ALBERT A. WEBB ASSOCIATES

WATER SUPPLY ASSESSMENT AND WRITTEN VERIFICATION OF SUFFICIENT WATER SUPPLY

RICH-HAVEN SPECIFIC PLAN AMENDMENT NO. 3 (PSPA19-006)

Prepared for:

ONTARIO MUNICIPAL UTILITIES COMPANY

March 18, 2021

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March 18, 2021

Christopher Quach, P.E.
Senior Associate Engineer
ONTARIO MUNICIPAL UTILITIES COMPANY
1425 S. Bon View Avenue
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Re: Water Supply Assessment and Written Verification for Sufficient Water Supply (WSA/WV) for Rich-Haven Specific Plan Amendment No. 3 Project

Dear Mr. Quach,

Pursuant to your Notice to Proceed given on January 25, 2021 and our proposal dated January 12, 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

Autumn DeWoody
Senior Environmental Analyst

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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 January 25, 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.

This WSA has been prepared for *Amendment No. 3* to the *Rich-Haven Specific Plan (PSPA19-006)* (SPA3 or "Project"). The City of Ontario Planning Department is preparing a 2021 addendum to The Ontario Plan Certified Environmental Impact Report (EIR) and therefore, this Project is considered to be "subject to CEQA" pursuant to CWC section 10910.

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

(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.

1.2 Background

The Rich-Haven Specific Plan encompasses approximately 602 gross acres 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 Location**). The Rich-Haven Specific Plan is bounded to the north by East Riverside Drive and the western property line for Colony High School, to the west by Haven Avenue, to the south by Edison Avenue, and bounded to the east by Mill Creek Avenue and Hamner Avenue (**Figure 2, Project Vicinity**).

The Rich-Haven Specific Plan was first adopted by the Ontario City Council on Dec. 4, 2007 which included approximately 512 acres with potential development of 4,256 residential units and 889,200 square feet of commercial/office use. The first Specific Plan Amendment (SPA1) was adopted by City Council in March 2016, which brought the Specific Plan into conformance with the City General Plan that was adopted in 2010, which is referred to as The Ontario Plan (TOP). The second SPA (SPA2) was adopted by City Council in February 2018 and included the annexation of Planning Areas 9A & 9B (an additional 72.3 acres). This annexation brought the entire "NMC East Mixed Use District" within the boundaries of the Rich-Haven Specific Plan. As such, the maximum residential dwelling units and maximum commercial/office area increased to 7,194 units and 1,131,702 square feet, respectively. Two implementing projects within the Specific Plan have been approved by the City including Tentative Tract Map (TTM) No. 20134 and TTM No. 20081 (**Figure 3 – Existing Land Use Plan and Implementing Projects**).

1.3 Proposed Project

The proposed Project is the third SPA (SPA3); the primary changes of which are to transfer 518 dwelling units (DUs) from the NMC East Mixed Use District to the Residential District of the Specific Plan, and replace approximately 50 acres of Commercial with Light Industrial use. As stated in the *2021 Addendum to The Ontario Plan Certified EIR for the Rich-Haven Specific Plan 2021 Amendment*, the changes made by the Project to the previously approved 2018 land use plan include:

- *Certain Specific Plan Planning Areas would be reorganized/re-classified;*
- *Alternative residential products would be implemented;*
- *The Regional Commercial within Planning Area 6A is moved into Planning Area 9A with no net change to the combined 6A/9A uses in the Specific Plan;*
- *The maximum allowable development of commercial/office uses would be decreased; and*
- *A new Light Industrial Land Use would be established, allowing for development of light industrial warehouse uses in the southeasterly portion of the Specific Plan, adjacent to Hamner Avenue.*[1]

The changes proposed by SPA3 compared to the prior approved land use plan are shown below in **Table 1-1a** and **Table 1-1b** in ~~strikethrough~~ for deletions and underline for additions**.** The proposed Project land uses are shown in **Figure 4 – Proposed Project Land Use.** Currently, TTM No. 20345 is being proposed to the City within Planning Area 6A. This project currently proposes condominiums with 77 single-family attached units and 26 single-family detached units on approximately 7 acres.

[1] *The Specific Plan Mixed Use District allows for combinations of commercial, office, light industrial, and residential development at various densities/intensities. Any given proposal within the Specific Plan Mixed Use District is required to conform to applicable Specific Plan Design Guidelines and Development Standards; and trip generation (Average Daily Trips, ADT) of such proposals shall not exceed trip generation estimates (the "trip budget") identified in The Ontario Plan EIR. Such proposals shall be subject to review and approval by the Planning Director or Assignee. Proposals that exceed The Ontario Plan EIR trip budget and/or do not conform to applicable Specific Plan Design Guidelines and Development Standards may require further amendment of the Specific Plan and additional CEQA analysis* (2021 Addendum, p. 2-5).

Table 1-1a Project Residential District Land Use Summary

Residential District Planning Area	Specific Plan Land Use	Maximum Dwelling Units (DU)	Gross Acres (ac)	Gross Density (DU/ac)
1A	Residential - SFD	~~58~~ 115	~~12.8~~ 25.5	4.5
1B	Residential - SFD	~~57~~ 175	~~112.7~~ 24.5	~~4.5~~ 7.1
1C	Residential - SFD	~~68~~ 731	~~14.9~~ 60.6	~~4.5~~ 12.1
~~1D~~	~~Residential - SFD~~	~~91~~	~~20.5~~	~~4.5~~
~~1E~~	~~Residential - SFD~~	~~109~~	~~23.4~~	~~4.5~~
~~1F~~	~~Residential - SFD~~	~~120~~	~~26.3~~	~~4.5~~
Subtotal		~~503~~ 1,021	110.6	~~4.5~~ 9.2
2	Edison Parcel Open Space Non-Recreational	--	20.0	~~--~~
3	Park Open Space Recreational	--	27.0	~~--~~
Subtotal			47.0	
4A	Residential – SFD/Attached	154	14.1	10.9
4B	Residential – SFD/Attached	101	9.2	11.0
4C	Residential – SFD/Attached	108	9.8	11.0
Subtotal		363	33.1	11.0
5A	Residential – SFD/Attached	109	9.1	12.1
5B	Residential – SFD/Attached	165	14.2	11.7
5C	Residential – SFD/Attached	332	27.0	12.3
5D	Residential – SFD/Attached	361	30.3	11.9
Subtotal(1)		967	80.6	12.0
5E	Edison Easement Open Space Non-Recreational	--	17.8	--
	Subtotal(1)	--	17.8	--
	Subtotal Residential Planning Areas	~~1,833~~ 2,351	224.3	~~6.7~~ 10.0
	Total Residential District	**2,351**	**289.1**	~~--~~

Notes: SFD = Single Family Detached

Source: RHSPA3, p.3-5.

(1) Planning Areas 5A-5E are included in approved TTM No. 20134, which proposes 196 single family dwelling units and 428 multi-family dwelling units for a total of 624 dwelling units. This is 343 units less than the maximum allowed by the Specific Plan.

Table 1-1b Project Mixed Use District Land Use Summary

Mixed Use District Planning Area	Specific Plan Land Use	Maximum Dwelling Units (DU)	Gross Acres (ac)	Commercial/Office		Light Industrial Maximum (SF)
				Minimum (SF)	Maximum (SF)	
6A[(1)] + 9A	Residential & Commercial	2,178	85.6	109,335	166,182	--
6B + 9B	Residential & Commercial	1,406	65.1	36,639	76,320	--
7A	~~Commercial~~ Light Industrial	~~725~~	~~81.1~~ 49.4	~~100,000~~	~~440,800~~	1,183,525
7A	Open Space Non-Recreational	--	6.6	--	--	--
7B	Commercial	~~--~~	25.1	125,000	300,000	--
8A	Residential & Commercial	852	61.4	95,000	325,000	--
8B	Residential & Commercial	~~200~~ 407	19.7	20,000	123,400	--
Total Mixed Use District		~~5,361~~ 4,843	312.9	~~360,974~~ 385,974	~~1,131,702~~ 990,902	1,183,525
Total Residential and Mixed Use Districts		**7,194**	**602.0**	**~~360,974~~ 385,974**	**~~1,131,702~~ 990,902**	**1,183,525**

Notes: SF = square feet

Source: RHSPA3, p.3-5.

(1) Planning Area 6A includes approved TTM No. 20081, which proposes a combined total of 587 DU on 50.1 acres with no Commercial land uses.

With implementation of the Project, the Rich-Haven Specific Plan will continue to allow for up to a maximum of 7,194 dwelling units (all residential types), a new maximum of 990,902 square feet of commercial/office uses, and a new maximum of 1,183,525 square feet of light industrial uses.

According to the SPA3, there are currently 11 wells on the Project site, which will be destroyed. Two new potable water production wells will be constructed – one in Planning Area 5 and another in Planning Areas 1 or 8. The Conceptual Domestic Water Plan in the SPA3 states the following (p. 4-16):

Local backbone domestic water mains to be constructed as part of the Rich-Haven Specific Plan project will include 8-inch to 12-inch [diameter] water mains throughout the local backbone street system. Additionally, the Chino Basin Watermaster Water Quality Map identifies the Rich Haven area within an optimum water quality zone and requires that the owner/developer dedicate a total of two wells within the Specific Plan area to the City of Ontario for production of potable water. The owner/developer of Planning Area 5 has identified a well location site within the greenbelt in the area east of Mill Creek Avenue. A second well location site within the Specific Plan area shall be located within Planning Areas 1 or 8 as approved by the City. Master planned domestic water main lines serving the surrounding area and within the Specific Plan, as identified in the most currently approved Water Master Plan Update, shall be constructed prior to issuance of first occupancy.

Within the project site, a network of minimum 8-inch water lines will be installed. The proposed on-site public water system sizing is subject to the recommendations and approval of the required hydraulic analysis. All water mains and wells internal to the Rich-Haven Specific Plan project, will be provided by the merchant builder. In-tract water system design will be provided at the time of subdivision. Offsite water improvements to serve the Specific Plan will be implemented according to the most current version of the City's Water Master Plan.

Eleven existing wells have been identified within the Rich-Haven Specific Plan project site.

In compliance with the Chino Basin Watermaster's Well Procedure for Developers, a well use/destruction plan and schedule for all existing private/agricultural wells shall be submitted to the City of Ontario for approval prior to the issuance of permits for any construction activity. If a private well is actively used for water supply, the Developer shall submit a plan to abandon

> *such well and connect users to the City's water system (residential to the domestic water system and agricultural to the recycled water system) when available. Wells shall be destroyed/abandoned per the California Water Resource Guidelines and required permitting from the County Health Department. A copy of such permit shall be provided to the Engineering and Public Works Agency prior to issuance of grading and/or building permits.*

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). A Water Master Plan has been developed for the Rich-Haven Specific Plan, which shall conform to the City of Ontario's Water Master Plan and will include both domestic and recycled water infrastructure (RHSPA3, p. 4-14). *Recycled water will be used in the Rich-Haven Specific Plan area for irrigation of parks, schools, street landscaping, recreational trails, parkways, common area residential landscaping and commercial/industrial landscaping* (RHSPA3, p. 4-17).

1.4 Prior Water Supply Assessment

A WSA and Written Verification of Sufficient Water Supply (WV) prepared pursuant to Senate Bill 221 for the 8,200-acre NMC (Ontario Ranch) was prepared by WEBB on behalf of the City dated October 27, 2004. The 2004 NMC WSA/WV was used for demonstrating water supply sufficiency for previous amendments to the Rich-Haven Specific Plan. Because SPA3 proposes a new land use not previously included in the land use plan (i.e., Light Industrial) and the industrial land use has a maximum area of more than 650,000 SF, 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).

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

OMUC is the water supplier for the Project and has prepared a 2015 Urban Water Management Plan (UWMP), a copy of which is provided in Appendix A. Because the 2020 UWMP will not be adopted and supersede the previous UWMP until summer 2021, this WSA will rely on the 2015 UWMP. The 2015 UWMP was adopted by the City Council on July 21, 2016 and reviewed by the State Department of Water Resources (DWR). The assumptions on ultimate (buildout) water demand in the 2015 UWMP were derived from land use-based water demand factors (AKM, 2016), which build on the foundations laid out by the City's TOP land use plan (TOP, 2010). The

method used in the 2015 UWMP to calculate ultimate water demand assumed the NMC maximum residential densities (i.e., 5.0, 11.0, 25.0, and 40.0 du/ac) using adjusted gross acreages (i.e., acreages lacking rights-of-way for roads, flood control facilities, or railroads). Further, the method used for calculating the water demands of each Mixed Use District within the City was done individually based on unique density/intensity assumptions.

The land use designations on the Project site that were assumed in the 2015 UWMP are shown in **Figure 5 – Land Uses Assumed in the UWMP** and **Table 1-2** (next page).

