5.3.2 Single-Dry Year Reliability

A single-dry year is defined as a single year of no to minimal rainfall within a period that average precipitation is expected to occur. The water demand forecasting model developed as part of MWDOC's Orange County Reliability Study evaluated the impacts that weather and future climate can have on water demand using variables of population, temperature, precipitation, unemployment rate, drought restrictions, and conservation measures. The impacts of hot/dry weather condition are reflected as a percentage increase in water demands from the average condition (1990-2014). For a single dry year condition (FY 2013-14), the model projects a six percent increase in demand for the OC Basin area where the City's service area is located (CDM Smith, Final Technical Memorandum #1 of Orange County Reliability Study, April 2016). For the

single-dry year analysis, water demands are increased by six percent for each of the 5-year planning periods from 2025 through 2045.

Table 5.3 shows City supplies and demands projected to occur for a single-dry year based on a repeat of the hydrology in the year 1977, consistent with the 2020 UWMP.

Table 5.3
City Projected Single-Dry Year Water Supply and Demand (AF)

Supply Sources/Demands	2025	2030	2035	2040	2045
Supply	Single-Dry Year				
Imported[a]	14,000	14,000	14,000	14,000	14,000
Recycled	120	120	120	120	120
Local (Groundwater)[b]	50,832	54,138	55,417	56,795	57,284
Total Supply	64,952	68,258	69,537	70,915	71,404
Demand[c]	Single-Dry Year				
Total City Demand without Project and DLF[d]	60,409	60,342	61,083	61,944	61,722
Additional Project Demand[e]	1,700	3,401	3,609	3,818	4,026
DisneylandForward Add'l Demand[f]	0	2,399	3,009	3,620	4,231
Total Demand	62,110	66,142	67,701	69,382	69,979
Difference (Supply - Demand)	2,842	2,116	1,835	1,533	1,425
[a] From Table 6-9, City of Anaheim 2020 UWMP					
[b] Groundwater supply based on a BPP of 82% of potable demand for 2025 through 2045.					
[c] All single-dry-year potable water demands are 5.5% greater than normal year demands consistent with City's 2020 UWMP.					
[d] Single-dry-year demands based on the City's 2020 UWMP excluding existing Project and DLF demand included in the 2020 UWMP demand.					
[e] Additional demand based on increase in land use intensification as a result of the Project.					
[f] Additional demand resulting from DisneylandForward.					

The City has documented that it is 100 percent reliable for single dry year demands from 2025 through 2045 with a demand increase of six percent from normal demand with significant reserves held by Metropolitan, local groundwater supplies, and conservation.

5.3.3 Five Consecutive Dry Years Reliability

Multiple-dry years are defined as five or more consecutive years with minimal rainfall within a period of average precipitation. The water demand forecasting model developed for the Orange County Reliability Study identified a single-dry year condition (FY2013-14) with a six percent increase in demand for the OC Basin area where the City's service area is located. A five-year multi-dry year scenario was not included in Orange County Reliability Study model analysis. Metropolitan has also modeled various hydrologic conditions for its service area including individual member agencies using an average condition based on hydrology for the period from 1922 through 2017. The driest five consecutive year period within this time period was from 1988

through 1992. Metropolitan provided the reliability forecast data for Anaheim which was used in the 2020 UWMP to evaluate five-consecutive dry years based on the hydrology from 1988 through 1992. For the five-year period, normal year demands are adjusted/increased by the following percentages: 101.8%, 103.6%, 103.4%, 99.9%, and 101.0%.

Table 5.4 shows City supplies and demands projected to occur for multiple-dry years based on a repeat of the hydrology in the years 1988 through 1992, consistent with Metropolitan. Demands for each 5-year planning period are calculated by multiplying the normal year potable water demand by the water year type percentages. Each 5-year reporting increment, from 2025 through 2045, is calculated as the average of the 5-year multiple-dry year period in the City's 2020 UWMP with the same assumptions applicable here.

Table 5.4
City Projected Multiple-Dry Year Water Supply and Demand (AF)

Supply Sources/Demands	2025	2030	2035	2040	2045
Supply	Multiple-Dry Years				
Imported[a]	14,000	14,000	14,000	14,000	14,000
Recycled	120	120	120	120	120
Local (Groundwater)[b]	49,116	52,311	53,547	54,878	55,351
Total Supply	63,236	66,431	67,667	68,998	69,471
Demand[c]	Multiple-Dry Years				
Total City Demand without Project and DLF[d]	58,375	58,310	59,025	59,858	59,644
Additional Project Demand[e]	1,643	3,286	3,487	3,689	3,890
DisneylandForward Add'l Demand[f]	0	2,318	2,908	3,498	4,088
Total Demand	60,018	63,914	65,421	67,045	67,622
Difference (Supply - Demand)	3,218	2,517	2,246	1,954	1,850
[a] From Table 6-9, City of Anaheim 2020 UWMP					
[b] Groundwater supply based on a BPP of 82% of potable demand for 2025 through 2045.					
[c] Multi-dry year potable water demands are adjusted based on hydrology consistent with City's 2020 UWMP.					
[d] Multi-dry year demands based on the City's 2020 UWMP excluding existing Project and DLF demand included in the 2020 UWMP demand.					
[e] Additional demand based on increase in land use intensification as a result of the Project.					
[f] Additional demand resulting from DisneylandForward.					

The City is capable of meeting all customers' demands with significant reserves held by Metropolitan, local groundwater supplies, and conservation in multiple dry years from 2025 through 2045 with multiple dry-year reliability based on Metropolitan's five consecutive dry year hydrology. In actuality, demands would likely decrease during the end of a five-year dry period due to potential mandated conservation. The assumptions used in the multiple dry-year analysis are conservative to demonstrate the reliability of supplies.

6 CONCLUSION

The estimated buildout water supply requirement for the proposed project is projected to be 3,816 AFY. This amount was considered in the estimates included in the City's 2020 UWMP.

The City is projected to have sufficient imported and groundwater supplies to meet normal, single-dry year, and multiple-dry year conditions with the addition of the net new proposed project demands because:

1. Metropolitan has projected supply surpluses for each of these conditions.
2. The City can increase groundwater production consistent with their available well capacity, if needed.

The information included in this WSA identifies a sufficient and reliable water supply for the City, now and into the future, including a sufficient water supply for the land uses proposed for the proposed project. These supplies are also sufficient to provide for overall City-wide growth at the rate projected in the City's 2020 UWMP and this WSA.

7 REFERENCES

The following documents were used in preparing this water supply assessment:

Anaheim, City of, *California Municipal Code Ordinance No. 6332* (2015).

Anaheim, City of, Public Utilities Department, *2020 Urban Water Management Plan*, June 2021.

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Metropolitan Water District of Southern California (MWD), *2020 Urban Water Management Plan,* June 2021.

Municipal Water District of Orange County (MWDOC), *2020 Urban Water Management Plan*, June 2021.

Orange County Water District (OCWD), *Orange County Water District 2020 Master Plan Report,* 2000.

OCWD, *Engineer's Report, 2022-2023*, February 2024.

OCWD, *Basin 8-1 Alternative (GSP),* January 2022.

Orange County Water District (OCWD), Groundwater Management Plan 2015 Update, June 2015.

