ALBERT A. WEBB ASSOCIATES

WATER SUPPLY ASSESSMENT AND WRITTEN VERIFICATION OF SUFFICIENT WATER SUPPLY

SUBAREA 29 SPECIFIC PLAN AMENDMENT (2021)

Prepared for:

ONTARIO MUNICIPAL UTILITIES COMPANY

November 17, 2021

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November 17, 2021

Christopher Quach, P.E.
Senior Associate Engineer
ONTARIO MUNICIPAL UTILITIES COMPANY
1425 S. Bon View Avenue
Ontario, CA 91761

Re: Water Supply Assessment and Written Verification for Sufficient Water Supply (WSA/WV) for Subarea 29 Specific Plan Amendment (2021) Project

Dear Mr. Quach,

Pursuant to the authorization received on September 8, 2021 and our proposal dated June 23, 2021, transmitted herewith is the Water Supply Assessment and Written Verification of Sufficient Water Supply (WSA/WV) of the subject project pursuant to SB 610 and SB 221, respectively.

Sincerely,

ALBERT A. WEBB ASSOCIATES

Autumn DeWoody
Senior Environmental Analyst

Sam I. Gershon, RCE
Senior Vice President

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SB 610 WATER SUPPLY ASSESSMENT

SECTION 1 - INTRODUCTION

Senate Bill 610 (SB 610) was signed into California state law with an effective date of January 1, 2002. SB 610 amended existing legal requirements for confirmation of water supply sufficiency as a condition of approval for development projects. The confirmation of water supply sufficiency is achieved through an assessment of the water supplier's existing and future water sources, and existing and projected water demand in relation to a "project" as defined by California Water Code (CWC) section 10912, resulting in the production of a project-specific Water Supply Assessment ("WSA" or "Assessment"). Additional analysis is required in the WSA if any portion of the water supply includes groundwater. The WSA is prepared and adopted by the water supplier and included in the California Environmental Quality Act (CEQA) analysis for the project. The CEQA Lead Agency must then independently determine, based on the entire record, whether water supplies will be sufficient to satisfy the demands of the project, in addition to existing and planned future uses (CWC section 10911).

Law

CWC section 10910:

> *(a) Any city or county that determines that a project, as defined in Section 10912, is subject to the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) under Section 21080 of the Public Resources Code shall comply with this part.*

CWC section 10912:

For the purpose of this part, the following terms have the following meanings:

> *(a) "Project" means any of the following:*

(1) A proposed residential development of more than 500 dwelling units.

(2) A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet 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 square feet of floor area.

(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 dwelling unit project.

1.1 Purpose

The Ontario Municipal Utilities Company (OMUC) is a department of the City of Ontario (City) and the water supplier to the City. OMUC commissioned this Assessment from Albert A. Webb Associates (WEBB) on September 9, 2021, to answer the following key question pursuant to SB 610: whether the projected supply for the next 20 years, based on normal, single dry and multiple dry years, will meet the demand projected for the project plus existing and planned future uses, including agricultural and manufacturing uses.

The Project is considered a "project" under SB 610 pursuant to the following CWC section 10912 definition:

(1) A proposed residential development of more than 500 dwelling units.

1.2 Background

The Subarea 29 Specific Plan was adopted by Ontario City Council on October 17, 2006. It is located in the area south of Eucalyptus Avenue, north of San Bernardino / Riverside County Line, west of Haven Avenue, and east of Cucamonga Creek Channel in the County of San Bernardino, within the City of Ontario's 8,200-acre Ontario Ranch (previously referred to as the New Model Colony [NMC]) (**Figure 1 - Regional Map**). The original 2006 Subarea 29 Specific Plan allowed up to 1,937 dwelling units on former dairy and agricultural lands (SPA, p. 4-4). The most recent Specific Plan Amendment in 2015 allows for up to 2,392 units at 4.8 units per gross acre (*ibid*). Currently, the approved Subarea 29 Specific Plan encompasses approximately 540 gross acres. Subarea 24 (formerly, "The Lakes") is located directly east of Subarea 29 across Haven Avenue, as shown in **Figure 2 – Aerial View**. The existing City General Plan Land Use Plan for the subject area is shown in **Figure 3 - Existing Land Use Designations.**

The City recently prepared updates to its *Water Master Plan* and *Recycled Water Master Plan* in June 2020, which include the current unit water demand factors for potable and recycled water as well as ultimate buildout water demand projections (AKM and Stantec, respectively). On June 15, 2021, the City adopted its *2020 Urban Water Management Plan* (UWMP) (Resolution No. 2021-059), a copy of which is located in Appendix A.[1] The projected water demands of the 2020 UWMP are consistent with the City's said master plan updates (copies of the master plans are located in Appendix B and Appendix C).

[1] The City Council also passed on June 15, 2021, Resolution No. 2021-061 to amend the 2015 UWMP to reflect consistency with the Delta Plan, and Resolution No. 2021-060 to adopt the 2020 Water Shortage Contingency Plan.

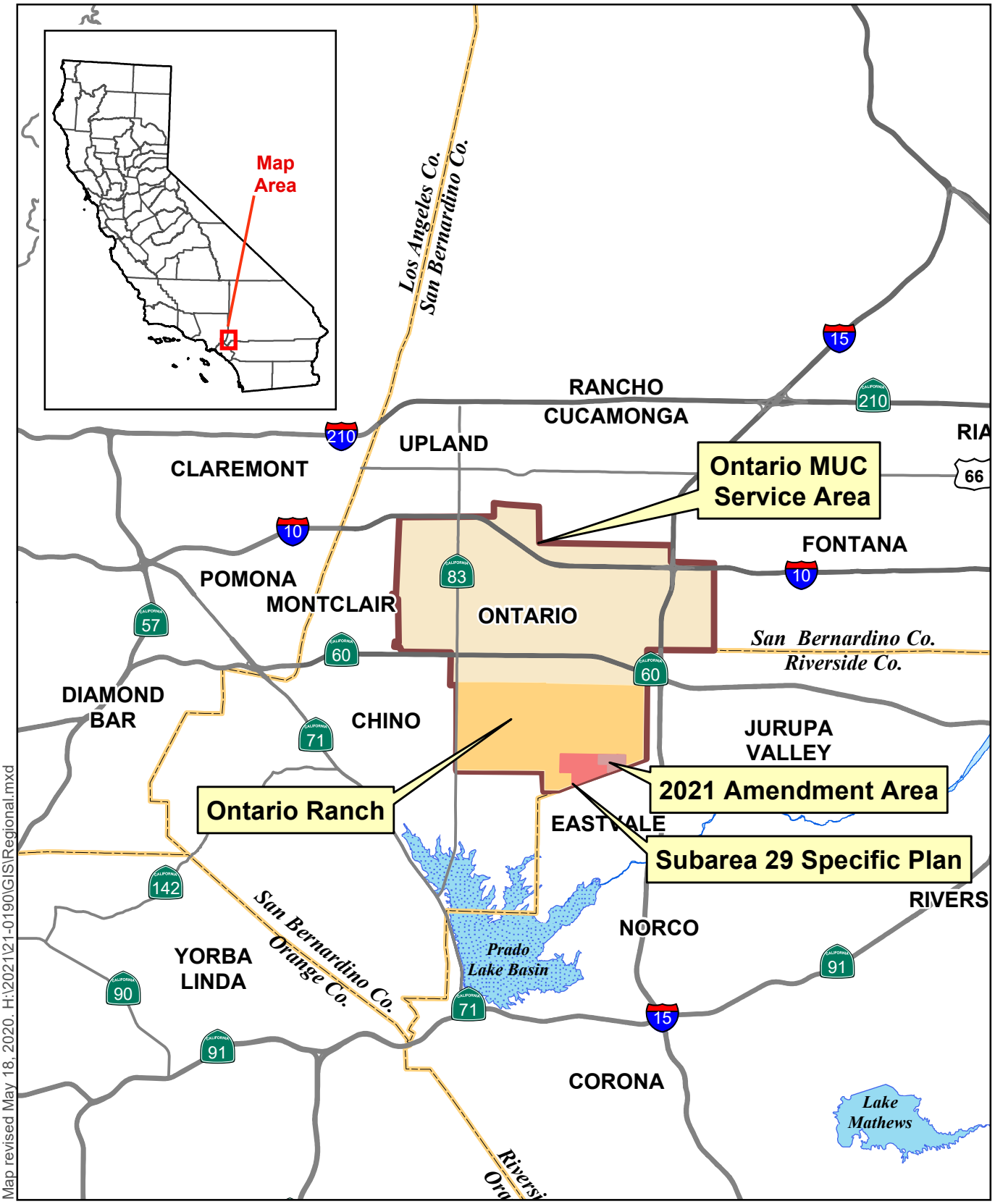

Figure 1 – Regional Map

Subarea 29 Specific Plan Amendment (2021)

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Path: H:\2021\21-0012\GIS\Figure 2 - Aerial view.aprx

Source: Subarea 29 Specific Plan Amendment, Exhibit 2

Figure 2 - Aerial View
Subarea 29 Specific Plan Amendment (2021)

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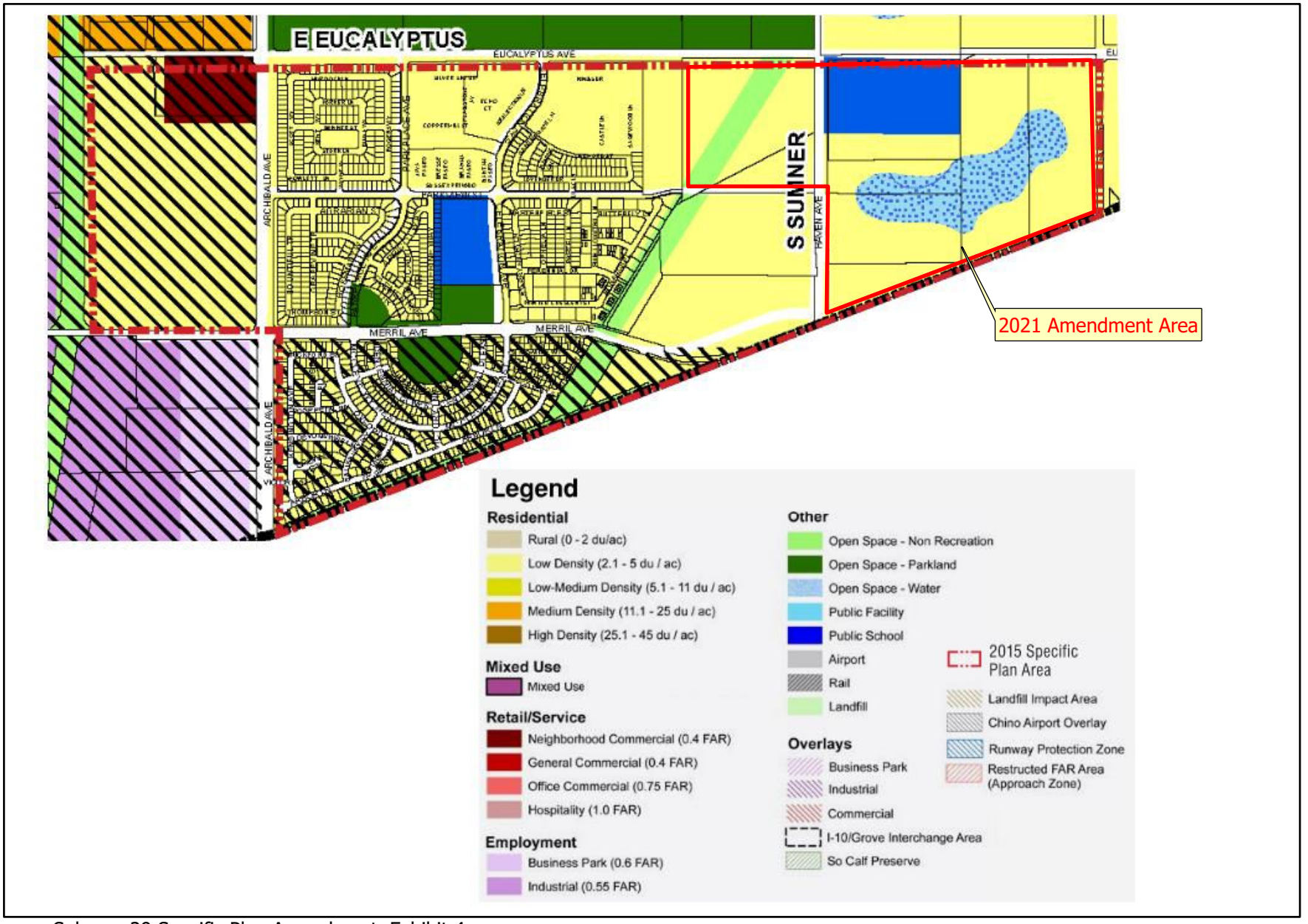

Path: H:\2021\21-0012\GIS\Figure 3 - Existing Land Use.aprx

Source: Subarea 29 Specific Plan Amendment, Exhibit 4

Figure 3 - Existing Ontario Policy Plan Land Use Plan

Subarea 29 Specific Plan Amendment (2021)

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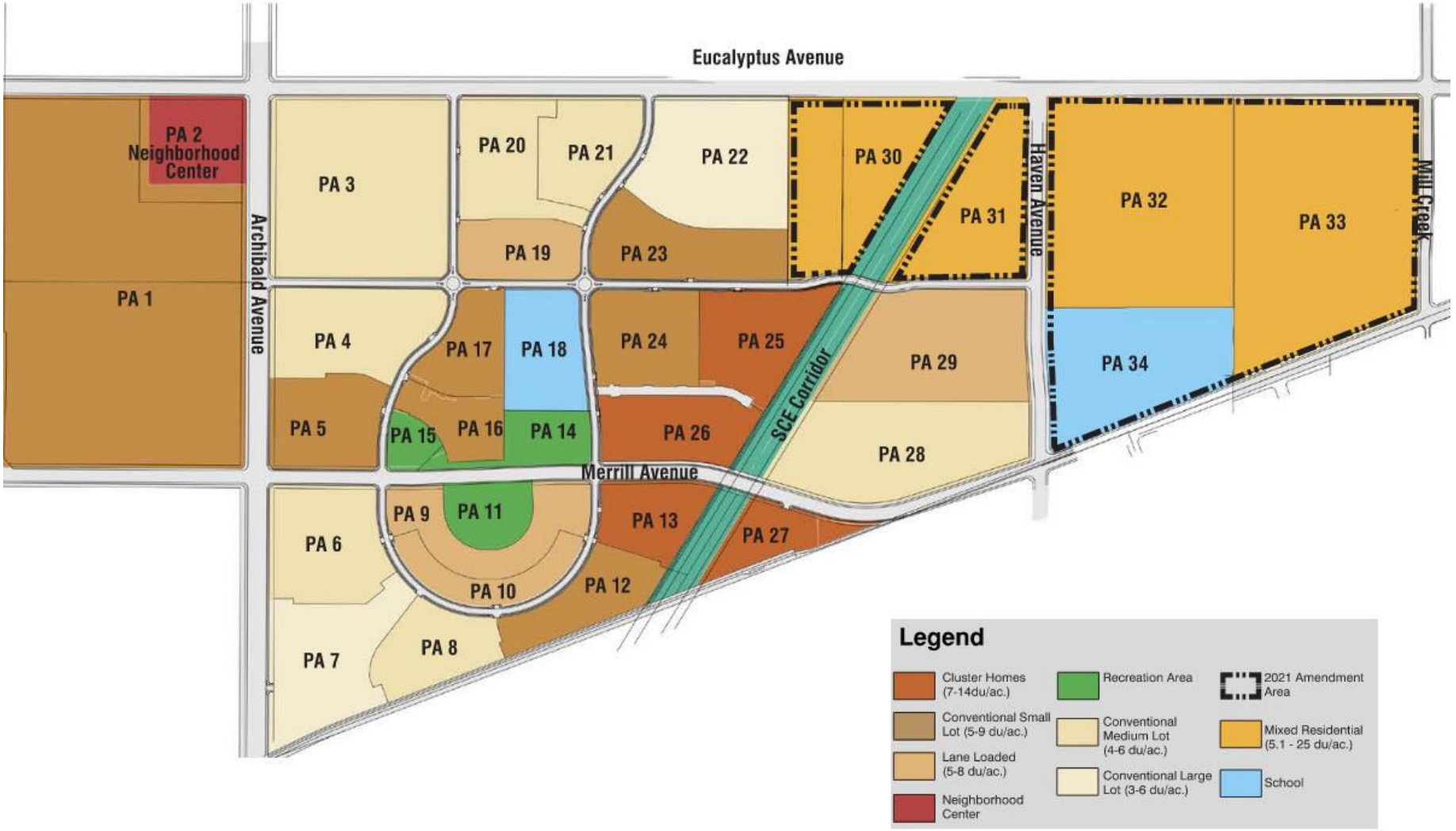
1.3 Proposed Project

This WSA has been prepared for the *2021 Amendment to the Subarea 29 Specific Plan (PSP03-003; PSPA07-003; PSPA07-007; PSPA13-002; PSPA14-002)* ("Project" or "2021 Amendment Area"). The City is preparing a 2021 addendum to the Subarea 29 Specific Plan (PSP03-003) Environmental Impact Report (EIR) (State Clearinghouse No. 2004011009) certified by City Council on October 17, 2006; therefore, this Project is considered to be "subject to CEQA" pursuant to CWC section 10910.

The proposed Project is two-fold: one, to add 113 acres from Subarea 24 located east of Haven Avenue, and two, to increase the density permitted in existing Planning Areas 30 and 31 of the Subarea 29 Specific Plan. The Project will assign the 113 acres into three additional Planning Areas (i.e., PA-32, PA-33, and PA-34) and allow for the development of up to 1,315 detached and attached residential dwelling units and one public middle school site.