Table 1-2 Land Uses Assumed in the UWMP

TOP Land Use Designation	TOP Adjusted Acreage[1]	Gross Acreage	Residential Units (Minimum)[2]	Residential Units (Maximum)[3]
Planning Areas 1A – 1F				
Low Density Residential (2.1 – 5.0 du/ac)	106.16	110.6	223	531
Planning Areas 2 and 3				
Open Space Non-Recreational (Edison Parcel)	18.01	20	0	0
Open Space Recreational	25.71	27	0	0
Planning Areas 4A - 4C				
Low Medium Density Residential (5.0-11.0 du/ac)	33.41	33	167	368
Planning Areas 5A - 5D				
Medium Density Residential (11.1 – 25.0 du/ac)	62.06	80.6	689	1,552
Planning Area 5E				
Open Space Non-Recreational (Edison Easement)	17.76	17.76	0	0
Subtotal	**263.1**	**289**	**1,079**	**2,451**
Planning Areas 6A – 9B				
NMC East Mixed Use Area[4] • > 14.0 – 50.0 du/ac. • 0.7 FAR for office and retail uses. • Subject to approved Specific Plans.	264.3	TOP Assumed Density/Intensity:[5] • 30% of area at 25 du/ac = 1,978 du. • 30% of area at 0.35 FAR for office & 40% of area at 0.30 FAR for retail uses=2,584,524 SF.		
Open Space Non-Recreational (SCE Corridor) / Neighborhood Edge	23.93	-	0	0
Total[6]	**551.33**	**577**	**--**	**4,429**

Source: For PAs 1A–5E, *Rich-Haven Specific Plan Amendment 3, Section 9.2 TOP Consistency Tables* (Nov. 2020).

Notes: TOP = The Ontario Plan; FAR = floor to area ratio; SCE = Southern California Edison; SF = square feet; du/ac = dwelling unit per acre; NMC = New Model Colony.

(1) Development area acreagesare based upon TOP Adjusted Gross Acreages. The TOP Adjusted Gross Acreage does not include the rights-of-way for roadways, flood control facilities, or railroads.

(2) Minimum dwelling units are calculated as the minimum density allowed multiplied by TOP Adjusted Acreage.

(3) Maximum dwelling units are calculated as the maximum density allowed multiplied by TOP Adjusted Acreage.

(4) From *City of Ontario, The Ontario Plan Draft EIR*, *Chapter 3. Project Description, p. 3-38.*

(5) From *Technical Memorandum, City of Ontario – Ultimate Citywide Water Demand Estimate, May 2016, Table 3 (TOP Approved Land Use Buildout Estimate (modified))*, included as Appendix B to the *Ontario 2015 UWMP.*

(6) Total areas and maximum units/square feet vary somewhat with each iteration of the land use plan because of adjustments to acreages over time and the Edison properties are not always included consistently.

As part of this Assessment, WEBB has confirmed with OMUC that there have been no substantial changes to the water supply portfolio as it is described in the 2015 UWMP and the same unit water demand factors are used herein as those used in the 2015 UWMP.

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 the Inland Empire Utilities Agency (IEUA), which is the local distributor of recycled water and a local wholesale supplier of untreated imported water (State Water Project) from The Metropolitan Water District of Southern California (MWD). OMUC is also a member of the Water Facilities Authority (WFA), a Joint Powers Authority from which the City purchases treated imported water received from IEUA. In addition, OMUC is a member of the Chino Basin Desalter Authority (CDA), a Joint Exercise of Powers Agency from which OMUC purchases treated groundwater. Lastly, OMUC owns shares of the San Antonio Water Company (SAWCo), a mutual water company that provides potable water to OMUC through the WFA.

MWD has prepared a 2015 UWMP that includes IEUA and its member agencies (Appendix B); IEUA and WFA have prepared a 2015 Regional UWMP (Appendix C); CDA has prepared a 2015 UWMP (Appendix D); and SAWCo prepared a modified 2015 UWMP (Appendix E).

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

Governor Brown proclaimed a statewide State of Emergency due to ongoing drought conditions on January 17, 2014. Since then, at least six Executive Orders and other Proclamations have been issued in response to impacts from extended statewide drought conditions. Executive Order B-37-16 issued on May 9, 2016, established a new water use efficiency framework for California. The order established longer-term water conservation measures that include permanent monthly water use reporting, new urban water use targets, reducing system leaks and eliminating wasteful practices, strengthening urban drought contingency plans and improving agricultural water management and drought plans. On April 7, 2017, Governor Brown issued Executive Order B-40-17 that ended the drought State of Emergency in all California counties except Fresno, Kings, Tulare, and Tuolumne. The Executive Order maintains the mandatory water reporting requirements and prohibitions on wasteful practices contained in Executive Order B-37-16, as described previously. In a related action, State agencies released a plan to implement Executive Order B-37-16 entitled, "Making Water Conservation a California Way of Life."

The Ontario City Council adopted Ordinance No. 3027 on September 1, 2015 in response to the 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"). Updates included more stringent prohibitions and penalties, a voluntary conservation stage that is always in effect, and mandatory water shortage stages 1 through 4 that target a strict enforcement of water conservation routines following a water crisis (UWMP, p. 8-1). In addition, OMUC's citywide Water Shortage Contingency Plan describes the methods to achieve and the implications of reducing water supplies up to 50 percent (UWMP, Chapter 8). Lastly, the City and OMUC implement various programs to reduce water consumption, identified as Demand Management Measures in the UWMP, which include the Best Management Practices recommended by the California Urban Water Conservation Council, of which

the City and OMUC is a member. Currently, the City is in the voluntary stage of the Water Conservation Plan, which has the following voluntary water use restrictions:

- *Avoid hose washing of sidewalks, walkways, driveways, parking areas or other paved surfaces, except as required for sanitary purposes;*
- *Avoid using a hose for washing of an automobile unless equipped with a fitted shut-off nozzle;*
- *Public places (i.e., restaurant) where food is served, should avoid serving water unless requested by customer;*
- *Avoid watering outdoor landscaping more than every other day and during the hours of 6 AM and 6 PM;*
- *Avoid causing or allowing water to be applied to outdoor landscapes in a manner that causes runoff; and*
- *Promptly repair all leaks from indoor and outdoor plumbing fixtures*
- *Avoid using water to clean, fill or maintain levels in decorative fountains, ponds, lakes or other similar aesthetic structures unless such water is part of a recycling system.*

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) which will decrease to 50 GPCD by 2030 (CWC section 10609.4(a)). The per person unit water use factors used by the City in the 2015 UWMP for water demand planning purposes are based on a minimum of 60 gpd/person for high density residential with recycled water, up to 95 gpd/person for low density residential with recycled water use (UWMP Appendix B, p. 3).

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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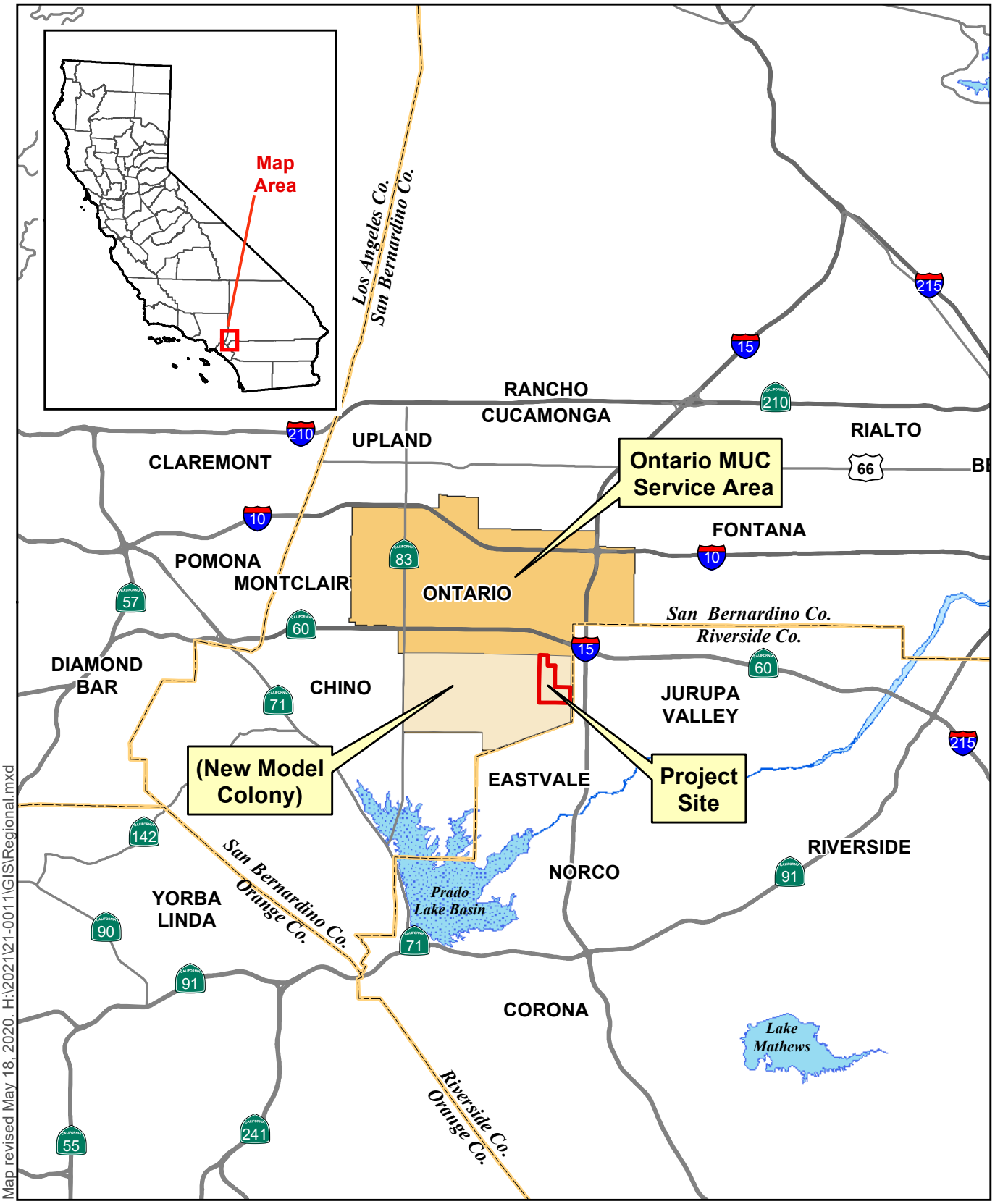

Map revised May 18, 2020. H:\2021\21-0011\GIS\Regional.mxd

Figure 1 – Regional Location

Rich-Haven SPA3

0 2 4 6 Miles

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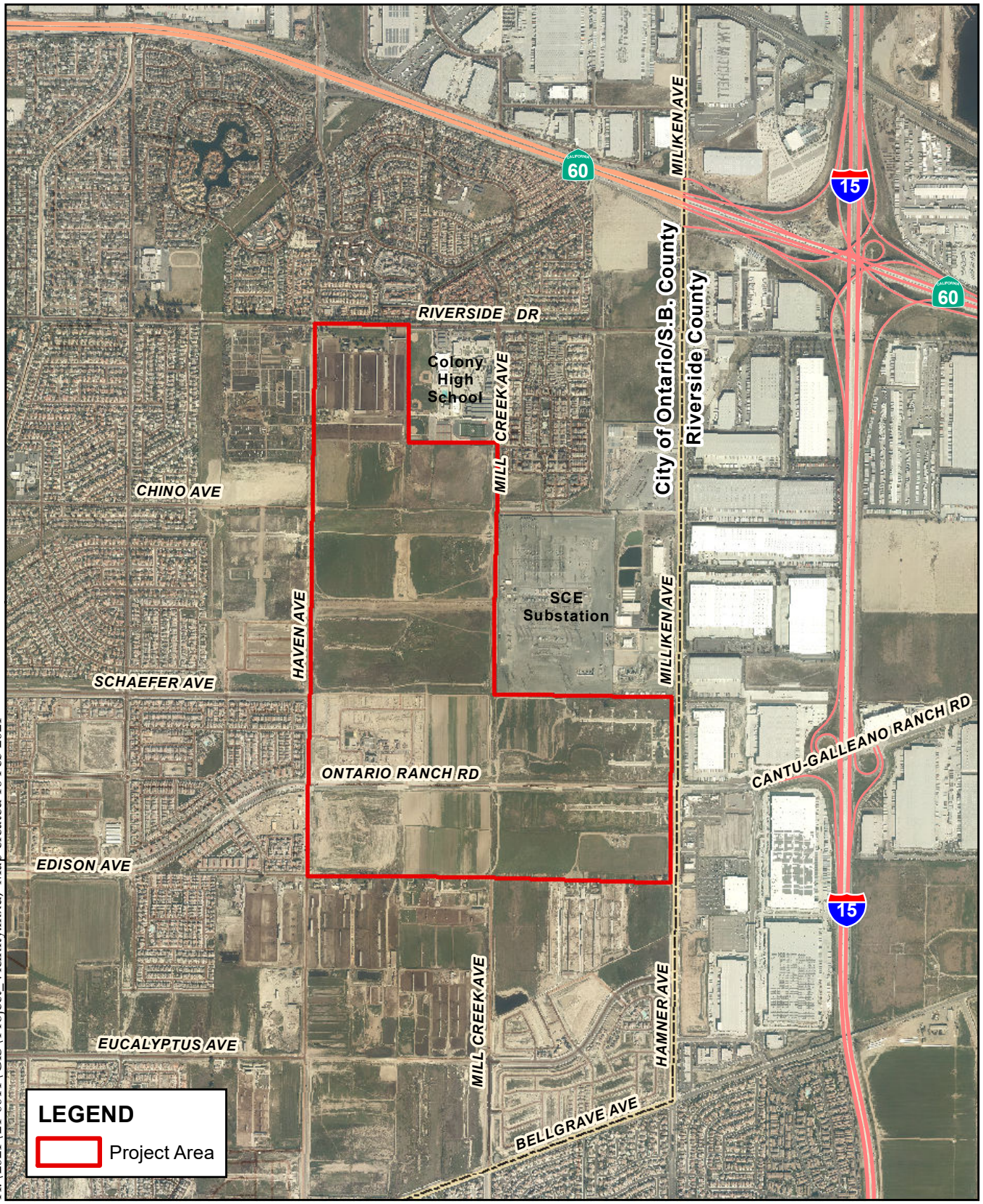