APPENDIX A
EXISTING AND PROPOSED GENERAL PLAN LAND USE SUMMARY

Summary of Proposed and Existing General Plan Land Use

	General Plan Dwelling Units (DUs)		General Plan Non-Residential Square Feet (sqft)	
Land Use	**Proposed DUs**	**Existing DUs**	**Proposed sqft**	**Existing sqft**
General Commercial	0	138	104,341	27,136
Industrial	0	0	157,565	29,875
Mixed-Use High	3,864	22	1,306,017	1,143,951
Mixed-Use Industrial	305	0	989,531	315,316
Mixed-Use Low-Medium	243	223	215,490	0
Mixed-Use Medium	9,007	496	3,782,489	4,249,979
Mixed-Use Mid	362	523	145,033	28,413
Mixed-Use Urban Core	103	0	126,879	18,404
No Change	10,857	6,141	4,258,917	4,262,511
Office-Low	0	0	8,504	6,378
Open Space	0	5	0	94,276
Open Space - Parks	0	8	0	0
Public / Quasi-Public - Institutional	0	0	20,124	17,250
Public / Quasi-Public - Institutional-Low	0	0	0	0
Public / Quasi-Public - Schools	0	9	0	0
Residential - Low Density	65	200	0	21,283
Residential - Low-Medium Density	525	133	555,587	558,167
Residential - Medium Density	3,151	766	467,925	878,000
Residential - Mid Density	1,620	776	222,875	476,574
Grand Total	**30,102**	**9,440**	**12,361,277**	**12,127,513**

APPENDIX B
CITY OF ANAHEIM ORDINANCE

Chapter 10.18

WATER CONSERVATION AND WATER SHORTAGE CONTINGENCY RULES AND REGULATIONS

Sections:

10.18.010 Purpose.

10.18.020 Scope of this Chapter.

10.18.030 Definitions.

10.18.040 Authorization.

10.18.050 Water Reduction Plan Implementation.

10.18.060 Voluntary Water Conservation Measures.

10.18.070 Water Reduction Plan I—Additional Voluntary Water Conservation Measures.

10.18.080 Water Reduction Plan II—Mandatory Measures.

10.18.090 Water Reduction Plan III—Mandatory Measures.

10.18.100 Water Reduction Plan IV—Mandatory Measures.

10.18.110 Alternative Compliance Plan.

10.18.120 Water Conservation Rate.

10.18.130 Violations and Remedies.

10.18.140 Reservation of Rights.

10.18.010 PURPOSE.

The City Council finds and determines that because of prevailing water supply conditions within the State of California and the declared policy of the State, it is necessary and appropriate for the City to adopt, implement, and enforce water conservation rules and regulations to reduce water consumption within the City through conservation to ensure the reasonable and beneficial use of water and maximize its efficient use within the City. The City Council further finds and determines it is necessary and appropriate for the City to implement and enforce water shortage contingency rules and regulations during periods of water supply shortages and water shortage emergencies to ensure that there is sufficient water for human consumption, sanitation, and fire protection. (Ord. 5204 § 1 (part); February 26, 1991: Ord. 6138 § 1 (part); April 14, 2009: Ord. 6332 § 2 (part); May 19, 2015.)

10.18.020 SCOPE OF THIS CHAPTER.

.010 Except as expressly stated within this Chapter, the provisions of this Chapter shall apply to all persons, entities and property within the City. In addition, this chapter shall apply to any Customers outside of the City.

.020 The provisions of this Chapter are in addition to, and not in lieu of, the provisions of Section 10.16.380 of this Code relating to curtailed supply of electricity or water.

.030 The provisions of this Chapter shall not apply to the following water uses:

.01 Any use of water necessary for (a) the testing and maintenance of the Water System or City fire suppression system, or (b) fire suppression or other similar emergency services affecting the public health and safety;

.02 Any use of water necessary to protect public health and safety as determined in the sole discretion of those persons or entities identified in Section 10.18.040 of this Chapter; and

.03 Any use of Recycled Water.

.040 The mandatory provisions of Sections 10.18.080, 10.18.090, and 10.18.100 shall not apply to the application of potable water to a food source between the hours of 9 a.m. and 5 p.m.; provided that the potable water is applied through drip irrigation or a hand-held hose with a self-closing water shut-off device.

(Ord. 6332 § 2 (part); May 19, 2015.)

10.18.030 DEFINITIONS.

Unless specifically defined in this section, words or phrases used in this chapter shall be interpreted so as to give them the meaning they have in common usage and to give this Chapter the most reasonable application.

.010 “Alternative Compliance Plan” means a plan approved in accordance with Section 10.18.110 of this Chapter.

.020 “City” means the City of Anaheim located in California.

.030 “City Council” means the governing legislative body of the City.

.040 “Code” means the municipal code of the City.

.050 “Customer” has the meaning set forth in Rule 1 of the Rates, Rules and Regulations, or any successor provision thereto.

.060 “Department” means the Public Utilities Department of the City.

.070 “Eligible Weather-Based Irrigation Controllers” means those eligible weather-based irrigation controllers registered with the Department and approved by the Metropolitan Water District of Southern California or the Irrigation Association Smart Water Application Technologies initiative.

.080 “General Manager” means the General Manager of the Department.

.090 “Large Landscape Area” means an area of vegetation at least three (3) acres in size supporting a business necessity or public benefit uses, including without limitation, parks, golf courses, schools, and cemeteries.

.100 “Local Emergency” has the meaning set forth in section 8558(c) of the California Government Code, or any successor provision thereto. The City Council may declare a Local Emergency by motion or resolution.

.110 “Public Utilities Hearing Board” means that hearing board described in Subsection .080 of Section1.04.730 of the Anaheim Municipal Code.

.120 “Rates, Rules and Regulations” means the rate structure, the rules, and any regulations as approved by the City Council, governing the use and delivery of water within the Department’s service area.

.130 “Recycled Water” means water that is approved for purposes other than human consumption and meets the criteria set forth in Division 4 of Title 22 of the California Code of Regulations, as may be amended from time to time. Recycled Water does not include gray water.

.140 “Sidewalk” means that portion of the roadway, set apart by curbs, barriers, markings or other delineation for pedestrian travel.

.150 “Water Reduction Plan” means a plan set forth in this ordinance to address a water supply shortage or a water shortage emergency as declared by the City Council in accordance with 10.18.050 of this Chapter. Specifically, these plans are contained in Sections 10.18.070 through 10.18.100.

.160 “Water System” has the meaning set forth in Rule 1 of the Rates, Rules and Regulations or any successor provision thereto. (Ord. 5204 § 1 (part); February 26, 1991: Ord. 5855 §§ 14, 15; April 29, 2003: Ord. 6138 § 1 (part); April 14, 2009: Ord. 6332 § 2 (part); May 19, 2015.)

10.18.040 AUTHORIZATION.

Except where expressly delegated to a specific officer, department, or commission of the City, the various officers, departments, or commissions of the City are authorized and directed to implement the applicable provisions of this Chapter upon the effective date hereof. (Ord. 5204 § 1 (part); February 26, 1991: Ord. 6138 § 1 (part); April 14, 2009: Ord. 6332 § 2 (part); May 19, 2015.)