In addition, the Project will modify the existing land use designations for existing PA-30 and PA-31 to allow for the development of an additional 155 units (an increase from 197 units to 352 units). This WSA addresses the additional 113-acre area and the additional units proposed for PA-30 and PA-31. The proposed Project land use plan is shown in **Figure 4 –Proposed Land Use Plan**.

Collectively, the Subarea 29 Specific Plan with the 2021 Amendment will allow for up to a maximum of 3,888 dwelling units (an increase of 1,470 units) over a total net area of 551.2 acres (652.6 gross acres) with a net density of 7.1 units per acre (SPA(b), p. 4).



Path: H:\2021\21-0012\GIS\Figure 4- Proposed Land Use.aprx

Source: Subarea 29 Specific Plan Amendment, Exhibit 3

Figure 4 - Proposed Land Use Plan
Subarea 29 Specific Plan Amendment (2021)

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Existing and Planned Water Facilities

Currently, the Project site located east of Haven Avenue contains agricultural operations including dairy and row crops (SPA, p. 3-5). There are three known well sites within the Project site east of Haven Avenue, all of which will be destroyed as part of the Project (SPA, p. 3-4). The Project is located within the City's 925 Pressure Zone for potable water and the existing water system will be extended to serve the Project (SPA, p. 5-18). A forthcoming hydraulic analysis will provide recommendations of water system sizing and verify adequate fire flow, with locations of the future water facilities approved during final design (*ibid*). The conceptual potable water plan is shown in **Figure 5 – Conceptual Potable Water Plan** (next page).

Path: H:\2021\21-0012\GIS\Figure 5 - Conceptual Recycled Water PLan.aprx

Source: Subarea 29 Specific Plan Amendment, Exhibit 14

Figure 5 - Conceptual Potable Water Plan

Subarea 29 Specific Plan Amendment (2021)

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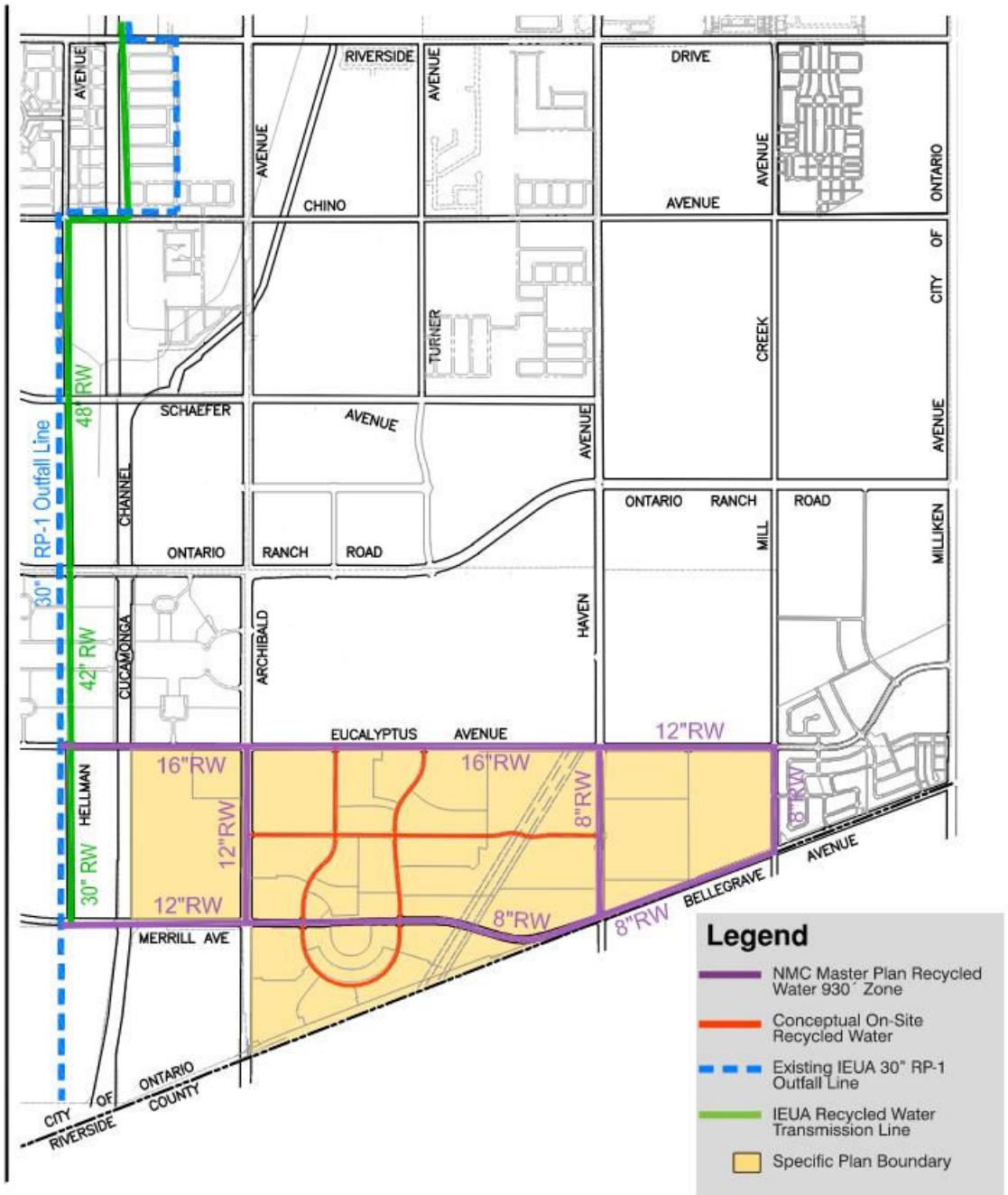
The Project is located within the City's 930 Pressure Zone for recycled water. According to the SPA, "The master plan improvements, adjacent to the project site, will include a 16-inch recycled water line in Eucalyptus Ave., a 12-inch recycled water line in Archibald Ave., and in Merrill Ave. (west of Archibald Ave.), and 8-inch recycled water lines in Merrill Ave. (east of Archibald Ave.) and in Haven Ave" (SPA p. 5-18). Further, the planned recycled water line along Riverside Drive shall be fully operational prior to project occupancy (*ibid*). A network of minimum 8-inch diameter recycled water lines will be installed, subject to the recommendations of a forthcoming hydraulic analysis.

City Ordinance No. 2689 requires all new development to connect to, and use recycled water for all approved uses, including but not limited to landscape irrigation (codified in City Municipal Code Sections 6-8.7 to 6-8.279). "The Subarea 29 Specific Plan shall comply with City Ordinance 2689 and make use of recycled water for all approved uses, including but not limited to irrigation of parks, schools, street landscaping, recreational trails, HOA maintained on-site common areas, and commercial/ industrial landscaping" (SPA, p. 5-18). In the event recycled water supply is inadequate, potable water will be used in the recycled water system until recycled water service can resume (*ibid*). The conceptual recycled water plan is shown in **Figure 6 – Conceptual Recycled Water Plan**.



Path: H:\2021\21-0012\GIS\Figure 5 - Conceptual Recycled Water PLan.aprx

Source: Subarea 29 Specific Plan Amendment, Exhibit 15

Figure 6 - Conceptual Recycle Water Plan

Subarea 29 Specific Plan Amendment (2021)

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1.4 Prior Water Supply Assessment

A WSA and Written Verification of Sufficient Water Supply (WV) dated October 27, 2004, were prepared for the 8,200-acre Ontario Ranch by WEBB on behalf of the City. The 2004 WSA/WV was used for demonstrating water supply sufficiency for the original 2006 Subarea 29 Specific Plan and subsequent amendments thereto. Because the Project increases the expected water demand from prior assumptions and proposes some different land uses not previously included in the City's land use plan (i.e., Medium-Density Residential and no Open Space-Water), and the City has updated its water use and water supply information since 2004, a new WSA is prepared herein consistent with CWC section 10910(3). This WSA addresses the additional 113-acre area and the additional units proposed for PA-30 and PA-31.

Law

CWC Section 10910:

> *(h) Notwithstanding any other provision of this part, if a project has been the subject of a water assessment that complies with the requirements of this part, no additional water assessment shall be required for subsequent projects that were part of a larger project for which a water assessment was completed and that has complied with the requirements of this part and for which the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has concluded that its water supplies are sufficient to meet the projected water demand associated with the proposed project, in addition to the existing and planned future uses, including, but not limited to, agricultural and industrial uses, unless one or more of the following changes occurs:*
>
> > *(1) Changes in the project that result in a substantial increase in water demand for the project.*
> >
> > *(2) Changes in the circumstances or conditions substantially affecting the ability of the public water system, or the city or county if either is required to comply*

with this part pursuant to subdivision (b), to provide a sufficient supply of water for the project.

(3) Significant new information becomes available which was not known and could not have been known at the time when the assessment was prepared.

1.5 Project Relation to the Urban Water Management Plan

The City of Ontario/OMUC is the water supplier for the Project and has adopted a 2020 UWMP, a copy of which is provided in Appendix A. This WSA will rely on the 2020 UWMP. The assumptions on ultimate (buildout) water demand in the 2020 UWMP for Ontario Ranch were derived from land use-based water demand factors according to the City's 2020 Water Master Plan. Specifically, all available Specific Plans and other current planning information were utilized in the 2020 Water Master Plan for the Ontario Ranch area, which includes the Project (Subarea 24 and 29) (AKM, p. 4-12). As stated in the 2020 Water Master Plan, "For future developments, water unit demand factors were used to estimate future water use. Potable water unit demand factors are generally based on the factors that were developed as a part of a study completed in May 2016 entitled "Ultimate Citywide Water Demand Estimate" (AKM, p. 4-9). Further, "The residential unit demand factors were first developed in terms of gpd/person. Then the maximum densities (people/du and du/ac) were applied to determine the factors in other units. The resulting unit factors in terms of gpd/du and gpd/ac represent the maximum expected demand factors" (*ibid*). Lastly, the unit water demand factors used for the 2020 UWMP, 2020 Water Master Plan, and herein use recent actual projections of residential densities that are more than those included in the TOP (General Plan) (*ibid*).

The Project site land use designations that are assumed in the 2020 UWMP water demand projections are based on the General Plan Land Use Plan (Figure 3), which is 20-acres Public School and the remainder being Low Density Residential (LDR).

According to the Water Code, if a project's water demand has been accounted for in the water supplier's most recent UWMP, then the WSA may use the UWMP as the source of the information required in the WSA. The determination as to whether the Project's water demand has been accounted for in the most recent UWMP is located in Section 2 – Water Demand Analysis.

Relation of Water Supplier to other Urban Water Management Plans

The City is a member agency of several water suppliers: Inland Empire Utilities Agency (IEUA), Water Facilities Authority (WFA), Chino Basin Desalter Authority (CDA), and San Antonio Water Company (SAWCo). IEUA obtains water from The Metropolitan Water District of Southern California (MWD). In addition, WFA obtains MWD water through IEUA. Each of these water suppliers has adopted individual 2020 UWMPs (copies of said plans are provided in Appendix D through Appendix H). Further, each of these agencies documented coordination with the City for preparation of said UWMP's and included the City's projected water demands into their individual UWMPs (MWD (p. 1-9), IEUA (p. 2-7), SAWCO (p. 4-6), WFA (p. 4-10), and CDA (p. 4-8)).

Law

CWC Section 10910:

> *(c) (1) The city or county, at the time it makes the determination required under Section 21080.1 of the Public Resources Code* [CEQA]*, shall request each public water system identified pursuant to subdivision (b) to determine whether the projected water demand associated with a proposed project was included as part of the most recently adopted urban water management plan adopted pursuant to Part 2.6 (commencing with Section 10610).*
>
> *(2) If the projected water demand associated with the proposed project was accounted for in the most recently adopted urban water management plan, the public water system may incorporate the requested information from the urban*

water management plan in preparing the elements of the assessment required to comply with subdivisions (d), (e), (f), and (g).

(3) If the projected water demand associated with the proposed project was not accounted for in the most recently adopted urban water management plan, or the public water system has no urban water management plan, the water supply assessment for the project shall include a discussion with regard to 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 uses.

(4) If the city or county is required to comply with this part pursuant to subdivision (b), the water supply assessment for the project shall include a discussion with regard to whether the total projected water supplies, determined to be available by the city or county for the project 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 existing and planned future uses, including agricultural and manufacturing uses.

1.6 Statewide and Local Water Conservation Efforts

The Ontario City Council adopted Ordinance No. 3027 on September 1, 2015, in response to the statewide Emergency Conservation Regulations mandated at that time by the State Water Resources Control Board. Ordinance 3027 updated the City's Water Conservation Plan that is codified in Chapter 8A, Title 6 of the City's Municipal Code ("Water Conservation Plan").

The City Council adopted its 2020 Water Shortage Contingency Plan in June 2021, which describes the methods to achieve and the implications of reducing water supplies to at least 50 percent (the plan is located in Chapter 8 of the 2020 UWMP).

The City and OMUC implement various programs to reduce customer water consumption, including stringent use restrictions, actions, and penalties, as well as public outreach, education, and communication programs. Currently, the City is in the voluntary stage of the Water Conservation Plan, and therefore voluntary water use restrictions are in-effect.

With the signing of Assembly Bill 1668 and SB606, the state has set an Indoor Residential Standard of 55 gallons per capita per day (GPCD) beginning January 1, 2025, which will decrease to 50 GPCD beginning January 1, 2030 (CWC section 10609.4(a)). The per person unit water use factors used by the City in the 2020 UWMP for water demand planning purposes are based on a minimum of 60 gpd/person for high density residential with recycled water, up to 172 gpd/person for rural residential (UWMP, p. 4-10).

In regard to landscaping guidelines for the Project, "Landscaping shall be subject to the same landscaping guidelines in the adopted Specific Plan, with the addition of more drought tolerant planting options to meet current code requirements" (SPA, p. 7-72). Further, the Project will amend the existing Specific Plan landscape guidelines to encourage or require new water conservation practices through the use of low water use ground cover and drought tolerant species, keeping water use for planter areas to no more than the Maximum Applied Water Allowance (MAWA), and conformity with the City's water efficient landscape ordinance (SPA, p. 7-106).

1.7 Methodology of Analysis

This Assessment follows the DWR *Guidebook for Implementation of Senate Bill 610 and Senate Bill 221 of 2001* (DWR 2003). Section 1 of this Assessment describes the existing and proposed land use designations of the Project site, the proposed Project's relation to a previous WSA and the water supplier's most recent UWMP. Section 2 provides the water demand analysis of the Project; Section 3 reviews the projected water supplies for the Project; Section 4 contains the required discussion of the water

supplier's groundwater supplies; and Section 5 concludes the Assessment by answering the primary question at hand.

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SECTION 2 - WATER DEMAND ANALYSIS

The purpose of this section is to evaluate whether the proposed Project was considered in the water supplier's planning for water demand. This section will: 1) identify the various water use sectors, 2) identify water demand by those sectors for the next twenty years, and 3) compare the calculated water demand of the proposed Project to the water demand assumed in the most recent UWMP for the same property.

Law

CWC Section 10910:

(c) (2) (2) If the projected water demand associated with the proposed project was accounted for in the most recently adopted urban water management plan, the public water system may incorporate the requested information from the urban water management plan in preparing the elements of the assessment required to comply with subdivisions (d), (e), (f), and (g).

(3) If the projected water demand associated with the proposed project was not accounted for in the most recently adopted urban water management plan, or the public water system has no urban water management plan, the water supply assessment for the project shall include a discussion with regard to 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 uses.

2.1 Citywide Demographic Factors

A variety of demographic factors may affect water use. The UWMP Act lists several demographic factors to be detailed in UWMP's including climate, current and projected

population, density, and the mix of customer types (CWC sections 10631(e)(1)-(2)). As suggested by DWR, these data are provided herein and are taken generally from City's 2020 UWMP (Appendix A).

Climate

The climate of the City including the Project site can be described as generally mild temperatures and virtually no days below freezing. Summers are dry with average maximum daily temperatures in the high 80s to low 90s. The average annual rainfall is roughly 10.68 inches. (UWMP, p. 3-5)

Population

The City is divided into two distinct areas: Old Model Colony (OMC) and Ontario Ranch. The OMC mostly consists of residential, commercial, and industrial developments including the Ontario Airport. Ontario Ranch is currently in the process of a planned conversion from agriculture to residential, commercial, industrial, and public uses.

The OMUC water service area population as of 2020, including both OMC and Ontario Ranch, is estimated at 178,409 persons (UWMP, p. 3-6). Based on the City General Plan ("TOP") and anticipated development patterns, population at citywide buildout in 2040 is estimated at 362,903 persons as shown in **Table 2-1**, which is an increase of more than 103 percent over 20 years. Most of the anticipated growth will occur through infill, densification in the OMC and development in Ontario Ranch.

Table 2-1 OMUC Service Area Population Estimates, 2010-2040

Population Served[a]	2010	2015	2020	2025	2030	2035	2040[b]
	163,924	168,777	178,409	232,583	266,339	300,095	362,903

Source: UWMP, p. 3-7.
(a) Does not include the portion of the City that receives water service from Cucamonga Valley Water District.
(b) The City estimates buildout by 2040.

The City has considered certain demographic factors in its water management planning, including special housing needs (e.g., low-income earners, single-parent families, large families, seniors, people with disabilities, and homeless persons) (UWMP, p. 3-7).