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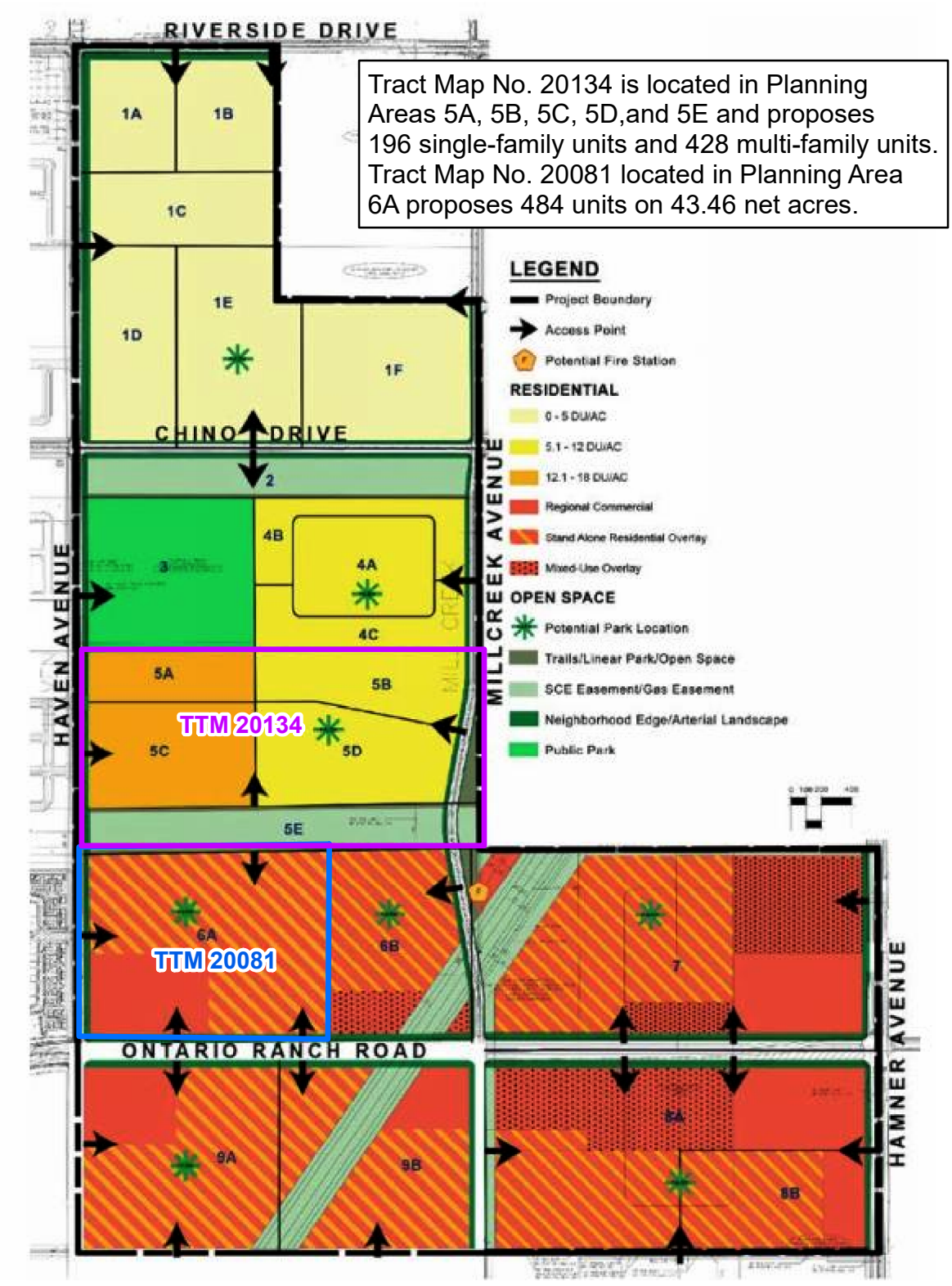
Sources: San Bernardino Co. GIS, 2021 (streets) and 2020 (imagery).

Figure 2 - Project Vicinity

Rich-Haven SPA3

ALBERT A. WEBB ASSOCIATES



H:\2021\21-0011\GIS\Existing_LU.mxd; Map created 18 Feb 2021

Source: Rich Haven Specific Plan, Feb. 20, 2018, Figure 3-1

Figure 3 - Existing Land Use Plan and Implementing Projects

Rich-Haven SPA3

Not to Scale

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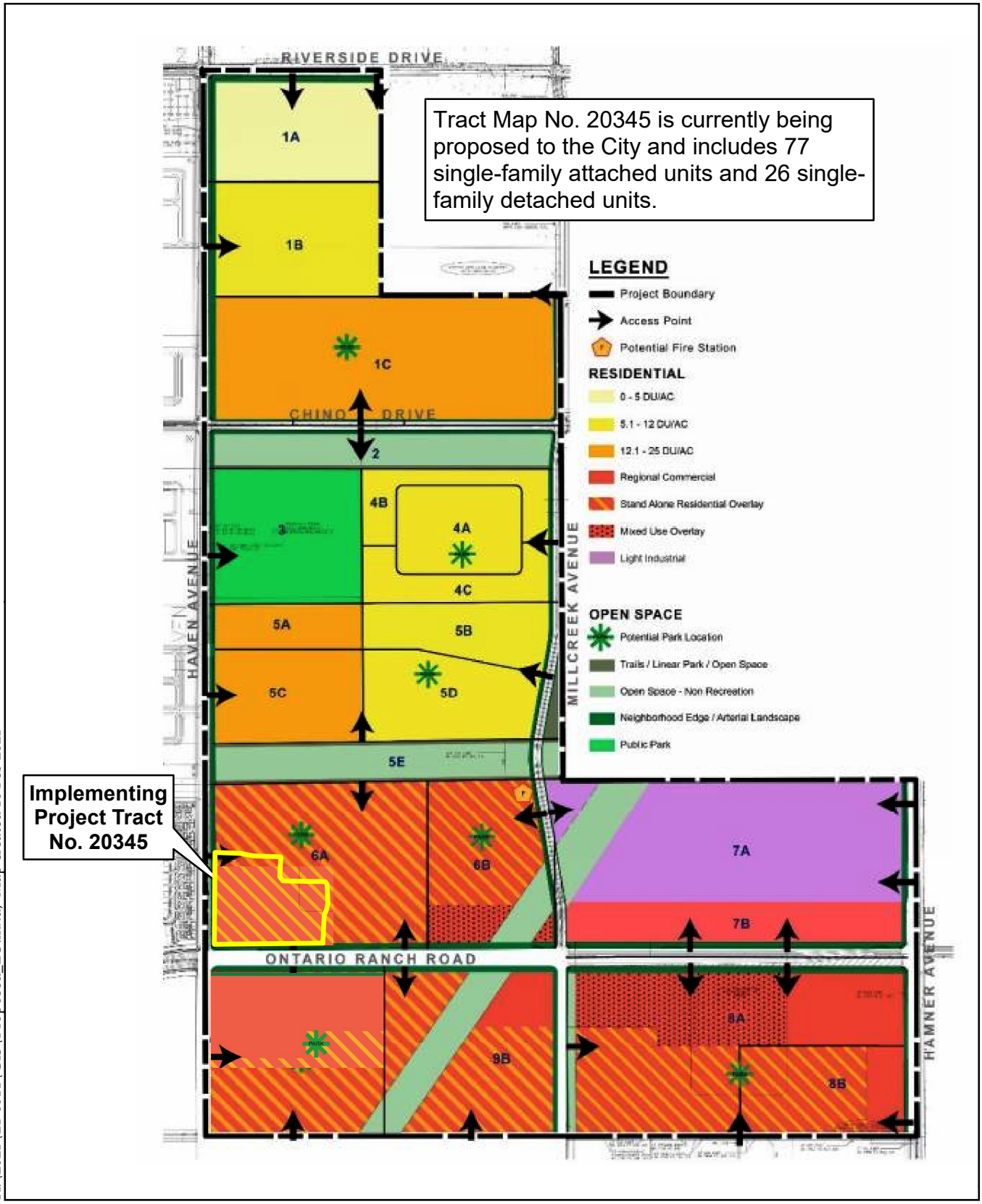

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Source: Rich Haven Specific Plan, Amendment, Nov. 2020, Figure 3-1

Figure 4 –Proposed Project Land Use

Rich-Haven SPA3

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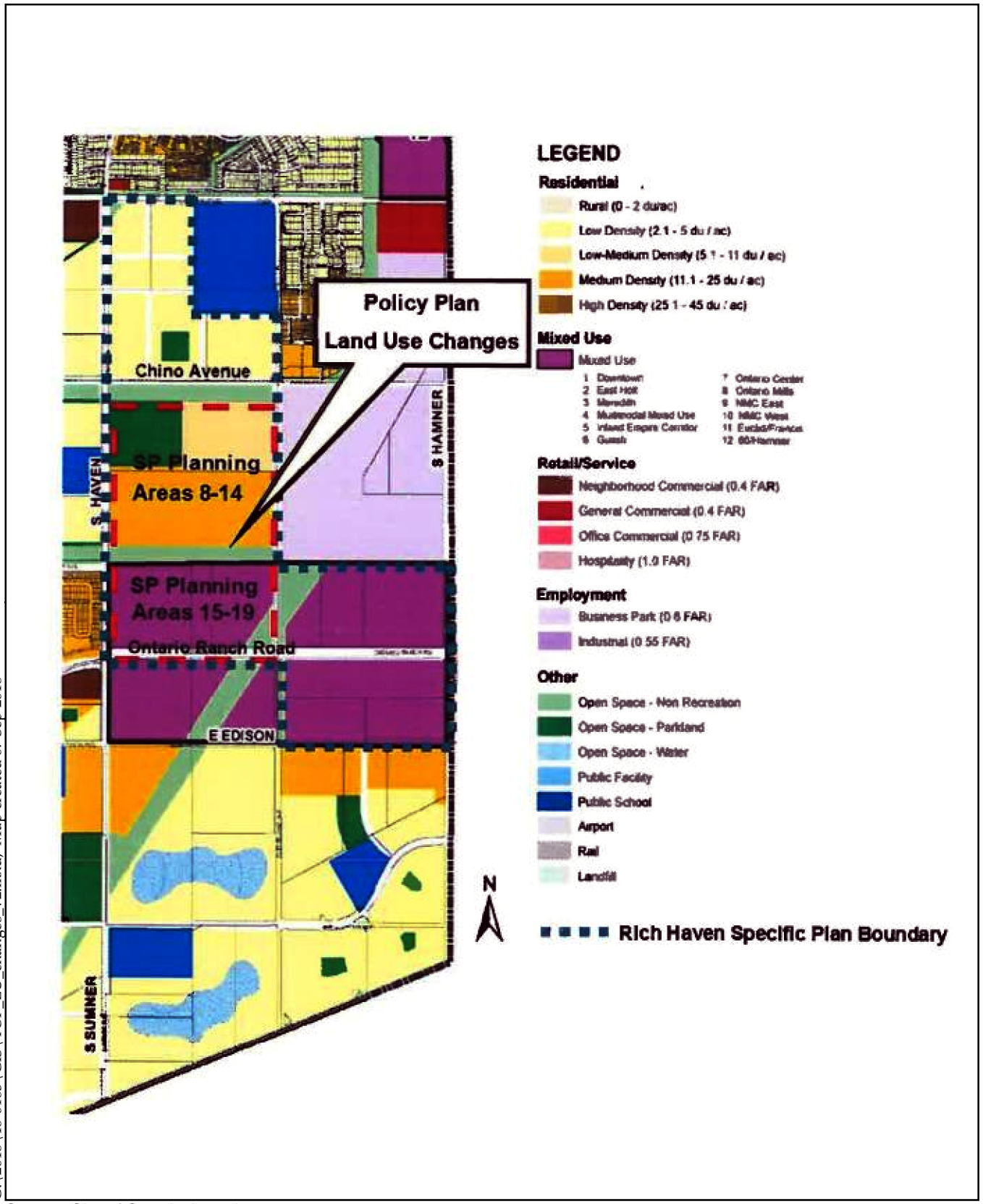

G:\2018\18-0183\GIS\TOP_LU_changes_v2.mxd; Map created 07 Sep 2018

Source: City of Ontario Agenda Report, March 15, 2016, Exhibit "A", TOP Land Use Plan

Not to Scale

Figure 5 - Land Uses Assumed in the UWMP

Rich-Haven SPA3 Water Supply Assessment

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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 Ontario's 2015 UWMP (Appendix A).

