Appendix 3.18-1

Water Supply Evaluation

Water Supply Evaluation for the Berkeley Space Center at NASA Research Park

NASA Ames Research Center
Moffett Field, California

Draft April 2026
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Water Supply Evaluation

Berkeley Space Center at NASA Research Park

Moffett Field, California

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ABBREVIATIONS and ACRONYMS

AB	Assembly Bill
ADD	average day demand
AFY	acre-feet per year
Agreement	Water Supply Agreement between San Francisco and Wholesale Customers in Alameda County, San Mateo County, and Santa Clara County
ARC	Ames Research Center
AWPS	advanced water purification system
AWS	Alternative Water Supply
AWSP	Alternative Water Supply Planning Program
BAWSCA	Bay Area Water Supply and Conservation Agency
Bay-Delta Plan	Water Quality Control Plan for the San Francisco/Sacramento-San Joaquin Delta Estuary
CEQA	California Environmental Quality Act
CII	commercial, industrial, and institutional
CSD	Community Services District
CUP	Central Utility Plant
CWC	California Water Code
Development Guidelines	Berkeley Space Center Development Guidelines
DU	dwelling unit
DWR	California Department of Water Resources
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
gpcd	gallons per capita per day
gpd/sq ft	gallons per day per square foot
ICF	ICF International, Inc.
ISL	Interim Supply Limitation
LEF	landscape efficiency factor
LOS	Level of Service
Master Plan	Berkeley Space Center Master Plan
MAWA	Maximum Applied Water Allowance
MCCWL	Making Water Conservation a California Way of Life Regulation
MDD	maximum day demand
MEW	Middlefield-Ellis-Whisman
MG/year	million gallons per year
MGD	million gallons per day
MID	Modesto Irrigation District
MOU	Memorandum of Understanding

MWELO	Model Water Efficient Landscape Ordinance
NADP	NASA Ames Development Plan
NASA	National Aeronautics and Space Administration
NEPA	National Environmental Policy Act
ppm	parts per million
Project Proponent	Moffett Partners, LLC
R&D	research and development
R-GPCD	residential gallons per capita per day
RWQCP	Regional Water Quality Control Plant
RWS	Regional Water System
SB	Senate Bill
SFPUC	San Francisco Public Utilities Commission
sq ft	square feet
SWRCB	California State Water Resources Control Board
TDS	total dissolved solids
TID	Turlock Irrigation District
UC Berkeley	University of California, Berkeley
UC Regents	The Regents of the University of California
USEIA	United States Energy Information Agency
UWMP	Urban Water Management Plan
UWUO	Urban Water Use Objective
WRF	Water Reuse Facility
WSA	Water Supply Assessment
WSAP	Water Shortage Allocation Plan
WSCP	Water Shortage Contingency Plan
WSE	Water Supply Evaluation
WSIP	Water System Improvement Program

1 INTRODUCTION

Moffett Partners, LLC (Project Proponent), a joint venture of The Regents of the University of California (UC Regents) and SKSP NRP, LLC, is proposing a master-planned mixed-use academic and research project, referred to as the Berkeley Space Center at the National Aeronautics and Space Administration (NASA) Research Park (NRP) (proposed project/proposed action).[1] The Project Proponent will require authorization from the UC Regents to proceed with the proposed project under the California Environmental Quality Act (CEQA) and NASA's approval to proceed following analysis consistent with the National Environmental Policy Act (NEPA). NASA is the NEPA Lead Agency for the proposed action, and as the Authority Having Jurisdiction, NASA would issue building permits and monitor and enforce applicable mitigation related to development and operation of the proposed project. The UC Regents is the CEQA Lead Agency for the proposed project and would provide authorization before the proposed action is submitted for NASA's approval.[2]

The University of California, Berkeley (UC Berkeley) (on behalf of UC Regents) and NASA are preparing a joint environmental impact report/environmental impact statement (joint EIR/EIS) for the proposed project that evaluates the following:[3]

- CEQA Proposed Project (NEPA Build Alternative 1)
- CEQA Reduced Density Alternative (NEPA Build Alternative 2)
- CEQA Reduced Height Alternative
- CEQA No-Project/Existing Conditions Alternative
- NEPA No-Action Alternative

1.1 Purpose

EKI prepared a water supply evaluation (WSE) in support of the proposed project. This WSE assumes that the proposed project will be served by the San Francisco Public Utilities Commission (SFPUC) for potable (drinking) water and the City of Mountain View (Mountain View) for non-potable recycled water. The purpose of this WSE is to evaluate whether SFPUC and Mountain View have sufficient potable and non-potable water supply, respectively, to meet the current and planned water demands within their respective service areas, including the demands associated with the proposed project during normal, dry, and multiple dry years over a 20-year time horizon.

More specifically, this WSE includes:

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1 Throughout this report, *proposed project* refers to both the proposed project (under CEQA) and the proposed action (under NEPA).

2 UC Regents is a legal entity that includes all of the University of California campuses.

3 Throughout this report, the discussion of the CEQA Proposed Project and the CEQA Reduced Density Alternative also applies to the corresponding Build Alternative under NEPA.

- A description and analysis of the current and projected future water demands of the proposed project through the year 2045;
- A description and analysis of the historical and current water demands for SFPUC and Mountain View, and projected future water demands for the respective service areas through the year 2045;
- A description and analysis of the current and projected future water supplies for the SFPUC and Mountain View service areas through the year 2045; and
- A comparison of the water supplies and demands for the SFPUC and Mountain View service areas, including the projected water demands associated with the proposed project.

1.2 Project Location

The proposed project is located at NASA's Ames Research Center (NASA ARC), as depicted on **Figure 1**, on an approximately 39-acre project site (Project Site), along with approximately 6 acres of off-site areas (Off-site Areas) where utility improvements and building demolition would take place. Together, the Project Site and Off-Site Areas comprise the approximate 45-acre limits of work (Limits of Work), as depicted on **Figure 2** and as more fully described below.

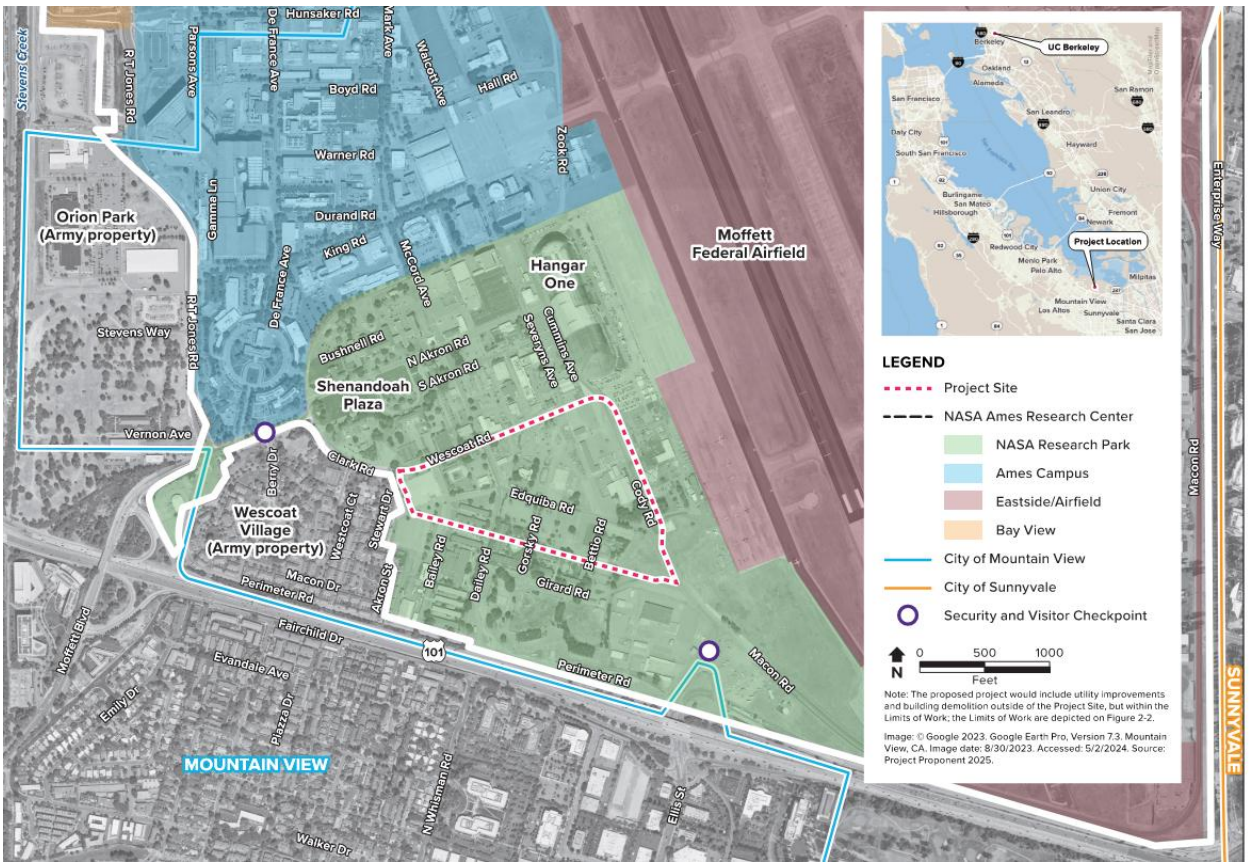


Figure 1. Proposed Project Location and Boundary

Figure provided by ICF.

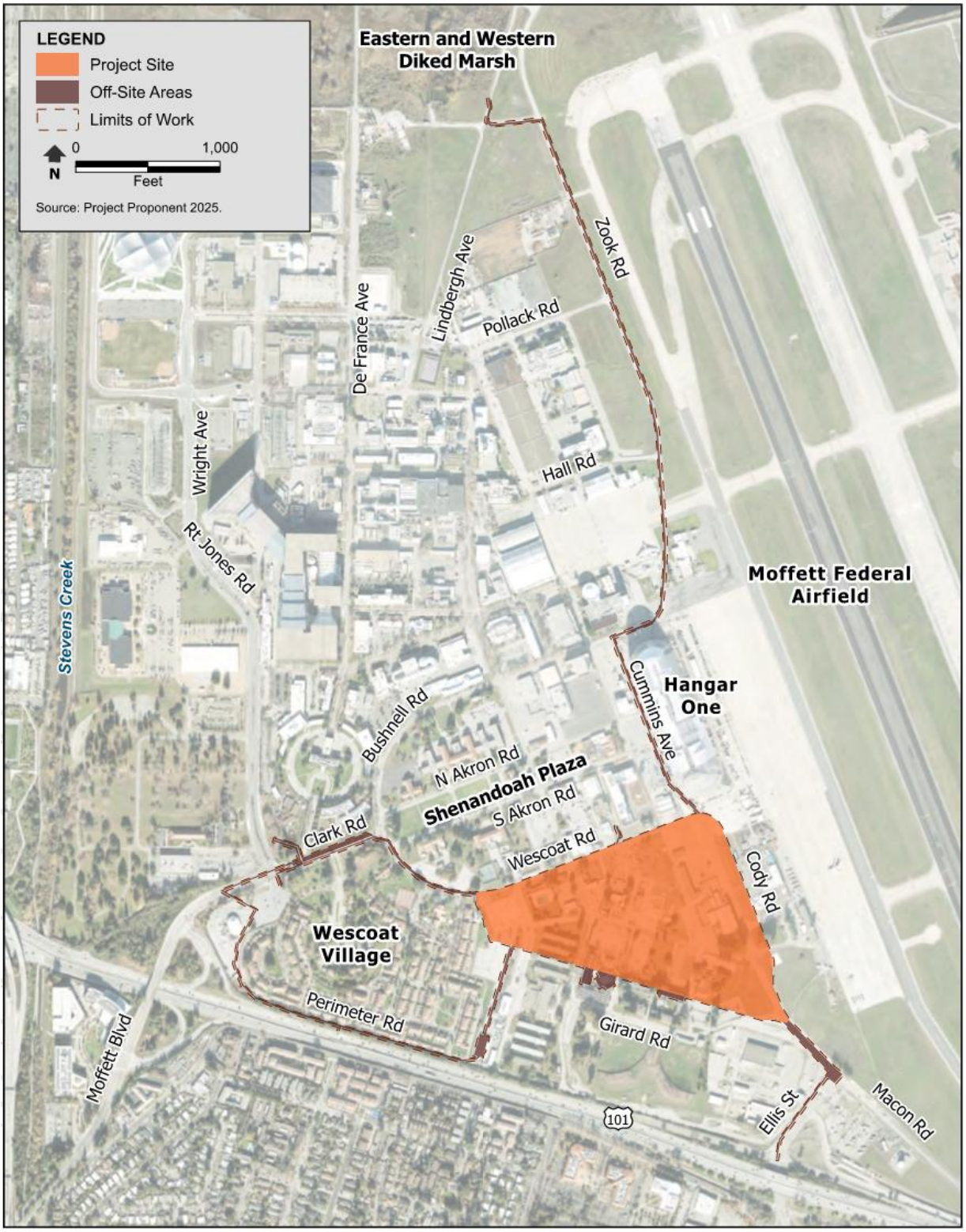


Figure 2. Limits of Work

Figure provided by ICF.

The Limits of Work are located primarily on federal land within NASA ARC, an approximately 2,000-acre facility located in unincorporated Santa Clara County, California, between U.S. 101 and the southwestern edge of San Francisco Bay. A small portion of the Off-Site Areas is on federal land owned by the United States Army (Army). Mountain View borders NASA ARC to the north and southwest, and the City of Sunnyvale borders NASA ARC to the southeast and east. NASA ARC is approximately 33 miles south of the City of San Francisco and 8 miles north of the City of San José.

The Project Site is within the Mountain View Sphere of Influence but outside of any city's jurisdictional limits. The Off-Site Areas are also within the Mountain View Sphere of Influence; most of the Off-Site Areas are outside of any city's jurisdictional limits, with the exception of the northern portion and the southwestern portion, which are within the Mountain View. The Project Site is bound by Wescoat Road to the north and Cody Road to the east.[4] The southern boundary of the Project Site is between Edquiba Road and Girard Road. The western boundary of the Project Site is within an empty lot immediately west of Bailey Road. The Project Site is a portion of Santa Clara County Assessor's Parcel Number 116-18-012.

The Limits of Work is currently developed with 18 one- to three-story buildings that total approximately 185,600 square feet (sq ft), along with surface parking lots, roadways, and utility infrastructure. The existing buildings are mostly vacant; many were formerly used as ancillary buildings that supported Navy operations (e.g., offices, food service, a gas station, pool, recreation center, and lodging). The other existing buildings within the Limits of Work comprise industrial, storage, and utility facilities. As of mid-2024, approximately 42 people were employed within the Limits of Work; no full-time residents or short-term occupants (e.g., summer interns) lived within the Limits of Work.

The Project Site is relatively flat, with existing grades gradually sloping from south to north. The Project Site is currently covered with a substantial amount of impervious hardscape. This includes roads, surface parking lots, streets, and paths, which, in total, cover approximately 70 percent of the site. Existing landscaping includes approximately 245 trees located throughout the Project Site.

Soil and groundwater at the Project Site have been affected by contamination associated with the Middlefield-Ellis-Whisman (MEW) Superfund site and the U.S. Navy's operations at Naval Air Station Moffett Field, which is no longer in operation. The MEW extraction and treatment system is directly adjacent to and within the Project Site. Within the Project Site, there are several recovery wells and underground piping for the treatment system. No potable water supplies are fed or contaminated by NASA ARC groundwater; all potable water is purchased from the San Francisco Public Utilities Commission, which contains some portion of off-site groundwater sources.

[4] Cody Road would be realigned to the east as part of the proposed project and would be the eastern boundary of the Project Site.

The Project Site is located within the SFPUC Suburban Retail service area (**Figure 3)**. As such, NASA, as the California permitted community water service system for NASA ARC, will purchase potable water from SFPUC to supply the proposed project. Non-potable water demands for the proposed project (landscape irrigation, cooling, indoor flushing, and cleaning of parking structures) is intended to be supplied by Mountain View through a new NASA service connection to the City's recycled water distribution system (**Figure 4**).

In-City Retail Service Area

1 City and County of San Francisco

Suburban Retail Service Area

2 Residential and Non-residential Customers in Daly City
3 Cemeteries in Colma
4 Golden Gate National Cemetery
5 San Francisco County Jail #5
6 Sharp Park Golf Course
7 San Francisco International Airport
8 SFPUC Millbrae Headquarters
9 Crystal Springs Golf Course
10 Penninsula Golf and Country Club
11 Residential Customers in Redwood City
12 Filoli Center
13 Menlo Country Club
14 NASA Ames Research Center
15 Cargill Salt
16 Residential and Non-residential Customers in Sunol
17 GE Hitachi Nuclear
18 Castlewood Country Club
19 Lawrence Livermore National Laboratory (two sites)

Figure 3. SFPUC Retail Service Areas

(Figure from SFPUC's 2020 Urban Water Management Plan)

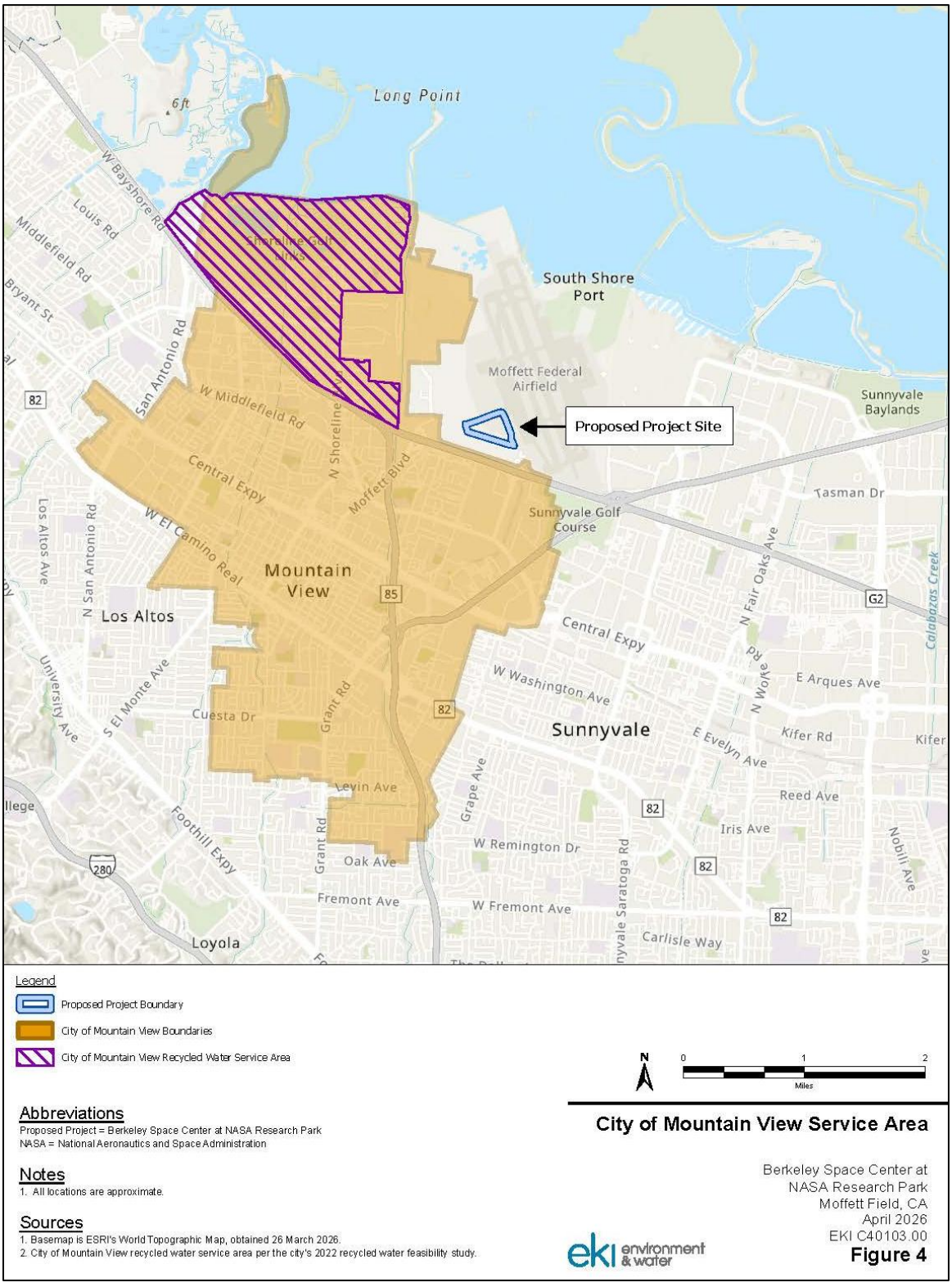


Figure 4. Mountain View Recycled Water Service Area

2 REGULATORY CONTEXT

UC Berkeley is constitutionally exempt from local governments' regulations, such as city and county general plans, land use policies, and zoning regulations, whenever using property under its control in furtherance of its educational purposes. As such, UC Berkeley will not consider local policies and regulations in its evaluation of the environmental effects of the proposed project unless UC Berkeley expressly decides to use a local policy or regulation as a threshold or standard of significance.

Most of NASA ARC, including the area where the proposed action would be built and operated, is an area of exclusive federal jurisdiction. In the absence of an explicit waiver of sovereign immunity by Congress, state and local government regulations (e.g., city and county general plans, land use policies, zoning regulations, and state environmental laws) do not apply to areas of exclusive federal jurisdiction. Therefore, state and local government requirements will not be considered as applicable to the proposed action, when the proposed action and environmental effects are located on ARC jurisdictional property. This includes mitigation measures proposed in accordance with those state and local government regulations that are not applicable in areas of federal jurisdiction; such proposed mitigation measures are optional on the part of NASA. However, NASA may, at its discretion, expressly apply a state or local requirement for purposes of establishing a threshold or standard of significance and may elect to apply mitigations measures established by state or local governmental agencies.

2.1 NASA Ames Procedural Requirement

The NASA Ames Procedural Requirement (APR) 8829.1 establishes relevant codes and standards, the construction permit process, and requirements for all construction activities at NASA ARC. Specifically, APR 8829.1 requires compliance with relevant codes and standards, including (but not limited to) the following:

- California Code of Regulations (CCR) Title 24 Part 11 – California Green Building Standards Code;
- CCR Title 24 Part 5 – California Plumbing Code;
- CCR Title 17 and 22 – Potable and Non-Potable Water;
- CCR Title 17 – Protection of Water Systems;
- CCR Title 22 – Water Recycling Criteria;
- County of Santa Clara Sustainable Landscape Ordinance No. NS-1200.328 and NS-1200-361;
- NASA Procedural Requirement (NPR) 8570.1A – Energy Efficiency and Water Conservation;
- NPR 8580.1A – NASA National Environmental Policy Act Requirements; and
- NPR 8570.1 – Energy Efficiency and Water Conservation Federal directive.

In addition to APR 8829.1, NASA ARC has established regulatory and administrative review procedures[5] necessary to permit and regulate on-site blackwater (wastewater) treatment and recycled water systems for its properties and tenants. The procedures state that recycled water systems will provide alternate water sources for non-potable uses, such as irrigation and toilet flushing for new buildings, and that buildings will be designed with dual plumbing systems.

2.2 University of California

The UC Regents and UC Berkeley are part of the University of California (UC) system, a constitutionally created entity of the State of California, with "full powers of organization and government" (California Constitution, Article IX, Section 9). As a constitutionally created State entity, UC Berkeley is not subject to the municipal regulations of surrounding local governments (e.g., general plans or zoning ordinances) for uses on property owned or controlled by UC Berkeley that are in furtherance of UC Berkeley's educational mission. For the purposes of this WSE, UC Berkeley considered codes and standards specified in APR 8829.1 (see Section 2.1)

2.3 Senate Bill 610 Determination

Senate Bill 610 (SB 610) amended state law, effective January 1, 2002, to improve the connection between water supply availability and certain land use decisions made by cities and counties. The intent of the legislation was to foster collaborative planning between local water suppliers and cities and counties with land use authority.

As codified in California Water Code (CWC) §10910 through §10915, the statute requires detailed information regarding water supply availability to be documented in a Water Supply Assessment (WSA) and provided to land use decision-makers (typically cities and counties) prior to approval of large development projects, as defined by specific thresholds in CWC §10912 (a). A WSA must evaluate whether the water supplier has sufficient supplies to meet the anticipated demand of the proposed project over a 20-year period, including during normal, dry, and multiple dry years, in addition to its existing demands and planned demands for approved projects and tentative maps, based on the respective water supplier's Urban Water Management Plan (UWMP). The statute requires that the respective water supplier adopt the WSA.

Under CEQA, the UC Regents serve as the "lead agency" for development projects related to its campuses, rather than the city or county where the campus is located. Thus, the requirements for a WSA do not apply to the proposed project.

Although SB 610 requirements do not specifically apply to this project, UC Berkeley has voluntarily elected to prepare a WSA-like document, a Water Supply Evaluation, to determine and demonstrate the adequacy of SFPUC's potable water supply and Mountain View's recycled

[5] NASA, 2019. Regulatory Review Procedures: On-site Blackwater Treatment and Reuse for NASA Ames Research Center and Tenants.

water supply available for the proposed project. Therefore, this WSE has been prepared to be parallel and consistent with WSA[6] requirements per CWC §10910 through §10915 and the California Department of Water Resources' (DWR) *Guidebook for Implementation of Senate Bill 610 and Senate Bill 221 of 2001: To Assist Water Suppliers, Cities, and Counties in Integrating Water and Land Use Planning*, dated 08 October 2003.

The information contained in this WSE is based primarily on SFPUC's and Mountain View's 2020 UWMPs, except where updated with relevant information on water demand and water supply reliability and other information provided by SFPUC, Mountain View, NASA, DWR, and the Bay Area Water Supply and Conservation Agency (BAWSCA).

[6] Consistent with current UWMP requirements, this WSE assesses supply reliability in drought periods lasting five consecutive years. Though the corresponding WSA regulations have not been updated from a supply reliability assessment for a three-year drought, it is best practice to assess supply reliability for a five-year drought in the WSE (consistent with UWMP requirements).

3 PROJECT DESCRIPTION

The development guidelines and characteristics of the proposed project are described in this section.