2.2 City of Ontario's Current and Future Water Demand

OMUC serves at least 36,514 customer connections as part of its potable and non-potable water distribution systems (UWMP, p. 2-4). In fiscal year 2020 (July 1, 2019, through June 30, 2020, or FY 19/20), the total potable water demand in the OMUC service area was 32,109 acre-feet (AF) and the recycled water demand was 7,812 AF (UWMP, p. 4-5). "Over the past ten years, the City's total water demands (including potable and recycled water demands) have ranged from 36,036 AFY to 45,196 AFY, with an average of 40,831 AFY. The recorded water demands by customer type for the OMUC water service area are provided in **Table 2-2** (next page).

Table 2-2 Recorded Citywide Water Demand (AFY)

Customer Type	2005[a]		2010[a]		2015[b]		FY 19/20[d]	
	Volume	No. of Connections	Volume	No. of Connections	Volume	No. of Connections[c]	Volume	No. of Connections[e]
Single-Family Residential	16,421	28,932	13,253	29,473	10,941	26,838	12,502	31,626
Multi-Family Residential	6,147	2,244	5,425	2,069	4,839	1,968-	5,068	2,164
Commercial	8,369	3,095	6,692	3,285	6,584	3,201-	5,359	3,255
Industrial	2,402	327	2,044	278	1,471	268-	2,078	332
Governmental	1,178	320	0	-	-	-	538	-
Landscape	6,813	1,246	7,170	1,245	4,564	1,100	4,631	1,469
Agriculture	0	0	0	-	-	-	-	0
Other	378	161	819	308	340	66	368	
Loss	3,154	-	-	-	-	-	1,565	
S/T/E	0	-	0	-	206	-	-	
Subtotal	44,863	36,325	35,403	36,658	28,945	33,441-	32,109	38,846
Recycled Water	1,829	-	1,547	178	7,208	279	7,812	444
Total	46,692	36,325	36,950	36,836	36,153	33,720	39,921	39,290

Note: AFY = acre feet per year; S/T/E = sales/transfers/exchanges.
(a) AKM 2011, pp. 3-2, 3-5.
(b) UWMP 2016, pp. 2-1, 4-2, Appendix B.
(c) CY 2015 Annual Report to Division of Drinking Water.
(d) OMUC 2020 UWMP, pp. 4-3, 4-5.
(e) CY 2020 Annual Report to Division of Drinking Water.

The projected citywide water demands from 2025 to 2045 are shown in **Table 2-3** (next page).

Table 2-3 Future Citywide Water Demand (AFY)

Customer Type	2025	2030	2035	2040	2045
Single Family Residential	15,723	17,540	19,109	22,431	22,431
Multifamily Residential	6,374	7,110	7,746	9,093	9,093
Commercial	6,740	7,519	8,191	9,615	9,615
Industrial	2,613	2,915	3,176	3,728	3,728
Institutional / Governmental	677	755	822	965	965
Landscape	5,824	6,497	7,078	8,309	8,309
Losses	1,968	2,196	2,392	2,808	2,808
Other	463	5156	562	660	660
Subtotal Potable Demand[(a)]	40,382	45,048	49,076	57,609	57,609
Recycled Water Demand[(b)]	12,168	13,465	14,762	16,059	16,059
Total Water Demand	52,550	58,513	63,838	73,668	73,668

Notes: AFY = acre-feet per year; Does not include areas within the City that are not served by OMUC. Buildout assumed for 2040.

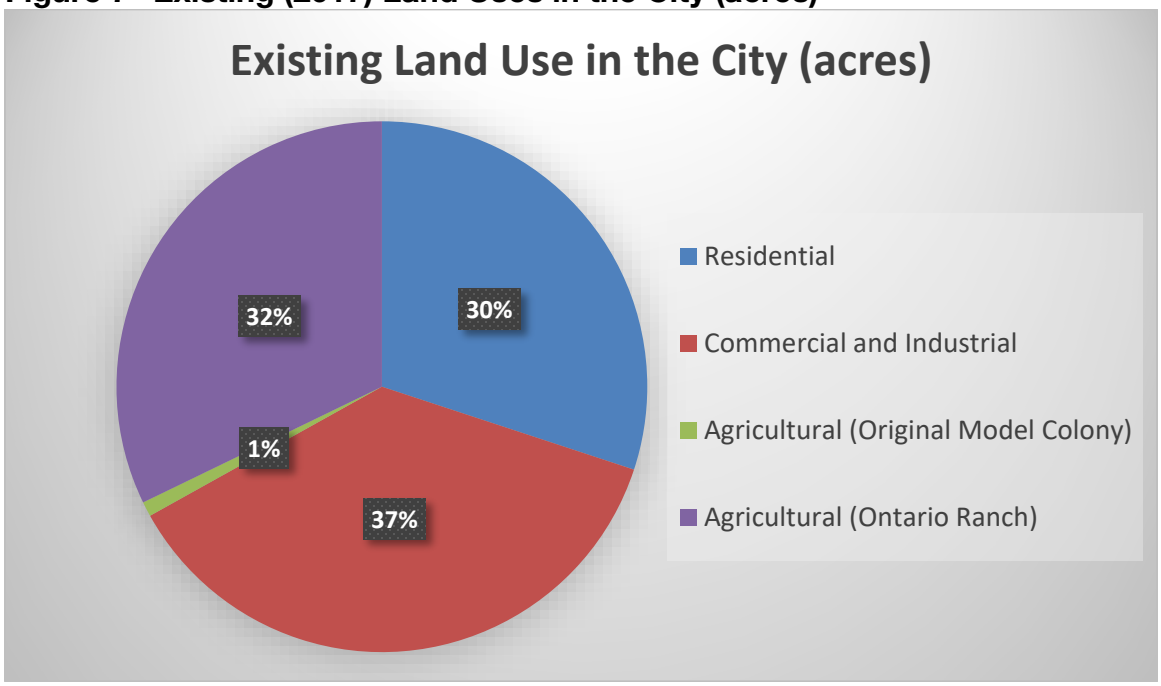
(a) 2020 UWMP, p. 4-4.

(b) 2020 UWMP, p. 4-5. Agricultural water demands are included in recycled water retail demands.

Water use patterns change during dry years. The expected changes to water demand and water supply during dry years are provided in Section 3 – Water Supply Analysis.

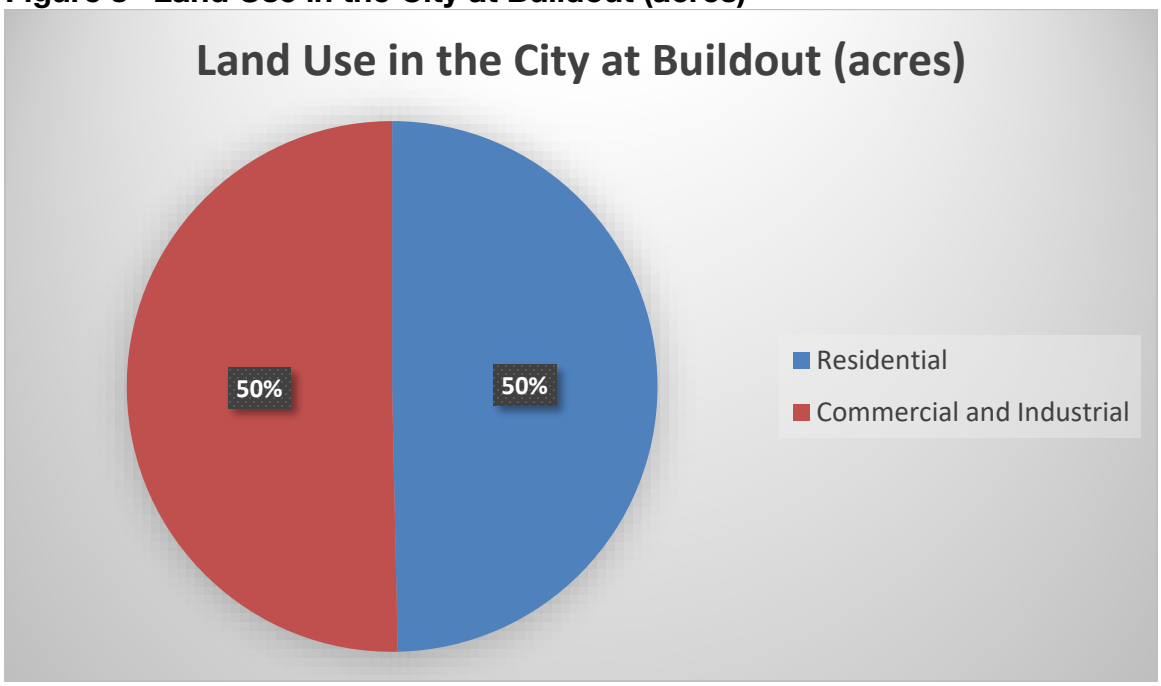
The City's 2020 UWMP and 2020 Water Master Plan assume the same trend in future land use changes within the City. Namely, the City land uses are currently a nearly-equal balance of residential, commercial / industrial, and agricultural as shown in **Figure 8**. However, agricultural use is projected to be completely replaced with residential, commercial and industrial by buildout, or approximately 2040 as shown in **Figure 9**.

Figure 7– Existing (2017) Land Uses in the City (acres)



Source: 2020 UWMP, p. 3-8.

Figure 8– Land Use in the City at Buildout (acres)



Source: 2020 UWMP, p. 3-8.

2.3 Project Site Land Use Assumed in the UWMP

In order to calculate ultimate water demand for Ontario Ranch, which includes the Project, the City's 2020 Water Master Plan and 2020 UWMP assumed the land uses of approved Specific Plans, and where there was none, the current General Plan land use plan (current as of May 2017) (AKM 2020). These assumptions are shown in a spreadsheet and exhibits in Appendix 4-1 of the Water Master Plan and shown in Figure 3, herein. Using the City's current unit water demand factors, the estimated total water demand for the site that was accounted for in the 2020 UWMP is 539 acre-feet per year (AFY), as shown in **Table 2-4**.

Table 2-4 Water Demand of the Project Site Land Use Assumed in the UWMP

Planning Area[a]	Potable Water Demand (AFY)[b]	Recycled Water Demand (AFY)[c]	Total Water Demand (AFY)
PA-30 and -31	109	35	144
PA-32, -33, and -34	267	128	395
Total	376	163	539

Notes: AFY = acre feet per year.

(a) Based on the land use designations, acreages, and dwelling unit counts in Appendix 4-1 of the 2020 Water Master Plan Update (AKM, 2020) for Project planning areas 30 - 34, which total 771 units and one school site over 178 acres.

(b) Potable unit water demand factors from AKM 2020, p. 4-10.

(c) Recycled water demand factors from Stantec 2020, p. 5.26.

2.4 Proposed Project Water Demand

The estimated total water demand of the proposed Project as shown in Figure 4 using the City's current unit water demand factors for potable and recycled water is detailed in **Spreadsheet 1** and summarized in **Table 2-5**.

Table 2-5 Proposed Project Water Demand

Planning Area	Potable Water Demand (AFY)	Recycled Water Demand (AFY)	Total Water Demand (AFY)
PA-30 and -31 [(a)]	47	5	52
PA-32, -33, and -34	659	120	779
Total	706	125	831

Notes: AFY = acre feet per year. Refer to Figure 4 and Spreadsheet 1.
(a) Water demand shown here represents only the additional potential units created by the Project (155 units) and does not include the water demand of the already-approved units for these planning areas.

The following assumptions were made to estimate water demand for the Project:

- As stated in the SPA, "The park requirement for the 2021 Amendment will be fulfilled through the implementation of pocket parks at the Tentative Map level and payment of in-lieu fees for park dedication" (p. 4-5). The current land use plan shown in Figure 4 does not identify the sizes of any future parks within the Project limits. It is assumed that the water demand for any future parks would be met with recycled water, which has the irrigation unit demand factor of 2,350 gpd/acre (Open Space – Recreational; Stantec, p. 5.26).
- According to the SPA, if the proposed middle school site located within the Project is not constructed, it would be developed instead "…with a blended average of Low-Medium and Medium Density similar to other parcels". Because a General Plan Amendment would be required to change the site from school to residential, this WSA does not estimate the water demand of the site with a residential land use.

Conclusion

The estimated total water demand for the Project site that was assumed in the 2020 UWMP is approximately 539 AFY (Table 2-4). The estimated total water demand for the proposed Project is approximately 831 AFY (Table 2-5). This is a total difference of 292 AFY (potable and recycled combined). Because the City's water demand projections in the 2020 UWMP were based on a lower development density for the same piece of land

than that which is proposed by the Project, it can be deduced that the water demand for the Project was not accounted for in the most recently adopted 2020 UWMP.

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SECTION 3 - WATER SUPPLY ANALYSIS

This section identifies the sources of potable water utilized and available to the water supplier of the proposed Project. The purpose of this section is to evaluate the water supplies that could be utilized by the proposed Project during normal, single-dry, and multiple-dry water years during a 20-year projection.

OMUC is the water supplier to the City and the proposed Project. OMUC has the following sources of water supply: City wells in the Chino Groundwater Basin; treated groundwater from the Chino Desalter Authority (CDA); recycled water from Inland Empire Utilities Agency (IEUA); purchased water from San Antonio Water Company (SAWCo); and imported wholesale water from the Water Facilities Authority (WFA).

Law

CWC Section 10910(d)(1)*:*

The assessment required by this section shall include an identification of any existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project, and a description of quantities of water received in prior years by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), under the existing water supply entitlements, water rights, or water service contracts.

(2) An identification of existing water supply entitlements, water rights, or water service contracts held by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), shall be demonstrated by providing information related to all of the following:

(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 in order to be able to convey or deliver the water supply.

3.1. Documenting Wholesale Water Supplies

Many retail water suppliers in California, including OMUC, receive supplies from one or more water wholesalers. SB 610 requires the WSA to document wholesale supplies received by: 1) describing the quantities of water received from each wholesaler in prior years; 2) identifying existing entitlements, water rights, and/or water service contracts held by the City for the wholesale supply; 3) provide proof of entitlements, water rights, service contracts, relevant capital outlay programs, and construction permits for necessary infrastructure to deliver wholesale supplies, if any; and 4) regulatory approvals required to convey or deliver the wholesale supply.

Wholesale Supplies Received

OMUC receives wholesale water from the WFA who purchases untreated imported water from IEUA, who in turn obtains it from The Metropolitan Water District of Southern California (MWD). WFA and IEUA are both wholesale water suppliers and IEUA is a member agency of MWD. MWD is a wholesaler and contractor for State Water Project water imported from northern California. State Water Project water is available as stipulated by DWR in response to the hydrology and environmental regulations that can change available supply.[2] Therefore, imported water supplies to southern California can be highly variable; in January 2014 for example, the allocation of State Water Project water to all contractors was reduced to 0 percent due to persistent drought conditions. Nonetheless, MWD has projected in its 2020 UWMP,

[2] DWR, *State Water Project Delivery Capability Report*, published every 2 years, as well as "Notice to State Water Project Contractors" issued as often as needed.

100 percent water supply reliability over the next 20 years (2025-2045) during average, single-dry, and multiple-dry years (MWD UWMP, pp. ES-6 and ES-7).

The amount of imported water purchased by IEUA from MWD is limited by a purchase order agreement that allows IEUA to purchase up to 93,283 acre-feet per year (AFY) at its lowest rate (Tier I) through Dec. 31, 2024 (IEUA Resolution no. 2014-12-1 located in Appendix I). The purchase order agreement includes an annual minimum purchase commitment of 39,835 AFY, which is slightly less than the minimum operational need of IEUA's four water treatment plants (40,000 AFY) (IEUA 2016 IWRP, p. 36). Resolution 2014-12-1 also establishes how much water WFA, Cucamonga Valley Water District, and Fontana Water Company may purchase from IEUA, up to 69,572 AFY (IEUA 2020 UWMP, p. 2-6).

The WFA was formed in 1980 as a Joint Powers Authority by the cities of Chino, Chino Hills, Ontario, Upland, and the Monte Vista Water District in order to construct and operate water treatment facilities for providing supplemental potable water to the member agencies. In 1985, the City established an agreement to purchase capacity in the WFA water treatment plant; a copy of which is located in Appendix J. Then, in 1988 the WFA finished construction of the Agua de Lejos Water Treatment Plant (WTP) in Upland to treat the imported water from IEUA and MWD to meet drinking water standards.

Currently, the Agua de Lejos WTP has the capacity to treat and disinfect 81 million gallons per day (mgd). Recorded flows through the Agua de Lejos WTP have ranged from 40 to 50 mgd during the peak summer months and can be as low as 9-12 mgd during winter months (http://www.wfajpa.org/#Facilities). As documented in WFA Ordinance No. 99-07-02 (located in Appendix K), the City owns 31.4 percent of the plant capacity of the Agua de Lejos WTP. As of 2020, that proportion is equivalent to approximately 25 mgd (28,004 AFY) (AKM 2020, p. 3-2). OMUC can purchase up to 9,915 AFY (8.9 mgd) of imported supply through WFA at Tier 1 rates. Beyond that amount, OMUC could continue to purchase at Tier 2 rates. As of FY 19/20, OMUC

purchased 6,513 AF (5.8 mgd) of wholesale water from the WFA (OMUC 2020 UWMP, p. 6-37). The actual and projected wholesale water supplies that are projected to be available to WFA through 2045 are shown in **Table 3-1**.

Table 3-1 Wholesale Water Supplies Available to WFA (AFY)

Wholesale Water	2015[a]	2020[b]	2025	2030	2035	2040	2045
	Actual		Projected[b]				
WFA (potable)	14,864	25,492	30,651	31,997	33,435	34,829	36,280

Note: WFA = Water Facilities Authority; AFY = acre feet per year.
(a) Data for 2015 Actual from *IEUA and WFA 2015 UWMP*, pp. 3-9 – 3-10.
(b) Data for 2020 Actual and 2025 through 2045 Projected from *WFA 2020 UWMP* (p. 6-18, (Appendix F)).