10.18.050 WATER REDUCTION PLAN IMPLEMENTATION.

.010 The Department shall monitor and evaluate the projected water supply and demands and, when it deems appropriate, the Department shall recommend to the City Council a Water Reduction Plan to address either a water supply shortage or a water shortage emergency. In a water supply shortage, the City Council may, by resolution, order implementation of Water Reduction Plan I, Water Reduction Plan II, or Water Reduction Plan III; provided, the City Council makes the findings required by the applicable sections of this Chapter. The City Council may, by resolution or motion as specified in Section 10.18.100, order implementation of Water Reduction Plan IV; provided, the City Council declares a water shortage emergency in accordance with California Water Code section 350.

.020 At any time, the City Council may, by resolution, discontinue any Water Reduction Plan. The City Council may also implement another Water Reduction Plan; provided, the City Council adopts that Water Reduction Plan pursuant to Subsection .010 of Section 10.18.050 of this Chapter. (Ord. 5204 § 1 (part); February 26, 1991: Ord. 5855 § 17; April 29, 2003: Ord. 6138 § 1 (part); April 14, 2009: Ord. 6332 § 2 (part); May 19, 2015.)

10.18.060 VOLUNTARY WATER CONSERVATION MEASURES.

In order to conserve water when a Water Reduction Plan is not in effect, the City encourages all persons and entities within the City and all Customers outside of the City to practice good potable water use by avoiding the following water wasting activities on a voluntary basis:

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

.020 The use of a hose that dispenses potable water to wash a motor vehicle, except where the hose is fitted with a shut-

off nozzle or device attached to it that causes it to cease dispensing water immediately when not in use;

.030 The application of potable water to driveways and Sidewalks;

.040 The use of potable water in a fountain or other decorative water feature, except where the water is part of a recirculating system; and

.050 The failure to promptly repair all potable water leaks from indoor and outdoor plumbing fixtures, including but not limited to sprinkler systems. (Ord. 6332 § 2 (part); May 19, 2015.)

10.18.070 WATER REDUCTION PLAN I—ADDITIONAL VOLUNTARY WATER CONSERVATION MEASURES.

The City Council may, by resolution, order the implementation of Water Reduction Plan I upon a finding that a "Mild Water Shortage" exists and additional voluntary water conservation measures may assist in appropriately responding to this shortage. A "Mild Water Shortage" exists, when, due to a drought or other conditions, water supplies have been impacted and there is a reasonable probability of more severe water shortages in the future. When the City Council orders a Water Reduction Plan I, all persons and entities within the City and all Customers outside of the City are encouraged to voluntarily practice good potable water use by observing the following:

.010 Avoid (a) the water wasting activities contained in Section10.18.060 of this Chapter; (b) the application of potable water to outdoor ornamental landscaping or turf between the hours of nine a.m. and six p.m., except as necessary for irrigation system maintenance and repairs; and (c) the application of potable water to outdoor landscapes during or within 48 hours after measurable rainfall; and

.020 Perform such other voluntary measures adopted by the City Council.

.030 Except as necessary for irrigation system maintenance or repairs, limit the application of potable water to outdoor ornamental landscaping or turf to no more than three (3) days per week; provided such irrigation occurs (a) Monday, Wednesday, or Saturday for odd-numbered street addresses; and (b) Tuesday, Thursday, or Sunday for even-numbered street addresses. Street addresses ending in 1/2 or any fraction shall conform to the permitted uses for the last whole number in the address. In addition to the foregoing, the application of potable water is encouraged to be limited to:

.01 No more than eight (8) minutes per permitted watering day per station for non-conserving nozzles (e.g., spray head sprinklers and bubblers);

.02 No more than fifteen (15) minutes per cycle and up to two (2) cycles per permitted watering day per station for high efficiency sprinkler nozzles; or

.03 No limitation on maximum watering minutes per watering station per permitted water day for water efficient drip irrigation. (Ord. 5204 § 1 (part); February 26, 1991: Ord. 6138 § 1 (part); April 14, 2009: Ord. 6332 § 2 (part); May 19, 2015.)

10.18.080 WATER REDUCTION PLAN II—MANDATORY MEASURES.

The City Council may, by resolution or ordinance, order the implementation of Water Reduction Plan II upon a finding, that an "Elevated Water Shortage" exists and the mandatory measures are necessary to address this shortage. An "Elevated Water Shortage" exists when, due to a prolonged drought, a declared "State of emergency" under California Government Code section 8558(b), or other water supply condition, a reduction in water use is necessary to safeguard the public health, safety, and welfare. When the City Council orders the implementation of Water Reduction Plan II, all persons and entities within the City and all Customers outside of the City shall comply with the following:

.010 Each of the following actions is prohibited, except where necessary to address an immediate health and safety need, including fire mitigation requirements as determined by the City Fire Department or other fire authority with jurisdiction, or to comply with a term or condition in a permit issued by a state or federal agency:

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

.02 The use of a hose that dispenses potable water to wash a motor vehicle, except where the hose is fitted with a shut-off nozzle or device attached to it that causes it to cease dispensing water immediately when not in use;

.03 The application of potable water to driveways and Sidewalks;

.04 The use of potable water in a fountain or other decorative water feature, except where the water is part of a recirculating system;

.05 The failure to promptly repair all potable water leaks from indoor and outdoor plumbing fixtures, including but not limited to sprinkler systems;

.06 The application of potable water to outdoor ornamental landscaping or turf between the hours of nine a.m. and six p.m., except as necessary for spot watering with a hose to maintain trees or plants (other than turf), and irrigation system maintenance and repairs;

.07 The application of potable water to outdoor landscapes during or within forty-eight (48) hours after measurable rainfall; and

.08 The serving of potable water other than upon request in eating or drinking establishments, including but not limited to restaurants, hotels, cafes, cafeterias, bars, or other public places where food or drink are served and/or purchased.

.020 Operators of hotels and motels shall provide guests with the option of choosing not to have towels and linens laundered daily. The hotel or motel shall prominently display notice of this option in each bathroom using clear and easily understood language.

.030 The application of potable water to outdoor ornamental landscaping or turf shall be limited to no more than three (3) days per week, except (a) as necessary for spot watering with a hose to maintain trees or plants (other than turf) and irrigation system maintenance or repairs; or (b) for a Large Landscape Area with an Alternative Compliance Plan. In connection with the foregoing, the application of potable water shall only occur on (a) Monday, Wednesday, or Saturday for odd-numbered street addresses; and (b) Tuesday, Thursday, or Sunday for even-numbered street addresses. Street addresses ending in 1/2 or any fraction shall conform to the permitted uses for the last whole number in the address. In certain special circumstances, a person or entity may deviate from the foregoing designated days; provided that person obtains an Alternative Compliance Plan in accordance with Subsection .020 of Section 10.18.110. In addition to the foregoing, the application of potable water shall be limited to:

.01 No more than eight (8) minutes per permitted watering day per station for non-conserving nozzles (e.g., spray head sprinklers and bubblers);

.02 No more than fifteen (15) minutes per cycle and up to two (2) cycles per permitted watering day per station for high efficiency sprinkler nozzles; or

.03 No limitation on maximum water minutes per watering station per permitted water day for water efficient drip irrigation.

.040 For the avoidance of doubt, the term “plants” within Subsections .10 and .030 of Section 10.18.080 does not include turf. (Ord. 5204 § 1 (part); February 26, 1991: Ord. 6138 § 1 (part); April 14, 2009: Ord. 6332 § 2 (part); May 19, 2015.)