Climate

The climate of the City including the Project site can be described as generally mild temperatures, virtually no days below freezing, and approximately 312 days of sunshine per year. The average annual high temperature is approximately 78 degrees Fahrenheit (°F), and the average annual low temperature is 53.2°F. The average annual rainfall is roughly 11.3 inches, which occurs between October and April. (UWMP, p. 3-8)

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 combined OMUC service area population as of 2015, including both OMC and Ontario Ranch, is estimated at 168,777 persons. Based on the City General Plan (TOP) and anticipated development patterns, population at citywide buildout in 2040 is estimated at 368,239 persons as shown in **Table 2-1**, which is an increase of more than 118 percent over 20 years. Most of the anticipated growth will occur through infill, densification in the Old Model Colony and development in Ontario Ranch. (UWMP, p. 3-8)

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

	2010	2015	2020	2025	2030	2035	2040[b]
Population Served[a]	163,924	168,777	180,591	202,262	236,647	288,709	368,239

Source: UWMP, p. 3-8.
(a) Does not include the residents located within the City but receive water service from Cucamonga Valley Water District.
(b) The City estimates buildout by 2040.

As of 2015, the number of housing units in the City is estimated at 47,871 units with a 5.3 percent vacancy rate. The population per household was estimated at 3.7 persons. The City aims to have a full range of housing types and community services that meet the special housing needs for all its residents, regardless of income level, age, or other status. (UWMP, p. 3-8)

2.2 City of Ontario's Current and Future Water Demand

OMUC serves at least 33,720 customer connections as part of its potable and non-potable water distribution system (UWMP, p. 2-1). In fiscal year 2019/2020 (FY 19/20), the total potable water demand in the OMUC service area was 31,385 acre-feet (AF) and the recycled water demand was 7,812 AF (OMUC 2021). The recorded water demands by customer type for the OMUC service area are provided in **Table 2-2**.

Table 2-2 Recorded Citywide Water Demand (AFY)

Customer Type	2005[a]		2010[a]		2015[b]		FY19/20
	Volume (AFY)	No. of Accounts	Volume (AFY)	No. of Accounts	Volume (AFY)	No. of Accounts[C]	Volume (AFY)[d]
Single Family Residential	16,421	28,932	13,253	29,473	10,941	26,838	12,502
Multi-family Residential	6,147	2,244	5,425	2,069	4,839	1,968-	5,068
Commercial	8,369	3,095	6,692	3,285	6,584	3,201-	5,359
Industrial	2,402	327	2,044	278	1,471	268-	2,078
Institutional/ Governmental	1,178	320	-	-	-	-	538
Landscape	6,813	1,246	7,170	1,245	4,564	1,100-	4,631
Agriculture	-	-	-	-	-	-	
Other	378	161	819	308	340	66	368
Sales/transfers/ exchanges	-	-	-	-	206	-	841
Subtotal	**41,709**	**36,325**	**35,403**	**36,658**	**28,945**	**33,441-**	**31,385**
Recycled Water	1,829	-	1,547	178	7,208	279	7,812
Total Demand	**43,538**	**36,325**	**36,950**	**36,836**	**36,153**	**33,720**	**39,197**

Note: Does not include water losses. AFY = acre feet per year
(a) AKM 2011, pp. 3-2.
(b) UWMP 2016, pp. 2-1, 4-2, Appendix B.
(c) CY 2015 Annual Report to Division of Drinking Water.
(d) OMUC 2021.

The projected citywide water demands from 2025 to 2040 are shown in **Table 2-3.**

Table 2-3 Future Citywide Water Demand (AFY)

Customer Type	2025	2030	2035	2040
Single Family Residential	12,063	13,271	14,864	16,557
Multifamily Residential	7,563	9,832	13,273	17,699
Commercial	7,635	8,398	9,406	10,277
Industrial	2,298	2,988	3,884	5,138
Institutional/Governmental	-	-	-	-
Landscape	5,032	5,535	6,365	7,422
Agriculture	-	-	-	-
Other	-	-	-	-
Sales/transfers/exchange to other agencies	-	-	-	-
Subtotal Potable Demand[a]	**34,591**	**40,024**	**47,792**	**57,093**
Recycled Water[b]	9,118	10,942	13,677	16,547
Total Demand	**43,709**	**50,966**	**61,469**	**73,640**

Notes: Does not include areas within the City that are not served by OMUC.
(a) UWMP 2016, p. 4-2.
(b) UWMP 2016, p. 4-3. Includes agricultural demands.
AFY = acre-feet per year

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 two most common land use types in the OMUC service area are residential (8,762 acres or 28 percent) and industrial (4,671 acres or 15 percent), followed by undeveloped land (3,290 acres or 11 percent) (UWMP, p. 3-3). The ultimate citywide land use plan that was used for the 2015 UWMP plans for an increase of residential uses to 10,915 acres (34 percent of total), and the employment area including business parks and industrial uses is expected to cover about 8,103 acres (25 percent of total) at buildout (UWMP, p. 3-6). A comparison of acreage for existing (2015) and ultimate land uses within the OMUC service area according to the TOP is provided below in **Table 2-4**.

Table 2-4 Existing (2015) and Ultimate Citywide Land Use

Land Use Designation	Existing Land Use (acres)	Ultimate Land Use (acres)	Percent change
Rural residential	566	453	-20%
Single-family residential	7,074	7,466	6%
Multifamily residential	1,122	2,996	167%
Subtotal Residential:	**8,762**	**10,915**	**25%**
Commercial	1,821	3,321	82%
Industrial	4,671	8,103	73%
Open Space	734	2,293	212%
Public	341	99	-71%
Schools	457	627	37%
Airport	1,500	1,422	-5%
Landfill	209	137	-34%
Agriculture	2,939	-	-
Infrastructure	954	-	-
Right-of-ways	4,734	4,794	1%
Undeveloped	3,290	-	-
Unknown	735	-	-
Vacant buildings	198	-	-
Subtotal Non-Residential:	**22,583**	**20,796**	**-8%**
TOTAL	**31,345**	**31,711**	**1%**

Source: UWMP, p. 3-6.
Does not include areas within the City that are not served by OMUC.

The TOP anticipates buildout of the City by approximately 2040. As shown in Table 2-4, the land use types with the greatest increase in acreage from 2015 to buildout is planned to be in Open Space and Multifamily Residential. Conversely, the City is planning for a reduction in the area dedicated to Rural Residential, Public Facilities, Airport, and Landfill. Areas currently used by agriculture, infrastructure, undeveloped, unknown, and vacant buildings are expected to convert to other land use types. Overall, residential land uses may increase 25 percent from current, and non-residential land uses are expected to decrease moderately.

2.3 Project Site Land Use Assumed in the UWMP

The City's 2015 UWMP cites the same "Existing" and "Ultimate" Land Use Maps that were used in the City's 2012 Water Master Plan (AKM 2012), 2010 UWMP (AKM 2011), and 2010 TOP (p. 3-7). The land use designations within the Project site at the time of the 2015 UWMP and buildout assumptions are shown in Table 1-2 and Figure 5. The estimated water demand of the land uses assumed in the UWMP within the boundary of the Rich-Haven Specific Plan are detailed in **Spreadsheet 1**, using the City's current unit water demand factors. As summarized in **Table 2-5,** using the TOP land use types shown in the land use plan that was used in the 2015 UWMP, the UWMP buildout assumptions for the residential land uses including the mid-range (not the maximum) development assumptions for the NMC East Mixed Use District (Table 1-3), the estimated total water demand for the site that was accounted for in the 2015 UWMP is 2,241 acre-feet per year.

Table 2-5 Summary Water Demand of the Land Use Assumed in the UWMP

	Potable Water Demand (AFY)	Recycled Water Demand (AFY)	Total Water Demand (AFY)
Residential District	1,016	225	1,241
NMC East Mixed Use District	700	300	1,000
Total	**1,716**	**525**	**2,241**

Notes: AFY = acre feet per year; NMC = New Model Colony
Refer to Figure 5 and Spreadsheet 1.

All open space non-recreational planning areas were assumed to only have recycled water demand and no potable demand (i.e., Edison easements/parcels).

2.4 Project Water Demand[1]

The proposed Project land use summary is shown in Section 1, Tables 1-1a and 1-1b and Figure 4. The estimated total water demand of the proposed Project using the City's current unit water demand factors for potable and recycled water is detailed in **Spreadsheet 2.** As summarized in **Table 2-6,** the estimated total water demand for the Project is 2,771 AFY.

Table 2-6 Summary Project Water Demand

	Potable Water Demand (AFY)	Recycled Water Demand (AFY)	Total Water Demand (AFY)
Residential District	1,398	259	1,657
NMC East Mixed Use District	862	252	1,114
Total	**2,260**	**511**	**2,771**

Notes: AFY = acre feet per year; NMC = New Model Colony
Refer to Figure 4 and Spreadsheet 2.

All open space non-recreational areas were assumed to only have recycled water demand. Several additional assumptions had to be made that were not provided in the Project materials to estimate water demand for the Mixed Use District, as follows:

- For Mixed Use High Density Residential, the (gpd/du) water demand factors for potable and recycled were used (instead of gpd/acre) to reflect the anticipated vertical nature of the mixed use area;
- The Mixed Use Office water demand factor was used for all Mixed Use Regional Commercial areas to be conservative (instead of Mixed Use Non-Office water demand factor which is lower);
- When acreages were not provided in the Project land use plan for Regional Commercial areas in the Mixed Use District, the acreages were calculated assuming a floor-to-area (FAR) ratio of 0.70 and the given maximum building

[1] Rich-Haven Specific Plan Amendment No. 3.

square footage. FAR of 0.70 is the maximum allowed by the TOP for this Mixed Use District.

- No additional water demand was calculated for the Mixed Use Overlay in Planning Areas 6B and 8A, or the Edison easement in Planning Area 7B that is shown in the SPA3 land use map.

Conclusion

The estimated total water demand for the Project site that was assumed in the 2015 UWMP is approximately 2,241 AFY (Table 2-5). The estimated total water demand for the proposed Project is approximately 2,771 AFY (Table 2-6). This is a total difference of 530 AFY (potable and recycled combined); therefore, although the Project was accounted for in the latest UWMP, the proposed densification of the Residential District is higher than was assumed for the water demand projections of the latest UWMP. Because the water supplier's water demand projections assumed a lower development density than that which is proposed by the Project for the same property in the Residential District, it can be deduced that the water demand for the Project was not accounted for in the most recently adopted 2015 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 five 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 the 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 supplies 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 which MWD imports 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.[1] 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

[1] 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.

2015 UWMP 100 percent water supply reliability over the next 20 years (2015-2035) during average, single-dry, and multiple-dry years (MWD, pp. 2-15 to 2-17).

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 F). Of this amount, IEUA wholesales imported water to the WFA, Cucamonga Valley Water District, and the Fontana Water Company. The purchase order agreement includes an annual minimum purchase commitment of 39,835 AFY, which is consistent with the minimum operational needs of the four water treatment plants that treat the imported water from MWD (IEUA/WFA, p. 3-10).

The WFA was formed in 1980 as a Joint Powers Authority by the cities of Chino, Chino Hills, Ontario, Upland, and 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 G. 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 (www.wfajpa.org/facilities). As documented in WFA Ordinance No. 99-07-02 (located in Appendix H), the City owns 31.4 percent of the plant capacity of the Agua de Lejos WTP. As of 2015, that proportion is equivalent to approximately 28,451.6 AFY (UWMP, p. 6-14). As of CY 2020, OMUC can purchase up to 9,915 AF 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 of wholesale water from the WFA (OMUC 2021).

The actual and projected wholesale water supplies that are expected to be available to IEUA and WFA through 2040 are shown in **Table 3-1**.

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

Imported Water	2010[a]	2015[b]	2020	2025	2030	2035	2040
	Actual		Projected[b]				
IEUA (raw)	54,934	58,906	69,752	69,752	69,752	69,752	69,752
WFA (potable)[c]	14,864	27,606	32,783	32,783	32,783	32,783	32,783

Note: IEUA = Inland Empire Utilities Agency; WFA = Water Facilities Authority; AFY = acre feet per year.
(a) Data for 2010 Actual from *2010 IEUA UWMP*, Table 3-2; and *2010 WFA UWMP*, Table 3-1.
(b) Data for 2015 Actual through 2040 Projected from *IEUA and WFA 2015 UWMP*, pp. 3-9 – 3-10 (Appendix C).
(c) Assumes 47 percent of IEUA's imported supply is for WFA for all future years beginning in 2020.

IEUA and WFA jointly prepared a 2015 Regional UWMP which states the following in terms of future water supply reliability (IEUA/WFA, p. 1-1):

> *The water resources management strategies detailed in this 2015 UWMP illustrate that despite past periods of extraordinary growth and prolonged drought, the region is well positioned to ensure adequate water supplies, reduce dependence on imported supplies and increase drought resilient water sources, while addressing water quality management challenges. This 2015 Regional UWMP is reflective of IEUA's holistic water resources management strategies to prepare for future uncertainty and to ensure sufficient water resources for the region.*

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.

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 Appendix I 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 2021).

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 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 J). 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) (assuming JCSD's imported water baseline is 2,000 AFY) (JCSD 2014).

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. (UWMP, p. 6-7)

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. (UWMP, p. 6-7)

3.2. Documenting Water Supplies

As of the 2015 UWMP, approximately 69 percent of OMUC's water supply came from groundwater, 20 percent from imported water, and 11 percent of supply was recycled water (UWMP, p. 6-16).