To reduce dependence on imported water supplies, OMUC joined the "Dry Year Yield Storage Program," which is described below.

Dry Year Yield Storage Program

The Dry Year Yield (DYY) storage program is a cooperative Conjunctive Use Program Agreement between MWD, IEUA, Chino Basin Watermaster, Three Valleys Municipal Water District, and the Chino Basin groundwater producers (Agreement No. 49960 [DYY 2014]). Under the DYY Program, MWD can store up to 100,000 AFY of water in the Chino Groundwater Basin during wet years when surplus water is available, and to reduce imported water deliveries up to 33,000 AFY in dry, drought, or emergency periods, but not to exceed the amount of water in the MWD storage account (OMUC 2020 UWMP, p. 6-18).

The City executed an agreement with IEUA to participate in the DYY program in 2003. The DYY Agreement was amended in September 2014 to clarify storage measurement and extraction from the MWD storage account, define baseline conditions in calculations of performance targets, define procedures for variances in performance targets, revise administrative milestones, and make miscellaneous updates (refer

herein to for original agreement and amendments). The 2014 DYY amendments also provided for a minimum imported water delivery of 40,000 AFY during "call" years, establishing minimum needs for direct deliveries from MWD. As of June 30, 2020, the storage balance in the DYY account is 45,961 AF (OMUC 2020 UWMP, p. 6-18).

Participation in the DYY program obligates OMUC to reduce its use of imported water from WFA by a fixed amount, known as the "shift obligation" when MWD makes a "call" for their water stored in the Chino Basin. OMUC's shift obligation is 8,076 AFY, which is the amount OMUC purchases from WFA during a baseline year (OMUC 2020 UWMP, p. 6-33). OMUC purchases an additional 2,000 AFY from WFA that is then sold to neighboring water supplier Jurupa Community Services District (JCSD) who does not have an imported water connection. In 2014, JCSD entered into an agreement with the City to participate in the DYY program (a copy of which is located in Appendix L). During years when MWD makes a "call" for the water in their storage account, OMUC will decrease its purchase of WFA imported water by a combined total of 10,076 AF (8,076 AF plus 2,000 AF) compared to the previous year. To meet its obligation in the DYY program during a "call" year, JCSD will deliver 2,000 AF to OMUC from the Chino Basin Desalter Authority (CDA).[3]

DYY funds from DWR local assistance grants were used for the construction of three OMUC groundwater wells (Wells 45, 46, and 47) and an ion-exchange facility located at John Galvin Park to treat water extracted from Wells 44 and 52. When MWD makes a "call" for its stored water, OMUC can operate these facilities to meet its shift obligation. MWD will then pay for the cost of operations and OMUC would pay MWD (through IEUA) the full-service water rate. OMUC can use the DYY facilities to meet its normal water demands during other periods, but OMUC is responsible for the well operation and maintenance costs (OMUC 2020 UWMP, p. 6-33).

[3] Assuming JCSD's imported water baseline is 2,000 AFY (JCSD 2014).

The additional groundwater capacity provided by this program allows OMUC to increase the percentage supply used to meet peak demands and allow OMUC to be less reliant upon imported water supplies (OMUC 2020 UWMP, p. 6-33).

3.2. Documenting Water Supplies

As of the 2020 UWMP, approximately 46 percent of OMUC's water supply came from groundwater, 34 percent from imported water, and 20 percent of supply was recycled water (OMUC 2020 UWMP, p. 6-37).

The recorded water supplies available to OMUC from 2000 to FY 2019/2020 are provided in **Table 3-2** (next page) and the projected water supplies available to OMUC from 2025-2045 are provided in **Table 3-3.** In addition, each water supply source is identified as a water supply entitlement, water right, or water service contract per SB 610 guidance. Appropriative rights to groundwater are discussed in Chapter 4 – Groundwater Analysis.

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Table 3-2 Recorded OMUC Water Supplies (AFY)

Source	2000[a]	2005[b]	2010[c]	2015[d]	FY 19/20[e]	Form of Right	Amount of Right
Wells	36,862	28,799	20,955	19,544	18,395	Appropriative	Varies (see Sec. 4)
Purchased							
WFA	9,258	13,406	8,923	6,413	6,513	Capacity Ownership	25 mgd (31.4% of plant capacity)
CDA	-	-	5,000	3,543	6,636	Capacity Ownership	8,533 AFY
SAWCo	-	-	-	443	565	Shareholder Entitlement	600 AFY
Subtotal Potable	46,120	42,205	34,878	29,943	32,109	--	--
Recycled	700[f]	-	1,547	7,208	7,812[g]	Contract	Ontario's share of sewer flows.
Total Supply	46,820	42,205	36,425	37,151	39,921	--	--

Notes: WFA = Water Facilities Authority; CDA = Chino Basin Desalter Authority; SAWCo = San Antonio Water Company; FY = fiscal year; AFY = acre-feet per year; mgd = million gallons per day.

(a) Webb 2004, p. 21.

(b) AKM 2011, pp. 3-8 and 5-12.

(c) AKM 2011, p. 4-2.

(d) OMUC UWMP 2016, p. 6-16.

(e) OMUC 2020 UWMP, Table 6-8.

(f) Webb 2004, p. 29.

(g) The City's share of sewer flows delivered to treatment plants in FY19/20, was approximately 12,645 AF (OMUC 2020 UWMP, p. 6-24).

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Table 3-3 Projected OMUC Water Supplies (AFY)

Source	2025	2030	2035	2040	2045	Form of Right	Amount of Right
Wells	20,249	22,915	24,943	31,476	31,476	Appropriative	Varies (see Sec. 4)
Purchased							
WFA	11,000	13,000	15,000	17,000	17,000	Capacity ownership	25 mgd (31.4% of plant capacity)
CDA	8,533	8,533	8,533	8,533	8,533	Capacity Ownership	8,533 AFY
SAWCo[4]	600	600	600	600	600	Shareholder entitlement	600 AFY
Subtotal Potable	40,382	45,048	49,076	57,609	57,609	--	--
Recycled	12,168	13,465	14,762	16,059	16,059	Contract	Ontario's share of sewer flows.
Total Supply	52,550	58,513	63,838	73,668	73,668	--	--

Note: AFY = acre feet per year; FY = fiscal year; mgd = million gallons per day.
Source: OMUC 2020 UWMP, Table 6-9, p. 6-38.

OMUC anticipates increasing its total water supply by pursuing: 1) full utilization of OMUC's groundwater rights in the Chino Basin allowed under the Chino Basin Groundwater Adjudication Judgment (including increased groundwater recharge with stormwater and recycled water described in Section 4); 2) expanding use of recycled water; and 3) expanding use of desalter water (OMUC 2020 UWMP, p. 6-38).

Water Supply Capacities

The capacity of each source of supply available to OMUC is provided in the *2020 Ontario Water Master Plan* (AKM 2020), which is provided in Appendix B. The capacity of the supply system refers to the maximum production rate based on the pumps and

[4] According to SAWCo's 2020 UWMP, the estimated projected annual water demands for OMUC for 2025 through 2045 is 601 AFY.

infrastructure. For example, the capacity of groundwater wells refers to a pumping rate based on running the pumps at full utilization, 24-hours a day, 7 days a week. Although this maximum rate of pumping is assumed in terms of comparing capacities, pumps are rarely used at more than two-thirds capacity. Knowing the system capacity is important to ensure OMUC can meet all demands imposed upon the system, specifically meeting "average day demand" and "maximum day demand." Demand can be met with multiple supply sources, storage, or a combination of both. OMUC's reservoirs are not discussed in this Assessment, however, they are used to regulate hourly fluctuations in demand, provide fire flow, and supplement supply during an extended outage of a source (AKM 2020, p. 7-3).

According to the 2020 Water Master Plan, OMUC is required to meet the following water supply criterion from the California Code of Regulations Related to Drinking Water: "a minimum source of supply equal of one maximum day demand of the service area (AKM 2020, p. 10-1). Further, OMUC has set a design criterion in its 2020 Water Master Plan that "requires a source of supply equal to one average day demand (19,280 gpm) from local sources" (AKM 2020, p. 10-1). As the land uses and population changes in OMUC service area, so does the average and maximum day demands. The maximum capacities of existing sources of supply available to OMUC are provided in **Table 3-4**.

Table 3-4 Existing (2020) Supply Capacities

Source	AFY	mgd	gpm
Existing Wells[(a)]	62,269	55.6	38,604
WFA at Aqua de Lejos WTP[	17,259	15.4	10,700
CDA from Chino I & II Desalter	8,533	7.62	5,290
Total Existing Capacity	88,061	78.62	54,594

Note: AFY = acre-feet per year; mgd = million gallons per day; gpm = gallons per minute.
From Table 10-2 of AKM 2020 (Appendix B).
(a) Assuming wells operate 24 hours per day for 365 days per year.

The maximum capacities of the 'ultimate' sources of supply available to OMUC according to the City's 2020 *Water Master Plan*, are provided in **Table 3-5**.

Table 3-5 Ultimate Supply Capacities

Source	AFY	mgd	gpm
Existing Wells	62,269	55.6	38,604
Future Wells	48,068	42.9	29,800
Subtotal[(a)]	110,337	99	68,404
WFA at Aqua de Lejos WTP	17,259	15.4	10,700
CDA from Chino I & II Desalter	8,533	7.62	5,291
Total	136,129	121.52	84,395

Note: AFY = acre-feet per year; mgd = million gallons per day; gpm = gallons per minute.
From Table 12-2 of AKM, 2020 (Appendix B).
(a) Assuming wells operate 24 hours per day for 365 days per year.

As described in the 2020 Ontario Water Master Plan, the combined ultimate capacity of existing and future wells is approximately 68,404 gpm (Table 3-5), which is about 192% of the future average day demand (35,716 gpm) and therefore meets the City and state supply criterion for average day demand coming from local sources (p. 12-1).

In addition, the ultimate supply capacity is equivalent to 84,395 gpm, which is about 154% of the City's future maximum day demand (54,778 gpm); therefore, the City is capable of providing the full projected maximum day demand (AKM 2020, p. 12-1). However, under ultimate conditions the supply capacity will require additional future wells, as shown in Table 3-5 to meet the water supply criterion for maximum day demand.

3.3. Descriptions of All Water Supply Projects

City Well Production

OMUC currently owns 17 active groundwater wells in the Chino Basin (AKM 2020, p. 6-1). The Chino Basin is one of the largest groundwater basins in southern California,

with an estimated 5 million AF in storage,[5] with another 1 million AF in additional storage capacity. OMUC is planning seven new wells in the 925 Pressure Zone serving Ontario Ranch with a combined additional supply capacity of 48,068 AFY (Table 3-5) (AKM 2020, p. 12-1).

In FY 19/20, OMUC pumped 18,395 AF from the Chino Basin (OMUC 2020 UWMP, p. 6-37). OMUC's existing well capacity is approximately 62,269 AFY (Table 3-4).[6] The recorded extractions from OMUC wells between 2016 and 2020 are shown in **Table 3-6.**

Table 3-6 Recorded Groundwater Production, 2016-2020 (AFY)

Supply	2016	2017	2018	2018	2020
City wells in Chino Basin	22,751	24,672	26,109	19,604	18,395

Note: AFY = acre feet per year
From OMUC 2020 UWMP, p. 6-19, Table 6-1 (Appendix A).

As of 2020, approximately 46 percent of OMUC water supply came from groundwater pumped by its own wells in the Chino Basin. OMUC strives to maximize local water supplies and minimize the need for imported water from other regions (OMUC 2020 UWMP, p. 1-5). A thorough description of the City's groundwater rights pursuant to SB 610 guidance is provided in Section 4 – Groundwater Analysis.

Chino Basin Desalter Authority (CDA) Groundwater Production

OMUC is a member of the CDA, a joint exercise of powers agency created on September 25, 2001, along with JCSD, Santa Ana River Water Company, IEUA and the

[5] The *2020 Safe Yield Recalculation Final Report* (May 15, 2020) indicates the estimated total volume of water in storage was 12.6 million AF in July 2018 (WEI 2020, p. 6-15).
[6] Assuming wells operate 24 hours per day for 365 days per year.

cities of Chino, Chino Hills, and Norco. Western Municipal Water District joined CDA on April 2, 2009. The goals of the CDA are:

- Achieve hydraulic control of the Chino Basin to prevent contaminated Chino Basin groundwater from entering Santa Ana River;
- Remove contamination (primarily nitrates, as well as TCE, PCE, and TCP) from groundwater in the southern portion of the Chino Basin; and
- Deliver the treated water to member agencies to offset the need for imported water.

CDA provides high-quality drinking water to CDA members through "take or pay" contracts. CDA operates 30 wells and two desalters (salt removers) that treated approximately 35,003 AF of Chino Basin groundwater in 2020 (CDA 2020 UWMP, p. 6-27). In the future, "CDA will pump up to 40,000 AFY of contaminated groundwater from the Chino Basin for water quality management purposes, groundwater cleanup, and hydraulic control required by the Regional Water Quality Control Board. CDA will provide up to 35,200 AFY of treated water to its member agencies" (CDA 2020 UWMP, p. 6-27).

The Chino I Desalter, located at 6905 Kimball Avenue in Chino, was completed in 2000 and expanded in August 2005 to its current rated capacity of 14.2 mgd (CDA 2020 UWMP p. 6-8). However, the Chino I Desalter cannot provide this rated capacity due to the high total dissolved solids (TDS) in the raw groundwater supply. The Chino II Desalter was completed in 2006 and is located at 11202 Harrel Street in the City of Jurupa Valley. The current rated capacity of Chino II Desalter is 33 mgd (CDA 2020 UWMP, p. 6-8).

Although Chino Desalter I capacity will not be increased, additional raw water capacity is provided by five new CDA wells in the Chino Creek Well Field. All five wells have been drilled and equipped.

According to the 2020 UWMP, in FY 19/20 OMUC purchased approximately 6,636 AF from CDA (Table 3-2). As shown in Table 3-3, the water supply from CDA to OMUC is projected to stabilize at 8,533 AFY by 2025, which would be roughly 16 percent of the total water supply portfolio for OMUC in 2025. The City's capacity rights to CDA are described in Section 4 – Groundwater Analysis.

Inland Empire Utilities Agency (IEUA) Recycled Water Supply

OMUC purchases recycled water supplies from IEUA, which treats the City's wastewater at its four regional wastewater reclamation plants. IEUA provides wastewater treatment services to seven Contracting Agencies, including the City of Ontario. OMUC has been using recycled water produced by IEUA since 1972. Currently, recycled water is used in the City for agricultural irrigation, landscape irrigation, golf course irrigation and industrial purposes.

"Pursuant to the Chino Basin Regional Sewage Service Contract, each Contracting Agency has the right of first purchase of their Base Entitlement. Base Entitlement is defined as the total quantity of sewage delivered into the Regional Sewerage System by the Contracting Agency less normal processing losses resulting from the treatment of sewage" (OMUC 2020 UWMP, p. 6-21). In FY 19/20, this amount was 12,645 AF (OMUC 2020 UWMP, p. 6-24). In FY 19/20, 7,812 AF of recycled water was purchased by OMUC for direct use (Table 3-2). This represents roughly 62 percent utilization of recycled water supply available to OMUC in FY 19/20. Recorded and projected supplies of recycled water available to OMUC are listed in **Table 3-7**.

Table 3-7 Recorded and Future Recycled Water Supply (AFY)

Beneficial Use Type	2020	2025	2030	2035	2040	2045
Agricultural irrigation	2,905	1,704	1,136	568	0	0
Landscape irrigation	3,290	7,088	8,612	10,136	11,659	11,659
Golf course irrigation	631	660	680	700	720	720
Industrial use	986	2,716	3,037	3,358	3,680	3,680
Total	7,812	12,168	13,465	14,762	16,059	16,059

Note: AFY = acre feet per year
From OMUC 2020 UWMP, p. 6-28 (Appendix A). Buildout estimated for 2040.

Over the next 20 years, landscape irrigation is projected to have the greatest increase in demand for recycled water followed by industrial use within the OMUC service area. Agricultural properties are expected to convert to more urban land uses, while supplies to golf courses are expected to remain relatively stable. (OMUC 2020 UWMP, p. 6-28).

IEUA has prepared recycled water studies, plans, and strategy documents to bring a regional recycled water delivery system to fruition. OMUC updated their Recycled Water Master Plan in 2020 (located in Appendix C) to fully coordinate with IEUA's recycled water planning efforts.

San Antonio Water Company (SAWCo) Potable Water Supply

SAWCo is a mutual water company and corporation located in Upland. SAWCo has provided water service to its active shareholders for over 135 years. Although SAWCo does not technically meet the threshold as a retailer or wholesale water agency that needs to prepare an UWMP, they have done so nonetheless in 2020.

SAWCo supplies water based on entitlement only, which is based on the number of shares held. The number of shares is finite and considered a commodity that can be divided or sold. The "entire water of the company" and the current entitlement for

2020 is equivalent to 12,570 AFY, which distributed among the 6,178 shares. The volume per share is subject to change (OMUC 2020 UWMP, p. 6-8).

The City owns 295 shares of SAWCo, which equates to a current entitlement of 600 AFY of potable water to OMUC (OMUC 2020 UWMP, p. 6-8). In FY 19/20, OMUC received an actual volume of 600 AF (Table 3-2). OMUC has forecasted that future available supplies will be 600 AFY from 2025 to 2045 (Table 3-3). The City receives water from SAWCo indirectly through a connection made in 2015 from SAWCo to the WFA.