10.18.090 WATER REDUCTION PLAN III—MANDATORY MEASURES.

The City Council may, by resolution or ordinance, order the implementation of Water Reduction Plan III upon a finding, that a “Severe Water Shortage” exists and the mandatory measures are necessary to address this shortage. A “Severe Water Shortage” exists when, due to a prolonged drought, a declared “State of emergency” under California Government Code section 8558(b), or other water supply condition, a reduction in water use is necessary to safeguard the public health, safety, and welfare. When the City Council orders the implementation of Water Reduction Plan III, all persons and entities within the City and all Customers outside of the City shall comply with the following:

.010 All mandatory measures contained in Subsections .010 and .020 of Section10.18.080, except to the extent those measures conflict. If such a conflict exists, all persons or entities within the City and all Customers outside of the City shall adhere to the more restrictive section of those conflicting sections.

.020 The application of potable water to outdoor ornamental landscaping or turf shall be limited to no more than two (2) days per week, except (a) as necessary for spot watering with a hose to maintain trees or plants (other than turf) and irrigation system maintenance or repairs; or (b) for a Large Landscape Area with an Alternative Compliance Plan. In connection with the foregoing, the application of potable water shall only occur on (a) Tuesday or Saturday for odd-numbered street addresses; and (b) Thursday or Sunday for even-numbered street addresses. Street addresses ending in 1/2 or any fraction shall conform to the permitted uses for the last whole number in the address. In certain special circumstances, a person or entity may deviate from the foregoing designated days; provided that person obtains an Alternative Compliance Plan in accordance with Subsection .020 of Section 10.18.110. In addition to the foregoing, the application of potable water shall be limited to:

.01 No more than eight (8) minutes per permitted watering day per station for non-conserving nozzles (e.g., spray head sprinklers and bubblers);

.02 No more than fifteen (15) minutes per cycle and up to two (2) cycles per permitted watering day per station for high efficiency sprinkler nozzles; or

.03 No limitation on maximum water minutes per watering station per permitted water day for water efficient drip irrigation.

.030 For the avoidance of doubt, the term “plants” within Subsection .020 of Section10.18.090 does not include turf. (Ord. 5204 § 1 (part); February 26, 1991: Ord. 6138 § 1 (part); April 14, 2009: Ord. 6332 § 2 (part); May 19, 2015.)

10.18.100 WATER REDUCTION PLAN IV—MANDATORY MEASURES.

.010 The City Council may, by resolution or ordinance, order the implementation of Water Reduction Plan IV, when the City Council determines an "Emergency Water Shortage" exists and makes the findings for a water shortage emergency under California Water Code section 350. When the City Council orders the implementation of Water Reduction Plan IV, all persons and entities within the City and all Customers outside of the City shall comply with the following:

.01 All mandatory measures contained in Subsections .010 and .020 of Section10.18.080, except to the extent those measures conflict. If such a conflict exists, all persons or entities within the City and all Customers outside of the City shall adhere to the more restrictive section of those conflicting sections.

.02 The application of potable water to outdoor ornamental landscaping or turf is prohibited at any time.

.020 The City Council may, by resolution or motion, order the implementation of Water Reduction Plan IV, when the City Council determines a non- drought Local Emergency exists. (Ord. 6332 § 2 (part); May 19, 2015.)

18.10.110 ALTERNATIVE COMPLIANCE PLAN.

.010 Any person or entity with a Large Landscape Area may deviate from Subsection .030 of Section 10.18.080 and Subsection .020 of 10.18.090; provided such person or entity obtains an Alternative Compliance Plan approved by the General Manager or designee. At a minimum, an Alternative Compliance Plan must require the person or entity with a Large Landscape Area to (a) install and maintain throughout the duration of the plan Eligible Weather-Based Irrigation Controllers within the Large Landscape Area; (b) reduce overall potable water use by an amount equal to that amount set forth in the Alternative Compliance Plan; and (c) must use recycled water if it is available from the Department. The General Manager or designee may require revisions to the Alternative Compliance Plan in the event the State Water Resources Control Board sets a new water conservation standard for the City. Once the General Manager or designee approves the Alternative Compliance Plan or any amendments thereto, the person or entity with such a plan shall strictly comply with its provisions.

.020 Any person or entity may deviate from the designated watering days of the week in Subsection .030 of Section 10.18.080 and Subsection .020 of Section 10.18.090; provided such person or entity obtains an Alternative Compliance Plan approved by the General Manager or designee. The General Manager or designee shall only approve such an Alternative Compliance Plan when the General Manager or designee makes all of the following findings: (a) that the deviation does not constitute a grant of special privilege inconsistent with the limitations upon other residents and businesses; (b) that because of special circumstances applicable to the property or its use, the water day designation will have a disproportionate impact on the property or use that exceeds the impacts to residents and businesses generally; (c) that the authorizing of such deviation will not be of substantial detriment to adjacent properties, and will not materially affect the ability of the City to effectuate the purpose of this ordinance and will not be detrimental to the public interest; and (d) that the condition or situation of the subject property or the intended use of the property for which the waiver is sought is not common, recurrent or general in nature. If approved by the General Manager or designee, the Alternative Compliance Plan of that person or entity shall solely authorize the person to deviate from the designated watering days of the week, and no such approval shall authorize any deviation from the limitation on the number of watering days per week.

.030 In the event the General Manager or designee disapproves a request for an Alternative Compliance Plan under Subsections .010 and .020 of this Section, such person or entity who receives such notice may appeal this determination to the Public Utilities Hearing Board within five (5) days of the written notice of the decision of the General Manager or designee. On appeal, the Public Utilities Hearing Board shall review the determination and render a final non-appealable decision.

.040 If the General Manager or designee determines any person or entity fails to comply with their Alternative Compliance Plan, the General Manager or designee may issue a notice to comply requiring strict compliance with the Alternative Compliance Plan (a) by the end of the next billing cycle for a Customer; or (b) within sixty (60) days for a non-Customer. If the person or entity fails to comply with the notice to comply, the General Manager or designee may terminate that Alternative Compliance Plan with five (5) days prior written notice and, in such case, that person or entity shall no longer deviate from Subsection .030 of Section 10.18.080 and Subsection .020 of Section 10.18.090 and shall immediately comply with these subsections. Any person or entity who receives such notice may appeal this determination to the Public Utilities Hearing Board within five (5) days of the written notice to terminate. On appeal, the Public Utilities Hearing Board shall review the determination to terminate the Alternative Compliance Plan and render a final non-appealable decision. (Ord. 6332 § 2 (part); May 19, 2015.)

10.18.120 WATER CONSERVATION RATE.

The City may adopt a rate structure designed to reduce water consumption in accordance with the requirements of State law. (Ord. 6332 § 2 (part); May 19, 2015.)

10.18.130 VIOLATIONS AND REMEDIES.

.010 It shall be unlawful for any person to willfully violate the mandatory provisions of this Chapter 10.18. A violation of any mandatory provision of this Chapter 10.18 shall be a misdemeanor and shall be punishable upon conviction as authorized by Section 1.01.370 of the Municipal Code, or any successor provision thereto.

.020 In addition to any remedies or enforcement measures provided by State law or in this Chapter 10.18, any violation of this chapter 10.18 is subject to civil fines in accordance with Chapter 1.20 of the Municipal Code, or any successor provision thereto.

