Appendix G

Water Supply Assessment

3625 Peterson Way Office Project
Environmental Impact Report

City of Santa Clara

3625 Peterson Way
Water Supply Assessment

for Compliance with California Water Code Section 10910

Approved by City Council

Resolution #18-8550

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Introduction

Senate Bill 610 (2001) codified at Water Code Section 10910 et seq, requires detailed information on water supply availability for certain projects that meet or exceed the following criteria:

- A residential development of more than 500 dwelling units
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.
- A proposed hotel or motel, or both, having more than 500 rooms.
- 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.
- A mixed-use project that includes one or more of the projects specified in this subdivision.
- 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.

3625 Peterson Way ("3625 Peterson" or the "Project"), located in the City of Santa Clara ("City") at Peterson Way and Tannery Way is subject to a Water Supply Assessment ("WSA" or Assessment") in accordance with the California Water Code and the California Environmental Quality Act.

The City of Santa Clara's City Council approved and adopted an Urban Water Management Plan in 2016 ("UWMP" or "2015 UWMP"). The 2015 UWMP did not specifically include or address this Project since it was proposed and evaluated after the adoption of the UWMP. However, the UWMP included projected increases in water demand due to densification and intensification of both residential and non-residential land uses. Projected uses within the proposed development are described in further detail in the Projected Water Demand for the Proposed Project section.

This Assessment relies on the data contained in and used to develop the 2015 UWMP to analyze the availability of the City's water supply to serve the Project along with existing and planned future uses. Unless noted, all figures in this Assessment are in acre-feet (AF) and are for total water demand or supply, i.e. both potable and recycled water.

The findings of this Assessment will be submitted to the City Council for approval and included in the environmental review process. The City's approval, denial, conditional approval or any act on this Assessment does not guarantee that the Project will be approved and does not obligate the City to approve, deny, conditionally approve, take any action, or make any decision on the Project application.

Water Supply

The City of Santa Clara has four sources of water. These sources include two treated water sources from the Santa Clara Valley Water District ("SCVWD" or "District") and the San Francisco Public

Utilities Commission ("SFPUC"), groundwater pumped from the Santa Clara sub-basin through the City's owned and operated groundwater wells, and recycled water purchased from South Bay Water Recycling ("SBWR").

Recycled water use within the City is limited by the availability of acceptable uses and proximity to the recycled water distribution system. The use of treated surface water from SCVWD and SFPUC is limited by their respective executed contracts.

Potable Water Supply

The Santa Clara potable water system is separated into four interconnected zones in order to provide optimum pressures throughout the City. The four pressure zones and the location of the Project are shown in Figure 1.

Figure 2 shows the water source by area. Treated water purchased from SFPUC is used to supply water north of Highway 101. Treated water purchased from the SCVWD is used in conjunction with groundwater to supply water to the southern portion of the City.

Table 1 below summarizes the amount of water pumped by the City's groundwater wells from 2008-2017. Table 1A summarizes purchased volumes from the City's two wholesalers.

Table 1: Historical Volume of Groundwater Pumped

Source	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Wells	15,923	14,826	13,980	13,930	14,958	14,194	14,096	11,450	10,108	12,200

Table 1A: Historical Treated Water Purchases

Source	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
SCVWD	4,248	4,105	4,372	4,527	3,971	4,949	3,634	3,701	4,683	4,123
SFPUC	3,278	2,778	2,454	2,225	2,264	2,457	2,069	2,470	2,371	2,317