The recorded water supplies available to OMUC from 2000 to FY 2018/2019 are provided in **Table 3-2** (next page) and the projected water supplies available to OMUC from 2020-2040 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.

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	28,451.6 AFY (31.4% of plant capacity)
CDA	-	-	5,000	3,543	6,636	Capacity Ownership	8,533 AFY
SAWCo	-	-	-	443	565	Shareholder Entitlement	765 AFY
Subtotal Potable	**46,120**	**42,205**	**34,878**	**29,943**	**32,109**	**--**	**--**
Recycled	700[f]	-	1,547	3,859[g]	7,812[h]	Contract	Ontario's share of sewer flows.
Total Supply	**46,820**	**42,205**	**36,425**	**33,802**	**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.

(a) Webb 2004, p. 21.

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

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

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

(e) OMUC 2021.

(f) Webb 2004, p. 29.

(g) Does not include recycled water for agriculture deliveries (3,349 AF).

(h) Based on the City's share of sewer flows in FY19/20, up to 12,715 AF was available for beneficial use (OMUC 2021).

Table 3-3 Projected OMUC Water Supplies (AFY)

Source	2020	2025	2030	2035	2040	Form of Right	Amount of Right
Wells	11,782	13,465	16,234	21,627	30,795	Appropriative	Varies (see Sec. 4)
Purchased							
WFA	10,000	11,000	13,000	15,000	17,000	Capacity ownership	28,451.6 AFY (31.4% of plant capacity)
CDA	8,533	8,533	8,533	8,533	8,533	Capacity Ownership	8,533 AFY
SAWCo	765	765	765	765	765	Shareholder entitlement	765 AFY
Subtotal Potable	**31,080**	**33,763**	**38,532**	**45,925**	**57,093**	**--**	**--**
Recycled	8,289	9,947	12,434	15,545	16,547	Contract	Ontario's share of sewer flows.
Total Supply	**39,369**	**43,710**	**50,966**	**61,470**	**73,640**	**--**	**--**

Note: AFY = acre feet per year; FY = fiscal year;
Source: UWMP, Table 6-9, p. 6-16.

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 (UWMP, p. 6-16).

Water Supply Capacities

The capacity of each source of supply available to OMUC is provided in the *2012 Ontario Water Master Plan* (AKM 2012), which is provided in Appendix K. The City is currently preparing an update to its Water Master Plan; because it is not yet finalized and adopted, this Assessment will use the City's 2012 Water Master Plan. The capacity of the supply system refers to the maximum production rate based on the pumps and 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 2012, p. 9-1).

OMUC is required to meet the following water supply criterion from the California Code of Regulations: "a source of supply equal to one maximum day demand, with one average day demand from local sources (AKM 2012, p. 9-1)." 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 Supply Capacities of Existing Sources

Source	AFY	mgd	gpm
Existing Wells[(a)]	63,936	57	39,638
WFA at Aqua de Lejos WTP[(b)]	28,490	25.4	17,663
CDA from Chino I Desalter	1,500	1.34	930
CDA from Chino II Desalter	7,033	6.3	4,357
Total Existing Capacity	**100,959**	**90**	**62,588**

Note: AFY = acre-feet per year; mgd = million gallons per day; gpm = gallons per minute.

From AKM 2012, Table 9-1 (Appendix K).

(a) OMUC, 2021.

(b) Combination of maximum capacities of WFA Turnouts 1 and 2 (16 mgd and 9 mgd, respectively).

The maximum capacities of the 'ultimate' sources of supply available to OMUC as of projections made in 2012, are provided in **Table 3-5**.

Table 3-5 Ultimate Capacities of Supply Sources

Source	AFY	mgd	gpm
Existing Wells[(a)]	63,936	57	39,638
Future Wells[(b)]	36,288	32.40	22,500
Subtotal	**100,224**	**89.4**	**62,138**
WFA at Aqua de Lejos WTP	28,490	25.4	17,663
CDA from Chino I Desalter	1,500	1.34	930
CDA from Chino II Desalter	7,033	6.28	4,361
Total	**137,247**	**122.42**	**22,954**

Note: AFY = acre-feet per year; mgd = million gallons per day; gpm = gallons per minute.
From Table 9-3 of AKM, 2012 (Appendix K).
(a) OMUC, 2021.
(b) Future well capacities assumed to 2,500 gpm each. 9 wells planned.

As stated in the 2012 Ontario Water Master Plan, the existing supply capacity of the OMUC groundwater wells alone meets the water supply criterion for both average day demand under existing and ultimate conditions, as well as maximum day demand for existing conditions (AKM 2012, p. 9-2). 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 (OMUC 2021). The Chino Basin is one of the largest groundwater basins in southern California, with an estimated 5 million AF,[2] with another 1 million AF in additional storage capacity. OMUC is planning nine new wells with seven of those wells serving Ontario Ranch with a combined additional supply capacity of 36,288 AFY (AKM 2012, p. 9-2).

[2] 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).

In FY 19/20, OMUC pumped 18,395 AF (Table 3-2). OMUC's existing pumping capacity is approximately 63,936 AFY (Table 3-4). The recorded extractions from OMUC wells between 2011 and 2015 are shown in **Table 3-6.**

Table 3-6 Recorded Groundwater Production, 2011-2015 (AFY)

Supply	2011	2012	2013	2014	2015
City wells in Chino Basin	20,442	20,226	19,967	20,274	19,544

Note: AFY = acre feet per year
From UWMP, p. 6-5 (Appendix A).

As of 2015, approximately 58 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 (UWMP, p. 7-1). 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 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 from two desalters (salt removers) that are anticipated to treat approximately 35,200 AFY of Chino Basin groundwater in 2020 and thereafter. This water is then sold to CDA members through "take or pay" contracts. 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 15,906 AFY (14.2 mgd). 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 11,201 AFY (10 mgd) and permitted capacity is 16,802 AFY (15 mgd), including 5,600 AFY (5 mgd) raw water bypass. However, the Chino II Desalter has not achieved the permitted capacity as a result of insufficient raw water supply. CDA is currently expanding the Chino II Desalter to a rated capacity of 25,427 AFY (22.7 mgd). (UWMP, p. 6-15)

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

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 2020, which would be roughly 12 percent of the total 2040 water supply portfolio for OMUC. The City's capacity rights to CDA are described in Section 4 – Groundwater Analysis.

Inland Empire Utilities Agency (IEUA) Recycled Water Supply:

Recycled water is provided to OMUC from IEUA, which treats the City's wastewater at its four regional wastewater reclamation plants. 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.

OMUC is entitled to the recycled water generated from the City's share of sewer flows. In FY 19/20, this amount was 12,715 AF (OMUC 2021). In FY 19/20, 7,812 AF of recycled water was purchased by OMUC for direct use (Table 3-2). This represents roughly 60 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	2015	2020	2025	2030	2035	2040
Agricultural irrigation	3,349	2,177	1,372	1,118	529	295
Landscape irrigation	2,330	4,195	6,174	8,297	11,491	14,575
Golf course irrigation	540	600	615	570	700	720
Industrial use	989	957	957	957	957	957
Total	**7,208[a]**	**7,929**	**9,118**	**10,942**	**13,677**	**16,547**

Note: AFY = acre feet per year
From UWMP, p. 6-10 (Appendix A).
(a) Supply available for use in 2015 was 12,131 AF.

Over the next 20 years, landscape irrigation is projected to have the greatest increase in demand for recycled water within the OMUC service area. Agricultural properties are expected to convert to more urban land uses, while supplies to golf courses and industrial uses are expected to remain relatively stable. (UWMP, p. 6-12)

IEUA has prepared several 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 2012 (located in Appendix L) to fully coordinate with IEUA's recycled water planning efforts. OMUC is currently updating their 2012 Recycled Water Master Plan.

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 130 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 2015; albeit modified from the State's format (SAWCo 2016).

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 2015 is equivalent to 11,552 AFY, which distributed among the 6,389 shares. The volume per share is variable. SAWCo has therefore determined, "…water use projections related to population growth and density, land use, zoning, development, and other typical indicators have no bearing on supply" (SAWCo 2016, p. 11). Notably, SAWCo expects to reduce entitlement in the future to 9,819 AFY based on supply trends and uses this amount for their water supply projections (SAWCo 2016, p. 36).

The City owns 295 shares of SAWCo, which equates to a current entitlement of 765 AFY of potable water to OMUC (UWMP, p. 6-8). In FY 19/20, OMUC received an actual volume of 565 AF (Table 3-2). OMUC has forecasted that future available supplies will be 765 AFY from 2020 to 2040 (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 surface water from San Antonio Creek, groundwater from the San Antonio Tunnel and three groundwater basins: Chino Basin, Cucamonga Basin and Six Basins (SAWCo 2016, p. 22). No new sources of supply are anticipated to be developed by SAWCo over the planning horizon. Actual and projected water productions (assuming water produced equals water demand) estimated by SAWCo are shown in **Table 3-8.**

Table 3-8 Recorded and Future SAWCo Water Supply (AFY)

Source	2015	2020	2025	2030	2035
Chino Basin	1,143.84	1,232.00	1,232.00	1,232.00	1,232.00
Cucamonga Basin	4,427.94	4,500.00	4,500.00	4,500.00	4,500.00
Six Basin	738.02	945.62	945.62	945.62	945.62
San Antonio Tunnel	696.80	949.52	949.52	949.52	949.52
Groundwater Sub-total	**7,006.60**	**7,627.14**	**7,627.14**	**7,627.14**	**7,627.14**
Surface Water (San Antonio Creek)	2,024.01	1,962.88	1,962.88	1,962.88	1,962.88
Total	**9,030.61**	**9,590.02**	**9,590.02**	**9,590.02**	**9,590.02**

Note: AFY = acre feet per year
From SAWCo 2016, Table 9, p. 22.

In terms of future reliability, SAWCo has stated the following in its 2015 UWMP (p. 32): "SAWCo has sufficient supplies to meet all obligations to its shareholders through the planning horizon." In addition, SAWCo has future transfer and exchange projects planned to mutually benefit certain shareholders during an emergency, including OMUC. The exact location, capacity and implementation schedule of these interconnections are under review (SAWCo 2016, p. 35).

3.4 Documenting Normal Year Water Supply and Demand

OMUC has assumed in its UWMP that customer water demand and available water supply are equal during "normal" precipitation years. However, OMUC has documented more than 100 percent of supply available during normal years, a single-dry year, and multiple-dry years according to Table 7-1 in the 2015 UWMP (Appendix A).

The normal year water supplies available to OMUC, as well as the normal year water demand projections are compared in **Table 3-9**. OMUC has estimated that sufficient supply will be available during any normal year occurring between 2020 and 2040.

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

	2020	2025	2030	2035	2040
Supply	39,369	43,710	50,966	61,470	73,640
Demand	39,369	43,710	50,966	61,470	73,640
Difference	0	0	0	0	0

Note: AFY = acre feet per year
From UWMP, Table 7-2 (Appendix A).

3.5 Documenting Dry Year Water Supply and Demand

The following assumptions are made in OMUC's 2015 UWMP to estimate future water supplies and demands during a single dry year (p. 7-5):

- *The provisions of a Stage 1 water shortage will be implemented, and customers will be subjected to a 10 percent consumption reduction.*
- *The supply of recycled water will be the same as in normal years and dry years.*
- *The reduction in WFA imported water supplies (equal to the shift obligation of 8,076 AFY) will be compensated by the extra groundwater production from the designated DYY wells during dry years. The DYY Program will expire in 2028 (unless renewed or replaced).*
- *The groundwater supply will be the same as in a normal year. The City has rights, storage and leases and can also purchase replenishment water.*[3]
- *Water losses have been included in the potable water demands as 7 percent of the annual demand.*

[3] Replenishment water, which is obtained by the Chino Basin Watermaster on behalf of all parties, can consist of reclaimed water, State water, and local supplies.

OMUC has determined that surplus water supplies will be available during a single dry year occurring anytime from 2020 to 2040, as shown in **Table 3-10**.

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

	2020	2025	2030	2035	2040
Supply	39,369	43,710	50,966	61,470	73,640
Demand	35,432	39,339	45,869	55,323	66,276
Difference	**+3,937**	**+4,371**	**+5,097**	**+6,147**	**+7,364**

Note: AFY = acre feet per year
From UWMP, Table 7-3 (Appendix A).