.030 In addition to any other remedies provided in this Code or available under applicable law, the City can alternatively seek injunctive relief in the Superior Court or other take enforcement actions for violations of this chapter 10.18. (Ord. 6332 § 2 (part); May 19, 2015.)

10.18.140 RESERVATION OF RIGHTS.

The rights of the Department hereunder shall be cumulative to any other right of the Department to discontinue service. (Ord. 5204 § 1 (part); February 26, 1991: Ord. 6138 § 1 (part); April 14, 2009: Ord. 6332 § 2 (part); May 19, 2015.)

ORDINANCE NO. 6332

AN ORDINANCE OF THE CITY OF ANAHEIM AMENDING CHAPTER 10.18 OF TITLE 10 OF THE ANAHEIM MUNICIPAL CODE RELATING TO ANAHEIM'S WATER CONSERVATION AND WATER SHORTAGE CONTINGENCY RULES AND REGULATIONS AND BASED UPON THE FINDING AND DETERMINATION THAT SAID ORDINANCE IS NOT SUBJECT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) PURSUANT TO CALIFORNIA WATER CODE SECTION 10652.

WHEREAS, California Constitution article X, section 2 and California Water Code section 100 provide that because of conditions prevailing in the state of California (the "State"), it is the declared policy of the State that the general welfare requires that the water resources of the State shall be put to beneficial use to the fullest extent of which they are capable, the waste or unreasonable use of water shall be prevented, and the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and the public welfare; and

WHEREAS, pursuant to California Water Code section 106, it is the declared policy of the State that the use of water for domestic use is the highest use of water and that the next highest use is for irrigation; and

WHEREAS, on January 17, 2014, Governor Brown issued a drought emergency proclamation following three dry or critically dry years in California, and, on April 25, 2014, the Governor signed an executive order ("2014 Executive Order") calling on the State government to redouble its drought actions; and

WHEREAS, the 2014 Executive Order provided that the State Water Resources Control Board ("State Water Board") shall direct urban water suppliers that are not already implementing drought response plans to limit outdoor irrigation and wasteful water practices; the 2014 Executive Order also directed the State Water Board to adopt emergency regulations as it deems necessary, pursuant to California Water Code section 1058.5; and

WHEREAS, in connection with the foregoing, the State Water Board found that California has been subject to multi-year droughts in the past; and it also found that the Southwestern United States is becoming drier, increasing the likelihood of prolonged droughts; and

WHEREAS, in response, the State Water Board adopted mandatory water conservation measures under Resolution No. 2014-0038, including, among things, the following prohibitions: the application of potable water to outdoor landscapes in a manner that causes visible runoff, the use of a hose to wash a motor vehicle except where the hose is equipped with a shut-off nozzle, the application of water to driveways and sidewalks, and the use of potable water in non-recirculating ornamental fountains; and

WHEREAS, on August 12, 2014, the City of Anaheim ("Anaheim") adopted mandatory conservation measures in conformance with Resolution No. 2014-0038; and

WHEREAS, although Resolution No. 2014-0038 was set to expire on April 25, 2015, the State Water Board adopted Resolution No. 2015-0013 on March 17, 2015 based on findings that there existed a water shortage emergency and the fourth year of significant drought conditions have resulted in severe impacts to the State's water supplies and its ability to meet all of its water demands; and

WHEREAS, in adopting Resolution No. 2015-0013, the State Water Board also found as of March 3, 2015, snow water equivalents for the Northern, Central, and Southern Sierra regions were at 16 percent, 20 percent, and 21 percent of normal for that date, respectively; and

WHEREAS, the State Water Board further found that most reservoirs are less than 60 percent full and January 2015 was one of the driest Januaries ever recorded in California history and that many communities face the prospect of needing emergency drinking water supplies; and

WHEREAS, based on these findings, the State Water Board, through Resolution No. 2015-0013, continued the mandatory water conservation measures with some modifications and additions, and it also required urban water suppliers, like Anaheim, to implement mandatory restrictions on the number of days that outdoor irrigation of ornamental landscapes or turf with potable water is allowed; and

WHEREAS, on April 1, 2015, Governor Brown issued Executive Order B-29-15 finding that conditions of extreme peril to the safety of persons and property continue to exist in California due to water shortage and drought conditions; and

WHEREAS, Executive Order B-29-15 also directed the State Water Board to impose restrictions to achieve an aggregate statewide 25% reduction in potable water use through February 2016; moreover, the order requires the State Water Board to adopt and impose additional regulations related to outside irrigation of newly constructed homes and buildings and the reduction of potable water usage by commercial, industrial, and institutional properties; and

WHEREAS, on June 7, 2011, the Anaheim City Council adopted Anaheim's 2010 urban water management plan ("Urban Water Management Plan") in compliance with the California Water Code; and

WHEREAS, the Urban Water Management Plan contained Anaheim's Water Shortage Contingency Plan ("Water Shortage Contingency Plan") which incorporated Chapter 10.18 of the Anaheim Municipal Code; and

WHEREAS, Anaheim is authorized to prescribe and define by ordinance restrictions, prohibitions, and exclusions for the use of water during a threatened or existing water shortage and adopt and enforce a water conservation and regulatory program to: (i) prohibit the wastage of Anaheim water or the use of Anaheim water during such period; (ii) prohibit use of water during such periods for specific uses which the Anaheim may from time to time find

nonessential; and (iii) reduce and restrict the quantity of water used by those persons within Anaheim for the purpose of conserving the water supplies of Anaheim; and

WHEREAS, pursuant to California Water Code section 350, the Anaheim City Council is authorized to declare a water shortage emergency to prevail within its jurisdiction; and

WHEREAS, pursuant to California Water Code section 375, Anaheim is also authorized to adopt and enforce a water conservation program and water shortage supply measures to reduce the quantity of water used by persons within its jurisdiction for the purpose of conserving the water supplies of Anaheim; and

WHEREAS, based on the above recitals and anticipated worsening water supply conditions, the Anaheim City Council believes it is necessary to amend Chapter 10.18 of the Anaheim Municipal Code so that Anaheim can better combat these conditions with additional tools; and

WHEREAS, through this ordinance, the Anaheim City Council also desires to declare the existence of a Severe Water Shortage within Anaheim and implement Water Reduction Plan III based on the prolonged drought and the Governor declared "State of emergency" under California Government Code section 8558(b); and

WHEREAS, the purpose of the Severe Water Shortage declaration and implementation of Water Reduction Plan III is to reduce the quantity of water used by consumers to protect the public health, welfare, and safety by ensuring there is sufficient water for human consumption, sanitation, and fire protection; and

WHEREAS, Anaheim City Council hereby finds and determines that it is desirable to codify the rules and regulations governing its actions, and the actions of persons using and consuming water within Anaheim, particularly during declared water supply shortages and water shortage emergencies, to protect the general welfare and the Anaheim's water supplies, and to reduce water consumption in accordance with the declared policies and laws of the State.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF ANAHEIM DOES ORDAIN AS FOLLOWS:

SECTION 1. RECITALS.

The Anaheim City Council hereby finds and determines that the above recitals are true and correct and incorporated herein.

SECTION 2.