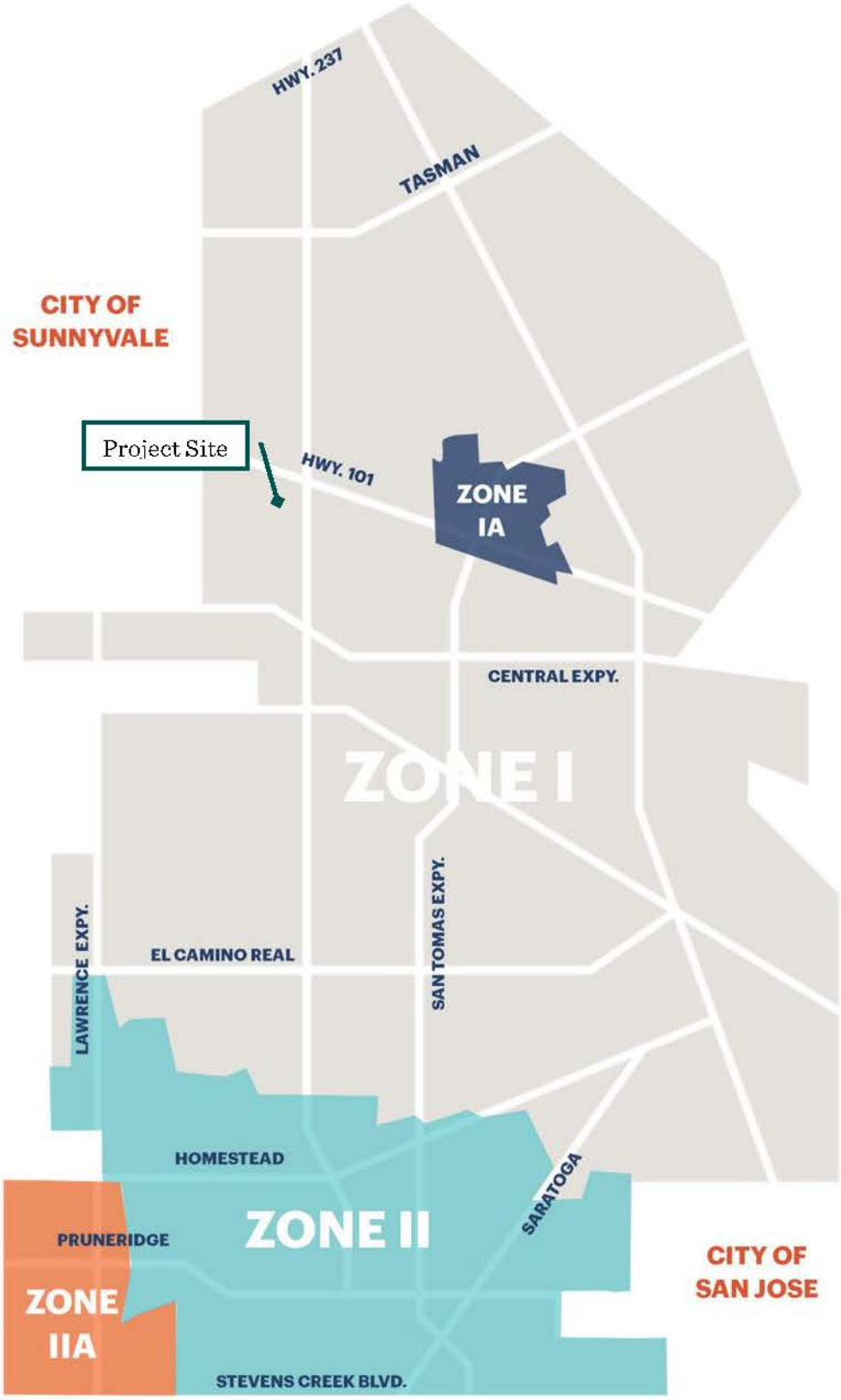

Figure 1: Pressure Zones

Figure 2: Sources of Water by Area

Groundwater Supply

The local groundwater basin currently provides about two thirds of the City's potable water supply. It is the primary source of water for domestic, industrial, and agricultural use in the City since the area was first settled. This aquifer acts as a large underground reservoir that the City's 26 wells use as a water source.

The Santa Clara Valley groundwater basin extends from the Coyote Narrows at Metcalf Road in San Jose to Santa Clara County's northern boundary. It is bounded on the west by the Santa Cruz Mountains and on the east by the Diablo Range: these two mountain ranges converge at the Coyote Narrows to form the southern limit of the sub-basin. The sub-basin is 22 miles long and 15 miles wide at its widest point, with a surface area of 225 square miles. The southern area is an unconfined zone, or "forebay", where confining clay layers do not extend. SCVWD staff estimates the operational storage capacity of the sub-basin to be 350,000 AF. The Santa Clara Valley groundwater basin is shown in Figure 3 (225 square miles, 144,000 acres) and is the largest of three interconnected groundwater basins occupying a total of 240,000 acres of the 849,000 acres in Santa Clara County.

The Santa Clara Valley groundwater basin is not adjudicated. The most recent information from DWR indicates that the Santa Clara Sub-basin is a medium-priority sub-basin based on criteria that include overlying population, projected growth, number of wells, irrigation acreage, groundwater reliance, and groundwater impacts[1]. The sub-basin is not currently listed as overdrafted[2]. Even when the City was at the historic peak for groundwater production FY1986/87, the basin was not approaching overdraft. Though the Santa Clara Valley groundwater basin is not considered overdrafted by the Department of Water Resources and is not adjudicated, the District monitors the basin for local subsidence and works with various water retailers in the area to prevent subsidence and overdraft of the basin.

[1] Department of Water Resources, Groundwater Basin Prioritization Results – June 2014 http://www.water.ca.gov/groundwater/casgem/basin_prioritization.cfm

[2] Department of Water Resources, California's Groundwater Update 2003, DWR Bulletin 118 (California Department of Water Resources, 2003)