3.1 Development Guidelines

The proposed project will include the proposed Berkeley Space Center Master Plan (Master Plan), which establishes the overall project vision, conceptual plans, and illustrative renderings, and the proposed Berkeley Space Center Development Guidelines (Development Guidelines), which provide Maximum and Minimum Development Parameters and Standards for the proposed project buildings and open space. The Maximum and Minimum Development Parameters are a conceptual layout depicting the horizontal and vertical dimensions of the project. Standards are mandatory requirements that would be required to be implemented for the project. Together, the Master Plan and the Development Guidelines will be included as part of the project application submitted by the Project Proponent to NASA. The analysis of the environmental impacts of the proposed project is based on the proposed Maximum and Minimum Development Parameters and the Standards established in the Development Guidelines.

3.2 Project Characteristics

The proposed project under consideration by NASA (i.e., the proposed action) would include academic and research facilities, consisting of offices, laboratories, research-and-development (R&D) uses, and related amenities (collectively, "Research and Office Uses"); conference center and related amenities ("Conference Uses"); ground-floor retail, food and beverage, maker spaces (i.e., collaborative work spaces for using various tools and materials), and other complementary accessory uses that would be publicly accessible (collectively, "Active Uses"); student/faculty housing, including associated amenities ("Student/Faculty Housing"); short-term lodging, including associated amenities ("Short-Term Lodging"); transportation networks; and open spaces, as well as landscaped spaces, to create a state-of-the-art research and education hub that shapes the future of technology and innovation and advance the UC Regents educational, scientific research, charitable, and other exempt purposes (within the meaning of Section 501(c)(3) of the United States Internal Revenue Code). **Appendix B** shows the conceptual land use plans for the proposed project.[7] Implementation of the proposed project would include demolition of all existing buildings on the Project Site. In addition, as discussed above, the project proposes also includes Off-Site Areas consisting of utility improvements and building demolition. Together, the Project Site and the Off-Site Areas comprise the Limits of Work.

[7] Both the parcel boundary and the Project Site boundary are shown in the conceptual plans. The parcel boundary includes the leased premises; it is provided for informational purposes only. The Project Site boundary includes the area that would be redeveloped as part of the proposed project.

3.2.1 Alternatives

Pursuant to NEPA, the joint EIR/EIS evaluates the following alternatives at an equal level of detail:

- **CEQA Proposed Project (NEPA Build Alternative 1)**, which would create approximately 2.3 million square feet of Research and Office Uses, Conference Uses, Active Uses, Student/Faculty Housing, and Short-Term Lodging for visitors and conference attendees. The CEQA Proposed Project would include approximately 2 million square feet for Research and Office Uses, 25,000 square feet for Conference Uses, 90,000 square feet for Active Uses, 130,000 square feet for Student/Faculty Housing, and 75,000 square feet for Short-Term Lodging. Only the CEQA Proposed Project includes the Water Reuse Facility (WRF) Option and the Central Utility Plant (CUP) Option.[8]
- **CEQA Reduced Density Alternative (NEPA Build Alternative 2)**, which would create approximately 1.4 million square feet of Research and Office Uses, Conference Uses, Active Uses, Student/Faculty Housing, and Short-Term Lodging for visitors and conference attendees. Compared to the CEQA Proposed Project, the CEQA Reduced Density Alternative would provide less space for Research and Office Uses. The CEQA Reduced Density Alternative would include approximately 1.1 million square feet for Research and Office Uses, 25,000 square feet for Conference Uses, 90,000 square feet for Active Uses, 130,000 square feet for Student/Faculty Housing, and 75,000 square feet for Short-Term Lodging.
- **NEPA No-Action Alternative**, under which the proposed action would not be constructed and operated at the Project Site. The buildings within the Limits of Work that are currently operational would continue to be operational. The buildings within the Limits of Work that are currently vacant could be reoccupied consistent with the prior uses of the buildings (e.g., ancillary buildings that supported Navy operations as well as industrial, storage, and utility facilities); reoccupying the vacant buildings would not require construction activity. The NASA Ames Development Plan (NADP), which established NASA's vision for long-term development of NASA ARC, also allows other types of uses at the Project Site. The NEPA No-Action Alternative could result retaining the in approximately 185,600 square feet of existing mixed uses, resulting in approximately 668 employees.[9] The NEPA No-Action Alternative would not result in the reoccupation of any buildings formerly used for lodging; thus, the NEPA No-Action Alternative would not generate any new full-time residents or short term occupants (e.g., summer interns) within the Limits of Work.

[8] Under the WRF Option, portions of the non-potable supply would be provided on-site rather than by Mountain View. The CUP Option would provide a centralized heating and cooling system for all buildings instead of building-by-building heating, ventilation, and air-conditioning (HVAC) systems.

[9] This is based on a generation rate of 3.6 employees per 1,000 square feet.

Consistent with the guidance in State CEQA Guidelines Sections 15126.6(d) and 15126.6(e), the joint EIR/EIS evaluates the following alternatives in comparison to the CEQA Proposed Project with or without the No Student/Faculty Housing Variant/Sub-Alternative described below. The following alternatives are evaluated qualitatively in the joint EIR/EIS and no detailed analysis is provided in this report:

- **CEQA Reduced Height Alternative,** which would create approximately 2 million square feet of Research and Office Uses, Conference Uses, Active Uses, Student/Faculty Housing, and Short-Term Lodging for visitors and conference attendees. Compared to the CEQA Proposed Project, the CEQA Reduced Height Alternative would achieve lower maximum building height and a greater step-down depth for the Subareas along Wescoat Road. In addition, the CEQA Reduced Height Alternative would provide less space for Research and Office Uses and less space for Student/Faculty Housing compared to the CEQA Proposed Project. The CEQA Reduced Height Alternative would include approximately 1.66 million square feet for Research and Office uses, 25,000 square feet for Conference Uses, 90,000 square feet for Active Uses, 100,000 square feet for Student/Faculty Housing, and 75,000 square feet for Short-Term Lodging.
- **CEQA No-Project/Existing Conditions Alternative**, under which the Project Proponent would not construct and operate the CEQA Proposed Project at the Project Site. The buildings within the Limits of Work that are currently operational would continue to be operational and the buildings within the Limits of Work that are currently vacant would remain vacant.[10]

Table 1 summarizes the similarities and differences between the CEQA Proposed Project and the CEQA Reduced Density Alternative, and **Table 2** summarizes the similarities and differences between the CEQA Proposed Project and the CEQA Reduced Height Alternative.

Table 1. Summary of Similarities and Differences between the CEQA Proposed Project and the CEQA Reduced Density Alternative

Characteristic	CEQA Proposed Project (NEPA Build Alternative 1)	CEQA Reduced Density Alternative (NEPA Build Alternative 2)
Similarities		
Types of Land Uses	Same	
Location of Land Uses	Same (see Figure 2-3)	
Site Plan	Same (see Figure 2-3)	
Limits of Work (i.e., Project Footprint)	Same (45 acres, including 39-acre Project Site and 6 acres of Off-Site Areas)	

[10] This provides a conservative analysis under CEQA for the purposes of comparison.

Characteristic	CEQA Proposed Project (NEPA Build Alternative 1)	CEQA Reduced Density Alternative (NEPA Build Alternative 2)
Maximum Building Height[a]	Same (Approximately 80 feet, with an exceedance of up to 25 feet for mechanical equipment and screens)	
Amount of Conference Uses, Active Uses, Student/Faculty Housing, Short-Term Lodging, and Open Space	Same (25,000-square-feet of Conference Uses, 90,000 square feet of Active Uses, 145 Student/Faculty Housing units, 100 Short-Term Lodging units, and a minimum of 10 acres of open space)	
Number of Residents and Guests	Same (200 guests and 363 residents)	
Utility Infrastructure and Roadways[b]	Same	
Parking Ratio	Same	
Construction Start and End Dates	Same (begin in 2027 and end in 2040)	
No Student/Faculty Housing Variant/Sub-Alternative	Same (Variant Included)	
Differences		
Number of Internal Floors[a]	Greater to accommodate increased square footage and building height restriction	Less given reduced overall square footage
Internal Floor-to-Floor Heights[a]	Lower to accommodate increased square footage and building height restriction	Higher given reduced overall square footage
Amount of Square Footage for Research and Office Uses	Greater (2,000,000 square feet)	Less (1,080,000 square feet)
Number of Employees and Students[c]	Greater (5,997 employees and 177 students)	Less (3,331 employees and 95 students)
Number of Parking Spaces[c]	Greater	Less
WRF Option and CUP Option[d]	Yes	No

Source: Proposed Berkeley Space Center Development Guidelines, Spring 2026.

Notes:

a. The internal floor-to-floor heights could be lower under the CEQA Proposed Project to accommodate more square footage in each building, whereas the internal floor-to-floor heights under the CEQA Reduced Density Alternative could be higher because less square footage would need to be accommodated in each building.

b. Only the CEQA Proposed Project includes the WRF Option and the CUP Option; see footnote "d" for more information regarding these options. The proposed roadways would be the same.

c. The difference in the number of employees, students, and parking is due to the greater amount of Research and Office Uses that would be included in the CEQA Proposed Project.

d Under the WRF Option, portions of the non-potable demand would be met using on-site reuse supply rather than recycled water from Mountain View. The non-potable demand that cannot be met by the WRF Option would require the use of potable water. The CUP Option would provide a centralized heating and cooling system for all buildings instead of building-by-building heating, ventilation, and air-conditioning (HVAC) systems.

Table 2. Summary of Similarities and Differences between the CEQA Proposed Project and the CEQA Reduced Height Alternative

Characteristic	CEQA Proposed Project (NEPA Build Alternative 1)	CEQA Reduced Height Alternative
Similarities		
Types of Land Uses	Same	
Location of Land Uses	Same	
Site Plan	Same	
Limits of Work (i.e., project footprint)	Same (45 acres, including 39-acre Project Site and 6 acres of off-site areas)	
Utility Infrastructure and Roadways	Same	
Parking Ratio	Same	
Internal Floor-to-Floor Heights	Same (range of heights available)	
Construction Start and End Dates	Same (begin in 2027 and end in 2040)	
Differences		
Maximum Building Height	Higher (approximately 80 feet, with an exceedance of up to 25 feet for mechanical equipment and screens)	Lower along Wescoat Road (Maximum Development Parameter and the Maximum Mechanical Screening heights are set to a maximum of 75 feet along Wescoat Road for Subareas 1 & 2. In Subarea 6, the Maximum Development Parameter and Maximum Mechanical Screen heights are set to a maximum of 65 feet.) Same throughout rest of the Project Site (approximately 80 feet, with an exceedance of up to 25 feet for mechanical equipment and screens)
Step-down	Wescoat Road would have a step-down zone of 35 feet in height and 15 feet in width along the buildable edge.	Wescoat Road would have a step-down zone of 35 feet in height (same) and 30 feet in width along the buildable edge.
Number of Internal Floors	Greater to accommodate increased square footage.	Less, to accommodate the required mechanical screens along Westcoat Road. Same in all other locations.
Amount of Square Footage for Research and Office Uses	Greater (2,000,000 square feet)	Less (1,6650,000 square feet)
Amount of Conference Uses, Active Uses, Student/Faculty Housing, Short-Term Lodging, and Open Space	Greater (25,000-square-feet of Conference Uses, 90,000 square feet of Active Uses, 145 Student/Faculty Housing units, 100 Short-Term Lodging units, and a minimum of 10 acres of open space).	Same as to all uses except less Student/Faculty Housing (25,000-square-feet of Conference Uses, 90,000 square feet of Active Uses, 112 Student/Faculty Housing units, 100 Short-Term Lodging units, and a minimum of 10 acres of open space).

Source: Project Proponent, 2025.

3.2.2 No Student/Faculty Housing Variant/Sub-Alternative

The Project Proponent has identified one variant/sub-alternative that includes certain project features that are different from those of the CEQA Proposed Project and CEQA Reduced Density Alternative: the No Student/Faculty Housing Variant/Sub-Alternative (Variant).[11] Both the CEQA Proposed Project and the CEQA Reduced Density Alternative include the Variant. The Variant would replace the 130,000 square feet of Student/Faculty Housing in Subarea 6 with 130,000 square feet of Research and Office Uses under both the CEQA Proposed Project and CEQA Reduced Density Alternative. Specifically, the Variant would include 90,000 square feet of laboratory and R&D uses, 25,000 square feet of office uses, and 15,000 square feet of academic uses. The Variant would have the same type of land uses; the same general site plan; the same maximum building height; the same amount of Conference Uses, Active Uses, Short-Term Lodging, and open space; the same number of guests; the same roadway infrastructure; the same utility infrastructure; the same parking ratio; and the same construction activities proposed and evaluated under the CEQA Proposed Project and CEQA Reduced Density Alternative. Because the amount of Research and Office Uses and the number of Student/Faculty Housing units would be different under the Variant, the number of bicycle parking spaces, and the number of residents, employees, and students would likewise change. This potential difference in proposed land use is identified as a variant because it may or may not be included as part of the project during implementation. **Appendix B** shows the conceptual land use plan for the Variant.

3.2.3 Construction Schedule and Phasing

Construction is anticipated to begin in 2027 and be completed by 2040; full project occupancy is anticipated to occur in 2041. The CEQA Proposed Project and CEQA Reduced Density Alternative would be constructed in four phases, as shown in Figure 2-10 of the Conceptual Construction Phasing Plan for the CEQA Proposed Project and CEQA Reduced Density Alternative. Each phase of construction would include some or all of the following subphases: demolition, site preparation and grading, building, utility and road, parking structure, and surface parking. Some subphases (e.g., site preparation) would occur concurrently and others would advance sequentially. Less square footage would need to be constructed in each building under the CEQA Reduced Density Alternative; thus, the duration of some construction sub-phases would be reduced under the CEQA Reduced Density Alternative compared to the CEQA Proposed Project. Specifically, under the CEQA Reduced Density Alternative, the duration of the "core and shell" and "architectural coating" subphases for research buildings would be reduced by 2 months and 1 month, respectively, relative to the CEQA Proposed Project. However, the overall buildout schedule would be the same under the CEQA Proposed Project and CEQA Reduced Density Alternative. Buildings within each phase would be occupied immediately following completion of each phase.

[11] Throughout this report, *Variant* refers to both the Variant (under CEQA) and the Sub-Alternative (under NEPA).

Only the CEQA Proposed Project includes the CUP Option; construction of the CUP would occur during Phase 3. Only the CEQA Proposed Project includes the WRF Option; construction of the WRF would occur during Phase 4.

This WSE evaluates the CEQA Proposed Project. The land uses and associated phasing for the CEQA Proposed Project are summarized in **Table 3**.

Table 3. Proposed Project Land Use Assumptions and Buildout Schedule

Land Use (a)	Land Use at Full Buildout	Buildout							
		Incremental Area Developed by Construction Phase (b)				Cumulative Area Developed Over Time			
		Phase 1	Phase 2	Phase 3	Phase 4	2030	2035	2040	2045
CEQA Proposed Project									
Office	350,000 sq ft	110,000	110,000	70,000	60,000	110,000	290,000	350,000	350,000
Lab and R&D	1,390,000 sq ft	445,000	445,000	250,000	250,000	445,000	1,140,000	1,390,000	1,390,000
Academic	260,000 sq ft	85,000	85,000	50,000	40,000	85,000	220,000	260,000	260,000
Conference Uses	25,000 sq ft	0	25,000	0	0	0	25,000	25,000	25,000
Active Uses (c)									
Kitchen	9,000 sq ft	1,500	3,500	2,000	2,000	1,500	7,000	9,000	9,000
Retail	81,000 sq ft	13,500	31,500	18,000	18,000	13,500	63,000	81,000	81,000
Student/Faculty Housing	145 DU	0	0	0	145	0	0	145	145
Short-Term Lodging	100 rooms	0	100	0	0	0	100	100	100
Parking	1,080,000 sq ft	0	0	555,000	525,000	0	555,000	1,080,000	1,080,000
Landscape Irrigation	5.8 acres	2.4	1.7	0.5	1.2	2.4	4.6	5.8	5.8

Abbreviations:

DU = dwelling unit

R&D = research and development

sq ft = square feet

Notes:

(a) Estimated land use types, square footages, unit/room counts, etc. provided, per Reference 1. At full buildout, the total area is 130,000 sq ft for Student/Faculty Housing and 75,000 sq ft for Short-Term Lodging.

(b) Phasing information for landscape irrigation, per Reference 2, and all other land uses, per Reference 1. Phase 1 is anticipated to be completed in late 2030, Phase 2 in mid-2033, Phase 3 in late 2035, and Phase 4 mid-2039, per Reference 1.

(c) Active uses could include display or exhibit areas for research, lobbies and seating areas, food and beverage facilities, a gym or other amenity facilities, shared maker spaces and fabrication workshops, co-working spaces, restaurants, community-serving retail, personal services (including, but not limited to, dry cleaning pickup/drop-off, ATM, salons, bicycle repair), along with retail uses. For purposes of this WSE, it is assumed that approximately 10% of the active uses would include retail uses involving kitchens and approximately 90% would include general retail, per Reference 1.

References:

1. ICF, 2026. Draft Project Description for the Berkeley Space Center at NASA Research Park, provided by ICF, updated 27 March 2026.
2. UC Berkeley, 2025. Response to RFI follow up questions, prepared by UC Berkeley, provided by ICF on 3 June 2025.

4 WATER DEMANDS

4.1 Existing Water Demand on the Project Site

Historical water use at the Project Site is estimated to be approximately 0.6 acre-feet per year (AFY) (or about 0.2 million gallons per year [MG/year]) based on the number of employees, as the existing buildings are not individually metered (NASA, 2025a). The estimated existing water use comprises less than 0.11% of total historical NASA ARC demands, which averaged 574 AFY from 2019 to 2023 (NASA, 2025b), and is negligible compared to the resulting water use from the CEQA Proposed Project (see Section 4.4).

4.2 Key Water Use Regulations and Standards

The following state laws and local regulations are acknowledged but not applicable to the proposed project.

4.2.1 State Laws and Regulations

New development and retrofitted landscape water efficiency standards are governed by California's Model Water Efficient Landscape Ordinance (MWELO). In January 2025, the State updated MWELO, which establishes a structure for planning, designing, installing, maintaining, and managing water-efficient landscapes in new construction and rehabilitated projects. MWELO sets a Maximum Applied Water Allowance (MAWA) as an upper limit for water use and requires that the annual estimated total water use for landscape irrigation does not exceed MAWA (DWR, 2025a).

In 2018, Governor Brown signed Assembly Bill (AB) 1668 and SB 606, establishing the legislative framework for *Making Water Conservation a California Way of Life (*MCCWL*),* with the State Water Resources Control Board (SWRCB) adopting the final regulations in July 2024. Under MCCWL:

- The residential indoor water use standard is 55 gallons per capita per day (gpcd) until the end of 2024, 47 gpcd beginning in 2025 through 2029, and 42 gpcd beginning in 2030 and beyond;
- The residential outdoor water use standard is a landscape efficiency factor (LEF)[12] of 0.80 beginning in 2025 through 2034, 0.63 beginning in 2035 through 2039, and 0.55 beginning in 2040 and beyond;

[12] The LEF is a unitless number used to indicate the amount of water a supplier may need to deliver to maintain healthy and efficient landscapes across the supplier's service area. The LEF represents plant factors and irrigation efficiency. A higher LEF value corresponds to higher water-using, less efficiently irrigated landscapes; a lower LEF value corresponds to lower water-using, more efficiently irrigated landscapes.

- The commercial, industrial, and institutional (CII) outdoor water use standard for landscapes with dedicated irrigation meters is a LEF of 0.80 beginning in 2025 through 2034, 0.63 beginning in 2035 through 2039, and 0.45 beginning in 2040 and beyond; and
- Water suppliers must meet system-specific water loss standards provided by SWRCB.

Under MCCWL, urban water suppliers are required to calculate and report their Urban Water Use Objective (UWUO) beginning in January 2024 and every year thereafter, incorporating the water use standards listed above.

AB 1572 was signed into law in October 2023 and took effect in January 2024. This regulation prohibits the use of potable water for the irrigation of nonfunctional turf[13] located on CII properties, other than a cemetery, and on properties of homeowners associations, common interest developments,[14] and community service organizations or similar entities. AB 1572, however, does not prohibit the use of potable water for irrigation of other types of landscaping, such as drought-tolerant landscaping, nor does it limit the amount of non-potable water for irrigation of more water-intensive landscapes. Since the proposed project anticipates using non-potable water for all associated irrigation, the proposed project is not subject to AB 1572 requirements.

State law requires new developments to comply with these various water efficiency standards. As such, it is assumed that the proposed project development will include water-efficient features, including, but not limited to:

- Use of low-flow lavatory faucets, kitchen faucets, toilets, and urinals in accordance with California Green Building Standards Code; and
- Inclusion of high-efficiency irrigation systems to minimize outdoor water use in accordance with MWELO.

4.2.2 County Regulations

Santa Clara County adopted the 2019 California Energy Code and the 2019 California Green Building Standards Code, setting minimum standards for construction and building design to enhance efficiency and sustainability.

[13] Non-functional turf is defined as any turf that is not functional, including turf located within street rights-of-way and parking lots. Nonfunctional turf excludes recreational areas and areas designated by a property owner or a governmental agency to accommodate human foot traffic for recreation, including, but not limited to, sports fields, golf courses, playgrounds, picnic grounds, or pet exercise areas.

[14] A common interest development is defined as a community apartment project, a condominium project, a planned development, or a stock cooperative.

4.2.3 NASA ARC Standards and Procedures

As noted in Section 2.1, APR 8829.1 establishes relevant codes, standards, and requirements for all construction activities at NASA ARC. In addition to APR 8829.1, guidelines[15] for recycled water systems at NASA ARC's properties and tenants specify that recycled water systems will provide alternate water sources for non-potable uses, such as irrigation and toilet flushing for new buildings, and that buildings will be designed with dual plumbing systems.

4.3 Alternative Selected for Evaluation

To select the alternative that would serve as the basis of this WSE, water demand estimates were compared for the CEQA Proposed Project, the CEQA Proposed Project with the Variant, the CEQA Reduced Density Alternative, the CEQA Reduced Density with the Variant, and the CEQA Reduced Height Alternative (**Appendix A**).

While the CEQA Proposed Project, CEQA Reduced Density Alternative, and CEQA Reduced Height Alternative would have the same types of land uses, the CEQA Proposed Project includes more total square footage than the CEQA Reduced Density Alternative and CEQA Reduced Height Alternative. Specifically, the CEQA Reduced Density Alternative would include less space for Research and Office Uses compared to the CEQA Proposed Project. In addition, the CEQA Reduced Height Alternative would include less space for Research and Office Uses and Student Faculty Housing compared to the CEQA Proposed Project. Thus, the CEQA Proposed Project would result in higher water use than the CEQA Reduced Density Alternative and the CEQA Reduced Height Alternative. The No Student/Faculty Housing Variant would include Research and Office Uses instead of Student/Faculty Housing; therefore, the CEQA Proposed Project would result in higher water use than the CEQA Proposed Project with the Variant (**Figure 5**; **Appendix A**). The CEQA Proposed Project includes the CUP Option, which would provide a centralized heating and cooling system for all buildings and is more water efficient; therefore, the CEQA Proposed Project would result in slightly higher water use than the CEQA Proposed Project with the CUP Option.

[15] NASA, 2019. Regulatory Review Procedures: On-site Blackwater Treatment and Reuse for NASA Ames Research Center and Tenants.

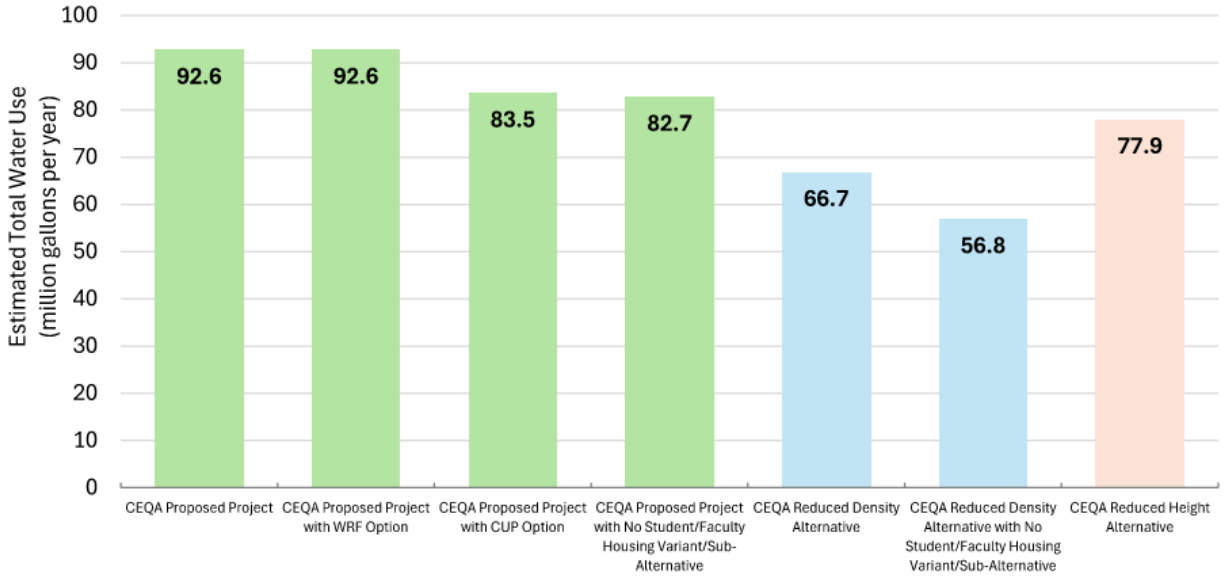


Figure 5. Comparison of Total Water Demand for Each Alternative

Based on these findings, from a *water demand* perspective, the CEQA Proposed Project (i.e., without the Variant, without the CUP Option, and without the WRF Option) is the most conservative scenario to evaluate in this WSE because it would result in the highest water demand compared to the water demand estimates for the other scenarios, as shown in **Appendix A**.

The CEQA Proposed Project includes the WRF Option, under which portions of the non-potable supply would be generated on-site rather than all of the non-potable supply supplied by Mountain View. The WRF Option is the only scenario that would affect the water supply estimates because it assumes only a portion of the non-potable supply, rather than all of the non-potable supply, would be provided by Mountain View. Based on the above, from a *water supply* perspective, the CEQA Proposed Project (i.e., without the WRF Option) is the most conservative scenario to evaluate in this WSE because it would require all of its non-potable supply to be provided by Mountain View rather than a portion generated on-site.