SAWCo water supplies are a mixture of potable and non-potable water from San Antonio Creek, the San Antonio Tunnel and three groundwater basins: Chino Basin, Cucamonga Basin and Six Basins (OMUC 2020 UWMP, p. 6-9). No new sources of supply are anticipated to be developed by SAWCo over the planning horizon. Actual supply available to SAWCo in 2020 totaled 2,584 AF of potable supply and 13,762 AF of non-potable supply. In their 2020 UWMP, SAWCo estimates for 2025 and 2030 that total reasonably available supplies will be 15,260 AFY (SAWCo 2020 UWMP, p. 5-10).

In terms of future reliability, SAWCo has stated the following in its 2020 UWMP (p. 6-4): "SAWCo expects to meet demands under all water year scenarios with existing supply sources." In addition, SAWCo has future transfer and exchange projects planned to mutually benefit certain shareholders during an emergency, including OMUC. SAWCo is currently constructing several projects to increase storage and capture all raw water released through the Frankish Tunnel. Both projects are anticipated to be completed in early 2021 (SAWCo 2020 UWMP, p. 5-7).

3.4 Documenting Normal Year Water Supply and Demand

OMUC has assumed in its 2020 UWMP that customer water demand and available water supply are equal during "normal" precipitation years. The normal year water supplies available to OMUC, as well as the normal year water demand projections are compared in **Table 3-8,** which are based on the City's 2020 Water Use Target of 196

GPCD for potable water demands (OMUC 2020 UWMP, p. 7-9). OMUC has estimated that sufficient supply will be available during any normal year occurring between 2025 and 2045.

Table 3-8 OMUC Projected Normal Year Supply and Demand (AFY)

	2025	2030	2035	2040	2045
Supply	52,550	58,513	63,838	73,668	73,668
Demand	52,550	58,513	63,838	73,668	73,668
Difference	0	0	0	0	0

Note: AFY = acre feet per year
From OMUC 2020 UWMP, p. 7-10 (Appendix A).

3.5 Documenting Dry Year Water Supply and Demand

The following assumptions are made in OMUC's 2020 UWMP to estimate future water supplies and demands during a single dry year:

- *The ratio of total water supplies (including potable and recycled water supplies) available to the City during a historical normal year in FY 19/20 (39,921 AF) and during a historical single dry year in FY 17/18 (43,346 AF) were used to estimate the City's projected water demands during single dry years (p. 7-9).*
- *Water losses have been included in the potable water demands as 7 percent of the annual demand.*

OMUC has determined that the water demands during single dry years over the next 25 years will be met, as shown in **Table 3-9**.

Table 3-9 OMUC Projected Single Dry Year Supply and Demand (AFY)

	2025	2030	2035	2040	2045
Supply	57,058	63,534	68,847	79,989	79,989
Demand	57,058	63,534	68,847	79,989	79,989
Difference	0	0	0	0	0

Note: AFY = acre feet per year
From OMUC 2020 UWMP, p. 7-10 (Appendix A).

3.6 Documenting Multiple Dry Year Supply and Demand

OMUC has projected that the City can meet water demands during future five consecutive year drought periods, as shown in **Table 3-10** (next page).

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Table 3-10 OMUC Projected Multiple Dry Year Supply and Demand (AFY)

		2025	2030	2035	2040	2045
First Year	Supply	56,080	62,445	67,667	78,618	78,618
	Demand	56,080	62,445	67,667	78,618	78,618
	Difference	0	0	0	0	0
Second Year	Supply	56,248	62,632	67,870	78,853	78,853
	Demand	56,248	62,632	67,870	78,853	78,853
	Difference	0	0	0	0	0
Third Year	Supply	59,493	66,246	71,786	83,403	83,403
	Demand	59,493	66,246	71,786	83,403	83,403
	Difference	0	0	0	0	0
Fourth Year	Supply	54,268	60,428	65,481	76,078	76,078
	Demand	54,268	60,428	65,481	76,078	76,078
	Difference	0	0	0	0	0
Fifth Year	Supply	47,436	52,820	57,237	66,500	66,500
	Demand	47,436	52,820	57,237	66,500	66,500
	Difference	0	0	0	0	0

Note: AFY = acre-feet per year
From OMUC 2020 UWMP, p. 7-11, Table 7-4 (Appendix A).

3.7 Comparison of Available Water Supply and Demand

CWC section 10910 (c)(3) states: *If the projected water demand associated with the proposed project was not accounted for in the most recently adopted UWMP…the water assessment for the project shall include a discussion with regard to 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 uses.

As described in Section 2, the annual total water demand for the proposed Project is estimated at 831 AFY and the total water demand estimated by the previously planned land use of the same area is 539 AFY (Tables 2-4 and 2-5). This net increase of 292 AFY reflects an increase in potable demand of 330 AFY and a decrease in recycled water demand of -38 AFY.

As shown in Table 3-3 and Table 3-9, the future water supplies available to OMUC are projected to meet the projected water demands for the service area. Further, the future water demands in the 2020 UWMP did not consider the increase in potable water demand from the proposed Project. However, the increased water demand of the Project is just 0.4 percent of the citywide ultimate 2045 water demand/water supply as estimated by the 2020 UWMP (i.e., 73,668 AFY). Notably, as of 2020 OMUC can purchase up to 9,915 AFY (8.9 mgd) of imported supply through WFA at Tier 1 rates. Beyond that amount, OMUC could continue to purchase at Tier 2 rates (ultimate capacity for WFA supply is 15.4 mgd [Table 3-5]). In 2020, OMUC purchased about 6,513 AF from the WFA plant (Agua de Lejos WTP), which is well within their conveyance capacity of 15.4 mgd and within their rights of approximately 25 mgd. There is ample availability for OMUC to purchase additional imported water from the WFA that is within their rights to meet the needs of the proposed Project.

With the signing of AB 1668 and SB 606, the state has set an Indoor Residential Standard of 55 gallons per capita per day (GPCD) which will decrease to 50 GPCD by 2030 (CWC section 10609.4(a)). The per person unit water use factors used by the City are based on a minimum of 60 gpd/person; therefore, a per-person savings of at least 5 gallons per day of indoor residential potable water use would be achieved. Assuming an ultimate citywide residential population of 362,903 persons and water conservation efforts of at least 5 GPCD over the entire City, approximately 2,441 AFY of water could

be conserved (OMUC 2020 UWMP, p. 3-1). This savings would more than cover the increased and unplanned potable water demand of the proposed Project.

Agricultural properties within OMUC service area are expected to convert to urban land uses, which is consistent with the City General Plan Land Use Plan. Many agricultural operations in the City are on private wells and/or use recycled water. As shown in Table 3-7, recycled water deliveries for agricultural irrigation are projected to decrease to zero in 20 years. Further, industrial land uses (which may include some manufacturing uses) are the third most common type in the City (Table 3-7) and they are planned by the City General Plan to increase (Table 2-3).

Table 3-9 and Table 3-10 show that OMUC projects water supplies during single-dry and multiple-dry years in volumes sufficient enough to meet the demand of the service area over the next 20 years. Section 4 will describe the supply available to OMUC through rights held to Chino Basin groundwater that are greater than the amount currently extracted. OMUC can also bank water and pump in excess of their rights in the Chino Basin with payment of a replenishment fee.

In conclusion, based on the information provided in the 2020 UWMP and updated information provided by OMUC for this Assessment, the City has sufficient water supplies to meet the demand of the Project by purchasing additional water from WFA, and by using existing groundwater supplies and pumping capacities that are more than adequate to meet the additional water demands of the proposed Project during normal, single-dry, and multiple-dry water years including future agricultural and industrial / manufacturing uses. With the implementation of water conservation efforts, OMUC will further ensure its ability to provide sufficient supply for the proposed Project. Section 4 will discuss the City's water rights in light of this water supply and capacity analysis.

SECTION 4 - GROUNDWATER ANALYSIS

SB 610 requires specific groundwater information to be included in the WSA if groundwater will be a source of water for the proposed project. As discussed in Section 3, groundwater is one of the sources of supply for OMUC and therefore part of the water supply for the proposed Project.

Law

CWC Section 10910 (f):

If a water supply for a proposed project includes groundwater, the following additional information shall be included in the water supply assessment:

(1) A review of any information contained in the urban water management plan relevant to the identified water supply for the proposed project.

(2) A description of any groundwater basin or basins from which the proposed project will be supplied. For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has the legal right to pump under the order or decree. For basins that have not been adjudicated, information as to whether the department has identified the basin or basins as over drafted or has projected that the basin will become over drafted if present management conditions continue, in the most current bulletin of the department that characterizes the condition of the groundwater basin, and a detailed description by the public water system or the city or county if either is required to comply with this part pursuant to subdivision (b), of the efforts being undertaken in the basin or basins to eliminate the long-term overdraft condition.

(3) A detailed description and analysis of the amount and location of groundwater pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), for the past five years from any groundwater basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), from any basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(5) An analysis of the sufficiency of the groundwater from the basin or basins from which the proposed project will be supplied to meet the projected water demand associated with the proposed project. A water supply assessment shall not be required to include the information required by this paragraph if the public water system determines, as part of the review required by paragraph (1), that the sufficiency of groundwater necessary to meet the initial and projected water demand associated with the project was addressed in the description and analysis required by paragraph (4) of subdivision (b) of Section 10631.

4.1 Review of Urban Water Management Plan (CWC Section 10910(f)(1))

The City's 2020 UWMP, prepared by AKM on behalf of the City of Ontario (OMUC) was adopted by City Council Resolution 2021-036 and 2021-037 on June 1, 2021 (located in Appendix A). The UWMP includes information relevant to the identified water supply for the proposed Project and is incorporated herein. Relevant information includes: 1) current and projected water demands (*Water Use Characterization*) through year 2045; 2) a description of the Chino Groundwater Basin (*Water Supply Characterization*); 3) the reliability of the water supply, projected supply and demand comparisons, and water

shortage plans (*Water Service Reliability and Drought Risk Assessment and Water Shortage Contingency Plan*); and 4) water demand management efforts (*Demand Management Measures*).[7] The ultimate water demand projections of the 2020 UWMP are based on the findings of the City's 2020 Water Master Plan (AKM 2020) and 2020 Recycled Water Master Plan (Stantec 2020).

4.2 Groundwater Basin Descriptions (CWC Section 10910(f)(2))

The Chino Groundwater Basin is the direct source of groundwater for OMUC. Although water supplied to OMUC from SAWCo may include a combination of groundwater from other basins (i.e., San Antonio Tunnel, Cucamonga Basin, and Six Basins), the amount is minimal, and the basins are described in the 2020 SAWCo UWMP (located in Appendix H).

Chino Groundwater Basin Description

The Chino Basin covers approximately 240 square miles in the upper Santa Ana River Watershed, and underlies parts of Los Angeles, San Bernardino, and Riverside Counties. The state Department of Water Resources (DWR) identifies the Chino Basin as Basin No. 8-002.01, which is a sub-basin of the Upper Santa Ana Valley (Bulletin 118).[8] It is estimated the Chino Basin has approximately 5 million AF of water in storage, and an estimated 1 million AF of additional unused storage capacity.[9] While still considered a single basin for hydrologic purposes, the Chino Basin is divided into five management zones based on similar hydrologic conditions. Geographically speaking, the City is located in the approximate center of the Chino Basin. DWR Bulletin 118 (updated 03/05/18) describes the Chino Basin as follows:

[7] Words and phrases italicized parenthetically are in reference to chapters so titled in the 2015 UWMP.
[8] DWR collects, summarizes, and evaluates groundwater data in the "Bulletin 118" series, which present the results of basin evaluations and defines the boundaries of California's 515 alluvial groundwater basins. An update was provided in 2016. In Bulletin 118, DWR identifies each basin and sub-basin with a number code.
[9] The *2020 Safe Yield Recalculation Final Report* (May 15, 2020) indicates the estimated total volume of water in storage was 12.6 million AF in July 2018 (WEI 2020, p. 6-15).

> *The Chino Basin is bound on the northwest by the San Jose fault, on the north by the Cucamonga fault and impermeable rocks of the San Gabriel Mountains, and on the east by the Rialto-Colton fault. The basin is bound on the southeast by the Jurupa Mountains, Pedley Hills, La Sierra Hills, and the approximate location of the Santa Ana River. The Chino fault and impermeable rocks of the Chino Hills and Puente Hills bound the southwest side of the basin. In some areas, the basin boundary coincides with the Chino Basin (1978) groundwater adjudication boundary.*

The Chino Basin is an adjudicated basin and has been extensively studied by the court-appointed Chino Basin Watermaster (CBWM), with reports available at www.cbwm.org. The following is an excerpt that describes the Chino Basin geology from the Chino Basin Watermaster's management plan called the "Optimum Basin Management Program" or "OBMP" (1999, p. 2-2):

> *The Chino Basin is located within the Upper Santa Ana Valley, which is located in San Bernardino County and is bounded on the east by the Rialto-Colton fault; on the southeast by the contact with impermeable rocks forming the Jurupa Mountains; on the south by impermeable rocks of the Puente Hills and by the Chino fault; on the northwest by the San Jose fault; on the north by the impermeable rocks of the San Gabriel Mountains and by the Cucamonga fault. The location of the Chino Basin is provided in Figure 3. The surface of the Chino Basin is approximately 154,000 acres (or 240 square miles). The San Antonio Creek and Cucamonga Creek drain the Chino Basin area southward and flow into the Santa Ana River. Pursuant to the DWR Bulletin 118 (for Basin Number 8-2.01), the total storage capacity of the Chino Basin is approximately 18,300,000 AF.*
>
> *The water-bearing units in the Chino Basin includes Holocene and Upper Pleistocene alluvium. This Holocene alluvium consists mainly of alluvial-fan deposits, with maximum thickness of 150 feet that are coarsest in and near*

the mouths of the canyons and are finer away from canyon mouths in the southern part of the Chino Basin. The Pleistocene alluvium is exposed mainly in the north part of the subbasin and supplies most of the water to well located within the Chino Basin. The Pleistocene alluvium contains interfingering finer, alluvial-fan deposits and coarser, fluvial deposits.

The Chino Basin was formed when eroded sediments from the San Gabriel Mountains, the Chino Hills, Puente Hills, and the San Bernardino Mountains filled a structural depression. The bottom of the Basin – the effective base of the freshwater aquifer – consists of impermeable sedimentary and igneous rocks. The base of the aquifer is overlain by older alluvium of the Pleistocene period followed by younger alluvium of the Holocene period. The younger alluvium varies in thickness from over 100 feet near the mountains to a just few feet, south of Interstate 10 and generally covers most of the north half of the Basin in undisturbed areas. The younger alluvium is not saturated and thus does not yield water directly to wells. Water percolates readily in the younger alluvium and most of the large spreading basins are located in the younger alluvium. The older alluvium varies in thickness from about 200 feet thick near the southwestern end of the Basin to over 1,100 feet thick southwest of Fontana, and averages about 500 feet throughout the Basin.

Legal Right to Pump from the Chino Basin

Water rights to the Chino Basin were adjudicated by the Superior Court of the State of California for the County of San Bernardino in 1978 (a copy of the Judgment and amendments thereto are provided in Appendix M). The court's Judgment declared the safe yield of the Chino Basin at 140,000 acre-feet per year (AFY).[10] Withdrawal in

[10] Judgment (1978) defines Safe Yield as, "The long-term average annual quantity of groundwater (excluding replenishment or stored water but including return flow to the Basin from use of replenishment or stored water), which can be produced from the basin under cultural conditions of a particular year without causing an undesirable result."

excess of safe yield is termed overdraft. The Chino Basin Watermaster may determine that the operating safe yield (OSY) can be higher from year-to-year depending on factors including favorable precipitation and management efforts that maximize the beneficial use of the groundwater Basin.[11] The Chino Basin Watermaster has undertaken a safe yield redetermination. In July 2020, the court ordered that the safe yield be reduced by 3% and reset to 131,000 AFY for the period of July 1, 2020, to June 30, 2030. The court previously reset the safe yield from its initial 140,000 AFY to 135,000 AFY in 2017 for the period of 2010 to 2020.

The Chino Basin Watermaster is comprised of three stakeholder groups (or "pools"): Overlying Agricultural Pool Committee (representing dairymen, farmers, and the State of California); the Overlying Non-Agricultural Pool Committee (representing businesses and industries); and the Appropriative Pool Committee (representing local cities, public water districts and private water companies). The Chino Basin Watermaster carries out the provisions of the Judgment including monitoring of the Chino Basin and files an annual report on pumping and replenishment.

The City is a member of both the Overlying Non-Agricultural Pool and the Appropriative Pool. The Judgment allocates a portion of the safe yield to the Overlying Non-Agricultural Pool and a portion of the OSY to the Appropriative Pool. Pursuant to the Judgment, the City has appropriative rights to 20.742 percent of the OSY allocated to the Appropriative Pool. The City has gained 53.338 percent of the safe yield assigned to the Overlying Non-Agricultural Pool (CBWM 43rd Annual Report, p. 5). The assigned share of the safe yield and OSY change depending on the safe yield set by the court.

The Judgment allocates safe yield of the Chino Basin according to the three pools as described above (Appendix M, Paragraph 13). The members of each pool are then enjoined from producing water from the Chino Basin in excess of such allocated

[11] Judgment (1978) defines Operating Safe Yield (OSY) as, "The annual amount of groundwater which Watermaster shall determine, pursuant to criteria specified in Exhibit "I", can be produced from Chino Basin by the Appropriative Pool parties free of replenishment obligation under the physical solution herein."

amount "except pursuant to the provisions of the Physical Solution" (Appendix M, Paragraph 13(a)-(c)).

The Physical Solution of the Judgment is described in broad terms by Paragraphs 39 through 57 of the Judgment. Paragraph 45 provides the Chino Basin Watermaster with the authority to levy and collect assessments for the purchase of water necessary to balance the production by any party in excess of that party's allocated share of safe yield of the Chino Basin. Paragraphs 49 and 50 then describe the sources of water which are authorized to function as sources of replenishment water and methods by which water can be replenished to the Chino Basin. Exhibit H, Paragraph 7, of the Judgment describes the way in which costs for replenishment water will spread among the members of the Appropriative Pool.