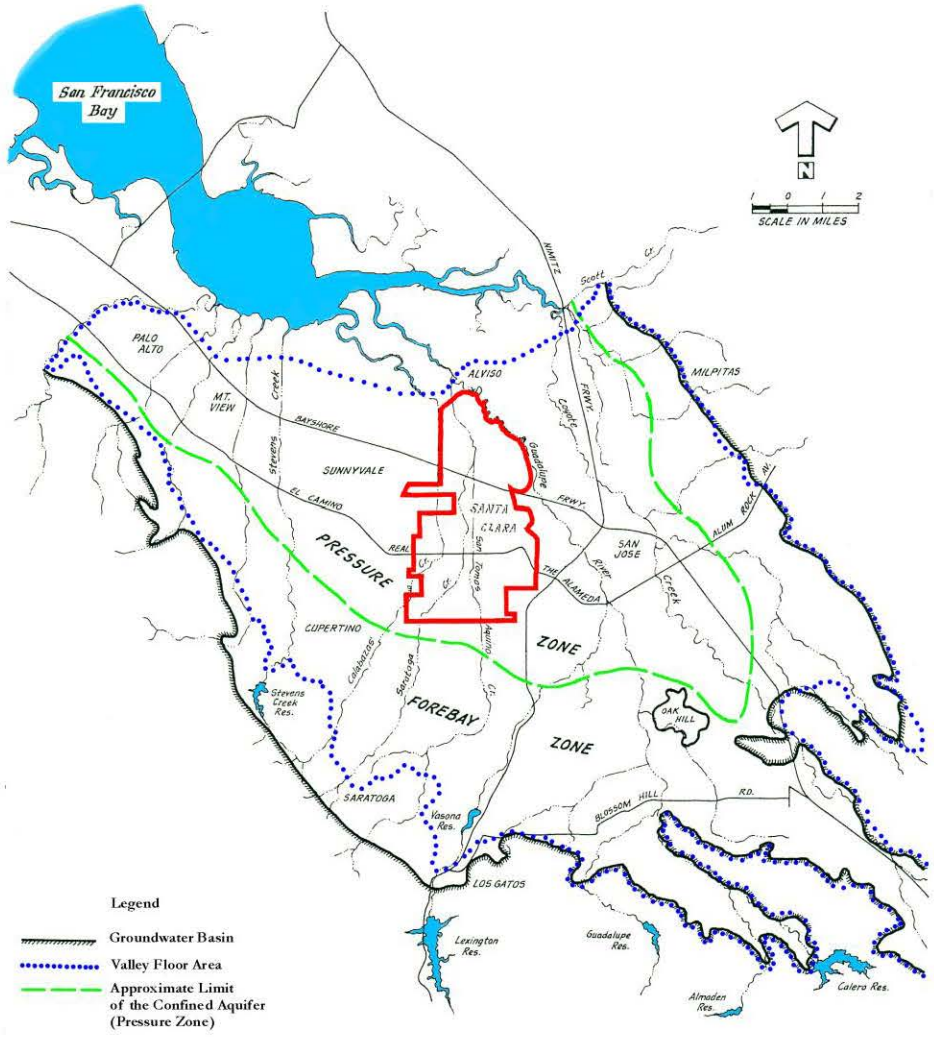

Figure 3: Map of Groundwater Basin

The allowable withdrawal or safe yield of groundwater by the City of Santa Clara is dependent upon a number of factors including: withdrawals by other water agencies, quantity of water recharged and the carry over storage from the previous year. Development and agricultural needs in the 1920s increased the demand on the water systems within the Santa Clara Valley. This increased extraction of groundwater led to subsidence in several of the aquifers. The Santa Clara Valley Water Conservation District (currently Santa Clara Valley Water District) was originally formed in 1929 to alleviate land surface subsidence in and around San Jose through artificial recharge of the groundwater. The rapid development of Santa Clara County occurred again in the 1960s and the corresponding increased demand on the existing water supply again resulted in the over-drafting of the groundwater basin. The continued over-drafting of the basin resulted in a significant lowering of the groundwater table, significant subsidence of the land in the northern portion of the valley and compaction of several aquifers. When an aquifer is compacted the storage capacity of the aquifer can be substantially reduced. Once lost, storage capacity cannot be regained.

In order to avoid any further subsidence and loss of aquifer capacity the District has attempted to operate the basin to maintain or increase groundwater storage through managed recharge with local supplies augmented with imported raw water. In the late 1960s/ early 1970s the District's conjunctive management of surface water and groundwater effectively halted the over-drafting and resulting subsidence. The District is currently using projected supply, carryover capacity and anticipated demand to predict potential water shortages. The 2012 Santa Clara Valley Water District Groundwater Management Plan describes the groundwater recharge program in detail. This Groundwater Management Plan, the most recent formally adopted plan, is included in the 2015 UWMP[3].

The City's wells are strategically distributed around the City. The exact location of the wells is not included in this Assessment for security reasons. This distribution of wells adds to the reliability of the water system and minimizes the possibility of localized subsidence due to localized over-drafting. To eliminate the possibility of long-term overdraft conditions, at all of the City's 26 production wells, the City monitors groundwater levels and meters the groundwater pumping. To further ensure that no over-drafting is occurring the City operates a recycled water system and requires new development along the recycled water distribution system to use recycled water for approved irrigation and industrial uses. Additionally, as an effort to minimize the amount of groundwater used, the City encourages and promotes water conservation. The SCVWD recharges the groundwater basins to bank water locally and protect against drought or emergency outages. This strategy allows the District to store surplus water in the groundwater basins and enables part of the county's supply to be carried over from wet years to dry years. The District operates and maintains major recharge systems, which consist of both in-stream and off-stream facilities. Most of the local supply is recharged into the groundwater basin, either through natural stream channels, through canals, or through in-stream and off-stream ponds. In addition, imported water is delivered by the raw water conveyance system to streams and ponds for the District managed groundwater recharge program.

Recycled Water Supply

The recycled water available in the City is provided by South Bay Water Recycling (SBWR) and meets current regulations of the California State Water Resources Control Board, Division of Drinking Water (DDW) for unrestricted use. This designation allows for the use of recycled water for irrigation and industrial use within specific guidelines. The recycled water distribution system is shown in Figure 4 below.

The recycled water system has operated since 1989 with minimal interruptions in service. SBWR strives to reduce the number of instances, duration, and magnitude of any service interruptions. The use of recycled water at any site is contingent upon the completion of the necessary arrangements in accordance with SBWR, City of Santa Clara and DDW rules and regulations regarding the use of recycled water. In addition, payment must be made of applicable fees, rates and charges. These

[3] City of Santa Clara 2015 Urban Water Management Plan, Appendix F

fees/rates and charges may include but are not limited to charges for major facilities described above and delivery charges for the recycled water used.