Of the project alternatives and variants, this WSE presents the most conservative scenario (i.e., the CEQA Proposed Project) in terms of water use intensity and full reliance on external water suppliers. Therefore, the other alternatives and variants would be less impactful.

4.4 CEQA Proposed Project Water Demand

Water demands for the CEQA Proposed Project include commercial indoor, cooling water, residential indoor, and outdoor water uses, as well as distribution system losses.

The average annual water demand for the proposed project was estimated based on: (1) information provided by the Project Proponent in coordination with ICF (ICF, 2025a; ICF, 2025b; UC Berkeley, 2025) and (2) water demand factors from various literature sources. Water demand factors were selected from the best available source considering: (a) whether the factors were developed based on actual water use data for the specific land use; (b) recentness of the study to represent the water efficiency standards described in Section 4.2.1; and (c) proximity to the Project Site. Where local data are not available, comparable regional reference points are used. Total water demands include water used by the proposed project for commercial uses, residential uses, cooling, landscaping, and water that is lost during distribution (i.e., "distribution system losses" or "unaccounted for water").

4.4.1 Commercial Indoor Water Use

4.4.1.1 Office Use

The CEQA Proposed Project includes approximately 350,000 sq ft of office space (ICF, 2025a). The water demands for the office uses are estimated based on the demand factor of 0.07 gallons per day per square foot (gpd/sq ft) based on information from the Draft EIR for the 2021 UC Berkeley Long Range Development Plan and Housing Projects #1 and #2 (LRDP; UC Berkeley, 2021). Assuming a 20% reduction to this water demand factor to consider the cooling demands that are accounted for separately (see Section 4.4.2),[16] the total estimated office water use for the CEQA Proposed Project is estimated to be 22 AFY by full buildout.

4.4.1.2 Laboratory and R&D Use

The CEQA Proposed Project includes approximately 1,390,000 sq ft of laboratory and R&D space (ICF, 2025a). R&D water use varies significantly based on the specific operations of the facility. However, per the Project Proponent, the R&D use for the CEQA Proposed Project will likely be similar to an office (i.e., computer-based lab, rather than a water intensive use like a wet lab). Therefore, in the absence of specific information regarding facility water uses, the water demands for the R&D uses are estimated based on the demand factor of 0.07 gpd/sq ft based on the Draft EIR for the 2021 UC Berkeley LRDP (UC Berkeley, 2021). Assuming a 20% reduction to this water demand factor to account for the cooling demands that are accounted for separately, the total estimated R&D water use for the CEQA Proposed Project is estimated to be 87 AFY by full buildout.

4.4.1.3 Academic Use

The CEQA Proposed Project includes approximately 260,000 sq ft of academic space (ICF, 2025a). The water demand for academic use is estimated based on a factor of 0.07 gpd/sq ft based on

[16] Demand factors from original sources are reduced by 20% to account for embedded cooling demand based on the Baylands Specific Plan, a mixed-use development in the Bay Area consisting of residential, commercial, and R&D uses (EKI, 2025). The percentage of water use attributed to indoor cooling can range between 10-50% depending on the land use, building efficiency, etc. A reduction of 20% is conservatively used for this WSE as this percentage aligns with industry benchmarks indicating that cooling demands typically account for 28% of total CII water use (Nugent et al., 2022).

the Draft EIR for the 2021 UC LRDP (UC Berkeley, 2021). Assuming a 20% reduction to this water demand factor excludes cooling demands that are quantified separately, the total estimated academic water use for the CEQA Proposed Project is estimated to be 16 AFY by full buildout.

4.4.1.4 Conference Use

The CEQA Proposed Project includes approximately 25,000 sq ft of Conference Uses (ICF, 2025a). The water demand factor for Conference Use is estimated at 0.07 gpd/sq ft per the United States Energy Information Administration's (USEIA) 2012 Commercial Buildings Energy Consumption Survey (USEIA, 2012), a national sample survey that collects information on the stock of U.S. commercial buildings, including their energy-related building characteristics and energy use data. Assuming a 20% reduction to this water demand factor to exclude cooling demands that are quantified separately, the total estimated Conference Use water demand for the CEQA Proposed Project is estimated to be 1.6 AFY by full buildout.

4.4.1.5 Active Uses

The CEQA Proposed Project includes approximately 90,000 sq ft of Active Uses, which is assumed to be made up of 10% kitchen use and 90% retail use (9,000 sq ft and 81,000 sq ft, respectively; ICF, 2025a). The water demand factors for kitchen and retail use are 0.075 gpd/sq ft and 0.032 gpd/sq ft, respectively per USEIA (USEIA, 2012). Assuming a 20% reduction to these water demand factors to exclude cooling demands that are quantified separately, the total estimated kitchen and retail water use for the CEQA Proposed Project are estimated to be 0.6 AFY and 2.3 AFY, respectively, for a total Active Use water demand of 2.9 AFY by full buildout.

4.4.1.6 Parking Use

The CEQA Proposed Project includes approximately 1,080,000 sq ft of parking in aboveground parking garages (ICF, 2025a). Water use associated with this space is anticipated to be minimal, limited to cleaning of the facilities. For purposes of this WSE, it is assumed that the parking garages would be cleaned 12 times per year and that 0.02 gallons per sq ft will be used during each cleaning event per the City of Los Angeles Bureau of Engineering sewage generation factors (City of Los Angeles, 2012).[17] Thus, by full buildout, it is estimated that 0.8 AFY will be used for purposes of cleaning the parking garages.

4.4.2 Cooling Water Use

Estimated non-residential cooling demands for the proposed project in the CEQA Proposed Project are estimated to be 80 AFY by full buildout (BKF, 2026). This value is consistent with assumptions used in the Master Plan for the proposed project.

[17] Reflects best available reference point based on water use standards for pressure washing rigs and reported data measurements.

4.4.3 Residential Indoor Water Use

4.4.3.1 Student/Faculty Housing

The CEQA Proposed Project would include approximately 145 Student/Faculty Housing dwelling units (DU) or 130,000 sq ft. The residential indoor water demand factor of 225 gpd/DU is used based on current water use statistics for comparable existing student and faculty housing units at Stanford University (Stanford, 2017).[18] Based on this water demand factor, the total estimated residential water use for the CEQA Proposed Project is estimated to be 37 AFY by full buildout.

4.4.3.2 Short-Term Lodging Use

The CEQA Proposed Project includes approximately 100 Short-Term Lodging units (or 75,000 sq ft) (ICF, 2025a). The water demand factor for hotel use is 100 gallons per day per room[19], per the WSA for Mountain View's North Bayshore Master Plan Project (Mountain View, 2022b). The total estimated Short-Term Lodging water demand for the CEQA Proposed Project is estimated to be 11 AFY by full buildout.

4.4.4 Outdoor Water Use

The CEQA Proposed Project includes approximately 5.8 acres of irrigable landscaped area (ICF, 2025a). The water demand factor for irrigation use is 800 gpd/acre per the WSA for Mountain View's North Bayshore Master Plan Project (Mountain View, 2022b). Based on this water demand factor, the total estimated irrigation use for the CEQA Proposed Project is estimated to be 5.2 AFY at full buildout. It is anticipated that irrigation demands may initially be met with potable supply during the phased construction, but these demands will eventually be fully met with recycled water by full buildout.

4.4.5 Distribution System Losses

Water distribution systems experience water loss between the point of supply production and delivery to the customer. Although distribution system losses from the newly constructed portion of the system's infrastructure associated with the proposed project would initially be expected to be minimal, it is conservatively assumed that distribution system losses associated with

[18] The residential water use factor of 225 gpd/sq ft does include some outdoor water use; however, this demand factor is derived from water use data for existing faculty/staff housing that is more urban in nature and where little outdoor watering occurs and is therefore assumed to be an appropriate indoor factor.

[19] At 100 gpd/room, total of 10,000 gpd/100 rooms, or 0.13 gpd/sq ft (for total of 75,000 sq ft).

delivering water for the proposed project will ultimately be consistent with the proportion of real and apparent water loss[20] for Mountain View's service area (i.e., 7.1%; DWR, 2024a).[21]

Nearly all SFPUC Suburban Retail customers are located immediately off the RWS (discussed in further detail in Section 6.1.1) transmission pipelines. Therefore, the 2020 UWMP states that real losses in the Suburban Retail service area are assumed to be negligible. However, for purposes of this WSE, it is conservatively assumed that the distribution water loss demands from the proposed project are consistent with the water loss percentage noted above. The distribution system losses for the CEQA Proposed Project are estimated at a total of 20 AFY by full buildout.

4.5 Total Project Water Demand

Table 4 provides a summary of the land uses, unit demand factors, and respective water demands associated with the CEQA Proposed Project. This WSE uses a range of unit demand factors from the best available studies and benchmarks that provide well-documented, sector-specific demand factors relevant to residential and CII uses. A variety of local, regional, and statewide demand factors were assessed. Demand factors were selected considering alignment with the CEQA Proposed Project land use types, specific envisioned uses within those land use types, and local water use patterns. The non-residential indoor water use factors were adjusted with a 20% reduction to parse out cooling demands (ICF, 2025b). Cooling demands are accounted for separately as an indoor water use, as described in Section 4.4.2.

Based on the above methodologies and assumptions, the total water demand associated with the proposed project at full buildout and occupancy for the CEQA Proposed Project is estimated to be 284 AFY, as shown in **Table 4**.

[20] "Real" water losses refer to all water physically lost due to distribution system leaks, breaks, or overflows, and "apparent" water losses refer to inaccuracies associated with customer metering, estimated systemic data handling errors, and theft or illegal use (SFPUC, 2021b).

[21] SFPUC's most recent water loss audit (DWR, 2024b) reports a water loss of 13%. Recognizing that this is higher than typical and that the proposed project would be constructed with new distribution infrastructure, it is assumed that all water loss will be consistent with the more expected value of 7.1% per Mountain View's most recent water loss report (DWR, 2024a).

Table 4. Total Estimated Water Demand (Potable and Non-Potable) for the CEQA Proposed Project

Water Use	Land Use at Full Buildout	Demand Factor (a)	Adjusted Demand Factor (b)	Cumulative Water Demand (AFY) (c)			
				2030	2035	2040	2045
CEQA Proposed Project							
Office	350,000 sq ft	0.070 gpd/sq ft (d)	0.056 gpd/sq ft	7	18	22	22
Lab and R&D	1,390,000 sq ft	0.070 gpd/sq ft (d)	0.056 gpd/sq ft	28	72	87	87
Academic	260,000 sq ft	0.070 gpd/sq ft (d)	0.056 gpd/sq ft	5	14	16	16
Conference Uses	25,000 sq ft	0.070 gpd/sq ft (e)	0.056 gpd/sq ft	0	1.6	1.6	1.6
Active Uses		--	--				
Kitchen	9,000 sq ft	0.075 gpd/sq ft (e)	0.060 gpd/sq ft	0.1	0.5	0.6	0.6
Retail	81,000 sq ft	0.032 gpd/sq ft (e)	0.026 gpd/sq ft	0.4	1.8	2.3	2.3
Student/Faculty Housing	145 DU	225 gpd/DU (f)	225 gpd/DU	0	0	37	37
Short-Term Lodging	100 rooms	100 gpd/room (g)	100 gpd/room	0	11	11	11
Parking	1,080,000 sq ft	0.020 gal/sq ft/cleaning (h)	0.02 gal/sq ft/cleaning	0	0.4	0.8	0.8
Landscape Irrigation	5.8 acres	800 gpd/acre (g)	800 gpd/acre	2.2	4.1	5.2	5.2
Cooling	(i)			26	66	80	80
Distribution System Losses (f)	7.1% (j)			5	14	20	20
Net Annual Water Demand for CEQA Proposed Project (k)				***74***	***203***	***284***	***284***

Abbreviations:

AFY = acre-feet per year
DU = dwelling unit
gal = gallons
gpd = gallons per day
R&D = research and development
sq ft = square feet

Notes:

(a) A variety of demand factors were assessed based on local, regional, and statewide references. Demand factors were selected considering alignment with the CEQA Proposed Project land use types, specific envisioned uses within those land uses, and local water use patterns.

(b) Demand factors from original sources are adjusted/reduced by 20% to account for embedded cooling demand. Reference: EKI, 2025. Water Supply Assessment for the Baylands Specific Plan, prepared for California Water Service Company, prepared by EKI, dated January 2025.

(c) Based on proposed project phasing and buildout schedule, per Table 2.

These total demands are made up of both potable and non-potable demands, and it is assumed that the CEQA Proposed Project buildings will be dual plumbed in accordance with the regulations described in Section 2. The non-potable water demand estimate assumes that recycled water (supplied by NASA, purchased from Mountain View) will be used for all irrigation demands and cooling demands and for the portion of indoor commercial and residential demands associated with toilet and urinal flushing, which is based on the ratio of flow rates from SFPUC's non-potable water use calculator (SFPUC, 2025). All other demands not served by non-potable supply that are assumed to be met with potable supply provided by SFPUC.

Based on the assumptions above, the breakdown between potable and non-potable demands for non-residential indoor uses is estimated to be 59% and 41%, respectively. For residential indoor demands, the potable and non-potable breakdown is estimated to be 81% and 19%, respectively (SFPUC, 2025). Considering these percentage breakdowns, the total estimated potable and non-potable demand for the CEQA Proposed Project is described further below and shown in **Table 5**Table 5.

4.5.1 Total Potable Project Water Demand

The total potable demand associated with the CEQA Proposed Project is 124 AFY **(Table 5**) by 2045. As noted above, for purposes of this WSE, it is estimated that 59% of the non-residential indoor demand and 81% of residential indoor demand is potable.

4.5.2 Total Non-Potable Project Water Demand

The total non-potable demand associated with the CEQA Proposed Project is 160 AFY (**Table 5**) by 2045. An estimated 41% of the non-residential indoor demand and 19% of residential indoor demand is non-potable. In addition, all demands associated with outdoor irrigation, cooling, and cleaning of the parking structures are assumed to be fully met with non-potable supply.

Table 5. Breakdown of Potable and Non-Potable Water Demand for the CEQA Proposed Project

Water Use	Percent Potable/ Non-Potable by Land Use Type (a)	Cumulative Water Demand (AFY)			
		2030	2035	2040	2045
Potable Demands (b)					
Office	59%	4	11	13	13
Lab and R&D	59%	16	42	51	51
Academic	59%	3	8	10	10
Conference Uses	59%	0	1	1	1
Active Uses					
Kitchen	100%	0.1	0.5	0.6	0.6
Retail	59%	0.2	1	1	1
Student/Faculty Housing	81%	0	0	30	30
Short-Term Lodging	81%	0	9	9	9
Distribution System Losses (c)	--	2	6	9	9
Total Potable Demands for the CEQA Proposed Project (d)		**26**	**78**	**124**	**124**
Non-Potable Demands (b)					
Office	41%	3	7	9	9
Lab and R&D	41%	12	29	36	36
Academic	41%	2	6	7	7
Conference Uses	41%	0	0.6	0.6	0.6
Active Uses					
Retail	41%	0.2	0.7	1	1
Student/Faculty Housing	19%	0	0	7	7
Short-Term Lodging	19%	0	2	2	2
Parking	100%	0	0	0.8	0.8
Landscape Irrigation	100%	2	4	5	5
Cooling	100%	26	66	80	80
Distribution System Losses (c)	--	3.4	9	11	11
Total Non-Potable Demands for the CEQA Proposed Project (d)		**49**	**125**	**160**	**160**

Abbreviations:

AFY = acre-feet per year

R&D = research and development

SFPUC = San Francisco Public Utilities Commission

Notes:

(a) SFPUC's non-potable water use calculator (Reference 1) provides the basis for the percentage of potable and non-potable indoor water use estimated for each land use type. A portion of non-potable indoor demand associated with toilet and urinal flushing. For non-residential (commercial, industrial, institutional) land uses, indoor water use is estimated at: 59% potable and 41% non-potable. For residential land uses, indoor water use is estimated at: 81% potable and 19% non-potable.

Table 5**. Breakdown of Potable and Non-Potable Water Demand for the CEQA Proposed Project (Continued)**

(b) Water demands for landscape irrigation, cooling water, and parking structure are assumed to fully met using non-potable (recycled water) supply.

(c) Estimated potable and non-potable distribution system water losses (including real and apparent losses) are estimated at 7.1%, per Reference 2.

(d) Values are rounded and, thus, may not sum correctly.

References:

1. SFPUC, 2025b. SFPUC's Onsite Water Reuse District-Scale Water Use Calculator. Accessed 7 July 2025.
2. DWR, 2024a. City of Mountain View Fiscal Year 2024 Water Audit Data Report. Uploaded to DWR's WUEdata (Water Audit Report Data) website on 21 November 2024 (https://wuedata.water.ca.gov/awwa_plans).

5 WATER SUPPLIERS' TOTAL WATER DEMANDS

As mentioned in Section 2.3, while not required, this WSE has been prepared to be consistent with WSA requirements. Per CWC 10910(c)(1), a WSA must determine whether the projected water demand associated with a proposed project was included as part of the water supplier's most recently adopted UWMP.

Consistent with the UWMP Act (CWC §10610-10656), the 2020 UWMPs for SFPUC and Mountain View present estimates of projected future water demand for the respective service areas in five-year increments, between the years 2025 and 2045 (SFPUC, 2021b; Mountain View, 2021). As discussed further below, the 2020 UWMP demand projections account for: (1) demands for the existing service area and accounts, (2) projected growth based on population and employment estimates, and (3) anticipated new development known at the time of 2020 UWMP preparation.

5.1 Potable Demand (SFPUC)

5.1.1 Historical, Current, and Projected

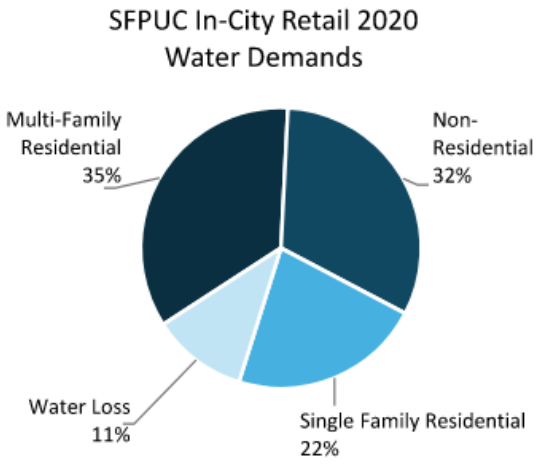
SFPUC sells water to both Wholesale Customers and two categories of Retail Customers: (1) In-City Retail (i.e., customers in San Franciso), and (2) Suburban Retail (i.e., customers outside of San Francisco). More information on SFPUC's system and customers can be found in Section 6.1.1. Because SFPUC's 2020 UWMP compares projected demand and supplies for the total Retail Customers (both In-City and Suburban), historical and projected demands for SFPUC's *total* retail service area are evaluated in this WSE.

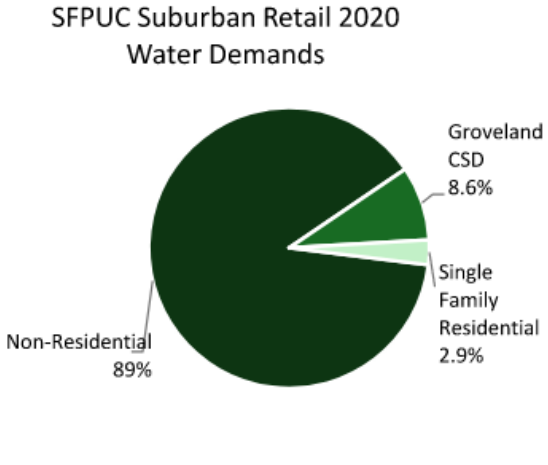
Water demand within the SFPUC retail service area for 2020 is shown in **Table 6** (SFPUC, 2021b). Total SFPUC Retail water use in 2020 was 77,290 AFY (73,396 AFY from In-City Retail demand, and 3,921 AFY from Suburban Retail demand). **Figure 6** compares the Project Site's historical water use with the historical water use for NASA ARC as a whole and SFPUC's retail customers from 2017 to 2023. As shown in **Figure 6**, the historical NASA ARC demands averaged about 0.9% of SFPUC's total retail demands from 2017 to 2023 (SWRCB, 2025).

Figure 7 compares NASA ARC's average historical potable water use from 2017 to 2023 to the CEQA Proposed Project's projected potable demand. The CEQA Proposed Project demands are anticipated to increase NASA ARC's existing potable water demands by 20% (**Figure 7**).

Table 6. SFPUC Potable Retail Water Demand in 2020

Customer Sector	2020 Water Demand (AFY) (a)
In-City Retail	
Single Family Residential	16,242
Multi-Family Residential	25,651
Non-Residential	23,411
Loss	8,065
In-City Retail Demand	**73,369**
Suburban Retail	
Single Family Residential	112
Non-Residential	3,472
Groveland CSD	336
Loss (b)	0
Suburban Retail Demand	**3,921**
Total Retail Water Demand	**77,290**





Abbreviations:

AFY = acre-feet per year

CSD = Community Services District

SFPUC = San Francisco Public Utilities Commission

Notes:

(a) 2020 historical water use values, per Reference 1.

(b) Nearly all of SFPUC's Suburban Retail customers are located immediately off of the RWS transmission pipelines. Therefore, real losses in the Suburban Retail service area are assumed to be negligible in Reference 1.

Reference:

1. SFPUC, 2021b. 2020 Urban Water Management Plan for the City and County of San Francisco, prepared by SFPUC, dated June 2021.

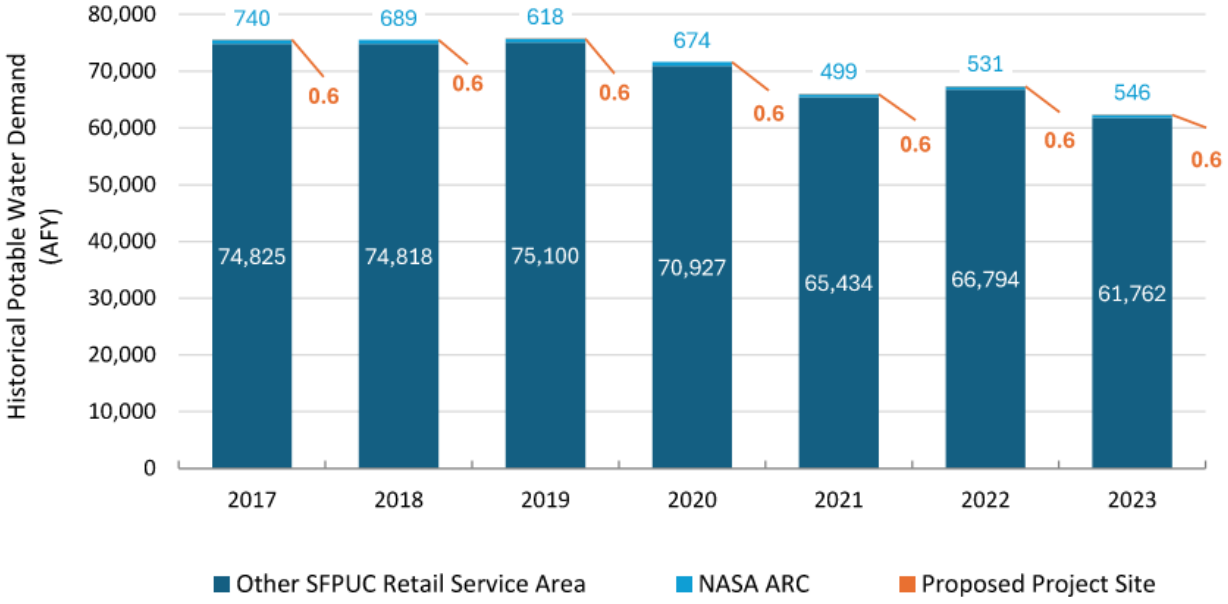


Figure 6. Historical Potable Water Demand within SFPUC Retail Service Area

Data from SWRCB per-supplier water supply and demand reports (SWRCB, 2025)

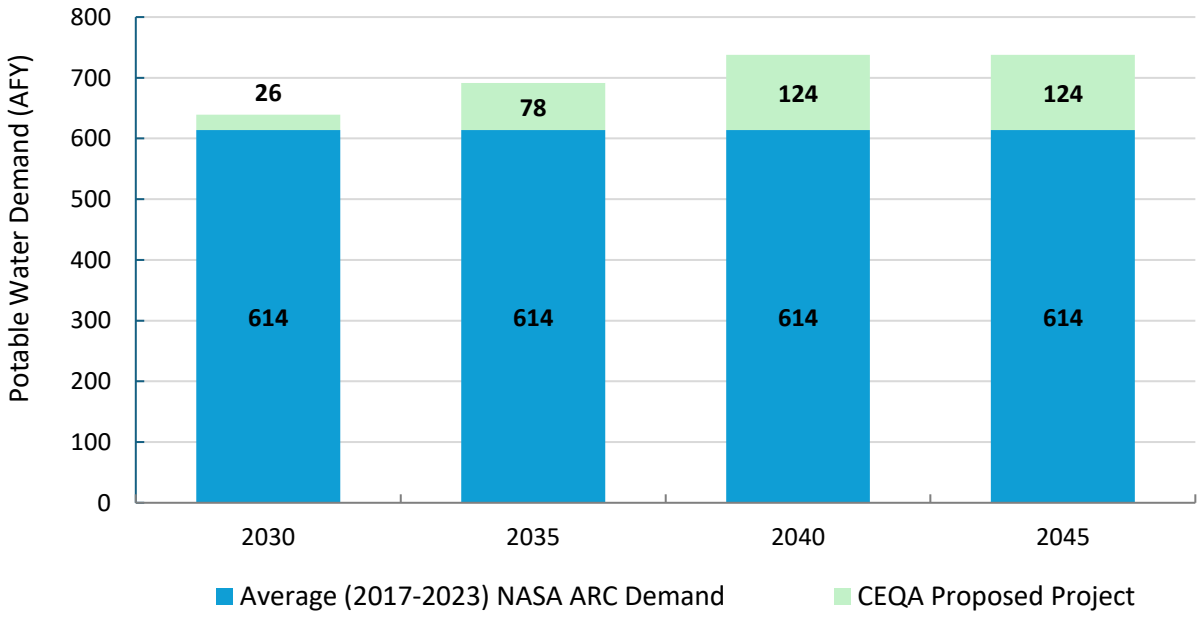


Figure 7. Projected NASA ARC Potable Demand with CEQA Proposed Project

The proposed project is located within SFPUC's Suburban Retail service area. Based on 2020 water use, the majority (89%) of demand across the Suburban Retail service area relates to non-

residential uses. The remainder (11%) is delivered to Groveland Community Services District (CSD)[22] and single family residential users (SFPUC, 2021b).