3.6 Documenting Multiple Dry Year Supply and Demand

OMUC has made the following assumptions in its UWMP to estimate future water supplies and demands during a three-year drought (UWMP, p. 7-6):

- *The first dry year is like a single dry year, in which customers voluntarily reduce consumption by 10 percent.*
- *The second dry year is considered a Stage 2 water shortage, and a 15 percent reduction in consumption is made mandatory. This will be imposed at the City Council's discretion.*
- *The third dry year is considered a Stage 3 water shortage, and a minimum of 20 percent consumption reduction is required. This will be imposed at the City Council's discretion.*
- *The supply of recycled water will be the same in normal years and dry years.*
- *The reduction in WFA supplies (8,076 AFY) will be compensated by extra groundwater production from the designated DYY wells during dry years. The DYY will expire in 2025 (unless renewed or replaced).*
- *The groundwater supply will be the same as in a normal year. The City has rights, storage and leases. The City can also purchase replenishment water.*

- *Water losses have been included in the potable water demands as 7 percent of the annual demand.*

OMUC has projected that surplus water supplies will be available during each year of a three-year drought that could occur anytime from 2020 to 2040, as shown in **Table 3-11.**

Table 3-11 OMUC Projected Multiple Dry Year Supply and Demand (AFY)

		2020	2025	2030	2035	2040
First Year	Supply	39,369	43,710	50,966	61,470	73,640
	Demand	35,432	39,339	45,869	55,323	66,276
	Difference	**+3,937**	**+4,371**	**+5,097**	**+6,147**	**+7,364**
Second Year	Supply	39,369	43,710	50,966	61,470	73,640
	Demand	33,464	37,154	43,321	52,250	62,594
	Difference	**+5,905**	**+6,557**	**+7,645**	**+9,221**	**+11,046**
Third Year	Supply	39,369	43,710	50,966	61,470	73,640
	Demand	31,495	34,968	40,773	49,176	58,192
	Difference	**+7,874**	**+8,742**	**+10,193**	**+12,294**	**+14,728**

Note: AFY = acre-feet per year
From UWMP, 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 2,771 AFY and the total water demand estimated by the previously planned land use of the same area is 2,241 AFY (Tables 2-5 and 2-6). This increase of 530 AFY reflects a decrease as a result of the Project of -14 AFY recycled water demand and an increase of +544 AFY of potable water demand for the Project site that was not accounted for in the 2015 UWMP.

As shown in Table 3-3 and Table 3-9, the future water supplies available to OMUC do not exceed the future ultimate water demand. Further, the future water demands in the 2015 UWMP did not consider the increase in potable water demand from the proposed Project. However, the increased water demand of the Project is just 0.7 percent of the citywide ultimate 2040 water demand/water supply as estimated by the 2015 UWMP (i.e., 73,640 AFY). Notably, OMUC can purchase up to 9,915 AFY of imported supply through WFA at Tier 1 rates. Beyond that amount, OMUC could continue to purchase at Tier 2 rates. In FY 19/20, OMUC purchased about 6,513 AF from the WFA plant (Agua de Lejos WTP), which is well within their capacity rights of 28,451.6 AFY. 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 372,392 persons[4] and water conservation efforts of at least 5 GPCD over the entire City, approximately 2,085 AFY of water could be conserved. This savings would more than cover the increased and unplanned potable water demand of the proposed Project.

[4] From *The Ontario Plan Approved Land Use Buildout Estimate (Modified)*, UWMP Appendix B p. 5.

Agricultural properties within OMUC service area are expected to convert to urban land uses, which is consistent with ongoing trends in the City. Most 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 roughly 91 percent over the next 20 years. Further, industrial land uses (which may include some manufacturing uses) are the second most common type in the City (Table 2-2) and they are planned by the City General Plan to increase (Table 2-3).

Table 3-10 and Table 3-11 show that OMUC projects surplus water supplies available during single-dry and multiple-dry years in volumes sufficient enough to meet the demand of the proposed Project 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 2015 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 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 2015 UWMP, prepared by AKM on behalf of the City of Ontario (OMUC) was adopted by City Council Resolution 2016-072 on June 21, 2016 (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 (*System Water Use*) through year 2040; 2) a description of the Chino Groundwater Basin (*System Supplies*); 3) the reliability of the water supply, projected supply and demand comparisons, and water shortage plans (*Water Supply*

Reliability and *Water Shortage Contingency Planning*); and 4) water demand management efforts (*Demand Management Measures*).[1]

The 2015 UWMP contains a Technical Memorandum that describes how the City's land use designations from the General Plan (TOP) were used to calculate future water demand by buildout in approximately 2040. The methods and calculations of the ultimate citywide water demand estimate are in Appendix B of the 2015 UWMP.

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 2015 SAWCo UWMP (located in Appendix E).

Chino Groundwater Basin Description

The Chino Basin covers approximately 235 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).[2] 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 (UWMP, p. 6-2).[3] While still considered a single basin for hydrologic purposes, the Chino Basin is divided into five management zones based on similar hydrologic conditions.

[1] Words and phrases italicized parenthetically are in reference to chapters so titled in the 2015 UWMP.
[2] 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.
[3] 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).

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:

> *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):

> *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).[4] Withdrawal in 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.[5] 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.

[4] 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."
[5] 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."

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. 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 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 (UWMP section 6.1.4) and in **Table 4-1** (next page):

- **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. To supplement the 2017 decrease in safe yield, the City currently receives an additional 1,037 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.

- **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.

- **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.[6] 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 20.74 percent of the "early transfer" water that the Watermaster may transfer from the Overlying Agricultural Pool. The amount available for transfer changes from year to year but is projected to increase. In FY 19/20, the City received 5,178 AFY as its share of Early Transfer (CBWM 2020).

- **Groundwater Recharge Credits.** The City is entitled to water rights due 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 2021).

- **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 located 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 2021).

- **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

[6] 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.

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 AF in storage pursuant to Overlying Non-Agricultural rights (CBWM 2020).

Table 4-1 Ontario Groundwater Rights Summary

Right	Current FY 2019-2020	Future	Notes
Appropriative Pool	9,299.5 (20.742% of OSY)	8,470 (20.742% of OSY)	OSY determined by Watermaster.
Overlying Non-Agricultural Pool	3,921 (53.338% of SY)	At least 3,921 (53.338% of SY)	Current annual production right is 7,447.2 AF with carryover. Actual production was 1,552.7 AF.
Safe Yield Reduction	1,037	Varies	
Land Use Conversions	4,254	16,602	Varies annually.
Annual Early Transfer	5,178	20.742% of Early Transfer	Subject to change by Overlying Ag. Pool level of demand.
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.
Subtotal (AFY)	23,689.5	±41,593	
SAWCo	600 (295 shares)	At least 765	Entitlement. Volume per share subject to change.
Total (AFY)	24,289.5	±42,358	
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.
Source: CBWM 2020, pp. 4.1, 11.1, 12, 12.1, 16.1,

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 AF from the basin (CBWM 2020, p. 20.1). The recorded groundwater production has generally decreased from 36,842 AFY in 2000, as shown in **Chart 4-1.**

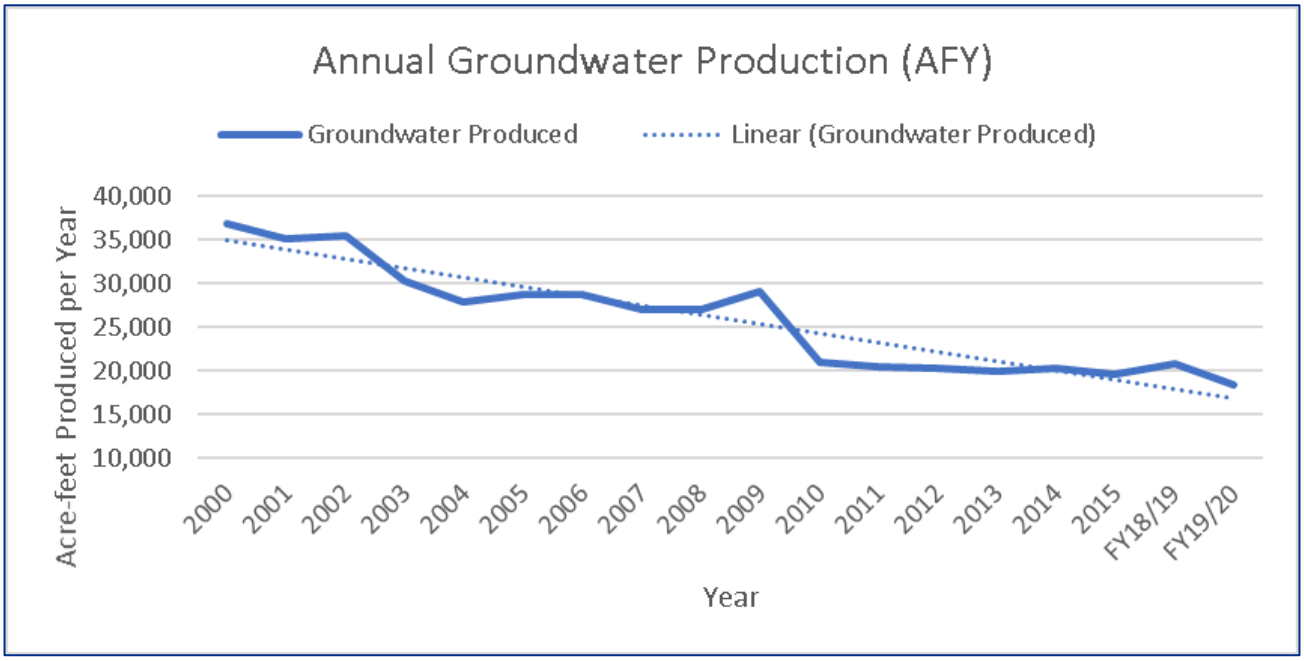

Chart 4-1 - Annual OMUC Groundwater Production, 2000 - FY19/20, (AFY)
(Sources: 2000-2009 from the 2012 Ontario Water Master Plan (Appendix K); 2010-2015 from City of Ontario's annual production reports and 2015 UWMP (Appendix A); FY 18/19 from CBWM, 2019, p. 9.1, FY 19/20 from CBWM, 2020, p. 20.1.

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.

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 develop a regional, long range, cost-effective, equitable, water supply plan for producers in the Chino Basin that incorporates sound basin management (OBMP, p. 4-16).

The "water demand planning assumptions" used to develop and evaluate water supply plans for Program Element Nos. 3 and 5 of the OBMP are reproduced below (OBMP, p. 4-17):

> ***Available Water Supply from the Impaired Area.*** *As urbanization of the agricultural areas of San Bernardino and Riverside counties in the southern half of the Chino Basin occurs, the agricultural water demands will decrease, and urban water demands will increase significantly. Future development in these areas is expected to be a combination of urban uses (residential, commercial, and industrial). The cities of Chino, Chino Hills, and Ontario, and the Jurupa Community Services District (JCSD) are expected to experience significant new demand as these purveyors begin serving urban customers in the former agricultural area. For planning purposes, the agricultural area is assumed to be fully developed by the year 2020. (OBMP, p. 4-17)*
>
> *Based on current [1999] estimates of overlying agricultural pool production, it is expected that at least 40,000 AFY of groundwater will need to [be] produced in the southern part of the Chino Basin to maintain the safe yield. It is anticipated that CDA will meet this requirement in FY 2019/2020.*
>
> ***Water Supply Plans.*** *Based on the data presented in Section 2 [OBMP, 1999], the municipal and industrial demands are projected to increase 30 percent between 2000 and 2020. Several agencies will experience increases in demand exceeding 30 percent over the next 20 years, including the cities of Chino, Chino Hills, Norco, Ontario, Cucamonga*

County Water District [now Cucamonga Valley Water District], Fontana Water Company (FWC), JCSD, and the West San Bernardino County Water District [now West Valley Water District]. Forecasts from municipal and industrial entities indicate that water supply sources for the Chino Basin in 2020 will consist predominantly of Chino Basin wells through direct use or treatment and use, groundwater and treated surface water from other basins, and the Metropolitan Water District of Southern California (MWD) supplies. (OBMP, p. 4-17)

For the purpose of the OBMP, it was assumed that there is approximately 48,000 AFY of agricultural production in the southern part of the Chino Basin in the year 2000, and that this production will reduce to about 8,000 AFY in the year 2020. This decline in agricultural production must be matched by new production in the southern part of the Chino Basin or the safe yield in the Chino Basin will be reduced. (OBMP, p. 4-18)

Recommended Water Supply Plan for the OBMP. *Considerable discussion of the alternative water supply plans occurred at the OBMP workshops in February through May of 1999. The discussions focused, in part, on the assumption and details of each alternative and cost. Based on technical, environmental, and cost considerations, the stakeholders selected Alternative 4A for detailed review and refinement. Alternative 6A was developed based on Alternative 4A and 5C, includes an accelerated desalting schedule and has no future supplemental water deliveries to the southern part of the Chino Basin. The Alternative 6A water supply plan consists of the following key elements. (OBMP, p. 4-19)*

Groundwater Production Pattern. *Groundwater production for municipal use will be increased in the southern part of the Chino Basin to: meet the emerging demand for municipal supplies in the Chino Basin, maintain safe yield, and to protect water quality in the Santa Ana River. All new southern*

Basin production will require desalting prior to use. The cities of Chino, Chino Hills, Ontario and Norco, and the JCSD will maximize their use of groundwater from the southern part of the Chino Basin prior to using other supplies.[7] *(OBMP, pp. 4-19 – 4-20)*

Imported Water. *Imported water use will increase to meet emerging demands for municipal and industrial supplies in the Chino Basin area, Chino Basin Watermaster replenishment, and conjunctive use. Expanded use of imported water in the northern part of the Chino Basin will have a lower priority than maintaining groundwater production in the southern part of the Chino Basin. (OBMP, p. 4-20)*

Recycled Water. *Recycled water use (direct use and recharge) will increase to meet emerging demands for non-potable water and artificial recharge. Under the current Chino Basin Plan, all new recycled water use will require mitigation for TDS and nitrogen impacts. Recycled water use will be expanded as soon as practical. The two new desalters [Chino I and Chino II Desalters] described above and the increase in storm water recharge will provide mitigation for the expanded use of recycled water. (OBMP, p. 4-20)*

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 declines, it will be 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

[7] Detailed discussion continues in this paragraph concerning the production capacity of the desalters and construction/expansion projects.

agreements. Thus, not only was increased Chino Basin water production by the City foreseen in the OBMP, but actually 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 2015 UWMP.