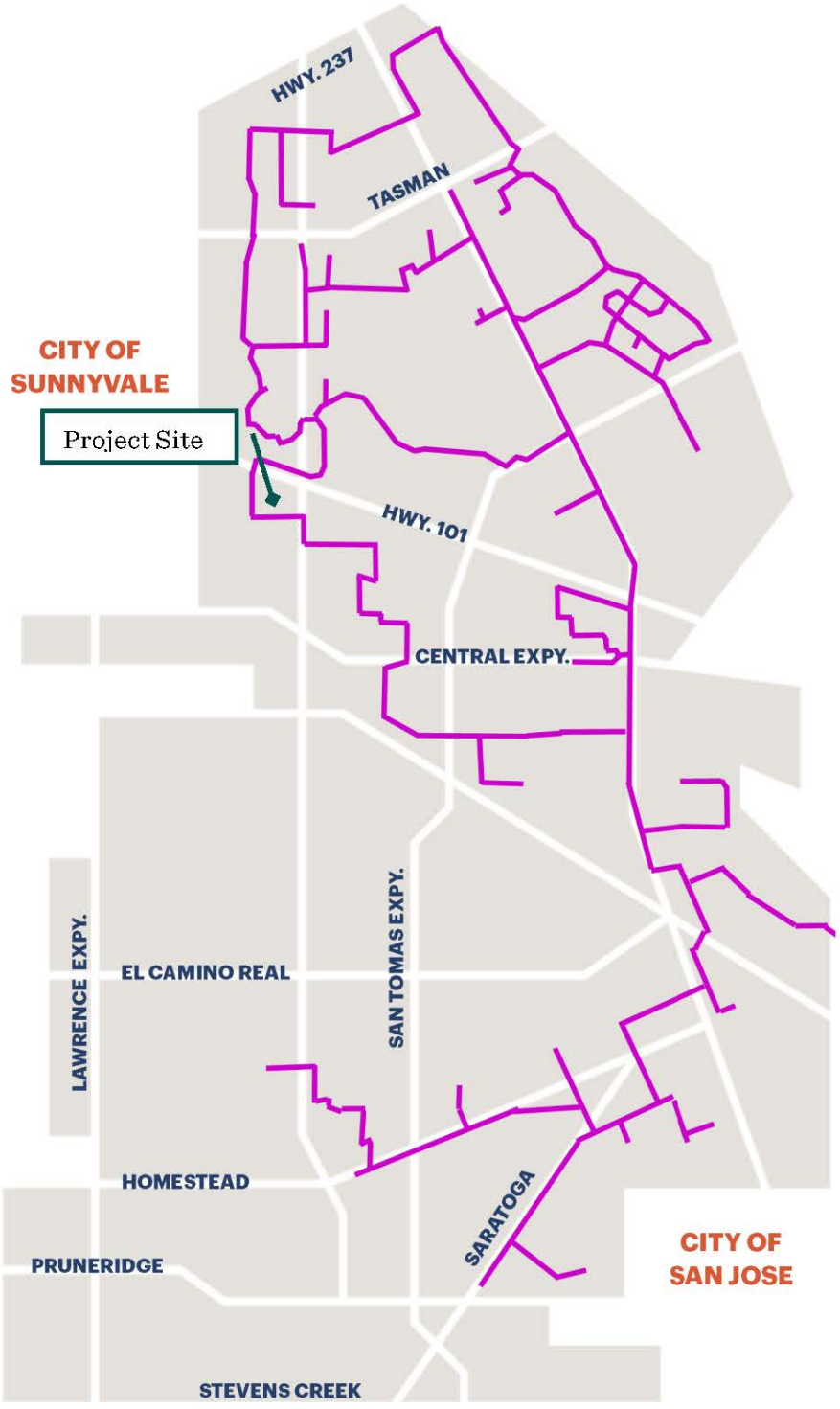

Figure 4: Recycled Water Distribution System

Water Supply Projections

The tables below show the City's projected water supplies in acre-feet for 2020-2040. Table 2A accounts for the possibility of the City's SFPUC water supply being interrupted, which is discussed later in the section titled, Water Supply and Demand Comparisons (Single, Dry, Multiple Dry Year Scenarios).

Table 2A: Projected Water Supplies (AF) (2015 UWMP)					
Water Supply	Projected Water Supply				
	2020	2025	2030	2035	2040
SCVWD	5,236	5,236	5,236	5,236	5,236
SFPUC	0	0	0	0	0
Wells	23,048	23,048	23,048	23,048	23,048
Recycled Water	5,200	5,700	6,100	6,500	6,900
Total	**33,484**	**33,984**	**34,384**	**34,784**	**35,184**
NOTES: Assumes interruption of SFPUC water supply after 2018.					

Table 2B: Projected Water Supplies (AF) (2015 UWMP)					
Water Supply	Projected Water Supply				
	2020	2025	2030	2035	2040
SCVWD	5,236	5,236	5,236	5,236	5,236
SFPUC	5,040	5,040	5,040	5,040	5,040
Wells	23,048	23,048	23,048	23,048	23,048
Recycled Water	5,200	5,700	6,100	6,500	6,900
Total	**38,524**	**39,024**	**39,424**	**39,824**	**40,224**
NOTES: Assumes no interruption of SFPUC water supply after 2018.					