SFPUC's projected potable retail water demands from the 2020 UWMP (SFPUC, 2021b) are presented in five-year increments (**Table 7**). Considering anticipated population increase and other growth, climatic variability, and other assumptions, SFPUC's UWMP estimates that potable retail water demand will increase to 88,043 AFY by 2045.

5.1.2 Planned Developments within Service Area

Per CWC 10910(c)(3), a WSA must address whether the water supplier's projected supplies are adequate to meet the projected water demand associated with the proposed project, in addition to existing and other planned future uses. At the time of writing this WSE, there are no other known developments within SFPUC's Suburban Retail service area that are not included in SFPUC's UWMP projections.

Through personal communication, SFPUC staff have indicated that an incremental demand increase on the order of 124 AFY for NASA is considered small enough to be folded into overall suburban retail projections, assuming demands elsewhere remain flat. SFPUC staff expressed interest in understanding and tracking any increase, even if it does not materially change aggregate system demand.

5.1.3 Total Projected Potable Demand

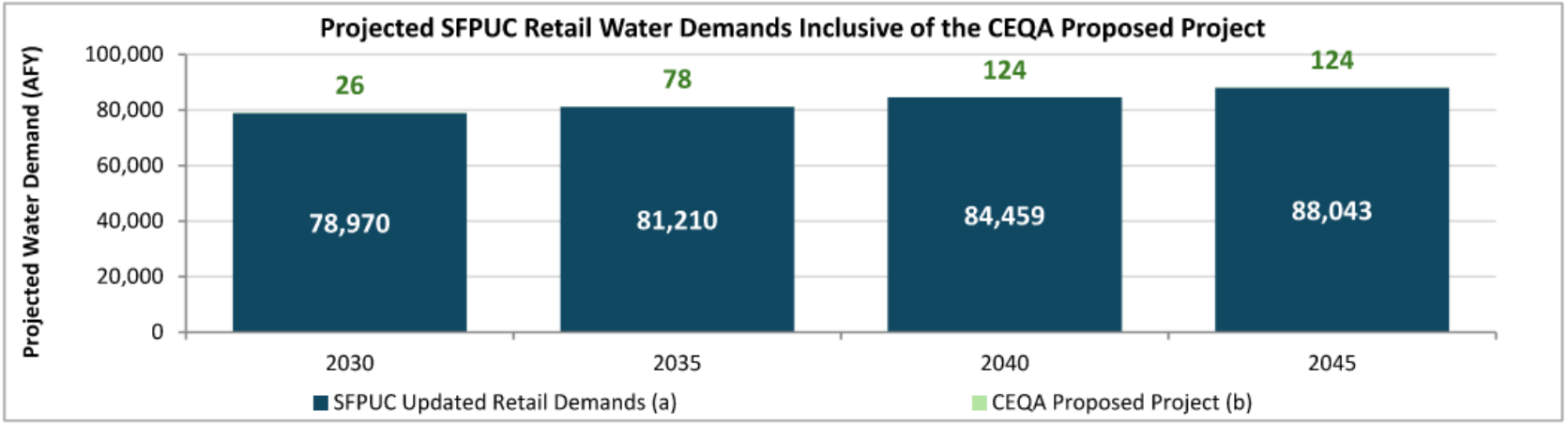
While the 2020 UWMP water demand projections account for growth within SFPUC's retail service area, the proposed project is not explicitly included in these projections, and the 2020 UWMP states that no significant growth is anticipated within the Suburban Retail sector. For the purposes of this WSE, it is conservatively assumed that no portion of the potable water demand associated with the proposed project is included in the projected SFPUC Suburban Retail water demands.

Table 7 shows the projected water demand for SFPUC's total retail service area when including demands of the CEQA Proposed Project. As shown, the proposed project will reach full buildout by 2040 and will increase SFPUC's projected potable total retail demand by 124 AFY in 2045, resulting in a total projected demand of 88,167 AFY for SFPUC's total retail service area.

[22] Groveland CSD primarily serves residential and commercial customers in Groveland, located in a semi-rural area of southern Tuolumne County. Although Groveland CSD is considered a Suburban Retail customer of the SFPUC and reflected as such in the SFPUC's contractual obligations and supply planning, the 2020 UWMP accounts for Groveland CSD differently (either as a Retail or a Wholesale Customer) depending on the context. For purposes of this WSE, Groveland CSD is considered a Suburban Retail customer.

Table 7. Projected SFPUC Potable Retail Water Demand for 2030-2045

Water Demand	Projected Potable Water Demands (AFY)			
	2030	2035	2040	2045
CEQA Proposed Project				
SFPUC Updated Retail Demands (a)	78,970	81,210	84,459	88,043
CEQA Proposed Project (b)	26	78	124	124
Total Water Demand (CEQA Proposed Project)	**78,996**	**81,288**	**84,583**	**88,167**



Abbreviations:

AFY = acre-feet per year

CEQA = California Environmental Quality Act

SFPUC = San Francisco Public Utilities Commission

UWMP = Urban Water Management Plan

Notes:

(a) SFPUC projected demands per the 2023 Interim Water Demand Projections update, per Reference 1. Projected demands presented here subtract out the recycled water demands to represent SFPUC projected potable demands.

(b) As discussed in Section 4 of the WSE, the proposed project's demands are not considered to be within the projected growth anticipated by the 2020 UWMP, per Reference 1. Total potable water demands for the proposed project and are therefore conservatively considered additive to SFPUC's projected

References:

1. SFPUC, 2023b. 2023 Interim Water Demand Projections for the City and County of San Francisco, prepared by SFPUC, dated September 2023.

5.2 Non-Potable Demand (Mountain View)

5.2.1 Historical, Current, and Projected

Since 1980, Mountain View has used recycled water produced at the City of Palo Alto (Palo Alto) Regional Water Quality Control Plant (RWQCP). Mountain View currently uses tertiary treated recycled water from the RWQCP for irrigation, construction, and commercial uses (e.g., toilet and urinal flushing, impoundments [fountains], and makeup water for cooling towers). As of 2021, Mountain View's recycled water system had 52 active customer connections (Mountain View, 2022a). More information on Mountain View's recycled water supply and distribution system can be found in Section 6.1.2.

Historical recycled water demand in Mountain View's service area from 2016 through 2020 is summarized in **Table 8** (Mountain View, 2021). Based on water use in 2020, landscape irrigation represents about 99% of the recycled water demand. The remainder is split between commercial uses (0.81% of overall demand) and construction uses (0.32% of overall demand; Mountain View, 2021).

Commercial and construction recycled water use has been relatively stable from 2017 to 2020, while landscape irrigation use has fluctuated over that same period. Based on the data summarized in **Table 8**, total recycled water demand for Mountain View averaged 362 AFY from 2016 through 2020.

5.2.2 Planned Developments within Service Area

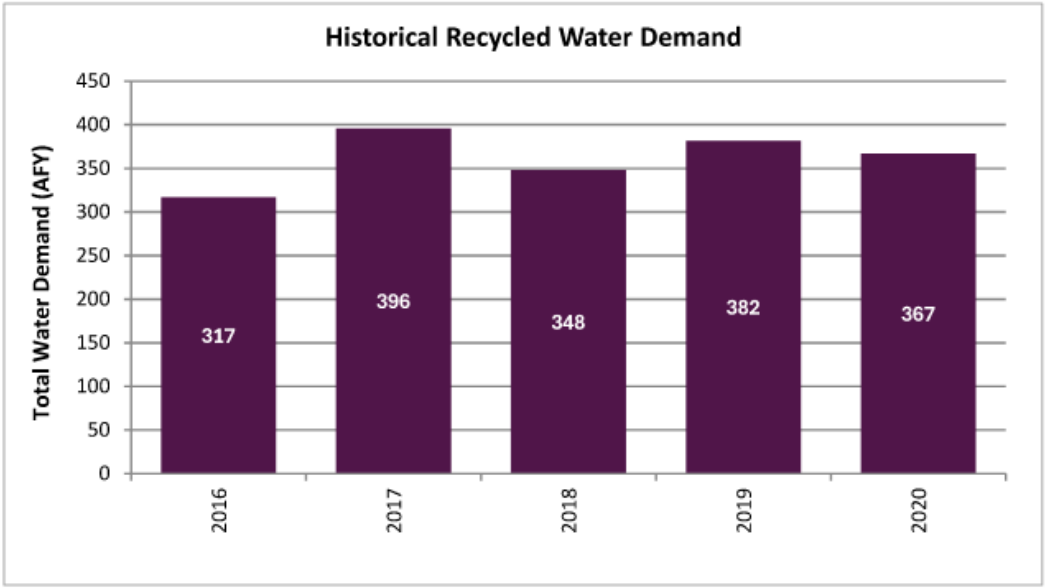
Per CWC 10910(c)(3), a WSA must address whether the water supplier's projected supplies will meet the projected water demand associated with the proposed project, in addition to existing and other planned future uses. Mountain View staff have indicated that the City is planning to expand recycled water use within its own service area and construct storage to improve operational flexibility, as described in personal communications and in the City's 2022 Recycled Water Feasibility Study (Mountain View, 2022a; 2026).

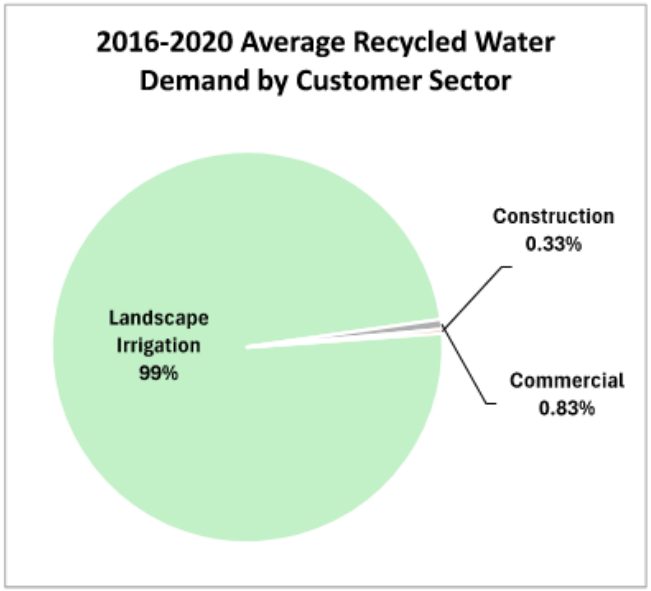
5.2.3 Total Projected Non-Potable Demand

Mountain View's 2020 UWMP projects recycled water demands of 448 AFY for 2025 through 2045, an increase of approximately 22% from 2020, as shown in **Table 9**. While the projections account for growth within the current Mountain View service area, the proposed project is not explicitly included in these projections. Additionally, the UWMP states that due to cost and a desire to focus on advanced treatment to improve water quality, the 2020 UWMP does not assume a substantial increase in recycled water use. Therefore, for the purposes of this WSE, it is assumed that the non-potable water demand associated with the proposed project is not included in the projected Mountain View recycled water demand.

Table 8. Mountain View Recycled Water Demand from 2016-2020

	Historical Recycled Water Demand (AFY) (a)				
	2016	2017	2018	2019	2020
Landscape Irrigation (b)	315	391	343	377	363
Commercial	0	4	4	4	3
Construction	2	1	1	1	1
Total Recycled Water Demand	**317**	**396**	**348**	**382**	**367**





Abbreviations:

AFY = acre-feet per year

Notes:

(a) Historical recycled water demands, per Reference 1.

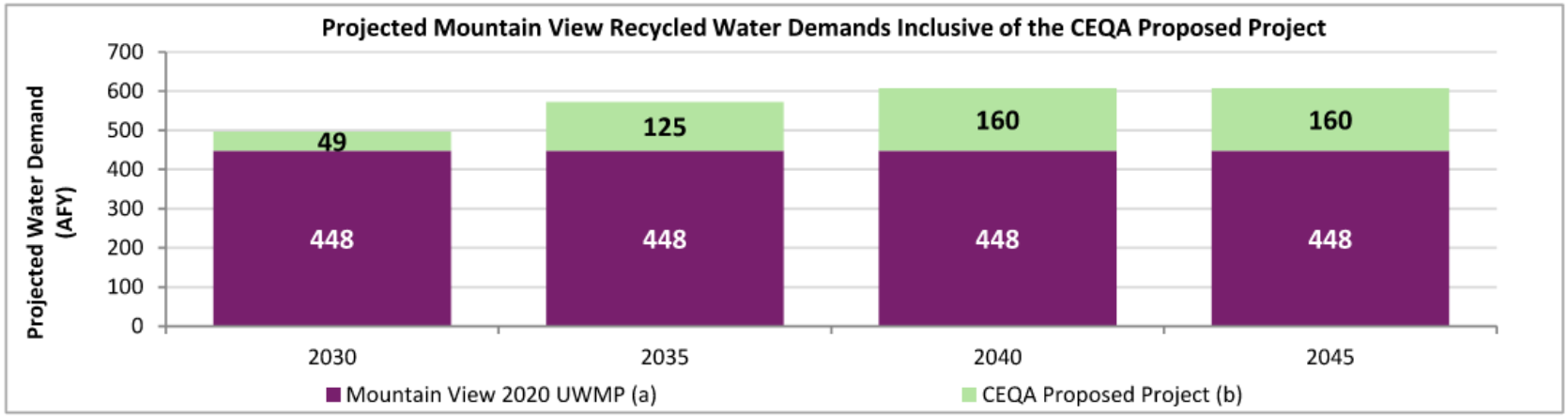
(b) In 2020, an additional 53 AFY of recycled water was stored in an open pond before landscape irrigation use, but was not utilized directly.

References:

1. Mountain View, 2021. 2020 Urban Water Management Plan for the City of Mountain View, prepared by Mountain View, dated 8 June 2021.

Table 9. Projected Mountain View Recycled Water Demand for 2030-2045

Water Demand	Projected Water Demands (AFY)			
	2030	2035	2040	2045
CEQA Proposed Project				
Mountain View 2020 UWMP (a)	448	448	448	448
CEQA Proposed Project (b)	49	125	160	160
Total Water Demand (CEQA Proposed Project)	***497***	***573***	***608***	***608***



Abbreviations:

AFY = acre-feet per year

CEQA = California Environmental Quality Act

Mountain View = City of Mountain View

UWMP = Urban Water Management Plan

Notes:

(a) Recycled water demand projections for Mountain View's service area, per Reference 1.

(b) As discussed in Section 4 of the WSE, the proposed project's demands are not considered to be within the projected growth anticipated by the 2020 UWMP, per Reference 1. Total non-potable water demands for the proposed project and are therefore conservatively considered additive to Mountain View's projected recycled water demands.

References:

1. Mountain View, 2021. 2020 Urban Water Management Plan for the City of Mountain View, prepared by Mountain View, dated 8 June 2021.

Table 9 shows the projected recycled water demand for Mountain View's service area inclusive of the additive demands of the CEQA Proposed Project. As shown, the project will reach full buildout by 2040 with a recycled water demand of 160 AFY, increasing Mountain View's projected recycled water demand to a total of 608 AFY in 2045.

The terms of Mountain View's rights to recycled water are governed by a partner agreement with the City of Palo Alto. The partner agreement specifies that Mountain View's recycled water allocation is 3 million gallons per day (MGD) as a peak flow rate, as further discussed in Section 6.1.2. **Figure 8** compares Mountain View's historical recycled water use to its projected demand, the CEQA Proposed Project non-potable water demands, and historical and projected annual demands in terms of maximum day demand (MDD) by multiplying average day demand (ADD) with a peaking factor of 3.4, which is consistent with Mountain View planning documents (Mountain View, 2022a). Although the proposed project's recycled water demand is not included in Mountain View's projected demands as shown in **Figure 8**, Mountain View can still meet its projected demands and the demands of the proposed project within its contractual limit.

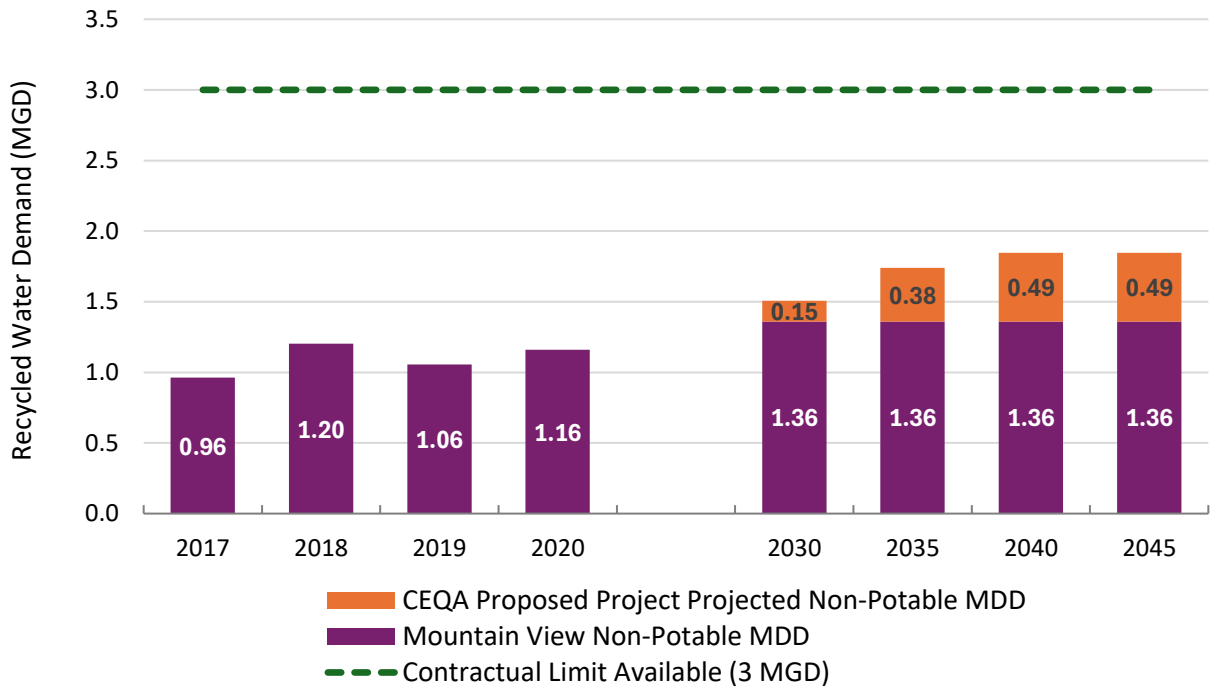


Figure 8. Historical and Projected Recycled Water Supply and Demand for the City of Mountain View

(Data from Mountain View's 2020 Urban Water Management Plan)

6 WATER SUPPLIES

In accordance with CWC §10910(d)-(e), a WSA must identify the water supply entitlements, water rights, and water service contracts relevant to the water supply for the proposed project. As mentioned in Section 2.3, while not required, this WSE has been prepared to be consistent with WSA requirements. Therefore, based on information provided in the respective UWMPs and other relevant sources, this section summarizes the water supply sources available to SFPUC and Mountain View and the proposed project, including: (1) surface water and (2) recycled water, and evaluates their reliability and vulnerability in the context of dry conditions, droughts, and other reasonably foreseeable factors.

6.1 Identification of Water Supply Rights

6.1.1 Potable Supply (SFPUC)

As summarized in **Table 10**, SFPUC's water supply portfolio consists of the RWS, groundwater, and recycled water and different combinations of these supplies meet SFPUC's Wholesale and Retail Customer demands. As shown in **Table 10**, since the proposed project is within SFPUC's Suburban Retail service area, only supply delivered through the RWS is anticipated to serve the proposed project's potable demands. For this reason, only a description of the RWS and its current and projected reliability is discussed in this WSE.

6.1.1.1 San Francisco Regional Water System (RWS) Description

The City and County of San Francisco (San Francisco) holds both pre-1914 appropriative water rights and post-1914 water rights to store and deliver water from the Tuolumne River and local watersheds. In 1914, California established a formal water rights permit system (by the 1913 Water Commission Act) administered by the SWRCB. With the Raker Act of 1913 (38 Stat. 242), Congress granted San Francisco rights of way for the construction and operation of Hetch Hetchy facilities, which are predominantly located on federally owned land in Yosemite National Park and Stanislaus National Forest. The Raker Act recognizes the senior water rights of Turlock Irrigation District (TID) and Modesto Irrigation District (MID) to divert water from the Tuolumne River and specifies conditions for the release of water to TID and MID and other conditions imposed by Congress for the protection of recreation in Yosemite and other purposes.

Table 10. Current SFPUC Supply Portfolio by Customer Type

SFPUC Customer Type	RWS		Groundwater		In-City Recycled Water (a)
	Hetch Hetchy	Local Bay Area Surface Water (b)	Westside Basin (DWR Basin No. 2-035)	Livermore Valley Basin (DWR Basin No. 2-010)	
Wholesale	✓	✓			
In-City Retail	✓	✓	✓ (c)		✓
Suburban Retail	✓	✓		✓ (d)	

Abbreviations:

MGD = million gallons per day
DWR = California Department of Water Resources
RWS = Regional Water System
SFPUC = San Francisco Public Utilities Commission

Notes:

(a) For non-potable uses.
(b) Surface water collected in watersheds of SFPUC's local Bay Area reservoirs (East Bay and Peninsula). Considering the location of the proposed project site, it may receive water from local surface water collected in SFPUC's East Bay reservoirs (but not those on the Peninsula), per Reference 1.
(c) Serves demand in some parts of the City and County of San Francisco, per Reference 1.
(d) Also known as Castlewood Well System. Serves 0.4 MGD of demand in the Castlewood County Service Area only, per Reference 1. This source does not supply the RWS and is not anticipated to supply the proposed project.

References:

1. SFPUC, 2021b. 2020 Urban Water Management Plan for the City and County of San Francisco, prepared by SFPUC, dated June 2021.

The RWS is municipally owned infrastructure operated by SFPUC, a department of San Francisco, and serves both Retail and Wholesale Customers. The RWS supplies high quality drinking water from the Tuolumne River watershed and from local reservoirs in the Alameda and Peninsula watersheds. The RWS draws an average of 85% of its supply from the Tuolumne River watershed, collected in Hetch Hetchy Reservoir in Yosemite National Park. This water feeds into an aqueduct system delivering water 167 miles by gravity to Bay Area reservoirs and customers. The remaining 15% of the RWS supply is drawn from local surface waters in the Alameda and Peninsula watersheds. The split between these resources varies from year to year depending on the water year hydrology and operational circumstances. During dry years, the water received from the Hetch Hetchy System can amount to over 90% of the total water delivered (SFPUC, 2021b).

SFPUC serves its Retail and Wholesale Customers through the integrated operation of local Bay Area water production facilities and the Hetch Hetchy System. The local watershed facilities are operated to conserve local runoff for delivery and to maintain enough stored water to meet demands in the event of an emergency that affects the supply of water from Hetch Hetchy. Demands that are not met by local runoff are met with water diverted from the Tuolumne River through the Hetch Hetchy System.

The SFPUC sells water to 26 of its 27 wholesale customers under the terms of the 25-year contract known as the Water Supply Agreement (Agreement) between San Francisco and Wholesale Customers in Alameda County, San Mateo County, and Santa Clara County. The 26 wholesale customers subject to the Water Supply Agreement are represented by BAWSCA and referred to as Wholesale Customers for the purpose of this WSE. SFPUC has associated individual water sales contracts with each Wholesale Customer. SFPUC has agreed to deliver water to the Retail and Wholesale Customers up to the amount of the Supply Assurance, and this agreement is perpetual and survives the expiration of the Agreement. The Supply Assurance is, however, subject to reduction due to water shortage, drought, scheduled RWS maintenance activities, and emergencies. As part of the phased Water System Improvement Program (WSIP) in 2008, the SFPUC established a temporary 265 MGD annual average limitation on total (retail and wholesale) water deliveries from RWS watersheds, the “Interim Supply Limitation” (ISL). SFPUC has allocated the ISL between Retail and Wholesale Customers as follows:

- Supply Assurance (Wholesale Customers): Up to 184 MGD.[23]
- Retail supply allocation: Up to 81 MGD.

6.1.1.2 RWS Reliability

The RWS has historically met demand in its service area in all hydrologic year types. Factors that will affect future reliability of the RWS are discussed below.

[23] The Supply Assurance is shared among 24 of the 26 Wholesale Customers (i.e., all BAWSCA member agencies except the cities of San Jose and Santa Clara, which are not permanent customers of the SFPUC).

The water available to SFPUC's Retail and Wholesale Customers from the RWS is constrained by hydrology, physical facilities, and the institutional parameters that allocate the water supply of the Tuolumne River. Due to these constraints, SFPUC depends on reservoir storage to maximize the reliability of its water supplies. More importantly, reservoir storage provides water supply carry-over capability. During dry years, a small share of the Tuolumne River supply is available to SFPUC, and the local watersheds produce little water. Reservoir storage is critical during drought cycles because it enables the SFPUC to carry-over water supply from wet years to dry years.

In addition, SFPUC's systemwide water supply reliability is prone to impacts from statewide regulations, namely adoption of the updated Water Quality Control Plan for the San Francisco/Sacramento-San Joaquin Delta Estuary (i.e., the Bay-Delta Plan Amendment). The Bay-Delta Plan identifies existing and potential beneficial uses of water for upstream watersheds and sets water quality objectives to protect those beneficial uses and the Delta's ecosystem. The Bay-Delta Plan Amendment is anticipated to impact the future reliability of RWS supplies in dry years. Based on SFPUC's 2020 UWMP, if the current Bay-Delta Plan Amendment (i.e., July 2018 State-approved version) is implemented, the proposed unimpaired flow requirements would significantly reduce water supply available by as much as 49% during drought years (SFPUC, 2021b).