- IEUA's UWMP is consistent with, and reiterative of, OBMP projects and programs (see Section 7.4 of IEUA/WFA in Appendix C). 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 2015 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 10 percent by 2015 and 20 percent by 2020.

IEUA concluded in its 2015 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 and single dry year demands. However, in the multiple dry year scenario a local supply gap of 283 AF is projected for 2040. IEUA and retail agencies plan to close the supply gap through utilizing local supplemental water supply opportunities and securing additional imported water as needed to accommodate for the variability in supply from the State Water Project (Appendix C, p. 3-16).

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. As stated in the above-quoted OBMP text, however, "expanded use

of imported water in the northern part of the Chino Basin will have a lower priority than maintaining groundwater production in the southern part of the Chino Basin."

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.

In conclusion, 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 (Chart 4-1). 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 23,620 AFY, with an additional 96,544 AF in storage (Table 4-1). 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.

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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 Assessment 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 *Rich-Haven Specific Plan Amendment No. 3* project (Project). The Project modifies the previously approved land use plan to transfer 518 dwelling units (DUs) from the NMC East Mixed Use District to the Residential District of the Specific Plan, and replace approximately 50 acres of Commercial with Light Industrial use.
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 2,260 AFY and the recycled water demand is 511 AFY for a total demand of 2,771 AFY.
4. The TOP land use plan and buildout assumptions located in Appendix B to the Ontario 2015 UWMP were used to calculate the Project site as it was described at the time of the 2015 UWMP. This estimated potable water demand is 1,716 AFY and 525 AFY of recycled water for a total demand of 2,241 AFY.
5. The 530 AFY increase in total water demand between what was assumed in the 2015 UWMP and the proposed Project is primarily the increase in potable water demand in the Project's Residential District as a result of transferring 518 units from the Mixed Use District.
6. The increased water demand for the Project was not included in the 2015 UWMP dated July 2016, which was adopted by the City of Ontario City Council by Resolution 2016-072 on July 21, 2016 (Appendix A).
7. OMUC produced 18,395 AF of groundwater in FY 19/20. OMUC has water rights in the Chino Groundwater Basin that currently total 23,620 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 63,936 AFY, which is projected to increase to 100,224 AFY to meet demand (Table 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 28,452 AFY. OMUC also has capacity rights to potable water from the CDA in the amount of 8,533 AFY. 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, OMUC was entitled to 12,715 AF, of which 7,812 AF was put to non-potable direct use (Table 3-2).
10. As of FY 19/20, citywide potable and recycled water demand were 31,385 AF and 7,812 AF, respectively (Table 2-2); ultimate combined potable and recycled water demand is estimated at 73,640 AFY (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 3-10 and Table 3-11).
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 manufacturing uses. State mandated conservation efforts will reduce demand in the future.

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SECTION 6 - REFERENCES

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Executive Order B-40-17	State of California Executive Department, Executive Order B-40-17, April 7, 2017. (Available at https://www.gov.ca.gov/docs/4.7.17_Exec_Order_B-40-17.pdf.)
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IEUA/WFA	Arcadis. *Inland Empire Utilities Agency and Water Facilities Authority 2015 Urban Water Management Plan Final*. June 2016. (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 J)
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)
Making Water Conservation a California Way of Life	California Department of Water Resources, et. al., *Making Water Conservation a California Way of Life, Implementing Executive Order B-37-16 Final Report,* April 2017.
MBA	Michael Brandman Associates. *Rich Haven Specific Plan – Draft EIR*. July 3, 2007.
MWD	The Metropolitan Water District of Southern California, *2015 Urban Water Management Plan*. June 2016. (Appendix B)
OBMP	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)
OMUC 2019	Personal communication with Katie Gienger, P.E., Water Resources Manager, Ontario Municipal Utilities Company, November 7, 2019.
OMUC 2020	Personal Communication with Courtney Jones, Senior Associate Civil Engineer, Ontario Municipal Utilities Company, May 15, 2020.
OMUC 2021	Personal communication with Christopher Quach, PE, Senior Associate Engineer, Ontario Municipal Utilities Company, February 18, 2021.
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)

RHSPA Draft	*Draft Rich-Haven Specific Plan Amendment,* November 2020.
SAWCO 2016	CivilTec Engineering Inc. *San Antonio Water Company 2015 Urban Water Management Plan.* June 2016. (Appendix E)
UWMP	Ontario Municipal Utilities Company, *City of Ontario 2015 Urban Water Management Plan Final*, July 2016. (Appendix A)
WEBB 2004	Albert A. Webb Associates, *Water Supply Assessment and Written Verification of Sufficient Water Supply for the New Model Colony*. October 27, 2004.
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 G)
WFA 2010	*2010 Urban Water Management Plan for Water Facilities Authority*. (Available at https://water.ca.gov/LegacyFiles/urbanwatermanagement/2010uwmps/Water%20Facilities%20Authority/2010%20UWMP%20Adopted%20-%20Water%20Facilities%20Authority%20May%202011.pdf)

SECTION 7 - SPREADSHEETS

Land Use Plan for Rich-Haven Site that was assumed in 2015 UWMP

(Based on Land Use from The Ontario Plan - TOP)

TOP Land Uses and Buildout Densities Assumed in 2015 UWMP					Water Demand [1]						
Residential Planning Areas (PA)	TOP Land Use	Gross Acreage	TOP Max Permitted Dwelling Units per PA	TOP Max Density (du/ac)	Domestic Water Unit Demand Factor (gpd/ac) [2]	Domestic Water Demand (gpd)	Domestic Water Demand (Acre-Feet Per Year)	Recycled Water Unit Demand Factor (gpd/ac) [2]	Recycled Water Demand (gpd)	Recycled Water Demand (Acre-Feet Per Year)	Total Water Demand (Acre-Feet Per Year)
1A	Low Density Residential (2.1-5 du/ac)	12.8	56	5	1,900	24,320	27.24	540	6,912	8	34.98
1B	Low Density Residential	12.7	60	5	1,900	24,130	27.03	540	6,858	8	34.71
1C	Low Density Residential	14.9	74	5	1,900	28,310	31.71	540	8,046	9	40.72
1D	Low Density Residential	20.5	97	5	1,900	38,950	43.63	540	11,070	12	56.03
1E	Low Density Residential	23.4	124	5	1,900	44,460	49.80	625	14,625	16	66.18
1F	Low Density Residential	26.3	119	5	1,900	49,970	55.97	540	14,202	16	71.88
Subtotal		**110.6**	**530**	-		**210,140**	**235**		**61,713**	**69**	**305**
2	Open Space Non-Recreational	20	-	-		0	0	1,340	26,800	30	30.02
3	Open Space Recreational	27	-	-	1,000	27,000	30	1,340	36,180	41	70.77
Subtotal		**47**	**-**	-		**27,000**	**30**		**62,980**	**71**	**101**
4A	Low Medium Density Residential (5.1-11 du/ac)	14	156	11	3,960	55,440	62	625	8,750	10	71.90
4B	Low Medium Density Residential	9.2	110	11	3,960	36,432	41	625	5,750	6	47.25
4C	Low Medium Density Residential	9.8	102	11	3,960	38,808	43	625	6,125	7	50.33
Subtotal		**33**	**368**	-		**130,680**	**146**		**20,625**	**23**	**169**
5A	Medium Density Residential (11.1-25.0 du/ac)	9.1	229	25	6,690	60,879	68	670	6,097	7	75.02
5B	Medium Density Residential	14.2	362	25	6,690	94,998	106	670	9,514	11	117.07
5C	Medium Density Residential	27	453	25	6,690	180,630	202	670	18,090	20	222.60
5D	Medium Density Residential	30.3	509	25	6,690	202,707	227	670	20,301	23	249.80
5E	Open Space Non-Recreational	17.76	-	-		-	-	1,340	23,798	2	1.50
Subtotal		**98.4**	**1553**	-		**539,214**	**604**		**77,800**	**62**	**666**
Total Residential Planning Areas		**224.2**	**2451**	-		**880,034**	**986**	**2,680**	**136,340**	**153**	**1,138**
Total Residential District		**289.0**	**2,451**	-		**907,034**	**1,016**		**223,118**	**225**	**1,241**

Buildout Projections Assumed in 2015 UWMP for NMC East Mixed Use District [3]				Water Demand [1]						
Mixed Used District	TOP Assumed Residential Density (du/ac)/Commercial Intensity (FAR)	Acres by Land Use (Gross) [3]	TOP Assumed Buildout Projections for Commercial/Office (SF) or Dwelling Units (DU)	Domestic Water Unit Demand Factor (gpd/ac) [2] or (*gpd/du*) [5]	Domestic Water Water Demand (gpd)	Domestic Water Demand (AFY)	Recycled Water Unit Demand Factor (gpd/ac) [2] or (*gpd/du*) [5]	Recycled Water Demand (gpd)	Recycled Water Demand (AFY)	Total Water Demand (AFY)
NMC East	30% of 263.7 acres at 25 DU/ac	79.11	1,978	*120*	237,330	265.84	*18*	35,600	40	305.72
	30% of 263.7 acres at 0.35 FAR for Office	79.11		2,500	197,775	221.54	1,340	106,007	119	340.28
	40% of 263.7 acres at 0.3 FAR for Retail Uses	105.48	2,584,524	1,800	189,864	212.68	890	93,877	105	317.83
	Edison Easement- Open Space Non-Recreational	24.24	-		0	0.00	1,340	32,482	36	36.38
Total NMC East		**288**	**2,584,524**		**624,969**	**700**		**267,966**	**300**	**1,000**
Total Rich Haven		**577**	**4,429**		**1,532,003**	**1,716**		**491,084**	**525**	**2,241**

[1] Factors from Table 2 Future Domestic Water Unit Demand Factors, AKM, Technical Memorandum (May 2016).

[2] Recycled water assumed to be available for project. No potable water demand assumed for open space non-recreational planning areas.

[3] Ontario 2015 UWMP, Appendix B, p. 5, May 2016.

[4] From Draft Rich Haven Specific Plan Amendment 3, Section 9.2 TOP Consistency Tables (Nov. 2020).

[5] MU Residential Uses use Potable and Recycled Water Demand Factor of (GPD/DU)

FAR = floor to area ratio

ac - acre

du - dwelling units

Rich-Haven Specific Plan Amendment No. 3 Water Demand

(Based on Rich-Haven Specific Plan Amendment #3 Land Use Summary Table 3-1, 2021)

Rich-Haven Specific Plan Amendment # 3 Residential District					2015 UWMP Water Demand Factors				Rich-Haven Specific Plan Amendment #3 Water Demand				
Planning Areas	Project Land Use	Project Maximum Dwelling Units (DU)	Project Gross Acres (AC)	Project Gross Density (DU/AC)	Corresponding TOP Land Use	TOP Max Density	Potable Water Demand Factor (GPD/AC)	Recycled Water Demand Factor (GPD/AC)	Potable Water Demand (GPD)	PotableWater Demand (AFY)	Recycled Water Demand (GPD)	Recycled Water Demand (AFY)	Total Water Demand (AFY)
1A	Residential - SFD	115	25.5	4.5	Low Density Residential (w/ RW)	5	1,900	540	48,450	54.27	13,770.00	15.42	69.70
1B	Residential - SFD	175	24.5	7.1	Low Medium Density Residential (w/ RW)	11	3,960	625	97,020	108.68	15,312.50	17.15	125.83
1C	Residential - SFD	731	60.6	12.1	Medium Density Residential (w/ RW)	25	6,690	670	405,414	454.12	40,602.00	45.48	499.60
Subtotal		**1,021**	**110.6**	**9.2**					**550,884**	**617.07**	**69,684.50**	**78.06**	**695.12**
2	Edison Parcel	-	20.0	-	Open Space Non-Recreational (w/ RW)	-		1,340	0	0.00	26,800.00	30.02	30.02
3	Park	-	27.0	-	Open Space Recreational (w/ RW)	-	1,000	1,340	27,000	30.24	36,180.00	40.53	70.77
Subtotal		**-**	**47.0**	-					**27,000**	**30.24**	**62,980.00**	**70.55**	**100.79**
4A	Residential - SFD/Attached	154	14.1	10.9	Low Medium Density Residential (w/ RW)	11	3,960	625	55,836	62.54	8,812.50	9.87	72.42
4B	Residential - SFD/Attached	101	9.2	11.0	Low Medium Density Residential (w/ RW)	11	3,960	625	36,432	40.81	5,750.00	6.44	47.25
4C	Residential - SFD/Attached	108	9.8	11.0	Low Medium Density Residential (w/ RW)	11	3,960	625	38,808	43.47	6,125.00	6.86	50.33
Subtotal		**363**	**33.1**	**11.0**					**131,076**	**146.82**	**20,687.50**	**23.17**	**170.00**
5A	Residential - SFD/Attached	109	9.1	12.0	Medium Density Residential (w/ RW)	25	6,690	670	60,879	68.19	6,097.00	6.83	75.02
5B	Residential - SFD/Attached	165	14.2	11.6	Medium Density Residential (w/ RW)	25	6,690	670	94,998	106.41	9,514.00	10.66	117.07
5C	Residential - SFD/Attached	332	27.0	12.3	Medium Density Residential (w/ RW)	25	6,690	670	180,630	202.33	18,090.00	20.26	222.59
5D	Residential - SFD/Attached	361	30.3	11.9	Medium Density Residential (w/ RW)	25	6,690	670	202,707	227.06	20,301.00	22.74	249.80
Subtotal		**967**	**80.6**	**12**					**539,214**	**604.00**	**54,002.00**	**60.49**	**664.48**
5E	Edison Easement	-	17.8	-	Open Space Non-Recreational (w/ RW)	-		1,340	0	0.00	23,798.40	26.66	26.66
Subtotal		**-**	**17.8**	-					**0**	**0.00**	**23,798.40**	**26.66**	**26.66**
Residential Land Uses Total		**2,351**	**224.3**	**10**					**1,221,174**	**1,367.89**	**144,374.00**	**161.72**	**1,529.60**
All Residential District Planning Areas Total		**2,351**	**289.1**						**1,248,174**	**1,398**	**231,152.40**	**259**	**1,657**