The afore-cited paragraphs of the Judgment evince a clear expectation that parties, including the City/OMUC, would produce water in excess of their adjudicated production rights. The injunction in Paragraph 13 of the Judgment should thus be interpreted to mean that parties are enjoined from producing water in excess of their adjudicated rights except to the extent that they will pay a replenishment assessment.

The ability to produce water from the Chino Basin is accordingly not a matter of availability, as contemplated and sanctioned by the Judgment for the reasons discussed above, but rather a matter of cost. Water produced in excess of production rights will cost more than water produced within a party's production rights. Thus, the quantity and reliability of groundwater supplies under the Judgment for purposes of this Assessment is a matter of cost of the water produced from the Chino Basin rather than limitations on production which may otherwise operate to reduce the sufficiency of the groundwater supply.

In addition to the water supplies described in Section 3, OMUC has rights to groundwater held in the Chino Basin as described below (from Chino Basin Watermaster's *Approved 2020/2021 Assessment Package for Production year 2019/2020*, dated Nov. 19, 2020) and in **Table 4-1**:

- **Appropriative Right.** The City has appropriative rights to 20.742 percent of the OSY allocated to the Appropriative Pool. As of FY 19/20, the OSY is 44,834 AF; therefore, the City's assigned share is 9,299.5 AF (CBWM 2020, p. 10.1). To supplement the 2017 decrease in safe yield, the City currently receives an additional 1,037.1 AFY transferred from unproduced Agricultural Pool rights ("Safe Yield Reduction").

- **Overlying Non-Agricultural Right.** The City has purchased and has rights to 53.338 percent of the safe yield assigned to the Overlying Non-Agricultural Pool, which is currently 7,350.3 AFY. As of FY 19/20, the City's assigned share is 3,921 AF (CBWM 2020, p. 4.1).

- **Land Use Conversions.** The City gains rights to additional Chino Basin groundwater as a result of land use conversions from agricultural to non-agricultural uses. This is expected to increase from development of Ontario Ranch; the total of which is adjusted annually by the Watermaster. As of FY 19/20, the City received 4,254 AF from land use conversions (OMUC 2020 UWMP, p. 6-11). .

- **Annual Early Transfers.** The Chino Basin Watermaster can approve an "Early Transfer" of water to the Appropriative Pool equal to the quantity of water not produced by the Overlying Agricultural Pool that is remaining after all land use conversions are satisfied, pursuant to the Peace Agreement.[12] The Early Transfer Water is annually allocated among the Appropriative Pool members in accordance with their pro-rata share of the initial Safe Yield. For the City, this is 20.742 percent of the "early transfer" water that the Watermaster may transfer

[12] In 2007, the parties to the Chino Basin Judgement approved the "Peace Agreement" which is a set of measures proposed by Chino Basin Watermaster to supplement the OBMP Implementation Plan. Focus for the measures were placed on achieving hydraulic control (reduction of groundwater discharge from the Chino North Management Zone to the Santa Ana River). To achieve hydraulic control, re-operation (controlled overdraft) of the groundwater basin is proposed. Strategically placed wells would be constructed in the basin and the groundwater would be pumped to the Desalter to improve the long-term reliability of the basin.

from the Overlying Agricultural Pool (OMUC 2020 UWMP, p. 6-10). The amount available for transfer changes from year to year but is projected to increase. In FY 19/20, the City received 5,177.6 AFY as its share of Early Transfer (CBWM 2020, p. 16.1).

- **Groundwater Recharge Credits.** The City is entitled to water rights due to groundwater recharge with stormwater and recycled water in the Chino Basin. The credited amount is based on the volume recharged and therefore varies annually but is projected to increase over time. In FY 2018/2019, 2,544 AF of recycled water was recharged for the City. In FY 19/20, no recharge was credited to the City (OMUC 2020 UWMP, p. 6-11).

- **Fontana Recycled Water Rights.** The City has a long-term contract to purchase up to 3,000 AFY of recharged recycled water rights from the City of Fontana (a copy of which is in Appendix N). The City of Fontana does not operate a water system. The amount purchased by OMUC each year will vary. In FY 2018/2019, the City purchased 2,157 AF of Fontana's recycled water entitlement. In FY 19/20, no recharged water rights were purchased (OMUC 2020 UWMP p. 6-12).

- **Groundwater Storage Accounts.** The City has rights to store water in the Chino Basin (Appropriative and Overlying Non-Agricultural) and has been increasing its various storage accounts in recent years. The City holds water in both local storage accounts and supplemental accounts. Local storage accounts hold un-pumped OSY groundwater rights and stormwater that has been recharged into the Chino Basin. Supplemental accounts hold both imported water and recycled water that has been recharged into the Chino Basin. As of June 30, 2020, the City has 96,544 AF in storage pursuant to Appropriative rights and 3,461.4 AF in storage pursuant to Overlying Non-Agricultural rights (OMUC 2020 UWMP, p. 6-12).

Table 4-1 Ontario Groundwater Rights Summary

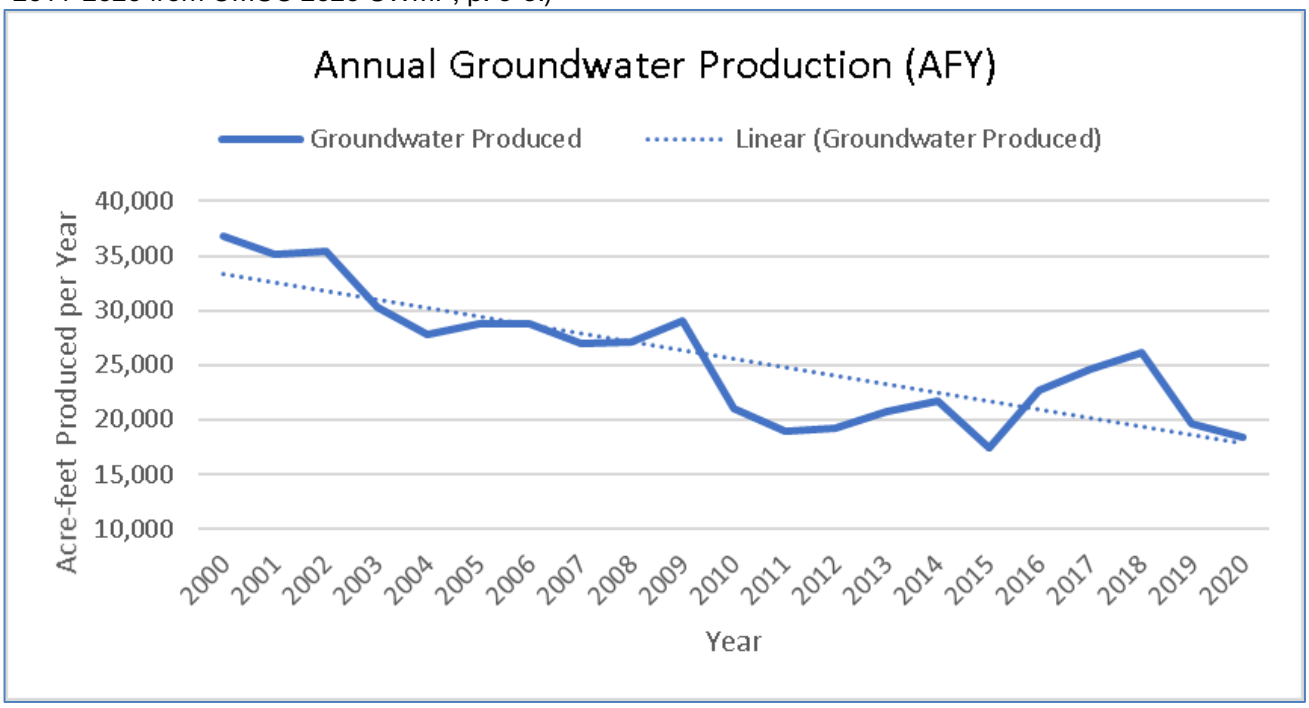
Right	Current FY 2019-2020 (AFY)	Future (AFY)	Notes
Assigned Share of OSY[a]	9,299.5 (20.742% of OSY)	8,470 (20.742% of OSY)	OSY determined by Watermaster.
Safe Yield Reduction	1,037.1	Varies	Part of New Ag Pool Reallocation.
Land Use Conversions	4,254.1	16,602	Varies annually. Part of New Ag Pool Reallocation.
Annual Early Transfer	5,177.6	20.742% of Early Transfer	Subject to change. Part of New Ag Pool Reallocation.
Groundwater Recharge Credits	0	9,600 (in 2035)	Based on volume of stormwater and/or recycled water recharged.
Fontana Recycled Water Rights	0	At least 3,000	Contract to purchase.
Annual Production Right for Appropriative Pool Subtotal (AFY)	29,067.7	±37,672	
Annual Production Right for Overlying Non-Agricultural Pool[a]	7,447.2	At least 3,920.6 (53.338% of SY)	Assigned share of safe yield is 3,920.6 AF (53.338% of SY). Actual production in FY19/20 was 1,552.7 AF.
SAWCo [(a)]	600 (295 shares)	At least 600	Entitlement. Volume per share subject to change.
Total (AFY)	37,115	±42,193	
Groundwater Storage Accounts	39,261 (Excess Carry Over)	Varies (Excess Carry Over)	Dependent on annual availability of un-pumped OSY water, stormwater, imported water, and recycled water.
	57,283 (Local Supplemental)	Varies (Local Supplemental)	
Total Storage (AF)	96,544	±85,000	

Note: AF = acre-feet; AFY = acre-feet per year; OSY = operating safe yield; SY = safe yield.
[a] OMUC 2020 UWMP, p. 6-8.
Source: Chino Basin Watermaster's Approved 2020/2021 Assessment Package for Production year 2019/2020, dated Nov. 19, 2020, pp. 4.1, 10.1, 16.1, 20.1 [CBWM].

4.3. Recorded Use of Groundwater by City of Ontario (CWC Section 10910 (f)(3))

The City's groundwater supply currently comes from 17 active groundwater wells located throughout the OMUC service area within the Chino Basin. As of FY 19/20, OMUC produced 18,395.3 AF from the basin (OMUC 2020 UWMP, p. 6-3). The recorded groundwater production has generally decreased from 36,842 AFY in 2000, as shown in **Chart 4-1.**

Chart 4-1 - Annual OMUC Groundwater Production, 2000 - 2020, (AFY)
(Sources: 2000-2009 from the 2012 Ontario Water Master Plan; 2010 from OMUC 2010 UWMP; and 2011-2020 from OMUC 2020 UWMP, p. 6-3.)



4.4. Projected Use of Groundwater by the City of Ontario (CWC Section 10910(f)(4))

The proposed Project will receive water from a combination of the City's groundwater wells, imported water from WFA, treated groundwater from CDA, and recycled water from IEUA.

Projected groundwater use by OMUC will continue as noted in Table 3-3. The use of groundwater will continue to be dependent upon the cost of extracting, treating, and

transporting the water to customers. Groundwater from the Chino Basin will be utilized by OMUC either directly by pumping into its distribution system or by treating the groundwater (Wells 44 and 52) at the John Galvin Ion Exchange Plant and then pumping the treated groundwater into the City distribution system. The current and ultimate production capacity of OMUC wells is sufficient to meet current and ultimate demand (Table 3-4).

As shown in Table 4-1, the amount of water that OMUC expects to withdraw from the Chino Basin is well within appropriate right pursuant to the Chino Basin Adjudication of 1978 (Appendix M). In addition to its well production, OMUC will also purchase treated Chino Basin groundwater from CDA. OMUC has 1,500 AFY capacity rights in the Chino I Desalter and 7,033 AFY capacity rights in the Chino II Desalter. Projected use of groundwater via CDA is projected to remain at no more than 8,533 AFY (OMUC 2020 UWMP, p. 6-6).

4.5. Sufficiency of Groundwater Basin (CWC Section 10910(f)(5))

The City's legal right to pump water in an amount necessary to meet all demands as sanctioned and protected by the Judgment as discussed above, is buttressed by several programs and projects directed at ensuring the sufficiency of groundwater supplies from the Chino Basin, particularly during dry years. An adjudicated water right has perhaps the most substantial indicia of reliability of any water right that currently exists in California. An adjudicated right is based upon long-term studies whose purpose it is to protect the long-term functionality of the water source. These rights are coordinated in an established and binding manner with all the other users of the Chino Basin and are overseen by Chino Basin Watermaster which has the authority to mandate and proscribe activities whose purpose is to protect the water source and maximize its long-term beneficial use.

All Chino Basin Watermaster processes are governed by Rules and Regulations and receive active oversight from the Court which, as noted above, retains continuing jurisdiction over the administration of the Judgment. Consequently, the sufficiency of

the groundwater is not only directed by rigorous Chino Basin Watermaster management processes but validated and ensured by continuing Court oversight.

The OBMP for the Chino Basin has guided the Chino Basin Watermaster's activities since its adoption in 1998. Chino Basin Watermaster-led basin management activities to ensure the maximization of safe yield and OSY of the Chino Basin include objectives, projects, and programs identified in the Peace Agreement and the OBMP. Progress is reported in annual reports, biennial and triennial reports. The key programs include:

1) a comprehensive monitoring program.
2) a comprehensive recharge program.
3) development and implementation of a water supply plan for impaired areas of the Chino Basin.
4) development and implementation of a comprehensive groundwater management plan for Management Zone 1.
5) development and implementation of a regional supplemental water program.
6) development and implementation of cooperative programs with the California Regional Water Quality Control Board – Santa Ana Region and other agencies to improve Basin management.
7) development and implementation of a salt management program.
8) development and implementation of a groundwater storage program; and
9) development and implementation of storage and recovery programs.

As stated, the referenced elements of the OBMP collectively comprise a comprehensive regimen directed to ensuring and maximizing the long-term beneficial use of water in the Chino Basin. In particular, and specific to the location of current and future groundwater production facilities upon which the City relies or will rely to provide water to meet water demands within its service area. OBMP Program Element No. 3, "Develop and Implement Water Supply Plan for the Impaired Areas of the Chino Basin" and Program Element No. 5, "Develop and Implement Regional Supplemental Water

Program", address the sufficiency of groundwater from the Chino Basin.

Fundamentally, the goal of Program Elements 3 and 5 is to (2020 OBMP, p. 6):

> *To maintain and enhance Safe Yield with a groundwater desalting program that is designed to replace declining agricultural groundwater pumping in the southern part of the basin with new pumping to meet increasing municipal water demands in the same area, to minimize groundwater outflow to the Santa River, and to increase Santa Ana River recharge into the basin.*
>
> *To improve the regional conveyance and availability of imported water and recycled waters throughout the basin.*

The achievements from the implementation of the 2000 OBMP for Element 3 and 5 are summarized below (2020 OBMP, Appendix A, pp. 5 – 6).

> *Program Element 3 Develop and Implement Water Supply Plan for Impaired Areas (Groundwater Desalting): The objectives of this Program Element are to maintain and enhance the Safe Yield of the basin. The groundwater desalting program was designed to replace declining agricultural groundwater pumping in the southern part of the basin with new groundwater pumping to meet increasing municipal water demands in the same area. The new wells used in the groundwater desalting program were constructed in strategic locations to minimize groundwater outflow to the Santa Ana River and to increase the Santa Ana River recharge into the basin. In 2000, the groundwater desalting program included a 6,000 AFY treatment plant and a series of wells constructed in the southern part of the Chino Basin near the Chino Airport. Under the OBMP, as of 2018, the desalting program has grown to two treatment plants and additional wells that in aggregate pump and treat about 30,000 AFY degraded groundwater, and the program will reach the OBMP objective of 40,000 AFY in 2019. The groundwater desalting program facilities are owned by the Chino Basin Desalter Authority (CDA).*

> *Program Element 5: Develop and Implement Regional Supplemental Water Program (Recycled Water Reuse): The objective of this Program Element is to improve the regional conveyance and availability of imported and recycled waters throughout the basin. Since 2000, the IEUA has constructed and operated a recycled water conveyance system throughout the basin enabling it to provide recycled water to its member agencies. Recycled water deliveries grew from about 3,400 AFY in 2000 to about 34,000 AFY in 2017. The recycled water provided by the IEUA has replaced a like amount of groundwater and imported water that would have been otherwise been used for non-potable purposes. Much of the post-2000 increase in supplemental water storage in the Chino Basin is attributable to the increased availability of recycled water. Recycled water is more reliable than imported water, and thus using it in lieu of imported water has improved the sustainability of the Chino Basin and water supply reliability. Improvements in the regional conveyance and availability of imported water were not achieved.*

As indicated in the foregoing OBMP text, the City overlies groundwater supplies in the southern part of the Chino Basin which must be pumped for purposes of meeting new demands, maintaining safe yield, and to protect water quality in the Santa Ana River. As agricultural production in the southern part of the Chino Basin has declined, it is necessary for these reasons to increase production for municipal uses. This is being achieved through the Chino I and Chino II Desalters, of which the City has a contractual right to purchase 8,533 AFY pursuant to the 2001 "Joint Exercise of Powers Agreement Creating the Chino Basin Desalter Authority" and subsequent agreements. Thus, not only was increased Chino Basin water production by the City foreseen in the OBMP, but sanctioned and encouraged for purposes of achieving OBMP objectives.