SFPUC's 2020 UWMP provided a detailed discussion on the background of the Bay-Delta Plan Amendment and the factors contributing to the significant uncertainties surrounding the plan. The UWMP states that the SWRCB adopted amendments to the Bay-Delta Plan to establish water quality objectives to maintain the health of the Bay-Delta ecosystem. The SWRCB is required by law to regularly review this plan. The adopted Bay-Delta Plan Amendment was developed with the stated goal of increasing salmonid populations in three San Joaquin River tributaries (the Stanislaus, Merced, and Tuolumne Rivers) and the Bay-Delta. The Bay-Delta Plan Amendment requires the release of 30-50% of the "unimpaired flow"[24] on the three tributaries from February through June in every year type. In SFPUC modeling of the new flow standard, it is assumed that the required release is 40% of unimpaired flow in all years.

If the Bay-Delta Plan Amendment is implemented for the Tuolumne River watershed, the SFPUC will be able to meet the projected water demands presented in this UWMP in normal years but would experience supply shortages in single dry years or multiple dry years. Implementation of the Bay-Delta Plan Amendment will require rationing in all single dry years and multiple dry years. The SFPUC has initiated an Alternative Water Supply Planning Program (AWSP) to ensure that San Francisco can meet its Retail and Wholesale Customer water needs, address projected dry years shortages, and limit rationing to a maximum 20% system-wide in accordance with adopted SFPUC policies. This program is in early planning stages and is intended to meet future water supply challenges and vulnerabilities such as environmental flow needs and other regulatory

[24] "Unimpaired flow represents the natural water production of a river basin, unaltered by upstream diversions, storage, or by export or import of water to or from other watersheds." (Bay-Delta Plan Amendment adopted by SWRCB on Dec. 12, 2018) p.17, fn. 14, available at: https://www.waterboards.ca.gov/plans_policies/docs/2018wqcp.pdf.

changes; earthquakes, disasters, and emergencies; increases in population and employment; and climate change. As the region faces future challenges – both known and unknown – the SFPUC is considering this suite of diverse non-traditional supplies and leveraging regional partnerships to meet Retail and Wholesale Customer needs through 2045.

Though the SWRCB stated its intent to implement the Bay-Delta Plan Amendment on the Tuolumne River by the year 2022, assuming all required approvals are obtained by that time, its implementation continues to remain uncertain for multiple reasons.

1. First, since adoption of the Bay-Delta Plan Amendment, over a dozen lawsuits have been filed in both state and federal courts, challenging the SWRCB's adoption of the Bay-Delta Plan Amendment, including a legal challenge filed by the federal government, at the request of the U.S. Department of Interior, Bureau of Reclamation. This litigation is in the early stages, and there have been no dispositive court rulings as of this date.
2. Second, the Bay-Delta Plan Amendment is not self-implementing and does not automatically allocate responsibility for meeting its new flow requirements to the SFPUC or any other water rights holders.
3. Third, in recognition of the obstacles to implementation of the Bay-Delta Plan Amendment, the SWRCB Resolution No. 2018-0059 adopting the Bay-Delta Plan Amendment directed staff to help complete a "Delta watershed-wide agreement, including potential flow measures for the Tuolumne River" by 1 March 2019, and to incorporate such agreements as an "alternative" for a future amendment to the Bay-Delta Plan to be presented to the SWRCB "as early as possible after 1 December 2019." In accordance with the SWRCB's instruction, on 1 March 2019, SFPUC, in partnership with other key stakeholders, submitted a proposed project description for the Tuolumne River that could be the basis for a voluntary substitute agreement with the SWRCB ("March 1st Proposed Voluntary Agreement"). On 26 March 2019, the Commission adopted Resolution No. 19-0057 to support the SFPUC's participation in the Voluntary Agreement negotiation process. To date, those negotiations are ongoing under the California Natural Resources Agency and the leadership of the Newsom administration (SFPUC, 2021b).[25,26]

[25] California Natural Resources Agency, "Voluntary Agreements to Improve Habitat and Flow in the Delta and its Watersheds," available at https://files.resources.ca.gov/voluntary-agreements/.
[26] As of 29 October 2021, state regulators announced that the Voluntary Agreement negotiations process has ceased, with no agreement reached. San Francisco Chronicle, "California Drought: Key Talks Over Water Use Break Down, SF May Face Tighter Regulation," available at https://www.sfchronicle.com/sf/article/California-drought-Key-talks-over-water-use-16576132.php

Current sources of uncertainty regarding RWS dry year water supply projections are discussed below:

- *Benefits of the Alternative Water Supply Planning Program (AWSP) are not accounted for in current supply projections.* As discussed above, through its AWSP, SFPUC is exploring options to increase its supplies. Potential implementation of AWSP projects is not reflected in the supply reliability scenarios presented herein and would likely reduce the projected RWS supply shortfalls.
- *RWS demands are subject to change.* The RWS supply availability is, in part, dependent upon system-wide demands. SFPUC's 2020 UWMP includes RWS system-wide demand projections (i.e., including in-City retail, suburban retail, and wholesale demands). Following the 2020 UWMP preparation, SFPUC prepared Interim Water Demand Projections with updated forecasts for in-City retail demands (SFPUC, 2023b). The RWS demand projections are subject to change in the future based upon future housing needs, increased conservation, and development of additional local supplies.
- *Extent, frequency, and duration of cutbacks are also uncertain.* While the extent of projected supply shortfalls for dry years appear severe as presented in SFPUC's 2020 UWMP, the actual extent, frequency, and duration of such shortfalls are uncertain (SFPUC, 2021b).
- *Voluntary agreement may be reached.* SFPUC, in partnership with other key stakeholders, proposed an alternative to implementing the Bay-Delta Plan Amendment. This alternative, originally referred to as the Tuolumne River Voluntary Agreement (and currently known as the Tuolumne Healthy Rivers and Landscapes proposal), includes a proposed combination of river flows, river operations, and habitat enhancements that could provide "equal or better results for species protection with less impact to water supplies" (BAWSCA, 2025). In 2022, SFPUC and others signed a framework agreement (in the form of an MOU) with the State. The MOU, which has an eight-year term, advances a term sheet for Voluntary Agreements to update and implement the Bay-Delta Plan and other related actions and is "designed to safeguard drinking water supply while also providing more water and habitat improvements to benefit native species" (SFPUC, 2022). Under the MOU, SFPUC "agrees to work with the State to develop enforceable agreements with actions and funding to integrate additional water flows with the physical landscape to help improve habitat for native fish in the Tuolumne River watershed" (SFPUC, 2022).
- *Appeal of Sacramento Superior Court Decision.* Following the SWRCB's adoption of the Phase 1 Bay-Delta Plan Amendment, over a dozen surface water diverters filed lawsuits challenging the plan, given its potential to significantly reduce water supply availability in dry years. In March 2024, the Sacramento County Superior Court ruled in the SWRCB's favor on all claims by the petitioners (BAWSCA, 2024a). In May 2024, the City and County of San Francisco and other water suppliers filed an appeal on this decision (BAWSCA, 2024b), and the outcome is still pending.

Despite the 2022 MOU, the SWRCB has yet to approve a Voluntary Agreement for the Tuolumne River watershed. While the associated impact of reduced river diversions on RWS supply shortages are unknown, the relative extent of shortfall associated with the Voluntary Agreement would be less than under the Bay-Delta Plan Amendment, as further explained in a recent WSA approved by SFPUC in the in-City retail service area (SFPUC, 2024b):

> *However, given that the objectives of the Healthy Rivers and Landscapes Agreement [Voluntary Agreement] are to provide fishery improvements while protecting water supply through flow and non-flow measures, the RWS supply shortfalls under the Healthy Rivers and Landscapes Agreement would be less than those under the Bay-Delta Plan Amendment, and therefore would require water use reductions of a lesser degree ... The degree of water use reduction would also more closely align with the SFPUC's RWS [Level of Service] LOS goal of limiting water use reduction to no more than 20% on a system-wide basis in drought years.*

In summary, numerous uncertainties remain surrounding the implementation of the Bay-Delta Plan Amendment and Voluntary Agreement. The water supply projections presented in SFPUC's 2020 UWMP (Section 6.2) that assume the Bay-Delta Plan Amendment is implemented as adopted (i.e., not considering implementation of SFPUC's AWSP or a Voluntary Agreement) represent a worst-case scenario.

6.1.1.3 Efforts to Increase RWS Supply Reliability

On 2 June 2021, SFPUC released a memorandum which outlines numerous options SFPUC is pursuing to improve the supply reliability projected in its 2020 UWMP and meet its Level of Service (LOS) Goals. This memorandum is included as **Appendix C**. Furthermore, the SFPUC's WSIP and its AWSP articulate SFPUC's goals and objectives to improve the delivery reliability of the RWS, including water supply reliability.

The WSIP program goal is to improve the SFPUC's ability to reliably meet its Retail and Wholesale Customers water needs in non-drought and drought periods. In 2008, the SFPUC adopted LOS Goals and Objectives in conjunction with the adoption of the WSIP. The SFPUC's LOS Goals and Objectives include: (a) meeting average annual water demand of 265 MGD from the SFPUC watersheds for Retail and Wholesale Customers during non-drought years for system demands through 2028; (b) meeting dry-year delivery needs through 2028 while limiting rationing to a maximum 20% system-wide reduction in water service during extended droughts; (c) diversifying water supply options during non-drought and drought periods; and (d) improving use of new water sources and drought management, including groundwater, recycled water, conservation, and transfers (SFPUC, 2018). As of May 2023, WSIP local projects are 100% complete and regional projects are 92% complete, with the remaining regional projects forecasted to be approved and completed by February 2027 (SFPUC, 2023a).

Through the AWSP, SFPUC developed its Alternative Water Supply (AWS) Plan, which was released in February 2024. The AWS Plan is a roadmap to guide water supply planning to help address projected supply shortfalls through 2045. The AWS Plan is intended to guide the AWSP

decision-making process and provide recommendations on project implementation and areas for future analysis. The AWS Plan includes:

- Identification of the anticipated water supply gap through the 2045 planning horizon;
- Description of ongoing efforts to reduce demand and optimize RWS supply availability;
- Description of AWSP projects that can augment RWS supply and address the future water supply gap; and
- Recommendations that will further advance the AWSP (SFPUC, 2024a).

6.1.1.4 RWS Water Shortage Allocations

Procedures to allocate RWS supplies between Retail and Wholesale Customers during system shortages are specified in the SFPUC's Water Shortage Allocation Plan (WSAP), which is an appendix to the Water Supply Agreement. The WSAP defines a percentage split between Retail and Wholesale Customers at different RWS system-wide shortage levels. For example, at a 10% RWS shortage, 36% of available RWS supply is allocated to the Retail Customers, and 64% to the Wholesale Customers. SFPUC's Water Shortage Contingency Plan (WSCP) presents the percentage splits between Wholesale and Retail Customers at different shortage levels.

Per the WSAP, if the retail share of the available water supply results in Retail Customers having a positive allocation (i.e. a supply of additional water rather than a percentage reduction in water use), the share of the available water supply for Retail Customers shall be reduced to eliminate any positive allocation, with a corresponding increase in the percentage share of the available water supply allocated to the Wholesale Customers.

In addition, as amended in 2018, the WSAP requires Retail Customers to conserve a minimum of 5% during droughts. If retail demand on the RWS is lower than the retail allocation in a dry year, it is assumed that the Retail Customers will achieve a 5% demand reduction.

Through personal communication, SFPUC staff have indicated that the approach for Suburban Retail customers during dry years is governed by the WSCP. Measures escalate based on systemwide shortage severity and may include:

- Restrictions on discretionary uses;
- Mandatory rationing or water allotments by customer class; and
- Differentiated impacts by customer type (e.g., commercial, institutional, residential)

SFPUC prioritizes health, safety, and critical business functions and minimizes impacts to essential users where possible. Facilities with dual plumbing (e.g., recycled water use) and high efficiency may experience less stringent effective rationing compared to older, less efficient systems.

SFPUC will communicate restrictions at the master meter/account level. NASA is responsible for internal communication and allocation across site uses.

6.1.2 Non-Potable Supply (Mountain View)

Since potable supplies from Mountain View are not anticipated to serve the proposed project, only recycled water supply is further discussed in this WSE below.

6.1.2.1 RWQCP Recycled Water Supply

Mountain View's sanitary sewer system includes 159 miles of mains and two pump stations to carry wastewater from Mountain View to the RWQCP in Palo Alto for treatment. In addition to Mountain View's flows, the RWQCP also treats wastewater generated by the communities of Palo Alto, East Palo Alto, Los Altos, Los Altos Hills, Stanford University, and Moffett Field (the latter conveyed through Mountain View's system). Mountain View's 2020 wastewater generation was 6.88 MGD (7,732 AFY; Mountain View, 2021).

While Mountain View owns all of its wastewater, current recycled water availability is limited by the existing treatment, storage, and distribution system capacity. Under its 2007 agreement with Palo Alto, Mountain View is entitled to 3 MGD peak flow rate of recycled water produced at the RWQCP at no cost through 2035 (referred to herein as Mountain View's "contractual limit").[27] The original 2007 agreement outlined cost-sharing of system construction and was amended in 2017 to:

- Implement and fund facilities rehabilitation and construction;
- Increase system backup and reliability;
- Establish a cost allocation method for generating recycled water;
- Continue salinity reduction efforts; and
- Extend the life of the agreement to 2060.

All wastewater treated at the RWQCP meets the California Code of Regulations Title 22 tertiary standards for restricted reuse. An additional reclamation facility furthers filters and disinfects up to 4.5 MGD of recycled water to meet tertiary standards for unrestricted reuse.

Upgrades are currently in progress at the RWQCP, namely the addition of advanced treatment to improve the recycled water quality. Palo Alto is constructing a new advanced water purification system (AWPS) at the RWQCP. The purified water produced at the AWPS will be blended with tertiary effluent from the RWQCP to remove salts (i.e., reduce total dissolved solids [TDS]). Valley Water is subsidizing funding of the AWPS, consistent with an agreement between Valley Water, Palo Alto, and Mountain View executed in December 2019 related to "Advance Resilient Water Reuse Programs in Santa Clara County"; see Section 6.1.2.2 for more details (Mountain View, 2021).

[27] Concurrent with the expiration of the 1968 agreement (Partner's Agreement) that governs RWQCP operations, in which the cities of Mountain View and Los Altos agreed to retire their treatment plants and partner with Palo Alto to construct a regional treatment plant.

6.1.2.2 Efforts to Improve RWQCP Recycled Water Quality

Although recycled water is actively used for irrigation in Palo Alto and Mountain View, its salt content is above the threshold tolerable for certain salt-sensitive plants such as redwood trees. In an ongoing effort to address recycled water salinity, the RWQCP and partner agencies implemented several strategies. Primary to this effort was the Salinity Reduction Policy, which aimed to identify sources of wastewater salinity and implement actions to reduce recycled water salinity to 600 parts per million (ppm). Two such efforts included: (1) rehabilitating sanitary sewer mains; and (2) rerouting known saline discharges. Infiltration of saline groundwater to the sanitary sewer is known to cause high salinity. Sanitary sewer rehabilitation projects performed in Mountain View, Palo Alto, and East Palo Alto for pipe integrity and extended life had the additional benefit of reducing waste stream salinity. As other sources of wastewater stream salinity were identified, RWQCP partner agencies worked to remove high-saline discharges from the wastewater stream. Key locations in Mountain View where high-salinity discharge was rerouted from the sanitary sewer included three groundwater extraction wells affiliated with the landfill monitoring program and a dewatering sump pump located at the Shoreline at Mountain View (Mountain View, 2021).

Despite these efforts, recycled water TDS remains above the 600-ppm goal. Reduced sewer flows and changes in source water chemistry exacerbated the problem. To address this issue, Palo Alto recently completed feasibility and predesign and awarded the design contract to construct an AWPS facility for salt removal. The AWPS predesign includes microfiltration and reverse osmosis and is initially sized at 1.1 MGD capacity. Purified water produced at the AWPS will be blended with tertiary recycled water to produce 2.25 MGD of recycled water with an optimal TDS of approximately 400-500 ppm. The AWPS will have a modular design to expand to a treatment capacity of up to 2.25 MGD and, when blended with the tertiary water, produce up to 4.5 MGD of enhanced recycled water (Mountain View, 2022a). The project is expected to be under construction from 2025-2027 with completion around 2027 (City of Palo Alto, 2025).

6.1.2.3 Mountain View's Recycled Water System

In 2009, Mountain View completed construction of a recycled water distribution system in the North Bayshore Area (areas north of U.S. Route 101 and west of California Route 237). Mountain View's current recycled water distribution system includes 5.5 miles of mains, serving the North Bayshore Area. As of 2021, 52 customers are connected to the City's recycled water system (Mountain View, 2022a), including the Shoreline Golf Course, Shoreline Regional Park Community, Shoreline Amphitheatre, Charleston Park, and various business and roadway landscaping.

6.1.2.4 Reliability of RWQCP Supply

As shown in **Table 11**, the historical recycled water supply from 2010 to 2020 for Mountain View averaged 425 AFY (Mountain View, 2016b; 2021), which is below the contractual limit available

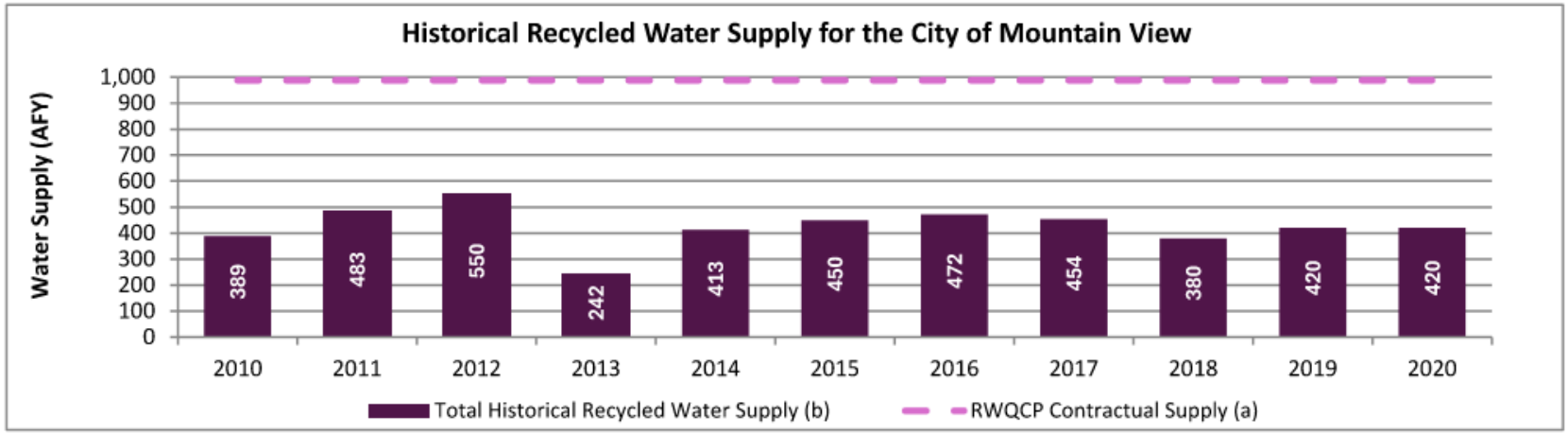
from the RWQCP (3.0 MGD peak flow rate, or approximately 988 AFY[28]). Mountain View completed the 2022 Recycled Water Feasibility Study Update (Update) report, which concluded that the 3.0 MGD contractual limit of recycled water from the RWQCP meets existing maximum-day demand in North Bayshore but falls short of meeting peak-hour demand. The Update also outlined system expansion alternatives to serve additional customers within North Bayshore, NASA Ames, and potential future customers in the East Whisman Precise Plan Area (Mountain View, 2025). Mountain View is planning to construct a new recycled water tank to improve operational flexibility and manage short duration peak recycled water demands.

Discussions between NASA and Mountain View to execute a recycled water utility service agreement are ongoing. This agreement would allow NASA to obtain recycled water directly from Mountain View to deliver non-potable water past the meter (located on the east side of Stevens Creek) to fill NASA's 12" recycled water main that runs along RT Jones Rd. Additionally, NASA is applying for a Title 22 Recycled Water Distribution Administrator permit directly from the Regional Water Quality Control Board, to administer recycled water purchased from the City of Mountain View throughout NASA's infrastructure at ARC. NASA anticipates finalizing the agreement and obtaining required permits by 2027.

[28] A peaking factor of 3.4 (Mountain View, 2022a) was applied to the contractual recycled water supply limit of 3.0 MGD for peak flow rate to estimate the annualized availability of recycled water supply for a value of 988 AFY.

Table 11. Historical Mountain View Recycled Water Supply for 2010-2020

	Historical Recycled Water Supply (AFY)										
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
RWQCP Contractual Supply (a)	988	988	988	988	988	988	988	988	988	988	988
Total Historical Recycled Water Supply (b)	389	483	550	242	413	450	472	454	380	420	420



Abbreviations:

AFY = acre-feet per year

MGD = million gallons per day

RWQCP = Palo Alto Regional Water Quality Control Plant

Notes:

(a) The RWQCP contractually allocates and provides up to a peak flow rate of 3.0 MGD of recycled water to the City of Mountain View, per Reference 1. A peaking factor of 3.4, per Reference 3 was applied to estimate the annualized availability of recycled water supply of 988 AFY.

(b) Historical recycled water supply for 2010-2015, per Reference 2, and 2016-2020, per Reference 1.

References:

1. Mountain View, 2021. 2020 Urban Water Management Plan for the City of Mountain View, prepared by Mountain View, dated 8 June 2021.
2. Mountain View, 2016b. 2015 Urban Water Management Plan for the City of Mountain View, prepared by Mountain View, dated 24 June 2016.
3. Mountain View, 2022. Recycled Water Feasibility Study, prepared by Carollo for Mountain View, dated March 2022.

6.2 Total Potable Supply in Normal, Single Dry, and Multiple Dry Years

The projected potable water supply source for the proposed project is SFPUC surface water supply delivered through the RWS.

Table 12 shows the projected potable demand for SFPUC's retail service area with the inclusion of the CEQA Proposed Project, as well as the total available potable supply through 2045 in normal hydrologic years. Given the ongoing negotiations, litigation, and regulatory proceedings surrounding the Bay-Delta Plan Amendment as discussed in Section 6.1.1.2, the SFPUC uses three scenarios to analyze water supply and demand in WSAs for proposed projects in the City and County of San Francisco (SFPUC, 2024b). These scenarios account for the uncertainty regarding the extent and timing of the Bay-Delta Plan Amendment's implementation. Based on this uncertainty, this WSE analyzes water supply and demands through 2045 under the three scenarios recommended by SFPUC:

1. **Scenario 1 – Implementation of the Bay-Delta Plan Amendment:** With implementation of the Bay-Delta Plan Amendment, SFPUC would have sufficient water supply to meet all expected future water demands in normal years. In dry years, SFPUC would implement its WSCP and apply the appropriate water demand reduction actions to meet demands. As described in Section 6.2.1 herein, with potential implementation of the Bay-Delta Plan Amendment, SFPUC projects potable supply shortfalls for its retail service area of up to 27% during single dry years and up to 37% during multiple dry years in 2045, and will require significant demand reductions or the development of additional water supply sources.
2. **Scenario 2 – Without implementation of the Bay-Delta Plan Amendment or the Proposed Voluntary Agreement:** Without the implementation of the Bay-Delta Plan Amendment, SFPUC would have sufficient water supply to meet all expected future water demands in normal years, single dry years, and most multiple dry years. As discussed in Section 6.2.2 herein, it is anticipated that SFPUC would face slight supply shortfalls of 0.22% during the fourth and fifth years of a multiple dry year scenario in 2045, during which SFPUC would implement its WSCP to curtail demands and ensure that its supplies remain sufficient to serve all users, including those of the proposed project.
3. **Scenario 3 – Implementation of the Proposed Voluntary Agreement:** The SFPUC is in active negotiations with the State to see if a compromise can be reached, wherein the impacts of the Bay-Delta Plan Amendment to the RWS can be minimized. Under this scenario, SFPUC is assumed to have sufficient water to meet all its future water demands in normal years. It is anticipated that, in single and multiple dry year scenarios, SFPUC would implement its WSCP to curtail demands and ensure that its supplies remain sufficient to serve all users. This scenario assumes that demand will not be curtailed beyond the SFPUC LOS goal of not exceeding 20% system-wide rationing.

A discussion of each scenario, along with the projected potable supplies and demands for SFPUC's retail service area under normal, single dry, and multiple dry year conditions, is presented below and further summarized in Section 8.

6.2.1 Scenario 1: Implementation of the Bay-Delta Plan Amendment

As discussed above, this scenario likely represents a worst-case scenario where the Bay-Delta Plan is implemented as written. The anticipated dry-year supply estimates presented are based on the estimates provided by SFPUC as part of the 2020 UWMP and 2023 Interim Water Demand Projections (SFPUC, 2021b; 2023b).

The instream flow requirements of the Bay-Delta Plan Amendment are anticipated to impact RWS supplies in dry years only. During normal hydrologic years, it is anticipated that SFPUC will have access to its full retail supply allocation of 81 MGD (90,732 AFY) and projected groundwater supply per the 2020 UWMP. Therefore, SFPUC will have adequate supplies to meet its projected retail water demands, inclusive of the CEQA Proposed Project as shown in **Table 12**.

During single dry years, assuming implementation of the Bay-Delta Plan Amendment, the annual supply within SFPUC's retail service area will be reduced to 64,520 AFY by 2045. Per the SFPUC 2020 UWMP, groundwater supplies are assumed to be 100% reliable regardless of hydrologic year type. Supply shortfalls relative to total demands during single dry years are estimated to range between 15% in 2040 to 27% in 2045. The impact of the CEQA Proposed Project demands is negligible to the supply shortfall (see **Table 13**).[29] If supply shortfalls occur, it is anticipated that SFPUC will meet those shortfalls through implementation of its WSCP.

[29] The difference in projected supply shortfalls for SFPUC's retail service area during single dry years with and without the CEQA Proposed Project is negligible as the project demands are 0.14% of SFPUC's retail service area projected demands in 2045.