Water Demands

The water demand projections were developed using an "End Use" model. Two main steps are involved in developing an End Use model: 1) Establishing base year water demand at the end-use level (such as toilets, showers) and calibrating the model to initial conditions; and, 2) Forecasting future water demand based on future demands of existing water service accounts and future growth in the number of water service accounts.

Establishing the base-year water demand at the end-use level is accomplished by breaking down total historical water use for each type of water service account (single family, multifamily, commercial, irrigation, etc.) to specific end uses (such as toilets, faucets, showers, and irrigation).

Forecasting future water demand is accomplished by determining the growth in the number of water service accounts. Once these rates of change were determined, they were input into the model and applied to those accounts and their end water uses. The end use model also incorporates the effects of the plumbing (California Plumbing Code 401.3) and appliance codes on fixtures and appliances including toilets (1.6 gal/flush), showerheads (2.5 gal/minute), and washing machines (lower water use) on existing and future accounts.

The basic methodology of the model is to break down water usage into an average consumption per account type. Projections are made regarding potential reductions in average consumption based on water conservation programs, and natural replacement of less water efficient processes with more efficient processes. These projections are used to adjust the future average consumption per account figures. Projections of the future number of accounts for each user type of the future number of accounts are also calculated, typically based on other technical studies such as Association of Bay Area Governments (ABAG) projections or census data. The projected number of accounts is based on the projected number of housing units for residential or the projected number of jobs in the case of the industrial and commercial categories. Once the number of accounts and the average consumption per account are calculated, the number of accounts for each future year is multiplied by the average consumption per account for that year to arrive at a total water demand for each user type. The 2015 UWMP Demand Projections by Category are listed below in Table 3. Projected increases in demands for each use category are found in Table 3A.

Table 3: 2015 Demand and 2020-2040 Demand Projections by Category (AF)

Use Type	2015	2020	2025	2030	2035	2040
Single Family	4,153.0	5,926.6	6,320.5	6,405.2	6,467.3	6,492.7
Multi-Family	4,075.0	5,633.8	6,128.3	6,340.5	6,544.8	6,719.8
Commercial	5,240.0	7,101.4	7,640.0	7,819.2	8,043.0	8,217.3
Industrial	1,903.0	2,282.1	2,430.6	2,459.9	2,487.5	2,500.8
Institutional	577.0	827.0	910.1	951.8	991.8	1,027.6
Municipal	405.0	593.9	653.6	683.5	712.2	737.8
Recycled Water	3,529.0	4,700.0	5,700.0	6,100.0	6,500.0	6,900.0
Losses	1,267.0	1,167.2	1,256.9	1,287.0	1,317.6	1,341.0
TOTAL	**21,149.0**	**28,232.0**	**31,040.0**	**32,047.1**	**33,064.2**	**33,937.0**

Table 3A: Projected Changes in Water Demands (AF) (2015 UWMP)					
Use Type	2015-2019	2020-2024	2025-2029	2030-2034	2035-2040
Single Family	1,773.6	393.9	84.7	62.1	25.4
Multi-Family	1,558.8	494.5	212.2	204.3	175.0
Commercial	1,861.4	538.6	179.2	223.8	174.3
Industrial	379.1	148.5	29.3	27.6	13.3
Institutional	250.0	83.1	41.7	40.0	35.8
Municipal	188.9	59.7	29.9	28.7	25.6
Recycled Water	1,717.0	1,000.0	400.0	400.0	400.0
Losses	-99.8[a]	89.7	30.1	30.6	23.4
TOTAL	**7,083.0**	**2,808.0**	**1,007.1**	**1,017.1**	**872.8**

[a] negative losses for 2015-2019 are due to anticipated reductions in water loss due to system improvements and increased water loss monitoring

Water Supply and Demand Comparisons (Normal, Single, Dry, Multiple Dry Year Scenarios)[4]

Average, single, and multiple dry years based on historic hydrologic and water supply conditions were identified by the SCVWD. During normal water years, water supplies should be adequate to meet projected demands through 2040.

Table 4A Retail: Normal Year Supply and Demand Comparison (AF)					
	2020	2025	2030	2035	2040
Supply	33,484	33,984	34,384	34,784	35,184
Demand	28,232	31,040	32,047	33,064	33,937
Difference	5,252	2,944	2,337	1,720	1,247
NOTES: Assumes SFPUC supply does *not* exist beyond 2018					

Table 4B Retail: Normal Year Supply and Demand Comparison (AF)					
	2020	2025	2030	2035	2040
Supply	38,524	39,024	39,424	39,824	40,224
Demand	28,232	31,040	32,047	33,064	33,937
Difference	10,292	7,984	7,377	6,760	6,287
NOTES: Assumes SFPUC supply exists beyond 2018					

[4] City of Santa Clara 2015 Urban Water Management Plan

During a single dry year, the City projects no reduction in supplies from groundwater. Per the SCVWD handout dated May 18, 2016[5], treated surface water is not expected to be reduced in a single dry year event until 2040, when it could be reduced anywhere from 5-10%. For planning purposes, the 10% worst case scenario will be used in all single dry year projections. SFPUC has indicated that during a single critical dry year it will follow the Tier 2 reduction plan described in the 2015 UWMP. SFPUC will reduce their total water supply by 10% from 184 mgd to 152.6 mgd in a single dry year as shown in Table 1 of the letter from the SFPUC[6]. City of Santa Clara will receive 1.17% of the 152.6 mgd as shown in Table 3 of the letter from the SFPUC. Recycled water use and water conservation are projected to remain unchanged or potentially increase due to public awareness, during a critical dry year. The resulting analysis of available supplies is shown in Table 5A and Table 5B below. During a single critical dry year, there are no projected shortfalls in total available water supplies independent of whether the City receives or does not receive SFPUC water supply water after contract negotiations in 2018.