The sufficiency of the groundwater supply that is available to OMUC is assured due to the abundance of groundwater in the central and southern portion of the Chino Basin, OBMP objectives that prioritize and assure production from the southern Chino Basin,

coupled with desalting and ion-exchange treatment facilities that enable the use of this abundant supply for municipal (potable) purposes. As indicated in the quoted text of the OBMP, southern basin production, where the City is partially located, is the linchpin of several critical OBMP objectives. Thus, the sufficiency of groundwater is heightened and prioritized by the necessity of continued pumping from the southern Chino Basin under the OBMP which is administered by the Chino Basin Watermaster and ultimately enforced by continuing court jurisdiction over the Judgment.

The other referenced OBMP Program Elements are collectively directed to ensuring the sufficiency of Chino Basin groundwater supplies, particularly during dry years, and comprehensively address water quality and quantity, thus maximizing beneficial use over the long-term. Sufficiency of groundwater from the Chino Basin is further assured for the following reasons:

- IEUA is a member agency of MWD, which provides imported water from the State Water Project for direct use by parties to the Judgment in the Chino Basin and for Chino Basin recharge purposes (when supplies are available). IEUA has also reviewed the sufficiency of supplies for its service territory that includes the Chino Basin in connection with its 2020 UWMP.

- IEUA's UWMP is consistent with, and reiterative of, OBMP projects and programs (see Section 4 of IEUA 2020 UWMP in Appendix E). IEUA anticipates increased limitations for imported water for direct and recharge use while noting reductions during dry years (due to increased reliance on groundwater from the Chino Basin) and in the higher amount otherwise required in the absence of OBMP projects and programs. The UWMP also analyzes the sufficiency of water supplies for single and multiple year drought scenarios and concludes the region is expected to meet 100 percent of its dry year demand under every scenario. Key assumptions included:

- Reliance on assurances provided by MWD in its 2020 UWMP that it could meet 100 percent of projected supplemental full-service water supply demands through 2040;
- Implementation of MWD's Chino Basin DYY Storage Program consistent with the contractual shift obligations of the participating agencies of up to 33,000 AF in a twelve-month period; and
- Sustain per capita water use reductions of 20 percent.

IEUA concluded in its 2020 UWMP that the projected available water supply will meet projected water demand due to diversified water supply and water conservation measures. Based on IEUA water supply projections, there are sufficient water supplies to meet normal year water demands, single dry year and multiple dry year demands (IEUA 2020 UWMP, p. 7-7).

CWC section 10631(j) provides that urban water suppliers, that rely upon a wholesale agency for a source of water, such as IEUA, may rely upon water supply information provided by the wholesale agency in fulfilling UWMP informational requirements.

IEUA's independent analysis of contemporary regional water conditions in conjunction with MWD's most recent report, provide additional and reliable assurances concerning the sufficiency of imported water supplies that comprise a portion of overall Chino Basin supply sufficiency.

The City's participation in the DYY Storage Program described in Section 3, along with future water storage and recovery projects will drought-proof the Chino Basin and all other appropriative pool members from imported water shortages. This program is consistent with OBMP Program Element No. 9, "Develop and Implement Storage and Recovery Program." Benefits to the Chino Basin associated with this program include the construction of facilities to enhance imported water deliveries and the production of water from the Chino Basin. Further demonstrating the sufficiency of Chino Basin groundwater is MWD's DYY program to use the Chino Basin for dry year supply purposes, thus underscoring that sufficient Chino Basin groundwater is available

during dry years not only for local use by agencies such as the City but also in connection with MWD's regional reliability programs.

The sufficiency of groundwater supplies available to OMUC is assured because of the OBMP programs overseen by the Chino Basin Watermaster and conducted under the auspices of continuing Court jurisdiction that specifically direct and assure the long-term production of water pursuant to the City's legal rights to produce such water necessary to meet ultimate water demands.

Conclusion

The City's total annual groundwater production has held relatively stable over the past 10 years at roughly 20,000 AFY (OMUC 2020 UWMP, p. 6-3). Production capacity meets current demands and is projected to increase to meet ultimate demand. The current water supply utilized by the City totals approximately 39,921 AFY (FY 19/20, Table 3-2). Currently, the City's water rights in the Chino Basin as recorded by the Chino Basin Watermaster total approximately 36,514.9 AFY (Annual Production Rights for Non-Ag Pool plus Appropriative Pool), with an additional 96,544 AF in storage (OMUC 2020 UWMP, p. 6-12). Although annual fluctuations will occur, the City's rights are projected to increase over the next 20 years due to more land use conversions and credits from recharge.

In conclusion, the water supplies available to OMUC currently meet and exceed citywide water demands. Groundwater production by OMUC is currently less than their existing rights and within their production capacity. Regardless, OMUC has the means and right to exceed their groundwater allocation in the Chino Basin when required to meet demand pursuant to the Judgment. Further, OMUC has rights to water held in storage that would supply all City demands for more than two years. In addition to groundwater, OMUC can supply water to the Project purchased from the WFA that is within their existing entitlements and capacities. Therefore, OMUC can meet the additional unplanned water demand of the proposed Project by producing additional groundwater or purchasing imported water supplies to which it has existing rights to and available capacity to use.

SECTION 5 - PRIMARY ISSUE FOR ASSESSMENT

The lead agency for a proposed project …shall determine, based on the entire record, whether projected water supplies will be sufficient to satisfy demands of the project, in addition to existing and planned future uses (CWC section 10911). The lead agency is expected to approve or disapprove the project based on several factors, including but not limited to the WSA.

Law

> CWC Section 10910(g)(1): *Subject to paragraph (2), the governing body of each public water system shall submit the assessment to the city or county not later than 90 days from the date on which the request was received. The governing body of each public water system, or the city or county if either is required to comply with this act pursuant to subdivision (b), shall approve the assessment prepared pursuant to this section at a regular or special meeting.*
>
> CWC Section 10911(b): *The city or county shall include the water assessment provided pursuant to Section 10910, and any information provided pursuant to subdivision 9a), in any environmental document prepared for the project pursuant to Division 13 (commencing with Section 21000) of the Public Resources Code.*
>
> *(c) The city or county may include in any environmental document an evaluation of any information included in that environmental document provided pursuant to subdivision (b). The city or county shall determine, based on the entire record, whether projected water supplies will be sufficient to satisfy the demands of the project, in addition to existing and planned future uses. If the city or county determines that water supplies will not be sufficient, the city or county shall include that determination in its findings for the project.*

The lead agency is expected to review the WSA and decide whether additional water supply information is needed for its consideration of the proposed Project.

5.1 Findings

Whereas:

1. The City of Ontario Municipal Utilities Company (OMUC) has been identified as the water supplier for the proposed *Subarea 29 Specific Plan Amendment (2021) Project* (Project). The proposed Project will increase the Specific Plan area by 113 acres and allow up to 1,315 dwelling units and a public school in the expanded area, as well as change the maximum allowable density of two existing planning areas to allow up to 155 additional units.
2. A previous WSA/WV was prepared in 2004 for the 8,200-acre New Model Colony that includes the Project site; however, it is no longer valid.
3. The estimated potable water demand for the Project is 706 AFY and the recycled water demand is 125 AFY for a total demand of 831 AFY.
4. The City's 2020 Water Master Plan and 2020 UWMP calculated the Project site's water demand as it was shown in the General Plan Land Use Plan, which is estimated as a potable water demand of 376 AFY and 163 AFY of recycled water for a total demand of 539 AFY.
5. The 292 AFY increase in total water demand between what was assumed in the 2020 UWMP and the proposed Project is primarily the increase in potable water demand in the Project's additional 113 acres at a higher-density land use type.
6. The increased water demand for the Project was not included in the 2020 UWMP dated July 2021, which was adopted by the Ontario City Council by Resolution 2021-059 on June 15, 2021 (Appendix A).
7. OMUC produced 18,395 AF of groundwater in FY 19/20 (Table 3-2). OMUC has annual production rights in the Chino Groundwater Basin that currently total 36,515 AFY, as well as groundwater storage accounts that total 96,544 AF (Table 4-1). The water supply production capacity from City wells is currently

62,269 AFY,[13] which is projected to increase to 110,337 AFY to meet demand (Table 3-4 and 3-5).

8. OMUC holds shareholder entitlements to potable water from SAWCo in the amount of 600 AFY, and capacity rights to imported water from the WFA in the amount of approximately 28,000 AFY. OMUC also has capacity rights to potable water from the CDA in the amount of 8,533 AFY (Table 3-2 and 3-4). In FY 19/20, OMUC purchased 565 AF from SAWCo, 6,513 AF from WFA, and 6,636 AF from CDA (Table 3-2).
9. OMUC is entitled to the recycled water generated by IEUA from the City's annual share of sewer flows. In FY 19/20, the City delivered 12,645 AF to IEUA treatment plants, of which 7,812 AF was put to non-potable direct recycled water use (Table 3-2).
10. As of FY 19/20, citywide potable and recycled water demands were 32,109 AF and 7,812 AF, respectively (Table 2-2); ultimate potable and recycled water demands are projected to be 57,609 AFY and 16,059 AFY, respectively (Table 2-3). The current production capacities are greater than needed to meet the average day demands under citywide buildout conditions. Additional wells are planned to supply the anticipated ultimate maximum day demand.
11. OMUC has forecasted excess water supplies will be available to meet citywide demand during single-dry and multiple dry water years over the next 20 years (Table 3-9 and Table 3-10).
12. Based on the evidence provided herein, the total projected potable and recycled water supplies available to the OMUC during normal, single dry, and multiple dry water years over a 20-year projection will be sufficient to meet the projected water demand associated with the proposed Project in addition to the water supplier's existing and planned future uses, including agricultural and

[13] Assuming wells operate 24 hours per day for 365 days per year.

manufacturing uses. State mandated conservation efforts will reduce demand in the future.

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SECTION 6 - REFERENCES

AKM 2011	AKM Consulting Engineers, *City of Ontario 2010 Urban Water Management Plan*. April 2011.
AKM 2016	AKM Consulting Engineers, *City of Ontario 2015 Urban Water Management Plan and Technical Memorandum "Ultimate Citywide Water Demand Estimate."* May 2016.
AKM 2020	AKM Consulting Engineers, *City of Ontario 2020 Water Master Plan Update.* June 2020.
CBWM 2020	Chino Basin Watermaster, *Approved 2020/2021 Assessment Package (Production Year 2019/2020)*, Nov. 19, 2020.
CBWM 43rd Annual Report	Chino Basin Watermaster, Fiscal Year 2019-20 43rd Annual Report, 2020. (Available at http://www.cbwm.org/docs/annualrep/43rd%20Annual%20Report.pdf)
CDA 2020	Stetson Engineers, Inc. *Chino Basin Desalter Authority 2020 Urban Water Management Plan.* June 2021. (Appendix G)
DWR 2003	California Department of Water Resources, *Guidebook for Implementation of Senate Bill 610 and Senate Bill 221 of 2001 to assist water suppliers, cities, and counties in integrating water and land use planning.* October 8, 2003. (Available at https://water.ca.gov/LegacyFiles/pubs/use/sb_610_sb_221_guidebook/guidebook.pdf.)
DWR Bulletin 118	Department of Water Resources. *8-002.01 Upper Santa Ana Valley – Chino Bulletin 118 Basin Boundaries.* Dated March 5, 2018. (Available at https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Bulletin-118/Files/B118-Basin-Boundary-Descriptions-2016/B118-Basin-Boundary-Description-2016---8_002_01.pdf)
DYY 2014	*Amendment No. 8 to Groundwater Storage Program Funding Agreement No. 49960 By and Among The Metropolitan Water District of Southern California and Inland Empire Utilities Agency and Chino Basin Watermaster.* September 17, 2014. (Appendix J)
Fontana 2008	*Agreement by and between the City of Ontario and the City of Fontana regarding transfer of right of first purchase of recharged reclaimed water.* Dated Jan. 15, 2008. (Appendix N)
IEUA 2016 IRWP	Inland Empire Utilities Agency. *Integrated Water Resources Plan: Water Supply & Climate Change Impacts 2015-2040*. Dated 2016. (Located in Appendix B to the IEUA 2020 UWMP.)
IEUA/WFA 2015	Arcadis. *Inland Empire Utilities Agency and Water Facilities Authority 2015 Urban Water Management Plan Final*. June 2016. (Appendix C)
IEUA 2020	Kennedy Jenks. *Inland Empire Utilities Agency 2020 Urban Water Management Plan*. June 2021 (Appendix C)
IEUA Resolution No. 2014-12-1	*Purchase Order for System Water to be Provided by The Metropolitan Water District of Southern California (Purchaser: Inland Empire Utilities Agency) and IEUA Resolution No. 2014-12-1.* Effective January 1, 2015. (Appendix F)

JCSD 2014	*Amendment Number 1 to Agreement by and between City of Ontario and Jurupa Community Services District Establishing an Operational Plan for Metropolitan Water District/Chino Basin Groundwater Storage Program, Providing for Water Supply to Ontario's New Model Colony and Interconnection to Increase Water Supply Reliability.* November 21, 2014. (Appendix L)
Judgment	Judgment, *Chino Basin Municipal Water District v. City of Chino, et al.,* San Bernardino Ct. No. 164327 (filed Jan. 30, 1978). Includes amendments thereto. (Appendix M)
MWD	The Metropolitan Water District of Southern California, *2020 Urban Water Management Plan*. June 2021. (Appendix D)
OBMP 1999	Wildermuth Environmental, *Optimum Basin Management Program Phase I report prepared for Chino Basin Watermaster*. August 19, 1999. (Available at http://cbwm.org/docs/engdocs/OBMP%20-%20Phase%20I%20(Revised%20DigDoc).pdf)
OBMP 2020	Wildermuth Environmental, 2020 Optimum Basin Management Program Update Report, January 2020. (Available at https://cbwm.syncedtool.com/shares/folder/PaauzoQapiZ/?folder_id=5151637)
OMUC 2020 UWMP	Stetson Engineers, *City of Ontario 2020 Urban Water Management Plan* (Appendix A)
Ord. 2689	Ontario Municipal Code, *Chapter 8C: Recycled Water Use*, effective Jun. 17, 1999.
Ord. 3027	Ontario Municipal Code, *Chapter 8A: Water Conservation Plan*, effective Oct. 1, 2015.
Ord. 99-07-02	*Ordinance No. 99-07-02 Ordinance of the Water Facilities Authority-JPA Repealing Ordinance 96-09-01.* (Appendix H)
SAWCO 2021	Water Systems Consulting. *San Antonio Water Company 2020 Urban Water Management Plan.* September 2021. (Appendix H)
SPA	SL Ontario Development Company, LLC and Richland Communities, Inc. *Subarea 29 Specific Plan Amendment (2021)*. Draft August 2021.
SPA(b)	SL Ontario Development Company, LLC and Richland Communities, Inc. *Subarea 29 Specific Plan Amendment Project Description (revised)*. September 14, 2021.
Stantec	Stantec Consulting Services, Inc. *Recycled Water Master Plan Update for City of Ontario Municipal Water Utilities Company*. Final June 22, 2020. (Appendix C)
WEBB 2004	Albert A. Webb Associates, *Water Supply Assessment and Written Verification of Sufficient Water Supply for the New Model Colony*. October 27, 2004.
WEBB 2006	Albert A. Webb Associates, *Draft Environmental Impact Report for Subarea 29 (Hettinga) Specific Plan.* June 2006, as annotated per Final EIR, October 2006.
WEI 2020	Wildermuth Environmental, Inc. *2020 Safe Yield Recalculation Final Report* prepared for the Chino Basin Watermaster. May 15, 2020.
WFA 1985	*Installment Purchase Agreement Relating to Water Facilities Authority Water Treatment Plant by and between Water Facilities Authority, as Seller and City of Ontario, as Purchaser*. Dated as of October 1, 1985. (Appendix J)
WFA 2020	Stetson Engineers. *2020 Urban Water Management Plan for Water Facilities Authority*. June 2021 (Appendix F)

SECTION 7 - SPREADSHEETS

Proposed Project Subarea 29 Specific Plan Amendment (2021) Water Demand

Subarea 29 Specific Plan Amendment (2021) "Subarea 29 SPA and GPA Project Description (2021-09-14).PDF".[1]					2020 Water Master Plan Update and 2020 Recycled Water Master Plan Update Water Demand Factors[2]				Project Potable and Recycled Water Demand (GPD and AFY)				
Project Planning Areas	Project Land Use	Planned Dwelling Units (DU)(3)	Project Net Acres (AC)[4]	Project Net Density (DU/AC) [5]	Corresponding TOP Land Use	TOP Max Density (DU/AC)	Potable Water Demand Factor (GPD/AC)[6]	Recycled Water Demand Factor (GPD/AC) [6]	Potable Water Demand (GPD)	Potable Water Demand (AFY)	Recycled Water Demand (GPD)	Recycled Water Demand (AFY)	Total Water Demand (AFY)
30[7]	Mixed Use Residential (5.1-25 DU/AC)	176	21.9	*11.1*	Medium Density Residential (w/ RW)	25	6,690	750	146,511	164.11	16,425	18.40	182.51
31[7]	Mixed Use Residential (5.1-25 DU/AC)	176	16.0	11.4	Medium Density Residential (w/ RW)	25	6,690	750	107,040	119.90	12,000	13.44	133.34
	Subtotal Existing Planning Areas with a Density Increase	352	38	-	-	-	-	-	253,551	284	28,425	32	315.85
	Already Approved DU for Planning Areas 30, 31	197	-	-	-	-	-	-	-	-	-	-	-
	Only the Additional Units from Project (PA-30, PA-31)	**155**	**-**	**-**	**Medium Density Residential (w/ RW)**	**25**	**268**	**30**	**41,540**	**46.53**	**4,650**	**5.21**	**52**
32	Mixed Use Residential (5.1-25 DU/AC)	671	39.0	17.2	Medium Density Residential (w/ RW)	25	6,690	750	260,910	292.26	29,250	32.76	325.02
33	Mixed Use Residential (5.1-25 DU/AC)	644	43.6	14.8	Medium Density Residential (w/ RW)	25	6,690	750	291,684	326.73	32,700	36.63	363.36
34	Public Middle School[8]	-	20.0	-	Public Middle or High School (w/ RW)	-	1,800	2,250	36,000	40.33	45,000	50.41	90.73
	Subtotal New Planning Areas (PA-32, PA-33, PA-34)	**1,315**	**103**						**588,594**	**659**	**106,950**	**120**	**779**
	Proposed Total Additional Units and Net Acreage[9]	**1,470**	**141**						**630,134**	**706**	**111,600**	**125**	**831**

UWMP = Urban Water Management Plan; WMP = Water Master Plan; TOP = The Ontario Plan; DU = dwelling unit; AC = acre; gpd = gallons per day; AFY = acre-feet per year

1. Source: "Subarea 29 Specific Plan Amendment, 09-14-2021 Draft", Table 2.

2 Source of potable factors is "City of Ontario Water Master Plan Update" (AKM), June 2020, pp. 4-10-4-11; source of recycled water factors is "Recycled Water Master Plan Update" (Stantec), June 22, 2020, p. 5.26.