Table 12. Projected Normal Year Water Supply and Demand for the CEQA Proposed Project

Supply and Demand	Projected Normal Year Supply and Demand (AFY)			
	2030	2035	2040	2045
Potable Normal Year Supply	**93,420**	**94,540**	**95,660**	**95,660**
Groundwater (a)	2,688	3,808	4,929	4,929
RWS (b)	90,732	90,732	90,732	90,732
Potable Demand Inclusive of the CEQA Proposed Project (c)	**78,996**	**81,288**	**84,583**	**88,167**
SFPUC Updated Retail Demands (d)	78,970	81,210	84,459	88,043
CEQA Proposed Project (e)	26	78	124	124
Supply Shortfall (% demand)	**None**	**None**	**None**	**None**
Non-Potable Normal Year Supply (f)	**988**	**988**	**988**	**988**
Non-Potable Demand Inclusive of the CEQA Proposed Project (c)	**497**	**573**	**608**	**608**
Mountain View 2020 UWMP	448	448	448	448
CEQA Proposed Project	49	125	160	160
Supply Shortfall (% demand)	**None**	**None**	**None**	**None**

Abbreviations:
AFY = acre-feet per year
CEQA = California Environmental Quality Act
MGD = million gallons per day
RWQCP = Palo Alto Regional Water Quality Control Plant
RWS = Regional Water System
SFPUC = San Francisco Public Utilities Commission
UWMP = Urban Water Management Plan

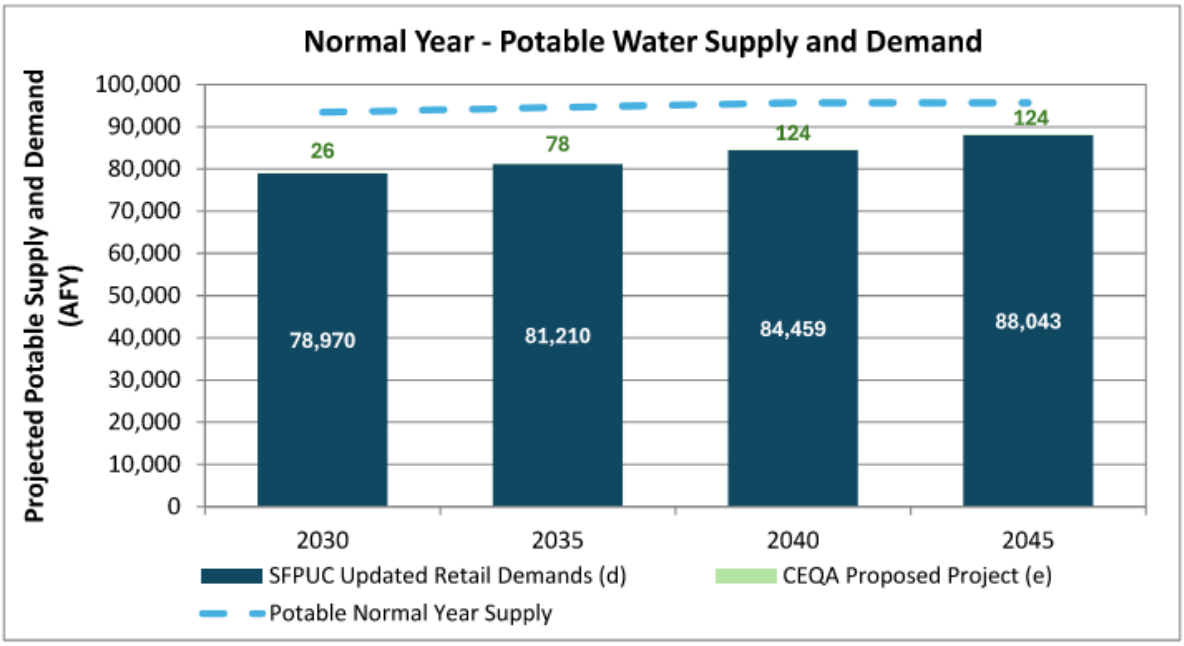
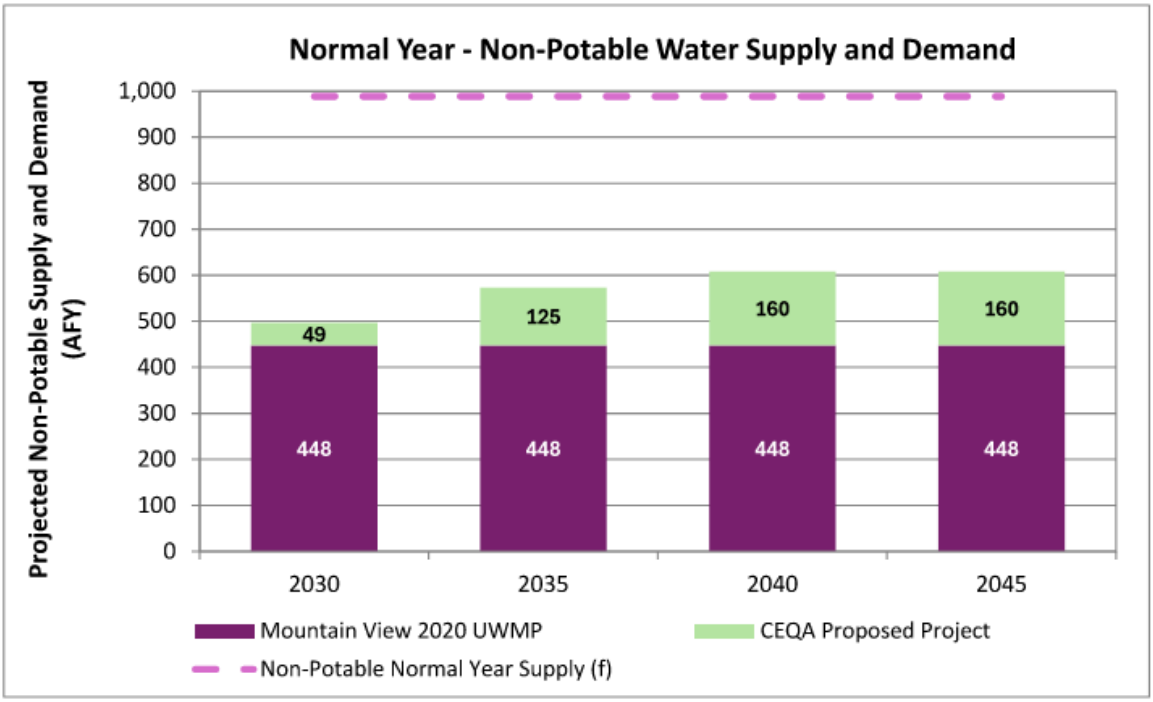


Table 12. Projected Normal Year Water Supply and Demand for the CEQA Proposed Project (Continued)



Notes:

(a) Projected SFPUC groundwater supply, per Reference 1. As noted in Table 8, although groundwater is not an anticipated supply for the proposed project, it is a potable supply source for other SFPUC retail customers, the demands of which are included within SFPUC's updated demands in this table.

(b) Projected RWS supply is assumed equal to the full retail supply allocation of 81 MGD (90,732 AFY) during normal hydrologic years, per Reference 1.

(c) As discussed in Section 4 of this WSE, the proposed project demands are not included within either SFPUC or Mountain View's 2020 UWMPs and are, therefore, considered additive to their respective service area demands.

(d) SFPUC projected demands per the 2023 Interim Water Demand Projections update, per Reference 2. Projected demands presented here subtract out the recycled water demands to represent SFPUC projected potable demands.

(e) Water demands for the CEQA Proposed Project is included in the chart; however, it is relatively minimal compared to the SFPUC Updated Retail Demands and is therefore not visually discernible.

(f) Projected recycled water supply is assumed equal to the full RWQCP contractual amount of 3.0 MGD peak flow rate, per Reference 3 (approximately 988 AFY using a peaking factor of 3.4, per Reference 4).

References:

1. SFPUC, 2021b. 2020 Urban Water Management Plan for the City and County of San Francisco, prepared by SFPUC, dated June 2021.
2. SFPUC, 2023b. 2023 Interim Water Demand Projections for the City and County of San Francisco, prepared by SFPUC, dated September 2023.
3. Mountain View, 2021. 2020 Urban Water Management Plan for the City of Mountain View, prepared by Mountain View, dated 8 June 2021.
4. Mountain View, 2022. Recycled Water Feasibility Study, prepared by Carollo for Mountain View, dated March 2022.

Table 13. Scenario 1: Project Single Dry Year Water Supply and Demand for the CEQA Proposed Project with Implementation of the Bay-Delta Plan Amendment

Supply and Demand	Projected Single Dry Year Supply and Demand (AFY)			
	2030	2035	2040	2045
Potable Single Dry Year Supply	**65,976**	**68,665**	**71,577**	**64,520**
Groundwater (a)	2,688	3,808	4,929	4,929
RWS (b)	63,288	64,856	66,649	59,592
Potable Demand Inclusive of the CEQA Proposed Project (c)	**78,996**	**81,288**	**84,583**	**88,167**
SFPUC Updated Retail Demands (d)	78,970	81,210	84,459	88,043
CEQA Proposed Project (e)	26	78	124	124
Supply Shortfall (% demand)	**16%**	**16%**	**15%**	**27%**
Non-Potable Single Dry Year Supply (f)	**988**	**988**	**988**	**988**
Non-Potable Demand Inclusive of the CEQA Proposed Project (c)	**497**	**573**	**608**	**608**
Mountain View 2020 UWMP	448	448	448	448
CEQA Proposed Project	49	125	160	160
Supply Shortfall (% demand)	**None**	**None**	**None**	**None**

Abbreviations:
AFY = acre-feet per year
CEQA = California Environmental Quality Act
MGD = million gallons per day
RWQCP = Palo Alto Regional Water Quality Control Plant
RWS = Regional Water System
SFPUC = San Francisco Public Utilities Commission
UWMP = Urban Water Management Plan

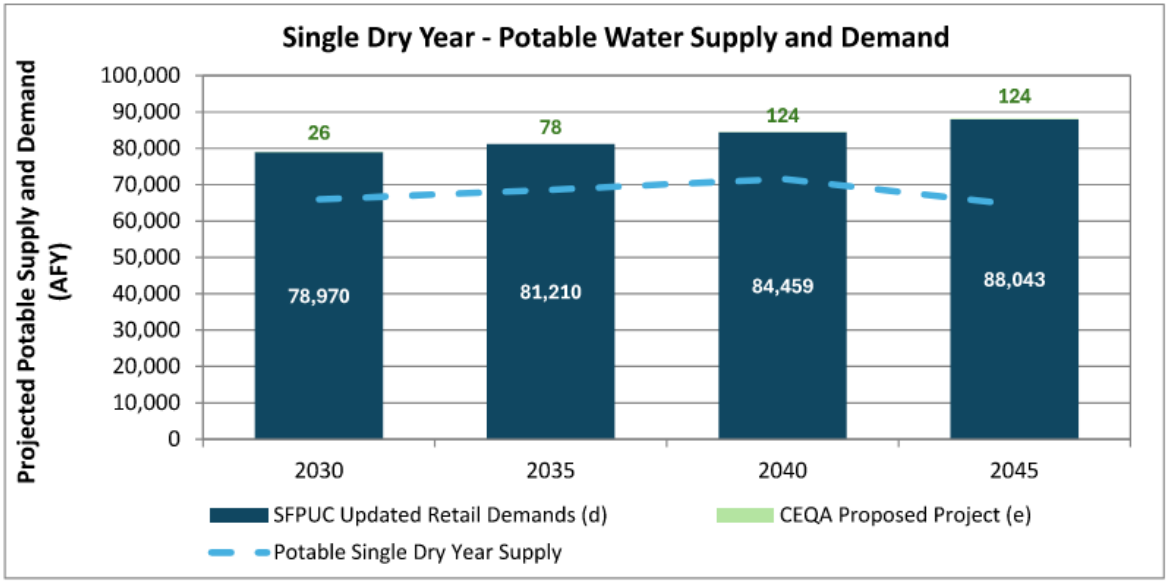
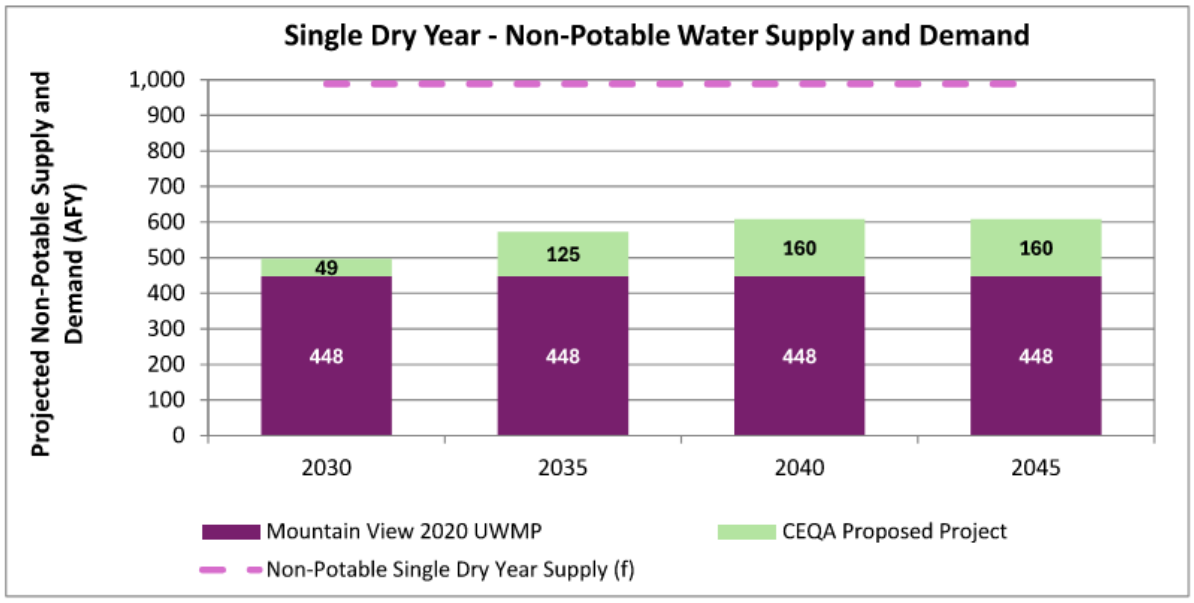


Table 13. Scenario 1: Project Single Dry Year Water Supply and Demand for the CEQA Proposed Project with Implementation of the Bay-Delta Plan Amendment (Continued)



Notes:

(a) Projected SFPUC groundwater supply, per Reference 1. Projected SFPUC groundwater supply is assumed to be 100% reliable regardless of hydrologic year type. As noted in Table 7, although groundwater is not an anticipated supply for the proposed project, it is a potable supply source for other SFPUC retail customers, the demands of which are included within SFPUC's updated demands in this table.

(b) Projected RWS supply is based on dry year allocation projections assuming the Bay-Delta Plan Amendment is implemented as written, per Reference 1.

(c) As discussed in Section 4 of this WSE, the proposed project demands are not included within either SFPUC or Mountain View's 2020 UWMPs and are, therefore, considered additive to their respective service area demands.

(d) SFPUC projected demands per the 2023 Interim Water Demand Projections update, per Reference 2. Projected demands presented here subtract out the recycled water demands to represent SFPUC projected potable demands.

(e) Water demands for the CEQA Proposed Project is included in the chart; however, it is relatively minimal comapred to the SFPUC Updated Retail Demands and is therefore not visually discernible.

(f) Projected recycled water supply is assumed equal to the full RWQCP contractual amount of 3.0 MGD peak flow rate, per Reference 3 (approximately 988 AFY using a peaking factor of 3.4, per Reference 4), and is assumed to be 100% reliable regardless of hydrologic year type.

References:

1. SFPUC, 2021b. 2020 Urban Water Management Plan for the City and County of San Francisco, prepared by SFPUC, dated June 2021.
2. SFPUC, 2023b. 2023 Interim Water Demand Projections for the City and County of San Francisco, prepared by SFPUC, dated September 2023.
3. Mountain View, 2021. 2020 Urban Water Management Plan for the City of Mountain View, prepared by Mountain View, dated 8 June 2021.
4. Mountain View, 2022. Recycled Water Feasibility Study, prepared by Carollo for Mountain View, dated March 2022.

During multiple dry years, the 2020 UWMP estimates that annual supply for the SFPUC retail service area will be reduced to 64,296 AFY in 2025 during the first year of drought, and 55,335 AFY in 2025 in the second, third, fourth, and fifth years of drought, assuming implementation of the Bay-Delta Plan Amendment. The 2020 UWMP further estimates that annual supply in 2045 will be 64,520 AFY during the first three years of drought, and 55,559 AFY in the fourth and fifth years of drought. Potable supply shortfalls relative to total SFPUC retail demands are estimated to range between 15% during the first year of a drought in 2040 to 37% during the fifth year of a drought in 2045 with and without inclusion of the CEQA Proposed Project demands (see **Table 14**).[30]

Under the "worst-case" supply scenario described under Section 6.2.1 in which the Bay-Delta Plan Amendment is implemented as adopted by the SWRCB, and not accounting for the implementation of actions identified as part of SFPUC's AWSP, potable supply shortfalls of up to 37% are projected during drought years for SFPUC's retail service area. To address this issue, SFPUC plans to enact its WSCP. The WSCP systematically identifies ways in which SFPUC can reduce water demands during dry years. The overall reduction goals in the WSCP are established for six drought stages and address water demand reductions of over 50%. The WSCP for SFPUC was revised as part of the 2020 UWMP update process and includes detailed information about how drought risks are evaluated by SFPUC on an annual basis to determine the potential need for reductions. In accordance with SFPUC's WSCP, the level of water use reduction that would be imposed on the Project Site would be determined at the time of drought or other water shortage and cannot be established with certainty prior to the shortage event.

During times of drought or shortage, SFPUC may prohibit certain discretionary outdoor water uses and/or call for voluntary water use reduction by its retail customers, including NASA ARC. Even though SFPUC has a regional plan to decrease water use, NASA is responsible for decreasing water use within NASA ARC during times of drought or shortfall. NASA will implement actions as needed to meet SFPUC or state-required potable water decreases based on ARC needs.

[30] The difference in projected supply shortfalls for SFPUC's retail service area during multiple dry years with and without the CEQA Proposed Project is negligible as the project demands are 0.14% of SFPUC's retail service area projected demands in 2045, respectively.

Table 14. Scenario 1: Projected Multiple Dry Year Water Supply and Demand for the CEQA Proposed Project with Implementation of the Bay-Delta Plan Amendment

Supply and Demand	Projected Water Supply and Demand During Multiple Dry Years (AFY) (a)																			
	2030					2035					2040					2045				
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 1	Year 2	Year 3	Year 4	Year 5	Year 1	Year 2	Year 3	Year 4	Year 5	Year 1	Year 2	Year 3	Year 4	Year 5
Potable Multiple Dry Year Supply	**65,976**	**57,015**	**57,015**	**57,015**	**57,015**	**68,665**	**59,368**	**59,368**	**59,368**	**54,775**	**71,577**	**62,056**	**62,056**	**55,447**	**55,447**	**64,520**	**64,520**	**64,520**	**55,559**	**55,559**
Groundwater (b)	2,688	2,688	2,688	2,688	2,688	3,808	3,808	3,808	3,808	3,808	4,929	4,929	4,929	4,929	4,929	4,929	4,929	4,929	4,929	4,929
RWS (c)	63,288	54,327	54,327	54,327	54,327	64,856	55,559	55,559	55,559	50,967	66,649	57,127	57,127	50,518	50,518	59,592	59,592	59,592	50,631	50,631
Potable Demand Inclusive of the CEQA Proposed Project (d)	**78,996**	**78,996**	**78,996**	**78,996**	**78,996**	**81,288**	**81,288**	**81,288**	**81,288**	**81,288**	**84,583**	**84,583**	**84,583**	**84,583**	**84,583**	**88,167**	**88,167**	**88,167**	**88,167**	**88,167**
SFPUC Updated Retail Demands (e)	78,970	78,970	78,970	78,970	78,970	81,210	81,210	81,210	81,210	81,210	84,459	84,459	84,459	84,459	84,459	88,043	88,043	88,043	88,043	88,043
CEQA Proposed Project (f)	26	26	26	26	26	78	78	78	78	78	124	124	124	124	124	124	124	124	124	124
Supply Shortfall (% demand)	**16%**	**28%**	**28%**	**28%**	**28%**	**16%**	**27%**	**27%**	**27%**	**33%**	**15%**	**27%**	**27%**	**34%**	**34%**	**27%**	**27%**	**27%**	**37%**	**37%**
Non-Potable Single Dry Year Supply (g)	**988**	**988**	**988**	**988**	**988**	**988**	**988**	**988**	**988**	**988**	**988**	**988**	**988**	**988**	**988**	**988**	**988**	**988**	**988**	**988**
Non-Potable Demand Inclusive of the CEQA Proposed Project (d)	**497**	**497**	**497**	**497**	**497**	**573**	**573**	**573**	**573**	**573**	**608**	**608**	**608**	**608**	**608**	**608**	**608**	**608**	**608**	**608**
Mountain View 2020 UWMP	448	448	448	448	448	448	448	448	448	448	448	448	448	448	448	448	448	448	448	448
CEQA Proposed Project	49	49	49	49	49	125	125	125	125	125	160	160	160	160	160	160	160	160	160	160
Supply Shortfall (% demand)	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**

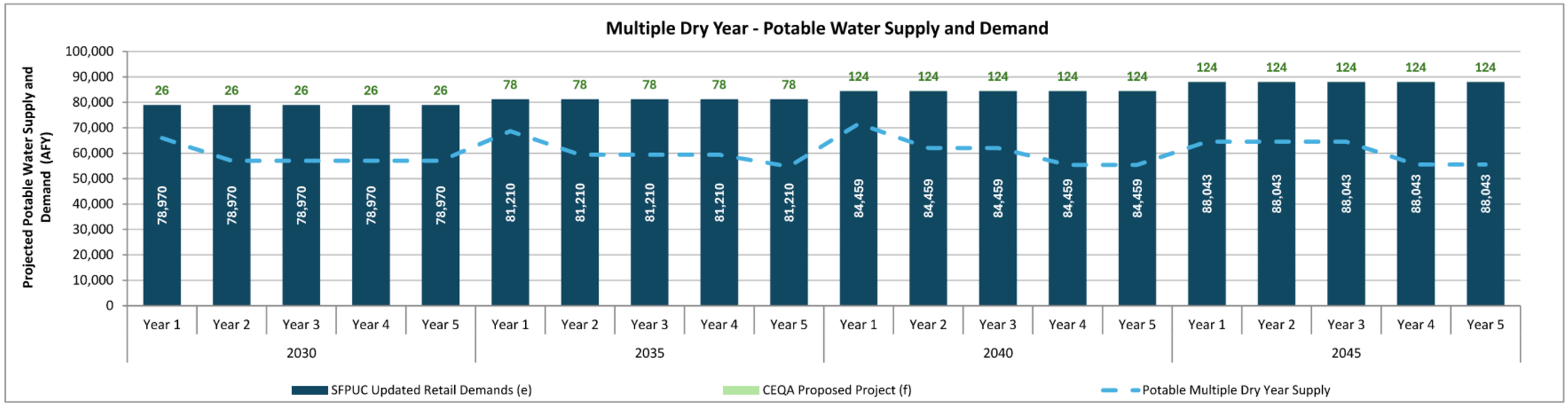
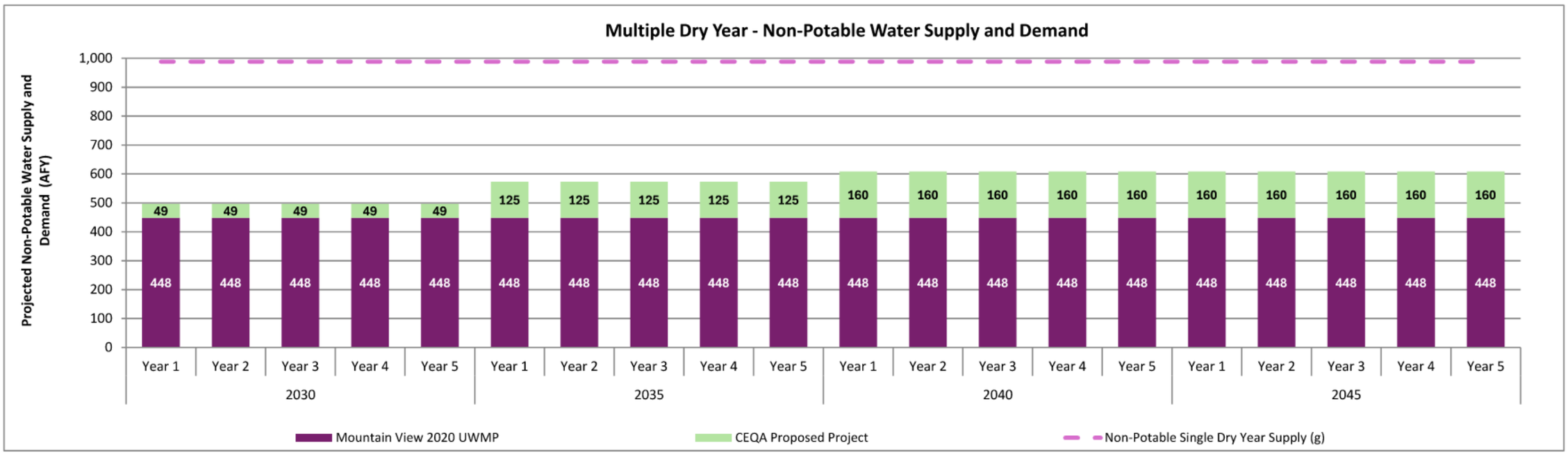


Table 14. Scenario 1: Projected Multiple Dry Year Water Supply and Demand for the CEQA Proposed Project with Implementation of the Bay-Delta Plan Amendment (Continued)



Abbreviations:

AFY = acre-feet per year
CEQA = California Environmental Quality Act
CWC = California Water Code
MGD = million gallons per day
RWQCP = Palo Alto Regional Water Quality Control Plant
RWS = Regional Water System
SFPUC = San Francisco Public Utilities Commission
UWMP = Urban Water Management Plan

Notes:

(a) While WSA regulations only require an analysis of a three-year drought scenario, UWMP regulations were updated in 2018 to include a five-year drought scenario (CWC §10635), Therefore, a five-year drought scenario is presented here for this WSE.
(b) Projected SFPUC groundwater supply, per Reference 1. Projected SFPUC groundwater supply is assumed to be 100% reliable regardless of hydrologic year type. As noted in Table 7, although groundwater is not an anticipated supply for the proposed project, it is a potable supply source for other SFPUC retail customers, the demands of which are included within SFPUC's updated demands in this table.
(c) Projected RWS supply is based on dry year allocation projections assuming the Bay-Delta Plan Amendment is implemented as written, per Reference 1.
(d) As discussed in Section 4 of this WSE, the proposed project demands are not included within either SFPUC's or Mountain View's 2020 UWMPs and are, therefore, considered additive to their respective service area demands.
(e) SFPUC projected demands per the 2023 Interim Water Demand Projections update, per Reference 2. Projected demands presented here subtract out the recycled water demands to represent SFPUC projected potable demands.
(f) Water demands for the CEQA Proposed Project is included in the chart; however, it is relatively minimal compared to the SFPUC Updated Retail Demands and is therefore not visually discernible.
(g) Projected recycled water supply is assumed equal to the full RWQCP contractual amount of 3.0 MGD peak flow rate, per Reference 3 (approximately 988 AFY using a peaking factor of 3.4, per Reference 4), and is assumed to be 100% reliable regardless of hydrologic year type.