Table 5A Retail: Single Dry Year Supply and Demand Comparison (AF)

	2020	2025	2030	2035	2040
Supply	33,484	33,984	34,384	34,784	34,660
Demand	28,232	31,040	32,047	33,064	33,937
Difference	5,252	2,944	2,337	1,720	723
NOTES: Assumes SFPUC supply does *not* exist beyond 2018					

Table 5B Retail: Single Dry Year Supply and Demand Comparison (AF)

	2020	2025	2030	2035	2040
Supply	35,485	35,985	36,385	36,785	36,661
Demand	28,232	31,040	32,047	33,064	33,937
Difference	7,253	4,945	4,338	3,721	2,724
NOTES: Assumes SFPUC supply exists beyond 2018					

During a multiple dry year event, the City projects no reduction in supplies from groundwater. Per a SCVWD handout dated May 18, 2016[7], treated surface water is expected to be reduced in a multiple dry year event beginning in 2020, when it could be reduced anywhere from 0-40%. For planning purposes, a 30% worst case scenario will be used in 2020 projections, 15% in 2025 projections, 25% in 2030 projections, 35% in 2035 projections, and 40% in 2040 projections based on SCVWD demand reductions. SFPUC has indicated that during multiple critical dry years the City can expect

[5] City of Santa Clara 2015 Urban Water Management Plan, Appendix H
[6] City of Santa Clara 2015 Urban Water Management Plan, Appendix I
[7] City of Santa Clara 2015 Urban Water Management Plan, Appendix H

a maximum reduction of SFPUC water supplies of 33% of normal. SFPUC has indicated that in the second and third year of a drought, they will reduce their water supply from 184 mgd to 129.2 mgd. For SFPUC supplies, Table 6B assumes a worst-case scenario based on a replication of the 1987-1992 multiple dry year event. The City of Santa Clara will still receive 1.17% of the 129.2 mgd amount as shown in Table 3 of SFPUC's Tier 2 plan in the 2015 UWMP[8]. Table 6A assumes that SFPUC water is unavailable after 2018. Recycled water use and water conservation are projected to remain unchanged during a multiple dry year event. The resulting analysis of all available supplies is shown in Table 6A and 6B below. During a multiple critical dry year event, there is a projected shortfall in available water supplies after 2035 if the City does not receive SFPUC water supply after contract negotiations in 2018, as shown below in Table 6A. However, the difference in supply can be made-up through water provided by projected future water supply projects discussed in the 2015 UWMP. These assumptions also yield a conservative estimate since during a critical multiple dry year event, mandatory conservation measures and increased recycled water usage would be expected to reduce potable water demand.

Table 6A: Multiple Dry Years Supply and Demand Comparison (AF)

		2020	2025	2030	2035	2040
First year	Supply	31,913	33,199	33,075	32,951	33,090
	Demand	28,232	31,040	32,047	33,064	33,937
	Difference	3,681	2,159	1,028	-113	-847
Second year	Supply	31,913	33,199	33,075	32,951	33,090
	Demand	28,232	31,040	32,047	33,064	33,937
	Difference	3,681	2,159	1,028	-113	-847
Third year	Supply	31,913	33,199	33,075	32,951	33,090
	Demand	28,232	31,040	32,047	33,064	33,937
	Difference	3,681	2,159	1,028	-113	-847
NOTES: Assumes SFPUC supply does *not* exist beyond 2018						

[8] City of Santa Clara 2015 Urban Water Management Plan, Appendix L

Table 6B: Multiple Dry Years Supply and Demand Comparison (AF)						
		2020	2025	2030	2035	2040
First year	Supply	33,914	35,200	35,076	34,952	35,091
	Demand	28,232	31,040	32,047	33,064	33,937
	Difference	5,682	4,160	3,029	1,888	1,154
Second year	Supply	33,607	34,892	34,768	34,645	34,783
	Demand	28,232	31,040	32,047	33,064	33,937
	Difference	5,375	3,852	2,721	1,581	846
Third year	Supply	33,607	34,892	34,768	34,645	34,783
	Demand	28,232	31,040	32,047	33,064	33,937
	Difference	5,375	3,852	2,721	1,581	846
NOTES: Assumes SFPUC supply exists beyond 2018						

With the uncertainties inherent in future imported water supplies, the City plans to meet future demand growth by pumping additional groundwater, relying on more recycled water, and increased conservation. Given the potential for decreased SFPUC imported surface deliveries, CEQA requires disclosure of the environmental impacts, if any, of meeting future demand growth with increased supplies coming from pumping more groundwater. There are not anticipated to be any reasonably foreseeable impacts associated with increased use of recycled water and conservation, which is anticipated to occur through replacement of more water-efficient appliances, i.e. clothes washers, dishwashers, toilets, etc., and programs to encourage drought-tolerant landscaping on private property and on City properties. Mandatory conservation during a multiple year drought may also require prohibitions on outdoor use (irrigation, car washing, washing down pavement, etc.) and water rationing. As noted above, numerous conservative assumptions were made regarding both water supply and demand. Therefore, it is the conclusion of the Water Utility that adequate water supplies are available to meet the water demands projected until 2040.