3. Actual total units and gross/net density and acreage will be dependent on final lotting. Target unit count based on submitted Tentative "B" Maps. A density transfer of 15% may occur between Planning Areas. The Policy Plan (General Plan) establishes a development capacity of 3,888 DU for the entire Subarea 29 SPecific PLan, including the proposed 2021 amendment area.

4. Gross acres calculated to centerlines of Master Planned streets minus SCE easements. Net acres excludes street rights-of-way and SCE easements.

5. According to the land use plan, the net density for proposed PA-30 is 8.03 DU/AC; however the land use plan indicatesup to 25 DU/AC is allowable. Therefore, an artificial net density of 11.1 DU/AC is shown in order to calculate appropriate water demand.

6. Unit water demand factors are in GPD/DU for the "Additional Units from Project." Recycled water factor assumed 25 DU/acre. Potable water factor from City's 2020 Water Master Plan, Table 4-8.

7. The proposed Project only increases the permitted density in PA-30 and PA-31. These PA's were already a part of Subarea 29.

8. If the school district elects to construct a school outside of the Subarea 29 Specific Plan, then Planning Area 34 will be developed with residential uses, similar to the other parcels; however a Specific Plan Amendment would be required for this change (Draft SPA (2021), p. 4-6). Therefore, this analysis will assume a school will be constructed in PA 34.

9. The 2021 Amendment adds 103 net acres (113 gross acres) to the Specific Plan, increases density permitted in PA-30 and PA031, and permits the addition of 1,470 DU (inclusive of the PA-30/-31 density increase and the addition of land area east of Haven Avenue).

WRITTEN VERIFICATION OF SUFFICIENT WATER SUPPLY

FOR SUBAREA 29 SPECIFIC PLAN AMENDMENT (2021) PROJECT

TABLE OF CONTENTS – WRITTEN VERIFICATION OF SUFFICIENT WATER SUPPLY

SB 221 Written Verification of Sufficient Water Supply

1.1 Introduction

Senate Bill 221 (SB 221) was enacted in 2001 and became effective as of January 1, 2002. SB 221 establishes the relationship between the Water Supply Assessment (WSA) prepared for a project pursuant to Senate Bill 610 (SB 610), and the project approval under the Subdivision Map Act. SB 221 amends Section 11010 of the Business and Professional Code, and amends Section 65867.5 to add Sections 66455.3 and 66473.7 to the California Government Code. Pursuant to Government Code Section 66473.7, the public water supplier must provide a written verification of sufficient water supply (WV) prior to the approval of a tentative subdivision map, or a parcel map for which a tentative map was not required, or a development agreement for a subdivision of property of more than 500 dwelling units, except as specified, including the design of the subdivision or similar type of improvement.

1.2 Purpose

The purpose of the WV is to provide the legislative body of a city, county or the designated advisory agency with written verification from the applicable public water supplier that a sufficient water supply is available, or, in addition, a specified finding is made by the local agency that sufficient water supplies are, or will be, available prior to completion of the project.

The WV shall be supported by substantial evidence, which may include relevant portions of an applicable Urban Water Management Plan (UWMP) or a WSA prepared per SB 610. Many of the requirements for SB 610 compliance will satisfy the requirements of SB 221. There are four factors to be considered in a WV which are not required in a WSA as specified by Government Code Section 66473.7. Those four factors, which are specifically addressed in this WV are as follows:

1. Historical water supplies for at least 20 years;

2. Urban Water Shortage Contingency Analysis prepared for the water supplier's UWMP;

3. Supply reduction for "specific water use sector" per water supplier's resolution, ordinance, or contract; and

4. Amount of water that can be reasonably relied upon from specific supply projects, subject to the determinations outlined in Government Code Section 66473.7.

1.3 Project Description and Water Demand

This WV has been prepared in conjunction with a WSA for *Subarea 29 Specific Plan Amendment (2021) (PSP03-003; PSPA07-003; PSPA07-007; PSPA13-002; PSPA14-002)* (*"*Project"). The Subarea 29 Specific Plan currently encompasses 540 gross acres within the City of Ontario's 8,200-acre Ontario Ranch. *Annexed in 1999, the presently agricultural Ontario Ranch is planned to be developed into residential, commercial, industrial, and public uses* (UWMP, p. 3-1). The proposed Project will add 113 acres from Subarea 24 located east of Haven Avenue and to increase the density allowed in existing Subarea 29 Planning Areas 30 and 31. The Project will assign the 113 acres into three additional Planning Areas (i.e., PA-32, PA-33, and PA-34) and allow for the development of up to 1,315 detached and attached residential dwelling units and one public middle school site. The change in allowable density in PA-30 and PA031 would allow for an additional 155 dwelling units (an increase from 197 units to 352 units).

With the land use changes that are proposed by the Project implemented, the Subarea 29 Specific Plan will allow for up to a maximum of 3,888 units over a total net area of 551.2 acres (652.6 gross acres) with a net density of 7.1 units per acre. This is an increase of 1,470 units from the currently approved land use plan.

The City of Ontario Municipal Utilities Company (OMUC)[1] is the water supplier for the Project and for the City. OMUC commissioned a WSA and WV from Albert A. Webb Associates (WEBB) on September 9, 2021. The purpose of preparing this WV for the entire Project is to preclude the need for individual "Written Verification" letters being prepared for the individual residential development projects that will qualify for a WV within the Subarea 29 Specific Plan Amendment (2021) area. SB 221 applies to the Project because there will be residential subdivisions that will have more than 500 units which exceed the criteria set in 66473.7(a) of 500 units.

The key question for this WV to address per SB 221 is whether the water supplier is able to provide a sufficient water supply based upon an analysis as to whether water supplies available during normal, single-dry, and multiple-dry years within a 20-year projection will meet the projected demand associated with the proposed subdivision, in addition to existing and planned future uses, including, but not limited to, agriculture and industrial uses (DWR 2003).

1.4 Verification of Sufficient Water Supply

A detailed evaluation of OMUC's water supply was performed under the attached WSA for the Project. Attached to the WSA is the adopted City of Ontario 2020 UWMP which addresses normal, single dry, and multiple dry year conditions (Appendix A). The 2020 UWMP determined that sufficient water supply exists to support the demands of the OMUC service area. The WSA determined that the water demand of the Project is greater than the water demand for the same site that was assumed in the 2020 UWMP; therefore, the increased demand was not accounted for in the 2020 UWMP. However, the WSA concludes that sufficient water supply exists to support the Project.

20-Year Water Supply Availability

OMUC has been able to meet all water demands with its available water supplies for the past 20 years. Table 3-2 of the attached WSA shows the recorded water supplies from

[1] OMUC is a department of the City of Ontario and the terms may be used interchangeably herein.

2000-2020 that were utilized to meet the demand within OMUC's service area. A supply source that is available to OMUC that is not included in Table 3-2 are the groundwater storage accounts to which OMUC has rights to store water in the Chino Basin. As of FY 19/20, the City has approximately 96,544 AF held in storage (OMUC 2020 UWMP, p. 6-12).

Urban Water Shortage Contingency Analysis (Plan)

The urban water shortage contingency analysis (Water Shortage Contingency Plan [WSCP]) prepared for the most recent UWMP is contained within Chapter 8 of Ontario's 2020 UWMP (Appendix A). The WSCP is based on a draft Water Conservation Plan located in Appendix N of the 2020 UWMP that is an update of the City's Ordinance No. 3027. The WSCP includes stages of action, prohibitions on end uses, penalties and enforcement measures, determination of water shortage reductions, revenue and expenditure impacts, and catastrophic supply interruption.

The 2020 WSCP and draft Water Conservation Plan are consistent with the stringent emergency conservation regulations mandated by the State Water Resources Control Board in response to statewide drought conditions. The purpose of the ordinance and the Water Conservation Plan are to minimize the potential for a water shortage through the practice of water conservation, and to minimize the effect of a shortage of water supplies on the water customers of the City. In addition, it is the intent of the ordinance and the Water Conservation Plan to adopt provisions that will significantly reduce the inefficient consumption of water, thereby extending the available water resources necessary for domestic, sanitation, and fire protection of the community to the greatest extent possible (Municipal Code Sec. 6-8.21).

The 2020 WSCP and draft Water Conservation Plan describe the methods to respond to a water supply shortage of more than 50 percent. Six stages of conservation are described (Stages 1-6) with increasing conservation requirements and penalties depending on the severity of the shortage (UWMP, p. 8-8).

Supply Reduction for Specific Water Use Sector

OMUC's 2020 WSCP and draft Water Conservation Plan establish voluntary and mandatory water conservation requirements which shall take effect upon implementation. During a water shortage crisis, certain mandatory restrictions on water use will be imposed on the public. The voluntary water use prohibitions apply at all times. Stage 1 to 6 prohibitions will be progressively implemented according to the severity of the water crisis (OMUC 2020 UWMP, Appendix N). The restrictions and prohibitions on end users that correspond to Stages 1 to 6 are outlined in Table 8-2 of the City's 2020 UWMP (p. 8-3). OMUC does not have a water supply allocation plan. No single water use sector is identified in the 2020 WSCP or draft Water Conservation Plan for supply reductions in the event of a water shortage crisis.

Amount of Water That Can Be Reasonably Relied Upon from Specific Supply Project(s)

This requirement of the WV pertains to projected water supplies that the water supplier can reasonably rely on that are not currently available to the public water system. All projected water supplies are currently available to OMUC but may not be fully utilized to date. Descriptions of the supplies available to OMUC are in Section 3 of the attached WSA.

1.5 Substantial Evidence of Verification of Sufficient Water Supply

This WV does not rely on projected water supplies that are not currently available to OMUC. The water supplies that OMUC will continue to rely on that are projected to be sufficient to meet current and future needs are described in Section 3 of the attached WSA. Because projected supply sources are currently available to OMUC, supporting information pursuant to Gov. Code section 66473.7 is not provided herein. This would include written contracts or other proof of valid rights to supplies under development, an adopted capital outlay program to finance delivery of supplies under development, permits to construct supply infrastructure for supplies under development, and regulatory approvals for conveyance or delivery of supplies under development.

Copies of the rights, contracts, and other entitlements to water supplies available to OMUC are provided in the appendices to the attached WSA.

1.6 Impacts to Agricultural and Industrial Users

Gov. Code section 66473.7 requires this WV to contain a description of reasonably foreseeable impacts of the proposed subdivision on the availability of water resources for agricultural and industrial uses within the water supplier's service area that are not currently receiving water from the water supplier but are utilizing the same sources of water. Water used by industrial and agricultural users that is not provided to them by OMUC would come from their private wells to access the Chino Groundwater Basin, which OMUC also utilizes. Adverse impacts to such entities as a result of the Project is not anticipated because the Chino Basin is an adjudicated basin with a court appointed Watermaster who monitors and enforces the provisions of the 1978 Judgment and subsequent orders of the court. As discussed in Section 4 of the attached WSA, the Watermaster develops and implements an Optimum Basin Management Program to sustainably manage the basin for all users.

In regard to agricultural users, the original (2006) Subarea 29 Draft EIR stated: "The *Ontario General Plan Amendment for the New Model Colony* [Ontario Ranch] (1998) projects a nearly 100 percent conversion of existing agricultural land to non-agricultural uses, except for approximately 200 acres of land that are owned by the County of San Bernardino and managed by the Southern California Land Foundation…This property will not be converted to non-agricultural uses by the proposed project [original Subarea 29] (WEBB 2006, p. III-1-9). Further, "The General Plan Amendment for the New Model Colony [Ontario Ranch] EIR was certified with Overriding Consideration findings related to the cumulative loss of agriculture. Cumulative losses of prime Farmland resulting from this project [original Subarea 29 Specific Plan] were a part of that original EIR and Statement of Overriding Consideration" (WEBB 2006, p. III-1-10). As planned for by the City and discussed in the attached WSA, agricultural properties are projected to decrease with the conversion of Ontario Ranch to non-agricultural activities (WSA Figures 8 and 9). Table 3-7 of the attached WSA also forecasts declines in recycled

water use by agriculture, reaching zero use by 2040. As of 2020, there are 20 agricultural recycled water irrigation sites (2020 Annual Report to DDW). The proposed subdivision is not anticipated to have adverse impacts on the shared water supply source because the 2020 UWMP has incorporated planned future declines in agricultural use in the water demand projections, which includes declines in private wells and conversion to OMUC supplies.

In regard to industrial uses, they are currently (2020) the third most common land use type in the City (after Agricultural Multi-Use at 21.2 percent and Residential at 19.3 percent), making up approximately 5,498 acres or 17.3 percent of the total (AKM 2020, p. 2-5). The ultimate citywide land use plan (*The Ontario Plan 2010)* plans for an increase of business parks and industrial uses to cover about 7,818 acres or 24.6 percent at buildout (AKM 2020, p. 2-7). Further, the 2020 UWMP projections in the attached WSA show potable water use by industrial uses increasing from 2,078 AFY in 2020 to 3,728 AFY in 2040 (WSA Table 2-3) and industrial use of recycled water is projected to increase from 986 AFY in 2020 to 3,680 AFY in 2045 (WSA Table 3-7). As of 2020, there are three industrial recycled water sites (2020 Annual Report to DDW). The proposed subdivision is not anticipated to have adverse impacts on the shared water supply source because the 2020 UWMP water demand projections have accounted for future increases in potable and recycled water use by industrial uses, in addition to other uses.

For each acre of agricultural land that converts to urban use, the initial Safe Yield of the appropriative pool member serving the converted land is increased by 2 acre-feet. In addition, properties that were on private wells are expected to connect to OMUC infrastructure. Therefore, OMUC's share of the safe yield will continue to increase as Ontario Ranch develops, in addition to a decline in private wells in the Chino Basin.

1.7 Priority to Proposed Lower Income Housing Projects

Pursuant to Gov. Code section 65589.7, the determinations made by the WV shall be consistent with the obligation of a public water system to grant a priority for the

provision of available and future water resources or services to proposed housing developments that help meet the City's (or County's) share of the regional housing needs for lower income households.

The 2020 UWMP states that the City has considered the demographic factors of severely low-income earners, single-parent families, large families, seniors, people with disabilities, and homeless persons "which can affect the City's water management planning" (p. 3-7). Further, the 2020 UWMP indicates that lower income residential demands are included in water use projections (*ibid,* p. 4-12). The following excerpt from the *Draft Subarea 29 SPA (2021)* "General Plan Consistency Analysis" describes the Project's consistency with applicable policies from the City General Plan Housing Element (p. 9-3):

Housing Element	
GOAL H2: Diversity of types of quality housing that are affordable to a range of household income levels, accommodate changing demographics, and support and reinforce the economic sustainability of Ontario.	
H2-4 New Model Colony. We support a premier lifestyle community in the New Model Colony distinguished by diverse housing, highest design quality, and cohesive and highly amenitized neighborhoods.	The SP features single family detached housing types in a variety of plotting configurations distinguished by the highest design quality and cohesive and highly amenitized neighborhoods.
H2-5 Housing Design. We require architectural excellence through adherence to City design guidelines, thoughtful site planning, environmentally sustainable practices and other best practices.	The SP has is own design guidelines to achieve architectural excellence.
GOAL H4: Increased opportunities for low and moderate income households and families to afford and maintain quality ownership and rental housing opportunities, including move-up opportunities.	
H4-4: Mixed-income Housing. We encourage the integration of affordable housing in the New Model Colony, Ontario Airport Metro Center Area, and existing neighborhoods.	The SP provides for a wide range of home ownership opportunities for many different lifestyles.

1.8 Verification That Relies on Groundwater

Law

Gov. Code Sec. 66473.7 (h) Where a water supply for a proposed subdivision includes groundwater, the public water system serving the proposed subdivision shall evaluate, based on substantial evidence, the extent to which it or the landowner has the right to extract the additional groundwater needed to supply

the proposed subdivision. Nothing in this subdivision is intended to modify state law with regard to groundwater rights.

Section 4 of the attached WSA describes OMUC's legal right to extract groundwater from the Chino Basin.

1.9 Finding of Sufficient Water Supply

As depicted in Table 3-2 and Table 3-3 of the attached WSA, the City's existing and ultimate total water supply (39,921 AFY in FY 19/20 and 73,668 AFY in 2045, respectively) are sufficient to meet the existing and anticipated water demands from its service area including the proposed Project's demand of 831 AFY (WSA Table 2-5). Based on the analysis herein and the attached WSA, OMUC finds that "sufficient water supply" is available to support the projected subdivisions within the Subarea 29 Specific Plan 2021 Amendment area as it is currently described herein.

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