That Chapter 10.18 of Title 10 of the Anaheim Municipal Code, is and shall be renamed and amended in its entirety to read as follows:

"Chapter 10.18 - WATER CONSERVATION AND WATER SHORTAGE CONTINGENCY RULES AND REGULATIONS

Sections:

10.18.010 Purpose.
10.18.020 Scope of this Chapter.
10.18.030 Definitions
10.18.040 Authorization.
10.18.050 Water Reduction Plan Implementation.
10.18.060 Voluntary Water Conservation Measures.
10.18.070 Water Reduction Plan I – Additional Voluntary Water Conservation Measures.
10.18.080 Water Reduction Plan II – Mandatory Measures.
10.18.090 Water Reduction Plan III – Mandatory Measures.
10.18.100 Water Reduction Plan IV – Mandatory Measures.
10.18.110 Alternative Compliance Plan.
10.18.120 Water Conservation Rate.
10.18.130 Violations and Remedies.
10.18.140 Reservation of Rights.

10.18.010 PURPOSE.

The City Council finds and determines that because of prevailing water supply conditions within the State of California and the declared policy of the State, it is necessary and appropriate for the City to adopt, implement, and enforce water conservation rules and regulations to reduce water consumption within the City through conservation to ensure the reasonable and beneficial use of water and maximize its efficient use within the City. The City Council further finds and determines it is necessary and appropriate for the City to implement and enforce water shortage contingency rules and regulations during periods of water supply shortages and water shortage emergencies to ensure that there is sufficient water for human consumption, sanitation, and fire protection.

10.18.020 SCOPE OF THIS CHAPTER.

.010 Except as expressly stated within this Chapter, the provisions of this Chapter shall apply to all persons, entities and property within the City. In addition, this chapter shall apply to any Customer's outside of the City.

.020 The provisions of this Chapter are in addition to, and not in lieu of, the provisions of Section 10.16.380 of this Code relating to curtailed supply of electricity or water.

.030 The provisions of this Chapter shall not apply to the following water uses:

.01 Any use of water necessary for (a) the testing and maintenance of the Water System or City fire suppression system, or (b) fire suppression or other similar emergency services affecting the public health and safety;

.02 Any use of water necessary to protect public health and safety as determined in the sole discretion of those persons or entities identified in Section 10.18.040 of this Chapter; and

.03 Any use of Recycled Water.

.040 The mandatory provisions of Sections 10.18.080, 10.18.090, and 10.18.100 shall not apply to the application of potable water to a food source between the hours of 9 a.m. and 5 p.m.; provided that the potable water is applied through drip irrigation or a hand-held hose with a self-closing water shut-off device.

10.18.030 DEFINITIONS.

Unless specifically defined in this section, words or phrases used in this chapter shall be interpreted so as to give them the meaning they have in common usage and to give this Chapter the most reasonable application.

.010 "Alternative Compliance Plan" means a plan approved in accordance with Section 10.18.110 of this Chapter.

.020 "City" means the City of Anaheim located in California.

.030 "City Council" means the governing legislative body of the City.

.040 "Code" means the municipal code of the City.

.050 "Customer" has the meaning set forth in Rule 1 of the Rates, Rules and Regulations, or any successor provision thereto.

.060 "Department" means the Public Utilities Department of the City.

.070 "Eligible Weather-Based Irrigation Controllers" means those eligible weather-based irrigation controllers registered with the Department and approved by the Metropolitan Water District of Southern California or the Irrigation Association Smart Water Application Technologies initiative.

.080 "General Manager" means the General Manager of the Department.

.090 "Large Landscape Area" means an area of vegetation at least three (3) acres in size supporting a business necessity or public benefit uses, including without limitation, parks, golf courses, schools, and cemeteries.

.100 "Local Emergency" has the meaning set forth in section 8558(c) of the California Government Code, or any successor provision thereto. The City Council may declare a Local Emergency by motion or resolution.

.110 "Public Utilities Hearing Board" means that hearing board described in Subsection .080 of Section1.04.730 of the Anaheim Municipal Code.

.120 "Rates, Rules and Regulations" means the rate structure, the rules, and any regulations as approved by the City Council, governing the use and delivery of water within the Department's service area.

.130 "Recycled Water" means water that is approved for purposes other than human consumption and meets the criteria set forth in Division 4 of Title 22 of the California Code of Regulations, as may be amended from time to time. Recycled Water does not include gray water.

.140 "Sidewalk" means that portion of the roadway, set apart by curbs, barriers, markings or other delineation for pedestrian travel.

.150 "Water Reduction Plan" means a plan set forth in this ordinance to address a water supply shortage or a water shortage emergency as declared by the City Council in accordance with 10.18.050 of this Chapter. Specifically, these plans are contained in Sections 10.18.070 through 10.18.100.

.160 "Water System" has the meaning set forth in Rule 1 of the Rates, Rules and Regulations or any successor provision thereto.

10.18.040 AUTHORIZATION.

Except where expressly delegated to a specific officer, department, or commission of the City, the various officers, departments, or commissions of the City are authorized and directed to implement the applicable provisions of this Chapter upon the effective date hereof.

10.18.050 WATER REDUCTION PLAN IMPLEMENTATION.

.010 The Department shall monitor and evaluate the projected water supply and demands and, when it deems appropriate, the Department shall recommend to the City Council a Water Reduction Plan to address either a water supply shortage or a water shortage emergency. In a water supply shortage, the City Council may, by resolution, order implementation of Water Reduction Plan I, Water Reduction Plan II, or Water Reduction Plan III; provided, the City Council makes the findings required by the applicable sections of this Chapter. The City Council may, by resolution or motion as specified in Section 10.18.100, order implementation of Water Reduction Plan IV; provided, the City Council declares a water shortage emergency in accordance with California Water Code section 350.

.020 At any time, the City Council may, by resolution, discontinue any Water Reduction Plan. The City Council may also implement another Water Reduction Plan; provided,

the City Council adopts that Water Reduction Plan pursuant to Subsection .010 of Section 10.18.050 of this Chapter.

10.18.060 VOLUNTARY WATER CONSERVATION MEASURES.

In order to conserve water when a Water Reduction Plan is not in effect, the City encourages all persons and entities within the City and all Customers outside of the City to practice good potable water use by avoiding the following water wasting activities on a voluntary basis:

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

.020 The use of a hose that dispenses potable water to wash a motor vehicle, except where the hose is fitted with a shut-off nozzle or device attached to it that causes it to cease dispensing water immediately when not in use;

.030 The application of potable water to driveways and Sidewalks;

.040 The use of potable water in a fountain or other decorative water feature, except where the water is part of a recirculating system; and

.050 The failure to promptly repair all potable water leaks from indoor and outdoor plumbing fixtures, including but not limited to sprinkler systems.

10.18.070 WATER REDUCTION PLAN I – ADDITIONAL VOLUNTARY WATER CONSERVATION MEASURES.

The City Council may, by resolution, order the implementation of Water Reduction Plan I upon a finding that a "Mild Water Shortage" exists and additional voluntary water conservation measures may assist in appropriately responding to this shortage. A "Mild Water Shortage" exists, when, due to a drought or other conditions, water supplies have been impacted and there is a reasonable probability of more severe water shortages in the future. When the City Council orders a Water Reduction Plan I, all persons and entities within the City and all Customers outside of the City are encouraged to voluntarily practice good potable water use by observing the following:

.010 Avoid (a) the water wasting activities contained in Section 10.18.060 of this Chapter; (b) the application of potable water to outdoor ornamental landscaping or turf between the hours of nine a.m. and six p.m., except as necessary for irrigation system maintenance and repairs; and (c) the application of potable water to outdoor landscapes during or within 48 hours after measurable rainfall; and

.020 Perform such other voluntary measures adopted by the City Council.