References:

1. SFPUC, 2021b. 2020 Urban Water Management Plan for the City and County of San Francisco, prepared by SFPUC, dated June 2021.
2. SFPUC, 2023b. 2023 Interim Water Demand Projections for the City and County of San Francisco, prepared by SFPUC, dated September 2023.
3. Mountain View, 2021. 2020 Urban Water Management Plan for the City of Mountain View, prepared by Mountain View, dated 8 June 2021.
4. Mountain View, 2022. Recycled Water Feasibility Study, prepared by Carollo for Mountain View, dated March 2022.

6.2.2 Scenario 2: Without Implementation of the Bay-Delta Plan Amendment or the Proposed Voluntary Agreement

This scenario represents the potable supply outlook for SFPUC's retail service area without implementation of the Bay-Delta Plan Amendment or the Proposed Voluntary Agreement. Under this scenario, 100% of SFPUC Retail Customers' allocated supply volume would be available during single and multiple dry years up through the third year of a multi-year drought in 2045, at which point there would be a slight 0.14% shortfall due to a 10% system-wide shortage in effect in those years.

As shown in **Table 15** during single dry years, SFPUC is expected to meet all projected Retail Customer demands, inclusive of the proposed project, which are estimated to be 88,167 AFY and 124 AFY for the CEQA Proposed Project by 2045. During multiple dry years in which no Bay-Delta Plan Amendment is implemented, SFPUC is expected to have sufficient supply to meet projected demands through the third year of a multi-year drought in 2045 (see **Table 16**). During the fourth and fifth years of a multi-year drought in 2045, supplies would be reduced to 88,043 AFY, resulting in slight supply shortfalls of 0.14% for the CEQA Proposed Project. These shortfalls would be addressed through the implementation of SFPUC's WSCP.

6.2.3 Scenario 3: Implementation of the Proposed Voluntary Agreement

The 1 March 2019 Proposed Voluntary Agreement has yet to be accepted by SWRCB as an alternative to the Bay-Delta Plan Amendment, and thus, the shortages that would occur with its implementation are not known with certainty. However, given that the objectives of the Voluntary Agreement are to provide fishery improvements while protecting water supply through flow and non-flow measures, the RWS supply shortfalls under the Voluntary Agreement would be less than those projected under the Bay-Delta Plan Amendment and, therefore, would require water use reductions of a lesser degree than that which would occur under Scenario 1. Because negotiations of a Proposed Voluntary Agreement are not complete, no values are available to explicitly model this scenario.

It is anticipated that, under this scenario, SFPUC would have sufficient water to meet all projected demands in normal years. It is expected that the degree of water use reduction during dry years would also be more closely aligned with the SFPUC's RWS LOS goal of limiting water use reduction to no more than 20% on a system-wide basis in drought years. SFPUC would enact its WSCP to curtail demands and ensure that its supplies remain sufficient to serve all users, including those of the proposed project.

6.3 Total Non-Potable Supply in Normal, Single Dry, and Multiple Dry Years

Since recycled water supply originates from indoor water use, recycled water supply is less affected by local hydrology and is assumed not to significantly vary based on hydrological conditions. Recycled water supply is, therefore, considered "drought-resilient" and reliable in dry

years, and the availability of Mountain View's recycled water supply is assumed not to vary between the three Scenarios discussed in Section 6.2.

Even though SFPUC has a regional plan to decrease water use, it is up to NASA to decrease the water use within NASA ARC. As indoor water use becomes more efficient, less wastewater flow may be available for recycled water supply. Additionally, there may be variations on the monthly scale due to increased indoor and outdoor water uses at the Project Site in warmer months from cooling and outdoor irrigation, respectively. However, because WSAs (and this WSE) evaluate water supply availability on an annual scale, monthly operational constraints are not considered.

As shown in **Table 12** through **Table 16**, Mountain View's projected recycled water demand, inclusive of the CEQA Proposed Project is well below Mountain View's contractual limit,[31] and therefore, for normal, single dry, and multiple dry years, Mountain View's recycled water supply is sufficient to meet all projected non-potable demands assuming NASA and Mountain View execute an agreement and infrastructure improvements are made as planned to address operational constraints.

[31] See section 6.1.2.4.

Table 15. Scenario 2: Projected Single Dry Year Water Supply and Demand for the CEQA Proposed Project without Implementation of the Bay-Delta Plan Amendment

Supply and Demand	Projected Single Dry Year Supply and Demand (AFY)			
	2030	2035	2040	2045
Potable Single Dry Year Supply	**93,420**	**94,540**	**95,660**	**95,660**
Groundwater (a)	2,688	3,808	4,929	4,929
RWS (b)	90,732	90,732	90,732	90,732
Potable Demand Inclusive of the CEQA Proposed Project (c)	**78,996**	**81,288**	**84,583**	**88,167**
SFPUC Updated Retail Demands (d)	78,970	81,210	84,459	88,043
CEQA Proposed Project (e)	26	78	124	124
Supply Shortfall (% demand)	**None**	**None**	**None**	**None**
Non-Potable Single Dry Year Supply (f)	**988**	**988**	**988**	**988**
Non-Potable Demand Inclusive of the CEQA Proposed Project (c)	**497**	**573**	**608**	**608**
Mountain View 2020 UWMP	448	448	448	448
CEQA Proposed Project	49	125	160	160
Supply Shortfall (% demand)	**None**	**None**	**None**	**None**

Abbreviations:

AFY = acre-feet per year
CEQA = California Environmental Quality Act
MGD = million gallons per day
RWQCP = Palo Alto Regional Water Quality Control Plant
RWS = Regional Water System
SFPUC = San Francisco Public Utilities Commission
UWMP = Urban Water Management Plan

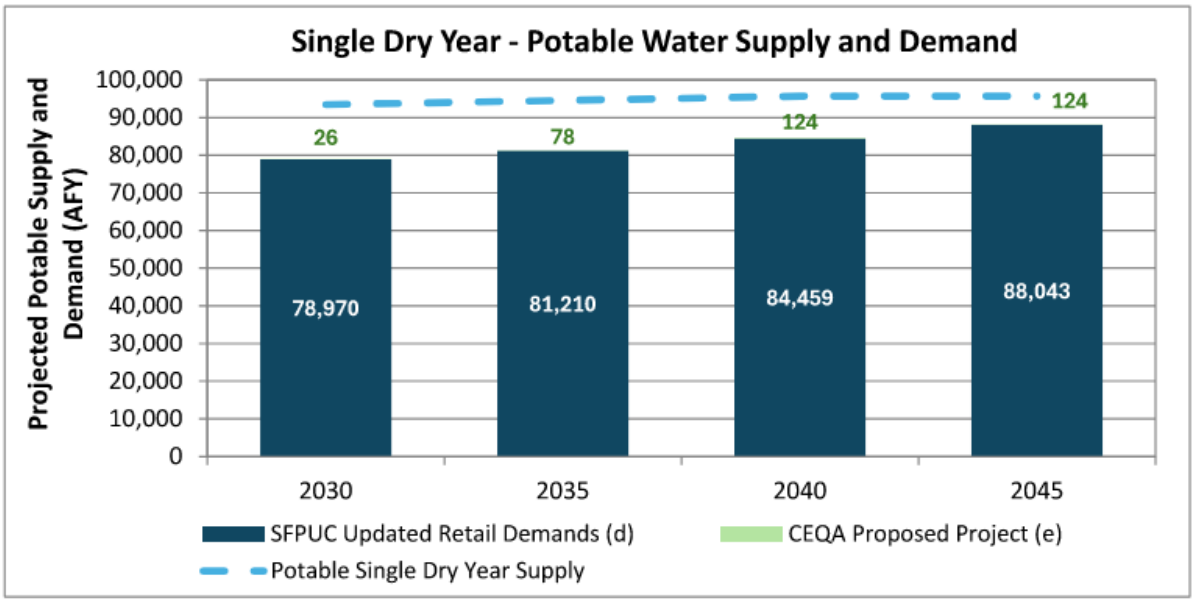
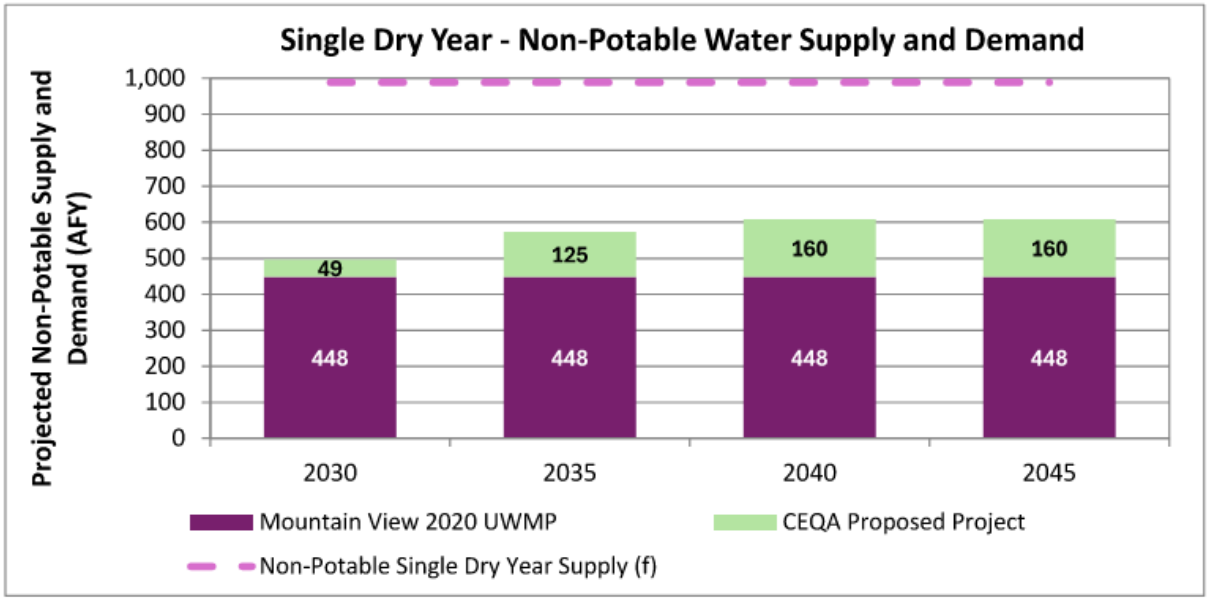


Table 15. Scenario 2: Projected Single Dry Year Water Supply and Demand for the CEQA Proposed Project without Implementation of the Bay-Delta Plan Amendment (Continued)



Notes:

(a) Projected SFPUC groundwater supply, per Reference 1. Projected SFPUC groundwater supply is assumed to be 100% reliable regardless of hydrologic year type. As noted in Table 7, although groundwater is not an anticipated supply for the proposed project, it is a potable supply source for other SFPUC retail customers, the demands of which are included within SFPUC's updated demands in this table.

(b) Projected RWS supply is based on dry year allocation projections assuming the Bay-Delta Plan Amendment is not implemented, per Reference 1.

(c) As discussed in Section 4 of this WSE, the proposed project demands are not included within either SFPUC or Mountain View's 2020 UWMPs and are, therefore, considered additive to their respective service area demands.

(d) SFPUC projected demands per the 2023 Interim Water Demand Projections update, per Reference 2. Projected demands presented here subtract out the recycled water demands to represent SFPUC projected potable demands.

(e) Water demands for the CEQA Proposed Project is included in the chart; however, it is relatively minimal comapred to the SFPUC Updated Retail Demands and is therefore not visually discernible.

(f) Projected recycled water supply is assumed equal to the full RWQCP contractual amount of 3.0 MGD peak flow rate, per Reference 3 (approximately 988 AFY using a peaking factor of 3.4, per Reference 4), and is assumed to be 100% reliable regardless of hydrologic year type.

References:

1. SFPUC, 2021b. 2020 Urban Water Management Plan for the City and County of San Francisco, prepared by SFPUC, dated June 2021.
2. SFPUC, 2023b. 2023 Interim Water Demand Projections for the City and County of San Francisco, prepared by SFPUC, dated September 2023.
3. Mountain View, 2021. 2020 Urban Water Management Plan for the City of Mountain View, prepared by Mountain View, dated 8 June 2021.
4. Mountain View, 2022. Recycled Water Feasibility Study, prepared by Carollo for Mountain View, dated March 2022.

Table 16. Scenario 2: Projected Multiple Dry Year Water Supply and Demand for the CEQA Proposed Project without Implementation of the Bay-Delta Plan Amendment

Supply and Demand	Projected Water Supply and Demand During Multiple Dry Years (AFY) (a)																			
	2030					2035					2040					2045				
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 1	Year 2	Year 3	Year 4	Year 5	Year 1	Year 2	Year 3	Year 4	Year 5	Year 1	Year 2	Year 3	Year 4	Year 5
Potable Multiple Dry Year Supply	**93,420**	**93,420**	**93,420**	**93,420**	**93,420**	**94,540**	**94,540**	**94,540**	**94,540**	**94,540**	**95,660**	**95,660**	**95,660**	**95,660**	**95,660**	**95,660**	**95,660**	**95,660**	**88,043**	**88,043**
Groundwater (b)	2,688	2,688	2,688	2,688	2,688	3,808	3,808	3,808	3,808	3,808	4,929	4,929	4,929	4,929	4,929	4,929	4,929	4,929	4,929	4,929
RWS (c)	90,732	90,732	90,732	90,732	90,732	90,732	90,732	90,732	90,732	90,732	90,732	90,732	90,732	90,732	90,732	90,732	90,732	90,732	83,115	83,115
Potable Demand Inclusive of the CEQA Proposed Project (d)	**78,996**	**78,996**	**78,996**	**78,996**	**78,996**	**81,288**	**81,288**	**81,288**	**81,288**	**81,288**	**84,583**	**84,583**	**84,583**	**84,583**	**84,583**	**88,167**	**88,167**	**88,167**	**88,167**	**88,167**
SFPUC Updated Retail Demands (e)	78,970	78,970	78,970	78,970	78,970	81,210	81,210	81,210	81,210	81,210	84,459	84,459	84,459	84,459	84,459	88,043	88,043	88,043	88,043	88,043
CEQA Proposed Project (f)	26	26	26	26	26	78	78	78	78	78	124	124	124	124	124	124	124	124	124	124
Supply Shortfall (% demand)	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**0.14%**	**0.14%**
Non-Potable Single Dry Year Supply (g)	**988**	**988**	**988**	**988**	**988**	**988**	**988**	**988**	**988**	**988**	**988**	**988**	**988**	**988**	**988**	**988**	**988**	**988**	**988**	**988**
Non-Potable Demand Inclusive of the CEQA Proposed Project (d)	**497**	**497**	**497**	**497**	**497**	**573**	**573**	**573**	**573**	**573**	**608**	**608**	**608**	**608**	**608**	**608**	**608**	**608**	**608**	**608**
Mountain View 2020 UWMP	448	448	448	448	448	448	448	448	448	448	448	448	448	448	448	448	448	448	448	448
CEQA Proposed Project	49	49	49	49	49	125	125	125	125	125	160	160	160	160	160	160	160	160	160	160
Supply Shortfall (% demand)	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**	**None**

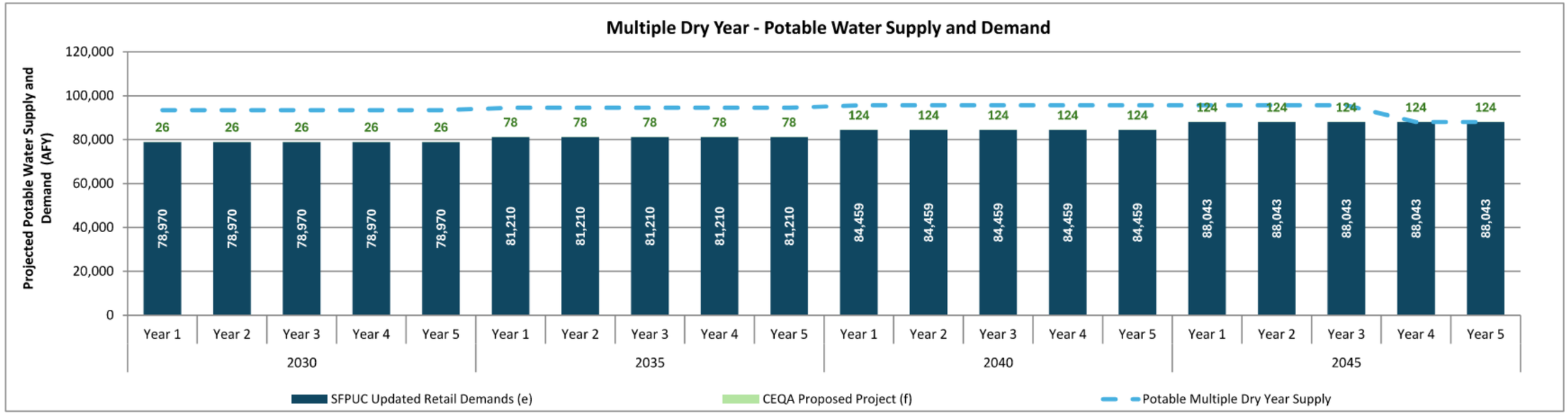
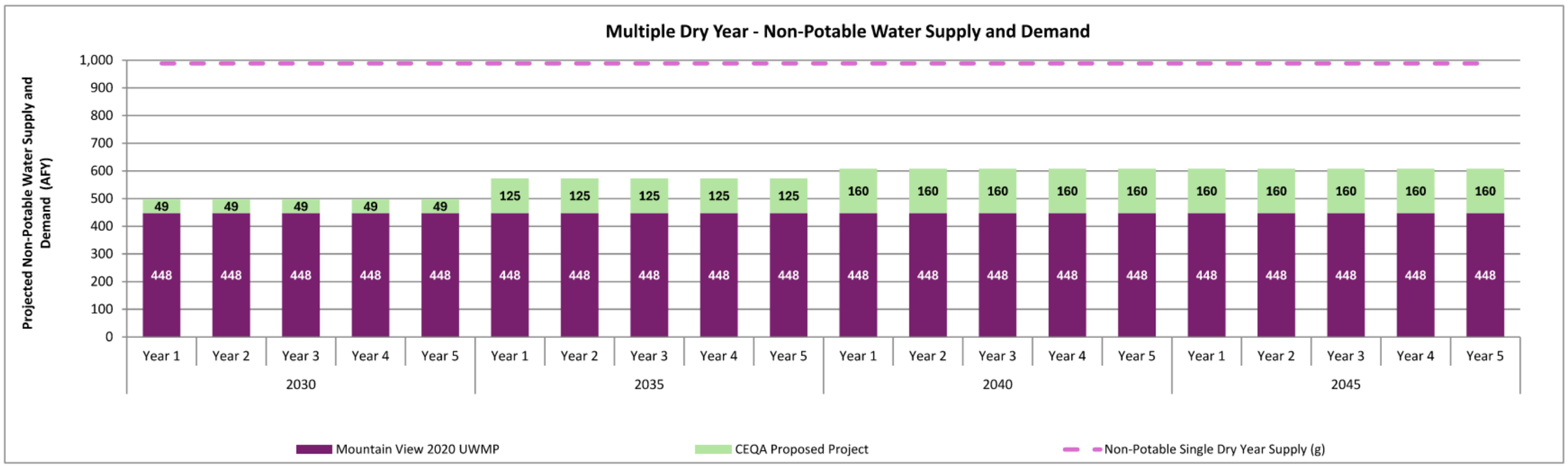


Table 16. Scenario 2: Projected Multiple Dry Year Water Supply and Demand for the CEQA Proposed Project without Implementation of the Bay-Delta Plan Amendment Continued



Abbreviations:

AFY = acre-feet per year
CEQA = California Environmental Quality Act
CWC = California Water Code
MGD = million gallons per day
RWQCP = Palo Alto Regional Water Quality Control Plant
RWS = Regional Water System
SFPUC = San Francisco Public Utilities Commission
UWMP = Urban Water Management Plan

Notes:

(a) While WSA regulations only require an analysis of a three-year drought scenario, UWMP regulations were updated in 2018 to include a five-year drought scenario (CWC §10635), Therefore, a five-year drought scenario is presented here for this WSE.
(b) Projected SFPUC groundwater supply, per Reference 1. Projected SFPUC groundwater supply is assumed to be 100% reliable regardless of hydrologic year type. As noted in Table 7, although groundwater is not an anticipated supply for the proposed project, it is a potable supply source for other SFPUC retail customers, the demands of which are included within SFPUC's updated demands in this table.
(c) Projected RWS supply is based on dry year allocation projections assuming the Bay-Delta Plan Amendment is implemented as written, per Reference 1.
(d) As discussed in Section 4 of this WSE, the proposed project demands are not included within either SFPUC or Mountain View's 2020 UWMPs and are, therefore, considered additive to their respective service area demands.
(e) SFPUC projected demands per the 2023 Interim Water Demand Projections update, per Reference 2. Projected demands presented here subtract out the recycled water demands to represent SFPUC projected potable demands.
(f) Water demands for the CEQA Proposed Project is included in the chart; however, it is relatively minimal compared to the SFPUC Updated Retail Demands and is therefore not visually discernible.
(g) Projected recycled water supply is assumed equal to the full RWQCP contractual amount of 3.0 MGD peak flow rate, per Reference 3 (approximately 988 AFY using a peaking factor of 3.4, per Reference 4), and is assumed to be 100% reliable regardless of hydrologic year type.

References:

1. SFPUC, 2021b. 2020 Urban Water Management Plan for the City and County of San Francisco, prepared by SFPUC, dated June 2021.
2. SFPUC, 2023b. 2023 Interim Water Demand Projections for the City and County of San Francisco, prepared by SFPUC, dated September 2023.
3. Mountain View, 2021. 2020 Urban Water Management Plan for the City of Mountain View, prepared by Mountain View, dated 8 June 2021.
4. Mountain View, 2022. Recycled Water Feasibility Study, prepared by Carollo for Mountain View, dated March 2022.

7 COMPARISON OF SUPPLY AND DEMAND

Pursuant to CWC §10910(c)(3), a WSA must include an estimate of the projected water supplies available to SFPUC (potable supply) and Mountain View (recycled water supply) under normal, single dry, and multiple dry years, and a discussion of whether those supplies will meet the projected demand associated with the proposed project, in addition to the water system's existing and planned future uses. As mentioned in Section 2, while not required, this WSE has been prepared to be consistent with WSA requirements, and therefore, this section summarizes the comparison of projected supplies and demands for both SFPUC and Mountain View under differing hydrologic conditions. This assessment is parallel to the multiple dry year supply reliability analysis required for UWMPs under CWC §10635. In 2018, CWC §10635 was revised to require UWMPs to extend this analysis to consider "a drought lasting five consecutive water years." A five-year drought scenario is also evaluated herein.

Table 12 through **Table 16** provide a comparison of the demands and supplies in normal year, single dry year, and multiple dry year hydrologic scenarios for SFPUC and Mountain View under: (1) implementation of the Bay-Delta Plan Amendment scenario (Scenario 1) and (2) without implementation of the Bay-Delta Plan Amendment or the Proposed Voluntary Agreement scenario (Scenario 2). Because negotiations of a Proposed Voluntary Agreement are not complete, no values are available to explicitly model Scenario 3. As mentioned in Section 6.3, Mountain View's recycled water supply is sufficient to meet Mountain View's projected non-potable demands inclusive of the CEQA Proposed Project in all hydrologic scenarios.

It is projected that available potable supplies will be sufficient to meet the demands under normal year hydrologic conditions through 2045, inclusive of the CEQA Proposed Project under all scenarios. In years where supply shortfalls occur, it is anticipated that SFPUC would implement its WSCP to meet those shortfalls.

7.1 Potable Water Supply Reliability Scenarios

7.1.1 Scenario 1: Implementation of the Bay-Delta Plan Amendment

Under Scenario 1, potable supply shortfalls of up to 37% are possible in drought periods in SFPUC's retail service area, representing, as discussed above, the "worst-case" supply scenario, in which the Bay-Delta Plan Amendment is implemented as written, and not accounting for the implementation of actions identified as part of SFPUC's AWSP. In years where supply shortfalls occur, it is anticipated that SFPUC would implement its WSCP to meet those shortfalls. It is assumed that SFPUC's LOS Goals and Objectives will be met, and thus any dry year shortfalls would be expected to be lower than those shown in **Table 13** through **Table 14**.

7.1.2 Scenario 2: Without Implementation of the Bay-Delta Plan Amendment or the Proposed Voluntary Agreement

Under Scenario 2, in which the Bay-Delta Plan Amendment or the Proposed Voluntary Agreement are not implemented, SFPUC will have sufficient supply to meet the demands in all year types through 2040 and would only anticipate a slight supply shortfall of 0.14% during the fourth and fifth year of a multi-year drought by 2045, as shown in **Table 15** and **Table 16**. If needed, it is anticipated that SFPUC would implement its WSCP to meet those shortfalls.