Projected Water Demand for the Proposed Project

The total water demand for this Project is calculated to be 80.5 AF/yr. This represents an increase in water demand of 54.1 AF/yr over the historic water demand at the Project site. Historic water usage at the original Project site was taken into account in the 2015 UWMP, therefore this Assessment will only address the City's ability to meet the increased water demand. Average historical usage was calculated using the site's existing water demand from 2011-2015, excluding the period from August 2014 through 2015 when the City implemented its Water Shortage Contingency Plan in an effort to meet potable water demand reduction targets in response to the Governor's Emergency Drought Regulations. The proposed increase, tabulated in Table 9 of this section, is within the growth projections in the 2015 UWMP (Table 3A of this Assessment).

Water Demand to Be Met by Recycled Water

Recycled water is currently available at the Project site. Although recycled water service is available to serve the project site and would result in significant potable water savings, all water demands will be calculated as potable water demand for this assessment.

Summary of Existing and Estimated Water Demands

A summary of the existing and estimated water demands for the Project are found in Table 7 below. The existing and estimated water demands are further broken down in Table 7A into projected annual demand increases based on construction timelines submitted by the Applicant.

Table 7: Existing and Estimated Water Demand per Year for Project

	Status	Development	Units	Gal/Day	Acre-Ft/Yr
Office Space	Proposed	672,000	sq. ft	60,480.0	67.7
Irrigation	Proposed	148,100	sq. ft	11,408.3	12.8
Historic Usage	Existing	Commercial		(23,605.9)	(26.4)
TOTAL DEMAND (increase per year)				**48,274.5**	**54.1**

Table 7A: Project Water Demand Increase (Acre-Ft/Yr)

	2015-2019	2020-2024	2025-2029	2030-2034	2035-2040
Office Space	0.0	67.7	0.0	0.0	0.0
Irrigation	0.0	12.8	0.0	0.0	0.0
Historic Usage	0.0	(26.4)	0.0	0.0	0.0
TOTAL	**0.0**	**54.1**	**0.0**	**0.0**	**0.0**

Projected Water Demand for Other Proposed Projects

Tables 8 and 9 show a summary of the projected water demand changes by user category. If the timeframe for a project to be built spans several years, the earliest possible date was used to calculate the changes in Table 9. The use categories of Single Family, Multi-Family, Commercial, Industrial, Institutional, and Municipal match the use categories used in the development of the 2015 UWMP. The values in Tables 8 and 9 below summarize the projected changes in water demand for each user category and the planning period in which the change is expected to occur. If a proposed project resulted in a change of use, such as a commercial building being converted to single-family residential housing, the existing water demand was subtracted from the corresponding category and the new water demand was added to the category for the new use. Table 8 summarizes proposed

water demands for Projects assessed since the adoption of the 2015 UWMP as well as previous WSAs for projects that were incorporated into the 2015 UWMP that have not yet been completed. A complete listing of these projects and their associated water demands are contained in Appendix A.

Table 8: Changes in Water Demand (excluding 3625 Peterson)					
	2015-2019	2020-2024	2025-2029	2030-2034	2035-2040
Single Family	0.0	0.0	0.0	0.0	0.0
Multi-Family	644.6	580.6	29.8	151.8	80.6
Commercial	1,240.2	549.9	558.2	186.8	12.0
Industrial	0.0	0.0	0.0	0.0	0.0
Institutional	82.9	0.0	0.0	0.0	0.0
Municipal	0.0	0.0	0.0	0.0	0.0
TOTAL	**1,967.7**	**1,130.5**	**588.0**	**338.6**	**92.6**

Table 9: Changes in Water Demand (including 3625 Peterson)					
Use Type	2015-2019	2020-2024	2025-2029	2030-2034	2035-2040
Single Family	0.0	0.0	0.0	0.0	0.0
Multi-Family	644.6	580.6	29.8	151.8	80.6
Commercial	1,240.2	604.0	558.2	186.8	12.0
Industrial	0.0	0.0	0.0	0.0	0.0
Institutional	82.9	0.0	0.0	0.0	0.0
Municipal	0.0	0.0	0.0	0.0	0.0
TOTAL	**1,967.7**	**1,184.6**	**588.0**	**338.6**	**92.6**

Conclusion

This Assessment analyzed the impacts of changes in contractual limitations on water supply, development projects, and other additional factors that have occurred since the original 2015 UWMP was developed. Therefore, based on the analysis contained in this Assessment, the City of Santa Clara Water Utility has determined that there are sufficient water supplies to provide service to the proposed Project.

References

California Department of Water Resources. (2003). *California's Groundwater: Bulletin 118.* Retrieved 2017, from http://www.water.ca.gov/groundwater/bulletin118/index.cfm/