.030 Except as necessary for irrigation system maintenance or repairs, limit the application of potable water to outdoor ornamental landscaping or turf to no more than three (3) days per week; provided such irrigation occurs (a) Monday, Wednesday, or Saturday for odd-numbered street addresses; and (b) Tuesday, Thursday, or Sunday for even-numbered street addresses. Street addresses ending in ½ or any fraction shall conform to the permitted uses for the last whole number in the address. In addition to the foregoing, the application of potable water is encouraged to be limited to:

.01 No more than eight (8) minutes per permitted watering day per station for non-conserving nozzles (e.g., spray head sprinklers and bubblers);

.02 No more than fifteen (15) minutes per cycle and up to two (2) cycles per permitted watering day per station for high efficiency sprinkler nozzles; or

.03 No limitation on maximum watering minutes per watering station per permitted water day for water efficient drip irrigation.

10.18.080 WATER REDUCTION PLAN II –MANDATORY MEASURES.

The City Council may, by resolution or ordinance, order the implementation of Water Reduction Plan II upon a finding, that an "Elevated Water Shortage" exists and the mandatory measures are necessary to address this shortage. An "Elevated Water Shortage" exists when, due to a prolonged drought, a declared "State of emergency" under California Government Code section 8558(b), or other water supply condition, a reduction in water use is necessary to safeguard the public health, safety, and welfare. When the City Council orders the implementation of Water Reduction Plan II, all persons and entities within the City and all Customers outside of the City shall comply with the following:

.010 Each of the following actions is prohibited, except where necessary to address an immediate health and safety need, including fire mitigation requirements as determined by the City Fire Department or other fire authority with jurisdiction, or to comply with a term or condition in a permit issued by a state or federal agency:

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

.02 The use of a hose that dispenses potable water to wash a motor vehicle, except where the hose is fitted with a shut-off nozzle or device attached to it that causes it to cease dispensing water immediately when not in use;

.03 The application of potable water to driveways and Sidewalks;

.04 The use of potable water in a fountain or other decorative water feature, except where the water is part of a recirculating system;

.05 The failure to promptly repair all potable water leaks from indoor and outdoor plumbing fixtures, including but not limited to sprinkler systems;

.06 The application of potable water to outdoor ornamental landscaping or turf between the hours of nine a.m. and six p.m., except as necessary for spot watering with a hose to maintain trees or plants (other than turf), and irrigation system maintenance and repairs;

.07 The application of potable water to outdoor landscapes during or within forty-eight (48) hours after measurable rainfall; and

.08 The serving of potable water other than upon request in eating or drinking establishments, including but not limited to restaurants, hotels, cafes, cafeterias, bars, or other public places where food or drink are served and/or purchased.

.020 Operators of hotels and motels shall provide guests with the option of choosing not to have towels and linens laundered daily. The hotel or motel shall prominently display notice of this option in each bathroom using clear and easily understood language.

.030 The application of potable water to outdoor ornamental landscaping or turf shall be limited to no more than three (3) days per week, except (a) as necessary for spot watering with a hose to maintain trees or plants (other than turf) and irrigation system maintenance or repairs; or (b) for a Large Landscape Area with an Alternative Compliance Plan. In connection with the foregoing, the application of potable water shall only occur on (a) Monday, Wednesday, or Saturday for odd-numbered street addresses; and (b) Tuesday, Thursday, or Sunday for even-numbered street addresses. Street addresses ending in ½ or any fraction shall conform to the permitted uses for the last whole number in the address. In certain special circumstances, a person or entity may deviate from the foregoing designated days; provided that person obtains an Alternative Compliance Plan in accordance with Subsection .020 of Section 10.18.110. In addition to the foregoing, the application of potable water shall be limited to:

.01 No more than eight (8) minutes per permitted watering day per station for non-conserving nozzles (e.g., spray head sprinklers and bubblers);

.02 No more than fifteen (15) minutes per cycle and up to two (2) cycles per permitted watering day per station for high efficiency sprinkler nozzles; or

.03 No limitation on maximum water minutes per watering station per permitted water day for water efficient drip irrigation.

.040 For the avoidance of doubt, the term "plants" within Subsections .10 and .030 of Section 10.18.080 does not include turf.

10.18.090 WATER REDUCTION PLAN III – MANDATORY MEASURES.

The City Council may, by resolution or ordinance, order the implementation of Water Reduction Plan III upon a finding, that a "Severe Water Shortage" exists and the mandatory

measures are necessary to address this shortage. A "Severe Water Shortage" exists when, due to a prolonged drought, a declared "State of emergency" under California Government Code section 8558(b), or other water supply condition, a reduction in water use is necessary to safeguard the public health, safety, and welfare. When the City Council orders the implementation of Water Reduction Plan III, all persons and entities within the City and all Customers outside of the City shall comply with the following:

.010 All mandatory measures contained in Subsections .010 and .020 of Section 10.18.080, except to the extent those measures conflict. If such a conflict exists, all persons or entities within the City and all Customers outside of the City shall adhere to the more restrictive section of those conflicting sections.

.020 The application of potable water to outdoor ornamental landscaping or turf shall be limited to no more than two (2) days per week, except (a) as necessary for spot watering with a hose to maintain trees or plants (other than turf) and irrigation system maintenance or repairs; or (b) for a Large Landscape Area with an Alternative Compliance Plan. In connection with the foregoing, the application of potable water shall only occur on (a) Tuesday or Saturday for odd-numbered street addresses; and (b) Thursday or Sunday for even-numbered street addresses. Street addresses ending in ½ or any fraction shall conform to the permitted uses for the last whole number in the address. In certain special circumstances, a person or entity may deviate from the foregoing designated days; provided that person obtains an Alternative Compliance Plan in accordance with Subsection .020 of Section 10.18.110. In addition to the foregoing, the application of potable water shall be limited to:

.01 No more than eight (8) minutes per permitted watering day per station for non-conserving nozzles (e.g., spray head sprinklers and bubblers);

.02 No more than fifteen (15) minutes per cycle and up to two (2) cycles per permitted watering day per station for high efficiency sprinkler nozzles; or

.03 No limitation on maximum water minutes per watering station per permitted water day for water efficient drip irrigation.

.030 For the avoidance of doubt, the term "plants" within Subsection .020 of Section 10.18.090 does not include turf.

10.18.100 WATER REDUCTION PLAN IV – MANDATORY MEASURES.

.10 The City Council may, by resolution or ordinance, order the implementation of Water Reduction Plan IV, when the City Council determines an "Emergency Water Shortage" exists and makes the findings for a water shortage emergency under California Water Code section 350. When the City Council orders the implementation of Water Reduction Plan IV, all persons and entities within the City and all Customers outside of the City shall comply with the following:

.01 All mandatory measures contained in Subsections .010 and .020 of Section 10.18.080, except to the extent those measures conflict. If such a conflict exists, all persons or entities within the City and all Customers outside of the City shall adhere to the more restrictive section of those conflicting sections.

.02 The application of potable water to outdoor ornamental landscaping or turf is prohibited at any time.

.020 The City Council may, by resolution or motion, order the implementation of Water Reduction Plan IV, when the City Council determines a non- drought Local Emergency exists.