Rich-Haven Specific Plan Amendment # 3 Mixed Use District							2015 UWMP Water Demand Factors				Rich-Haven Specific Plan Amendment #3 Water Demand				
Mixed Used Planning Areas	Land Use	Maximum Dwelling Units (DU)	Gross Acres (AC)	Gross Acres by Land Use	Gross Res. Density (du/ac)	Maximum Commerical / Office / Industrial (SF)	UWMP Land use	Max Density	Potable Water Demand Factor (GPD/AC) or (*GPD/DU*)[3]	Recycled Water Demand Factor (GPD/AC) or (*GPD/DU*)[3]	Potable Water Demand (GPD)	Potable Water Demand (AFY)	Recycled Water Demand (GPD)	Recycled Water Demand (AFY)	Total Water Demand (AFY)
				-	-	-								-	-
6B[1]+ 9B	Regional Commercial	-	65.1	2.50	-	76,320	MU-Office (w/ RW)	-	2,500	1,340	6,257.38	7.01	3,353.96	3.76	10.77
	Stand Alone Residential Overlay	1,406		49.24	28.60	-	MU-High Density Residential (w/ RW)	40	*120*	*18*	168,720.00	188.99	25,308.00	28.35	217.34
	Edison Easement/Neighborhood Edge	-		13.36	-	-	Open Space Non-Recreational (w/ RW)	-		1,340	-	-	17,902.40	20.05	20.05
7A	Light Industrial	-	49.4	49.40	-	1,183,525	Industrial (w/ RW)	-	1,400	890	69,160.00	77.47	43,966.00	49.25	126.72
	Open Space-Non Recreation	-	6.6	6.60	-	-	Open Space Non-Recreational (w/ RW)	-		1,340	-	-	8,844.00	9.91	9.91
7B[2]	Regional Commercial		25.1	25.10	-	300,000	MU-Office (w/ RW)	-	2,500	1,340	62,750.00	70.29	33,634.00	37.67	107.96
8A[1]	Regional Commercial	-	61.4	10.66	-	325,000	MU-Office (w/ RW)	-	2,500	1,340	26,646.33	29.85	14,282.43	16.00	45.85
	Stand Alone Residential Overlay	852		49.04	17.40	-	MU-High Density Residential (w/ RW)	40	*120*	*18*	102,240.00	114.52	15,336.00	17.18	131.70
	Edison Easement/Neighborhood Edge			1.70	-	-	Open Space Non-Recreational (w/ RW)	-		1,340	-	-	2,278.00	2.55	2.55
8B	Regional Commercial	-	19.7	4.05	-	123,400	MU-Office (w/ RW)	-	2,500	1,340	10,117.41	11.33	5,422.93	6.07	17.41
	Stand Alone Residential Overlay	407		15.65	26.00	-	MU-High Density Residential (w/ RW)	40	*120*	*18*	48,840.00	54.71	7,326.00	8.21	62.91
6A + 9A	Regional Commercial	-	85.6	5.45	-	166,182	MU-Office (w/ RW)	-	2,500	1,340	13,625.05	15.26	7,303.03	8.18	23.44
	Stand Alone Residential Overlay	2,178		79.45	27.40	-	MU-High Density Residential (w/ RW)	40	*120*	*18*	261,360.00	292.76	39,204.00	43.91	336.67
	Edison Easement	-		0.70	-	-	Open Space Non-Recreational (w/ RW)	-		1,340	-	-	938.00	1.05	1.05
Total Mixed-Use District Residential Land Uses		**4,843**		**193.38**	**25.0**						**581,160.00**	**650.98**	**87,174.00**	**97.65**	**748.63**
Total Mixed-Use District		**4,843**	**312.9**	**312.9**	**25.0**	**2,174,427**					**769,716.17**	**862**	**225,098.75**	**252**	**1,114**
Total- Rich Haven Residential and Mixed Use Districts		**7,194**	**602.0**	**602.0**	**17.22**						**2,017,890.17**	**2,260**	**456,251.15**	**511**	**2,771**

[1] The Rich-Haven Land Use Summary Table 3-1 does not contain acreages for Mixed Use Overlay that appears to be within PAs 6B and 8A. Potential water demand is captured in the unit water demand factors of PAs 6B and 8A.

[2] The Rich-Haven Land Use Summary Table 3-1 does not contain SCE easement acreages that appear to be within PA 7B. Potential water demand of these easements is assumed to be captured in the unit water demand factors of the nearby land uses within PA 7B.

[3] Mixed Use Residential (MU-High Density Residential) land uses used Potable and Recycled Water Demand Factor GPD/DU; Non-Residential land uses used Potable Water Demand Factor GPD/AC

[4] Acreages for Edison Easement/Neighborhood Edge in Mixed Use District were obtained from Section 9.2 (TOP Consistency Tables) of the SPA3.

[5] Unit water use factor for Mixed Use-Office instead of Mixed Use Non-Office was assumed to be conservative.

SFD = single family detached.

w/ RW = with recycled water

No potable water demand for Edison easements, neighborhood edge, or Edison parcel.

A FAR of 0.7 was assumed in order to calculate an acreage for Regional Commercial in PA 6B+9B, 8A, 8B, and 6A+9A. FAR of 0.7 is the maximum allowed per the TOP NMC East Mixed Use District

WRITTEN VERIFICATION OF SUFFICIENT WATER SUPPLY

RICH-HAVEN SPECIFIC PLAN AMENDMENT NO. 3

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 *Amendment No. 3* to the *Rich-Haven Specific Plan (PSPA19-006)* (SPA3 or "Project"). The Rich-Haven Specific Plan encompasses 602 acres within the City of Ontario's 8,200-acre Ontario Ranch. This includes Southern California Edison parcels and easements that are within the Project boundary. *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 is the third specific plan amendment; the primary changes of which are to move 518 dwelling units (DUs) from the Mixed Use District to the Residential District of the Specific Plan, and replace approximately 50 acres of Commercial with Light Industrial use.

With the land use changes that are proposed by the Project implemented, the Rich-Haven Specific Plan will allow for up to a maximum of 7,194 DUs, a maximum of 990,902 square feet (SF) of commercial/office uses, and a maximum of 1,183,525 SF of light industrial uses. The Mixed Use District allows for combinations of commercial, office, light industrial, and residential development at various densities/intensities. The projected total water demand for ultimate development of the Rich-Haven Specific Plan with SPA3 is 2,771 acre-feet per year (AFY) (Table 2-6, Water Supply Assessment).

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 January 25, 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 Rich-Haven Specific Plan area. SB 221 applies to the Project because there will be residential subdivisions that will have more than 500 DUs which exceed the criteria set in 66473.7(a) of 500 DUs.

The key question for this WV to address per SB 221: 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 2015 UWMP which addresses normal, single dry, and multiple dry year conditions (Appendix A). The 2015 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 2015 UWMP; therefore, the increased demand was not accounted for in the 2015 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

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

from 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 (Table 4-1).

Urban Water Shortage Contingency Analysis

The urban water shortage contingency analysis prepared for the most recent UWMP is contained within Chapter 8 of Ontario's 2015 UWMP (Appendix A). The UWMP water shortage contingency analysis is based on the provisions adopted in City of Ontario Ordinance No. 3027 (effective Oct. 1, 2015), which updated the City's Water Conservation Plan that is codified in Chapter 8A of the City municipal code. The analysis includes stages of action, prohibitions on end uses, penalties and enforcement measures, determination of water shortage reductions, revenue and expenditure impacts, catastrophic supply interruption, and minimum supply for the next three years.

Ordinance No. 3027 made the City's Water Conservation Plan consistent with the more 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 City's Water Conservation Plan describes the methods to respond to a water supply shortage of up to 50 percent. Fives stages of conservation are described

(Stages 0-4) with Stages 1-4 being mandatory with increasing conservation requirements and penalties depending on the severity of the shortage (UWMP, p. 8-1).

The water supply and water demand comparisons incorporated herein from the 2015 UWMP do reflect the implementation of water shortage contingency measures corresponding to Stages 0-4. Specifically, during normal years and the first single dry year, voluntary Stage 0 reductions in water consumption of up to 10 percent are assumed. During the second dry year, a Stage 2 mandatory reduction in water demand of 15 percent is assumed in demand projections. Further, the third dry year is assumed to be in a Stage 3 with mandatory minimum reductions in water demands of 20 percent. (UWMP, p. 7-6)

Supply Reduction for Specific Water Use Sector

OMUC's current Water Conservation Plan establishes 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. Stage 0 prohibitions are entirely voluntary. Stages 1 to 4 prohibitions will be progressively implemented according to the severity of the water crisis (UWMP, p. 8-2). The restrictions and prohibitions on end users that correspond to Stages 0 to 4 are outlined in Table 8-2 of the City's 2015 UWMP (p. 8-3). OMUC does not have a water supply allocation plan. No single water use sector is identified in the 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 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 supplies that industrial and agricultural users may be using that are not provided to them by OMUC would be 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.

The *Rich-Haven Specific Plan Draft Environmental Impact Report* (EIR) prepared by MBA and dated July 3, 2007, addressed the conversion of the existing agricultural land use to a mixed urban use development. As stated in the Draft EIR section on

Significant and Unavoidable Impacts: *Implementation of this project would permanently convert agricultural operations and agricultural production on the project site to urban uses. Specifically, the Prime Farmland would be permanently converted and no longer available for agricultural uses or agricultural production* (p. 6-1). The document further states, *The project is being proposed despite significant and unavoidable impacts because it represents one of thirty planning subareas within the NMC [Ontario Ranch] planned for cohesive, identifiable neighborhoods within the NMC [Ontario Ranch] for the purpose of implementing the vision of the NMC [Ontario Ranch]* (p. 6-2).

As discussed in the attached WSA, agricultural properties are projected to decrease with the conversion of Ontario Ranch to non-agricultural activities (Table 2-4). Table 3-7 of the attached WSA forecasts declines in recycled water use by agriculture. Further, industrial is currently (2015) one of the two most common land use types in the City, making up approximately 4,671 acres or 15 percent (UWMP, p. 3-3). The ultimate citywide land use plan plans for an increase of business parks and industrial uses to cover about 8,103 acres or 25 percent at buildout (UWMP*, p. 3-6*). Table 2-3 in the attached WSA shows an increasing citywide projection of water use by industrial uses from 1,839 AFY in 2020 to 5,138 AFY in 2040.

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, and a decline in private wells is expected.

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 2015 UWMP states that 2,592 very low income units are planned between 2013 and 2021, and half of those units are designated for extremely low income families (p. 3-9). Further, the 2015 UWMP estimates 15,143 AFY of water demand will come from lower income households by buildout in 2040 (p. 4-4).

The following excerpt from the Draft Rich-Haven SPA3 General Plan Consistency Analysis describes the Project's consistency with applicable policies from the TOP Housing Element (p. 9-20):

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 Specific Plan allows for the development of up to 893 residential dwelling units comprised of a variety of single-family detached homes. Residential land use areas are linked by a network of street- separated sidewalks and bicycle trails connecting all neighborhoods to parks and schools. Residential development is designed to address a variety of lifestyles and economic segments of the marketplace, such as singles, families, executives and "empty nesters."
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 Specific Plan includes architectural design guidelines to encourage development of diverse neighborhoods with the use of varied architectural styles articulated with elements true to the architectural characteristics of each style
GOAL H5: A full range of housing types and community services that meet the special housing needs for all individuals and families in Ontario, regardless of income level, age, or other status.	
H5-2 Family Housing. We support the development of larger rental apartments that are appropriate for families with children, including, as feasible, the provision of services, recreation and other amenities.	The Specific Plan allows for the development of condominium and multi-family home types designed to accommodate families with children. The Specific Plan requires that all condominium and multi-family developments within the project provide private recreational areas and/or pocket parks for residents of the development.

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 3-9 of the attached WSA, the City's existing and future total water supply (39,921 AFY in FY 19/20 and 73,640 AFY in 2040, respectively) are sufficient to meet the existing and anticipated water demands from its service area including the proposed Project's demand of 2,771 AFY (Table 2-6 of attached WSA). Based on the analysis herein and the attached WSA, OMUC finds that "sufficient water supply" is available to support the projected subdivisions within the Rich-Haven Specific Plan as currently described in SPA3.

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