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Appendix A

Project	Address	Number	Units	Use	Water Demand (AF)	Existing Demand (AF)	Demand Delta (AF)	Recycled Water Available?	Buildout Completion Date
3625 Peterson Way	3625 Peterson Way	672,000	Sq. ft	Office	67.7	26.4	54.1	Yes	2020
		148, 100	Sq. ft	Irrigation	12.8			Yes	2020
2305 Mission College Boulevard	2305 Mission College Boulevard	25,000	Sq. ft	Office	2.5	12.0	216.4	Yes	2018
		470,600	Sq. ft	Data Center	225.8			Yes	2018
Gateway Crossings	1205 Coleman Avenue	33,000	Sq. ft	Retail	1.8	14.7	320.3	No	2019-2025
		182,000	Sq. ft	Hotel	97.9			No	2025
		1,600	Dwelling Units	Residential	216.9			No	2019-2022
		213,800	Sq. ft	Irrigation	18.4			Yes	2019-2025
BART Santa Clara Station and Joint Development WSA	335 Brokaw Road	30,000	Sq. ft	Retail	1.7	6.7	80.6	No	2025
		500,000	Sq. ft	Office	50.4				
		9,000	Sq. ft	BART Station/Maintenance Yard	5.4				
		220	Dwelling Units	Residential	29.8				
Santa Clara	500 El	528,900	Sq. ft	Institutional	82.9	43.0	60.4	No	2016-2019

University Development Plan	Camino Real	151	Dwelling Units	Residential	20.5				
Lawrence Station Area Plan (Phase I)	TBD	53,040	Sq. ft	Retail	3.0	45.4	232.7	No	2020
		12,904	Sq. ft	Amenity	1.6				
		366,351	Sq. ft	Irrigation	31.6				
		1,785	Dwelling Units	Residential	241.9				
Lawrence Station Area Plan (Phase II)	TBD	33,280	Sq. ft	Retail	1.9	28.5	146.0	No	2030
		8,097	Sq. ft	Amenity	1.0				
		229,867	Sq. ft	Irrigation	19.8				
		1,120	Dwelling Units	Residential	151.8				
Lawrence Station Area Plan (Phase III)	TBD	17,680	Sq. ft	Retail	1.0	15.1	77.5	No	2035
		4,301	Sq. ft	Amenity	0.5				
		122,117	Sq. ft	Irrigation	10.5				
		595	Dwelling Units	Residential	80.6				
Santa Clara Square Apartments	TBD	4,500	Sq. ft	Office	0.5	119.5	168.3	Yes	2018
		40,000	Sq. ft	Retail	2.2				
		38,000	Sq. ft	Amenity	4.7				
		422,000	Sq. ft	Irrigation	36.4				
		1,800	Dwelling Units	Residential	244.0				
City Place Parcel 5 (Phase 1)	TBD	258,000	Sq. ft	Office	26.0	311.3	(95.3)	Yes	2019
		87,000	Sq. ft	Retail	4.9				
		280,000	Sq. ft	Hotel	150.5				
		87,100	Sq. ft	Irrigation	7.5				
		200	Dwelling Units	Residential	27.1				

City Place Parcel 4 (Phases 2-4)	TBD	1,386,400	Sq. ft	Office	139.8	0*	656.6	Yes	2020-2023
		1,415,000	Sq. ft	Retail	79.2				
		298,000	Sq. ft	Hotel	160.2				
		1,393,900	Sq. ft	Irrigation	120.2				
		1,160	Dwelling Units	Residential	157.2				
City Place Parcel 3 (Phase 5)	TBD	720,000	Sq. ft	Office	72.6	0*	152.6	Yes	2025
		927,800	Sq. ft	Irrigation	80.0				
City Place Parcel 1 (Phase 6)	TBD	1,200,000	Sq. ft	Office	121.0	0*	192.8	Yes	2027
		832,000	Sq. ft	Irrigation	71.8				
City Place Parcel 2 (Phase 7)	TBD	1,080,000	Sq. ft	Office	108.9	0*	164.1	Yes	2029
		640,350	Sq. ft	Irrigation	55.2				
City Place Parcel 2 (Phase 8)	TBD	1,080,000	Sq. ft	Office	108.9	0*	164.1	Yes	2031
		640,350	Sq. ft	Irrigation	55.2				
Santa Clara Square	2465-2727 Augustine 3333 Bowers	138,000	Sq. ft	Retail	7.7	46.8	207.7	Yes	2014-2015
		1,862,100	Sq. ft	Office	189.7				
		661,900	Sq. ft	Irrigation	57.1				
3515 Monroe St.	3515 Monroe St.	825	Dwelling Units	Residential	158.0	6.1	179.2	No	2015-2017
		14,929	Sq. ft	Amenity	1.3				
		15,200	Sq. ft	Retail	0.9				
		20,000	Sq. ft	Market	5.4				
		5,000	Sq. ft	Restaurant	5.8				
		161,483	Sq. ft	Irrigation	13.9				
3333 Scott Blvd.	3333 Scott Blvd.	1,358,647	Sq. ft	Office	137.0	9.5	154.5	Yes	2015-2017
		284,000	Sq. ft	Irrigation	27.0				

3700 El Camino Real	3700 El Camino Real	475	Dwelling Units	Residential	159.6	1.2	283.7	No	2016-2019
		86,388	Sq. ft	Retail	4.8				
		133,000	Sq. ft	Irrigation	120.5				
2200 Lawson Lane	2200 Lawson Lane	300,000	Sq. ft	Office	30.2	5.8	110.8	No	2014-2016
		95,300	Sq. ft	Irrigation	86.4				
3000 Bowers Avenue	3000 Bowers Avenue	300,000	Sq. ft	Office	30.2	0.7	113.7	No	2013-2015
		92,925	Sq. ft	Irrigation	84.2				

*Existing demand accounted for in Phase 1 of City Place Project

Water demands were recalculated using the updated water use factors in the 2015 UWMP: Office (0.09 gpd/sf); Retail (0.05 gpd/sf)

gpd = gallons per day

sf = square feet