10.18.110 ALTERNATIVE COMPLIANCE PLAN.

.010 Any person or entity with a Large Landscape Area may deviate from Subsection .030 of Section 10.18.080 and Subsection .020 of 10.18.090; provided such person or entity obtains an Alternative Compliance Plan approved by the General Manager or designee. At a minimum, an Alternative Compliance Plan must require the person or entity with a Large Landscape Area to (a) install and maintain throughout the duration of the plan Eligible Weather-Based Irrigation Controllers within the Large Landscape Area; (b) reduce overall potable water use by an amount equal to that amount set forth in the Alternative Compliance Plan; and (c) must use recycled water if it is available from the Department. The General Manager or designee may require revisions to the Alternative Compliance Plan in the event the State Water Resources Control Board sets a new water conservation standard for the City. Once the General Manager or designee approves the Alternative Compliance Plan or any amendments thereto, the person or entity with such a plan shall strictly comply with its provisions.

.020 Any person or entity may deviate from the designated watering days of the week in Subsection .030 of Section 10.18.080 and Subsection .020 of Section 10.18.090; provided such person or entity obtains an Alternative Compliance Plan approved by the General Manager or designee. The General Manager or designee shall only approve such an Alternative Compliance Plan when the General Manager or designee makes all of the following findings: (a) that the deviation does not constitute a grant of special privilege inconsistent with the limitations upon other residents and businesses; (b) that because of special circumstances applicable to the property or its use, the water day designation will have a disproportionate impact on the property or use that exceeds the impacts to residents and businesses generally; (c) that the authorizing of such deviation will not be of substantial detriment to adjacent properties, and will not materially affect the ability of the City to effectuate the purpose of this ordinance and will not be detrimental to the public interest; and (d) that the condition or situation of the subject property or the intended use of the property for which the waiver is sought is not common, recurrent or general in nature. If approved by the General Manager or designee, the Alternative Compliance Plan of that person or entity shall solely authorize the person to deviate from the designated watering days of the week, and no such approval shall authorize any deviation from the limitation on the number of watering days per week.

.030 In the event the General Manager or designee disapproves a request for an Alternative Compliance Plan under Subsections .010 and .020 of this Section, such person or

entity who receives such notice may appeal this determination to the Public Utilities Hearing Board within five (5) days of the written notice of the decision of the General Manager or designee. On appeal, the Public Utilities Hearing Board shall review the determination and render a final non-appealable decision.

.040 If the General Manager or designee determines any person or entity fails to comply with their Alternative Compliance Plan, the General Manager or designee may issue a notice to comply requiring strict compliance with the Alternative Compliance Plan (a) by the end of the next billing cycle for a Customer; or (b) within sixty (60) days for a non-Customer. If the person or entity fails to comply with the notice to comply, the General Manager or designee may terminate that Alternative Compliance Plan with five (5) days prior written notice and, in such case, that person or entity shall no longer deviate from Subsection .030 of Section 10.18.080 and Subsection .020 of Section 10.18.090 and shall immediately comply with these subsections. Any person or entity who receives such notice may appeal this determination to the Public Utilities Hearing Board within five (5) days of the written notice to terminate. On appeal, the Public Utilities Hearing Board shall review the determination to terminate the Alternative Compliance Plan and render a final non-appealable decision.

10.18.120 WATER CONSERVATION RATE.

The City may adopt a rate structure designed to reduce water consumption in accordance with the requirements of State law.

10.18.130 VIOLATIONS AND REMEDIES.

.010 It shall be unlawful for any person to willfully violate the mandatory provisions of this Chapter 10.18. A violation of any mandatory provision of this Chapter 10.18 shall be a misdemeanor and shall be punishable upon conviction as authorized by Section 1.01.370 of the Municipal Code, or any successor provision thereto.

.020 In addition to any remedies or enforcement measures provided by State law or in this Chapter 10.18, any violation of this chapter 10.18 is subject to civil fines in accordance with Chapter 1.20 of the Municipal Code, or any successor provision thereto.

.030 In addition to any other remedies provided in this Code or available under applicable law, the City can alternatively seek injunctive relief in the Superior Court or other take enforcement actions for violations of this chapter 10.18.

10.18.140 RESERVATION OF RIGHTS.

The rights of the Department hereunder shall be cumulative to any other right of the Department to discontinue service."

SECTION 3. WATER SUPPLY SHORTAGE.

The Anaheim City Council hereby declares the existence of a Severe Water Shortage and implementation of Water Reduction Plan III is necessary given the prolonged drought and the declared "State of emergency" under California Government Code section 8558(b). The foregoing declaration and implementation are also necessary to safeguard the public health, safety, and welfare. These findings are supported by the recitals contained herein and such information presented to the City Council at the public hearing for the adoption of this ordinance. In connection with the foregoing, the Anaheim City Council hereby orders the implementation of Water Reduction Plan III of Section 10.18.090 of the Anaheim Municipal Code and, through this ordinance, the Anaheim City Council rescinds Resolution No. 2014-151. The implementation of Water Reduction Plan III may be terminated in accordance with the applicable provisions of Chapter 10.18 of the Anaheim Municipal Code.

SECTION 4. ENVIRONMENTAL REVIEW.

The City Council finds and determines that this ordinance is not subject to CEQA pursuant to Water Code section 10652 because CEQA does not apply to the preparation and adoption of a water shortage contingency plan or to the implementation of the actions taken pursuant to such plans. Because this ordinance partially comprises Anaheim's water shortage contingency plan and involves its implementation, no CEQA review is required.

SECTION 5. SEVERABILITY.

The Anaheim City Council hereby declares that should any section, paragraph, sentence, phrase, term or word of this ordinance be declared for any reason to be invalid, it is the intent of the Anaheim City Council that it would have adopted all other portions of this ordinance independent of the elimination herefrom of any such portion as may be declared invalid. If any section, subdivision, paragraph, sentence, clause or phrase of this ordinance is for any reason held to be invalid or unconstitutional, such decision shall not affect the validity of the remaining portions of this ordinance. The Anaheim City Council hereby declares that it would have passed this ordinance, and each section, subdivision, paragraph, sentence, clause and phrase thereof, irrespective of the fact that any one (or more) section, subdivision, paragraph, sentence, clause or phrase had been declared invalid or unconstitutional.

SECTION 6. CERTIFICATION

The City Clerk shall certify to the passage of this ordinance and, pursuant to California Water Code section 376, shall cause the same to be printed once within ten (10) days after its adoption in the *Anaheim Bulletin*, a newspaper of general circulation, published and circulated in the City of Anaheim.

SECTION 7. EFFECTIVE DATE

Pursuant to California Water Code section 376, this ordinance shall take effect and be in full force upon adoption.

THE FOREGOING ORDINANCE was introduced at a regular meeting of the City Council of the City of Anaheim held on the 5th day of May, 2015, and thereafter passed and adopted at a regular meeting of said City Council held on the 19th day of May, 2015, by the following roll call vote:

AYES: Council Members Murray, Brandman and Vanderbilt

NOES: None

ABSENT: Mayor Tait and Mayor Pro Tem Kring

ABSTAIN: None

CITY OF ANAHEIM

By: _____
for MAYOR OF THE CITY OF ANAHEIM

ATTEST:

_____
for CITY CLERK OF THE CITY OF ANAHEIM

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