7.1.3 Scenario 3: Implementation of the Proposed Voluntary Agreement

Under Scenario 3, it is anticipated that the degree of water use reduction during dry years would also more closely align with the SFPUC's RWS LOS goal of limiting water use reduction to no more than 20% on a system-wide basis in drought years. However, as above, because negotiations of a Proposed Voluntary Agreement are not complete, no values are available to explicitly model Scenario 3. If needed, it is anticipated that SFPUC would implement its WSCP to meet any supply shortfalls occurring under Scenario 3.

7.2 Water Use Reductions and Efficiencies

As described in Section 6.2.1, in response to anticipated future dry-year shortfalls, SFPUC has developed a WSCP that systematically identifies ways in which SFPUC can reduce water demands during dry years. The overall reduction goals in the WSCP are established for six drought stages, ranging from 10% to greater than 50% shortfalls. As a customer within the SFPUC's Retail service area, the proposed project would be obligated to comply with the demand reduction efforts imposed by SFPUC through implementation of the WSCP. Therefore, the proposed project would contribute a proportionate share of the reduction in water demands during dry years.

The RWS has historically met demand in its service area in all year types, and prior to 2021, only called for voluntary 10% rationing during 2007 to 2009, 2014 to 2015, and during the recent 2021 to 2023 drought. Although SFPUC Retail Customers have not experienced any shortage of RWS deliveries, during the 2015/2016 drought, they were subject to the SWRCB's mandatory water reduction target at 8% between June 2015 and May 2016.[32] During this period, the SFPUC surpassed its reduction targets and achieved an average water demand reduction of 14% compared to its water use in 2013 (SFPUC, 2024a). On 24 May 2022, in response to Governor Newsom's Executive Order N-7-22 and calls for water conservation from the SWRCB, the SFPUC enacted Level 2 of its WSCP, resulting in a voluntary water use reduction goal of 11%. However,

[32] On 5 May 2015, the SWRCB adopted Resolution 2015-0032 that mandates minimum actions by water suppliers and their customers to conserve water supplies into 2016 and assigned a mandatory water conservation goal to each water supplier based on their residential water use in gallons per capita per day (R-GPCD). The resolution was adopted pursuant to Executive Order B-29-15 that directed SWRCB to impose mandatory restrictions on urban water suppliers to achieve a statewide 25% reduction in potable urban water use to address California's severe drought conditions. Based on its R-GPCD, SFPUC Retail Customers were required to reduce water use by 8% relative to 2013 water use.

in June 2023, the SWRCB no longer required water agencies to remain in Level 2 of their WSCPs (SWRCB, 2023).

In July 2024, SWRCB officially adopted the MCCWL regulation to implement SB 606/AB 1668 annual water use objective requirements. As part of this regulation, urban water suppliers are required to calculate and report their UWUO beginning in January 2024 and every year thereafter. The UWUO is an estimate of efficient urban water use based on the adopted urban water use efficiency standards and local service area characteristics. By January 2027, compliance with the UWUO will be enforced. Based on the SFPUC's most recent UWUO Reports submitted to DWR in 2024, SFPUC's actual retail water use was approximately 27% below its estimated UWUO in FY 2024 (DWR, 2025b). It is expected that UWUOs will become incrementally more stringent over time, and achieving UWUOs in the future could potentially require an increase in SFPUC's conservation programming.

As a customer within SFPUC's Suburban Retail service area, the proposed project would be obligated to comply with the demand reduction efforts imposed by SFPUC through implementation of the WSCP in any future water shortage condition.

While the SFPUC RWS reliability is constrained by hydrology, physical facilities, institutional parameters, including state and federal regulations, as discussed in Section 6.1.1.2, SFPUC is implementing both capital improvement and planning processes to enhance RWS and regional water supply reliability.

Therefore, based on: (1) the availability and reliability of Mountain View's recycled water supply (assuming NASA and Mountain View execute an agreement and infrastructure improvements are made as planned to address operational constraints), (2) SFPUC's projected ability to meet demands under all hydrologic conditions evaluated given implementation of its WSCP, (3) SFPUC's efforts to increase water supply reliability through its AWSP, (4) the demonstrated effectiveness of SFPUC's WSCP during recent drought events, (5) SFPUC's current compliance with UWUO standards, and (6) the increasing efficiency and drought planning requirements from the State, sufficient water supply is estimated to be available to SFPUC and Mountain View to meet future demands within the respective service areas, including those associated with the proposed project.

8 EVALUATION FINDINGS

The purpose of this WSE is to evaluate the availability and reliability of water supplies to serve existing and projected future water demands within the respective water suppliers' service areas (SFPUC for potable water and Mountain View for non-potable recycled water), including those associated with the proposed project in various hydrologic scenarios (i.e., during normal years, single dry years, and multiple consecutive dry years) over a 20-year planning horizon. Key findings of this WSE are summarized as follows:

- The potable and non-potable water demands for the CEQA Proposed Project (124 AFY and 160 AFY, respectively) are conservative estimates based on the various project alternatives, as described in Section 4. These demands are considered additive to the projected water demand growth in the respective water suppliers' most recently adopted UWMPs, as discussed in Section 5.
- Based on Mountain View's 2020 UWMP, sufficient recycled water supply is projected to be available to meet the non-potable demands of the CEQA Proposed Project (160 AFY) for all hydrologic scenarios through 2045, as discussed in Section 7.
- Based on SFPUC's 2020 UWMP, sufficient potable water supply is projected to be available to meet the demands of the CEQA Proposed Project (124 AFY) under normal hydrologic conditions through 2045, as discussed in Section 7. If the Bay-Delta Plan Amendment is implemented as adopted in its 2018 form (i.e., the "worst-case" supply scenario described under Section 6.2.1), potable supply shortfalls of up to 37% are projected for SFPUC's retail service area during drought years. However, it is assumed that SFPUC will meet its LOS Goals in drought conditions through implementing its WSCP, as described in Section 6.2.1. Further, implementation of projects and actions identified within SFPUC's AWSP will further reduce the projected shortfall in drought years.
- In summary, this WSE concludes that sufficient water supply is available for SFPUC and Mountain View to meet their respective future cumulative demands of their existing service areas and those associated with the CEQA Proposed Project in normal hydrologic years. However, under dry year hydrologic scenarios, potable supply shortfalls are projected if the Bay-Delta Plan Amendment is implemented as adopted and additional regional supplies are not developed. It is anticipated that dry year shortfalls would be addressed through implementation of SFPUC's WSCP, as discussed in Section 6.2.1. In addition, as described in Section 6.1.1.3, SFPUC is pursuing the development of additional water supplies to improve regional supply reliability.

9 GLOSSARY OF TERMS

Alternative Water Supply Plan	SFPUC's roadmap to guide water supply planning to help address projected supply shortfalls through 2045. Released in February 2024 by SFPUC, the Alternative Water Supply Plan is intended to guide the Alternative Water Supply Planning Program decision making process and provide recommendations on project implementation and areas for future analysis.
Bay-Delta Plan	The SWRCB's San Francisco Bay/Sacramento-San Joaquin Delta Estuary Water Quality Control Plan (Bay-Delta Plan) identifies the beneficial uses of the Bay-Delta, water quality objectives for the reasonable protection of those beneficial uses, and a program of implementation for achieving the objectives. The Bay-Delta Plan was first adopted in 1978 and amended in 1991, 1995, 2006, and 2018.
Bay-Delta Plan Amendment	In December 2018, the SWRCB adopted first phase of amendments to the Bay-Delta Plan to establish water quality objectives with the stated goal of increasing salmonid populations in three San Joaquin River tributaries (the Stanislaus, Merced, and Tuolumne Rivers) and the Bay-Delta. The Bay-Delta Plan Amendment requires the release of 30-50% of the "unimpaired flow" on the three tributaries from February through June in every year type.
California Environmental Quality Act	California law signed in 1970 that requires State and local government agencies to inform decision makers and the public about the potential environmental impacts of proposed projects, and to reduce those environmental impacts to the extent feasible.
Landscape Efficiency Factor (LEF)	A unitless number used to indicate the maximum amount of water allowed for a landscape. The LEF represents plant factors and irrigation efficiency. A higher LEF value corresponds to higher water-using, less efficiently irrigated landscapes; a lower LEF value corresponds to lower water-using, more efficiently irrigated landscapes
Maximum Applied Water Allowance (MAWA)	An upper limit set by the Model Water Efficient Landscape Ordinance for water use and requires that the annual estimated total water use for landscape irrigation for a project does not exceed the MAWA.

Memorandum of Understanding (MOU)	In 2022, the San Francisco Public Utilities Commission, in partnership with other key stakeholders, signed a framework agreement (in the form of a Memorandum of Understanding) with the State to advance the Tuolumne River Voluntary Agreement (and currently known as the Tuolumne Healthy Rivers and Landscapes proposal) in response to the Bay-Delta Plan Amendment. The MOU, which has an eight-year term, advances a term sheet for Voluntary Agreements to update and implement the Bay-Delta Plan and other related actions and is designed to safeguard drinking water supply while also providing more water and habitat improvements to benefit native species.
Model Water Efficient Landscape Ordinance (MWELO)	Enacted in 2010 and updated in 2025, MWELO is a California statewide regulation that mandates water-efficient design and installation for new and rehabilitated landscapes.
National Environmental Policy Act	Federal law signed in 1970 requiring federal agencies to analyze and disclose the environmental impacts of proposed actions before they are undertaken.
Non-potable recycled water	Highly treated wastewater deemed safe for beneficial, non-drinking uses like landscape irrigation, industrial cooling, and toilet flushing; regulated under Title 22.
Potable water	Water that is safe for human consumption, including drinking, cooking, and personal hygiene.
Recycled water	Highly treated wastewater that can be treated to non-potable or potable water standards.
Unimpaired flow	Represents the natural water production of a river basin, unaltered by upstream diversions, storage, or by export or import of water to or from other watersheds.
Urban Water Management Plan	A state-mandated, long-term planning document that urban water suppliers in California must update every five years to ensure adequate water supplies are available to meet existing and future demand.
Urban Water Use Objective (UWUO)	A part of the *Making Conservation a California Way of Life* Regulation, an UWUO is a customized, annual water budget for California urban retail water suppliers, calculated based on

	efficient water use standards for indoor residential, outdoor residential, landscape irrigation, and water loss.
Water demand	The volume of water required to meet the needs of users.
Water Shortage Allocation Plan (WSAP)	The SFPUC's WSAP defines a percentage split between Retail and Wholesale Customers at different Regional Water System system-wide shortage levels.
Water Shortage Contingency Plan (WSCP)	A document prepared and adopted as part of an Urban Water Management Plan and used by urban water suppliers to prepare for and manage water supply shortages caused by drought, climate change, or disasters. A WSCP defines specific, staged, and actionable responses (such as conservation measures, restrictions, and rate adjustments) to reduce demand and ensure continued reliability.
Water supply	The volume of water available to be delivered and used from sources such as groundwater, surface water, and recycled water to meet water demand.
Water Supply Assessment (WSA)	A regulatory report required under California under Senate Bill 610, that evaluates whether a public water system has sufficient water supplies to meet the projected demand of a large new development over a 20-year horizon.
Water Supply Evaluation (WSE)	A WSA-like document that is prepared to be parallel and consistent with WSA requirements. Usually prepared for developments or water systems that are not required to prepare a WSA per California Senate Bill 610.

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APPENDIX A

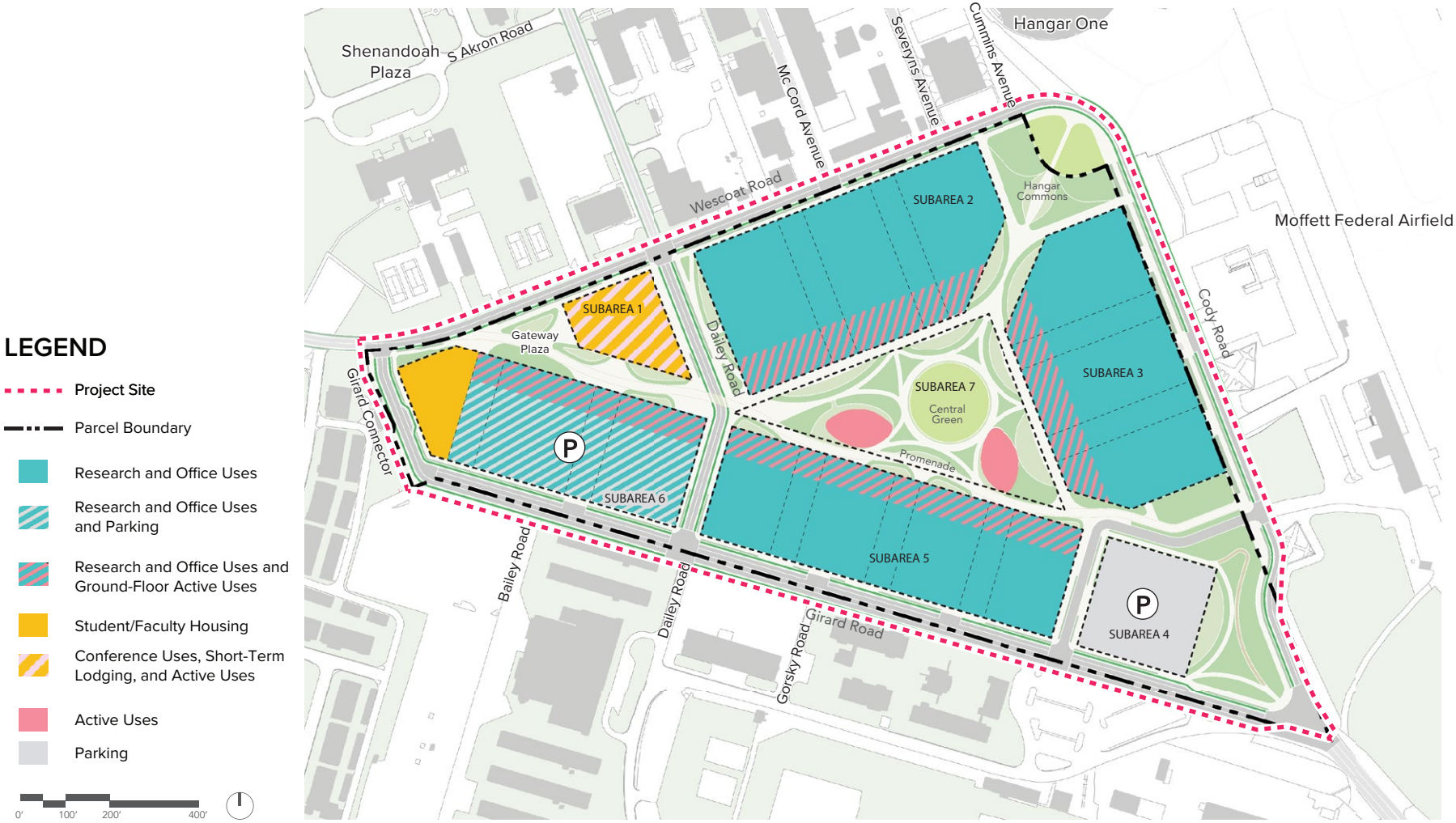
Comparison of Project Alternatives' Water Demands

Appendix A
Comparison of Project Alternatives' Water Demands
Berkeley Space Center at NASA Research Park, Moffett Field, California

Alternative/Scenario and Construction Phase		Water Use (MG/year)				EKI Assumptions (02/10/26)
		Indoor Demand Excluding Cooling	Outdoor Demand	Cooling Demand	**TOTAL**	
Table 1. CEQA Proposed Project (NEPA Build Alternative 1)						
Incremental (by phase)	Phase 1	14.2	1.4	8.6	24.3	- Outdoor demands for all alternatives/scenarios include irrigation and cleaning of parking structure. - All alternatives/scenarios reflect a consistent landscape plan (using irrigated area provided by BKF on 08/22/25).
	Phase 2	19.0	1.1	8.0	28.1	
	Phase 3	8.4	0.7	4.8	13.8	
	Phase 4	20.7	0.9	4.8	26.4	
	TOTAL	**62.3**	**4.1**	**26.2**	**92.6**	
Table 2. CEQA Proposed Project with Water Reuse Facility Option						
Incremental (by phase)	Phase 1	14.2	1.4	8.6	24.3	- The onsite Water Reuse Facility would be constructed in Phase 4. - Additional demands associated with onsite Water Reuse Facility operations (e.g., for system backwashing/flushing) are embedded within "Indoor Demand Excluding Cooling".
	Phase 2	19.0	1.1	8.0	28.1	
	Phase 3	8.4	0.7	4.8	13.8	
	Phase 4	20.8	0.9	4.8	26.5	
	TOTAL	**62.3**	**4.1**	**26.2**	**92.6**	
Table 3. CEQA Proposed Project with Central Utility Plant Option						
Incremental (by phase)	Phase 1	14.2	1.4	8.6	24.3	- The Central Utility Plant would be constructed in Phase 3. - Per the Project Proponent (06/02/25), "heating and cooling will need to be provided for buildings developed in Phases 1 and 2 (prior to Central Utility Plant construction). Assume cooling tower demands similar to the non-Central Utility Plant scenarios in Phases 1 and 2." - The negative cooling demand in Phase 3 represents the transition from less efficient individual building cooling to the more efficient Central Utility Plant system (i.e., a transition from higher to lower cooling demands).
	Phase 2	19.0	1.1	8.0	28.1	
	Phase 3	8.4	0.1	-2.1	6.4	
	Phase 4	20.7	0.8	3.2	24.8	
	TOTAL	**62.3**	**3.5**	**17.7**	**83.5**	
Table 4. CEQA Proposed Project with No Student/Faculty Housing Variant/Sub-Alternative						
Incremental (by phase)	Phase 1	14.2	1.4	8.6	24.3	
	Phase 2	19.0	1.1	8.0	28.1	
	Phase 3	8.4	0.7	4.8	13.8	
	Phase 4	10.8	0.9	4.8	16.5	
	TOTAL	**52.4**	**4.1**	**26.2**	**82.7**	
Table 5. CEQA Reduced Density Alternative (NEPA Build Alternative 2)						
Incremental (by phase)	Phase 1	7.3	1.3	6.9	15.5	
	Phase 2	12.0	1.0	6.4	19.4	
	Phase 3	5.0	0.6	3.8	9.4	
	Phase 4	17.8	0.8	3.8	22.4	
	TOTAL	**42.1**	**3.7**	**21.0**	**66.7**	
Table 6. CEQA Reduced Density Alternative with No Student/Faculty Housing Variant/Sub-Alternative						
Incremental (by phase)	Phase 1	7.3	1.3	6.9	15.5	
	Phase 2	12.0	1.0	6.4	19.4	
	Phase 3	5.0	0.6	3.8	9.4	
	Phase 4	7.8	0.8	3.8	12.5	
	TOTAL	**32.1**	**3.7**	**21.0**	**56.8**	
Table 7. CEQA Reduced Height Alternative						
Incremental (by phase)	Phase 1	11.9	1.3	7.2	20.4	- Buildout phasing is assumed to be the same as the CEQA Proposed Project. - Cooling tower demands are based on those included in the CEQA Proposed Project and scaled down based on buildout area (i.e., gross square footage).
	Phase 2	16.6	1.0	6.7	24.4	
	Phase 3	7.0	0.6	4.0	11.7	
	Phase 4	16.5	0.8	4.0	21.4	
	TOTAL	**52.0**	**3.8**	**22.1**	**77.9**	

APPENDIX B

Conceptual Land Use Plans



Note: Images are conceptual until after project approval. The proposed project would include utility improvements and building demolition outside of the Project Site, but within the Limits of Work; the Limits of Work are depicted on Figure 2-2. The parcel boundary includes the leased premises; it is provided for informational purposes only.

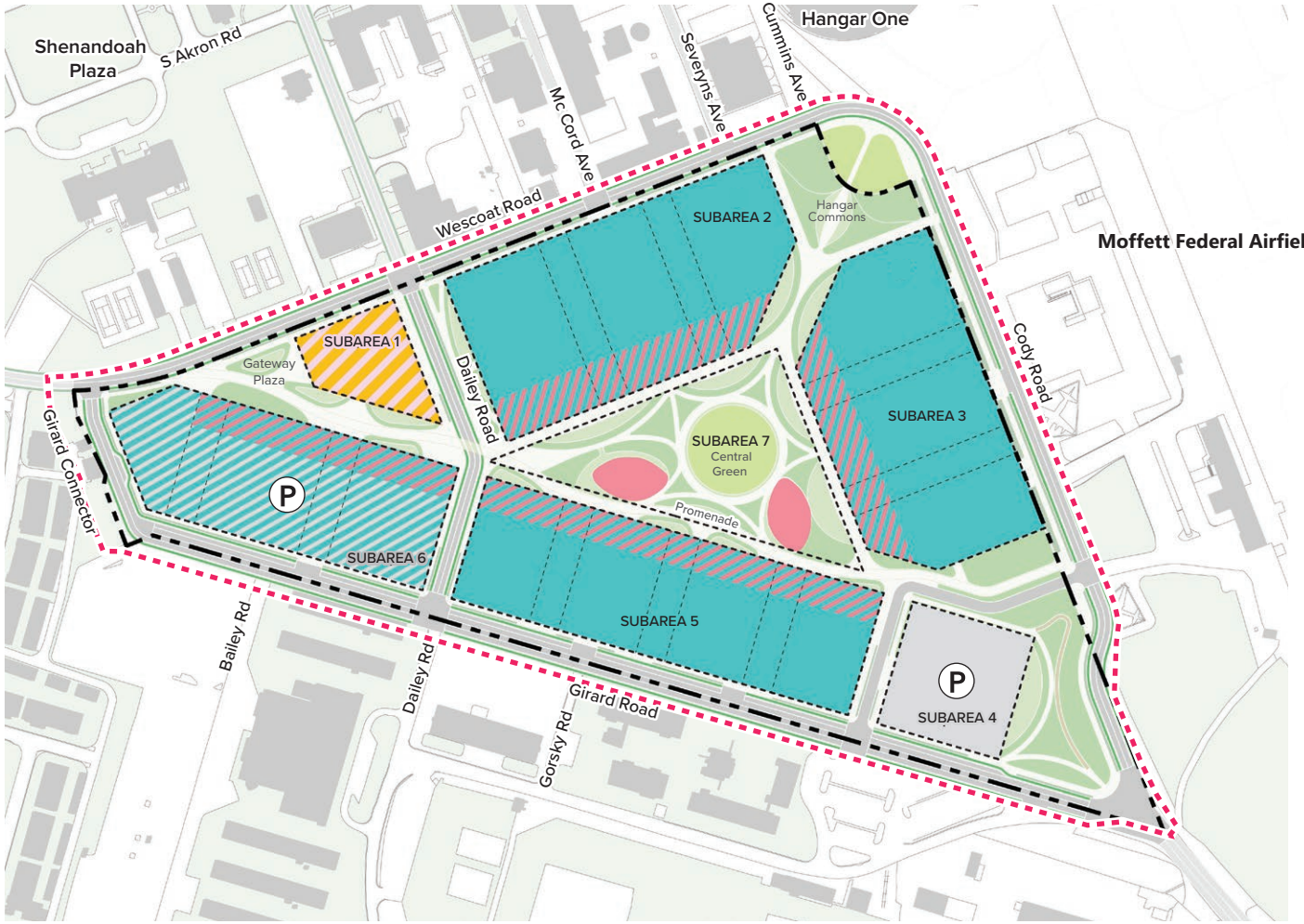
Source: Project Proponent 2024.

Graphics ... 104894 (9-9-2025) tg

Figure 2-3

Conceptual Land Use Plan for the CEQA Proposed Project and CEQA Reduced Density Alternative

Berkeley Space Center at NASA Research Park



Note: Images are conceptual until after project approval. The proposed project would include utility improvements and building demolition outside of the Project Site, but within the Limits of Work; the Limits of Work are depicted on Figure 2-2. The parcel boundary includes the leased premises; it is provided for informational purposes only.

Source: Project Proponent 2025.

Graphics ... 104894 (9-10-2025) TG

Figure 2-4

Conceptual Land Use Plan (No Student/Faculty Housing Variant)

Berkeley Space Center at NASA Research Park

APPENDIX C

SFPUC Memorandum Re: Regional Water System Supply Reliability and UWMP 2020

San Francisco
Water Power Sewer
Services of the San Francisco Public Utilities Commission

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TO: SFPUC Wholesale Customers

FROM: Steven R. Ritchie, Assistant General Manager, Water

DATE: June 2, 2021

RE: Regional Water System Supply Reliability and UWMP 2020

This memo is in response to various comments from Wholesale Customers we have received regarding the reliability of the Regional Water System supply and San Francisco's 2020 Urban Water Management Plan (UWMP).

As you are all aware, the UWMP makes clear the potential effect of the amendments to the Bay-Delta Water Quality Control Plan adopted by the State Water Resources Control Board on December 12, 2018 should it be implemented. Regional Water System-wide water supply shortages of 40-50% could occur until alternative water supplies are developed to replace those shortfalls. Those shortages could increase dramatically if the State Water Board's proposed Water Quality Certification of the Don Pedro Federal Energy Regulatory Commission (FERC) relicensing were implemented.

We are pursuing several courses of action to remedy this situation as detailed below.

Pursuing a Tuolumne River Voluntary Agreement

The State Water Board included in its action of December 12, 2018 a provision allowing for the development of Voluntary Agreements as an alternative to the adopted Plan. Together with the Modesto and Turlock Irrigation Districts, we have been actively pursuing a Tuolumne River Voluntary Agreement (TRVA) since January 2017. We believe the TRVA is a superior approach to producing benefits for fish with a much more modest effect on our water supply. Unfortunately, it has been a challenge to work with the State on this, but we continue to persist, and of course we are still interested in early implementation of the TRVA.

Evaluating our Drought Planning Scenario in light of climate change

Ever since the drought of 1987-92, we have been using a Drought Planning Scenario with a duration of 8.5 years as a stress test of our Regional Water System supplies. Some stakeholders have criticized this methodology as being too conservative. This fall we anticipate our Commission convening a workshop

regarding our use of the 8.5-year Drought Planning Scenario, particularly in light of climate change resilience assessment work that we have funded through the Water Research Foundation. We look forward to a valuable discussion with our various stakeholders and the Commission.

Pursuing Alternative Water Supplies

The SFPUC continues to aggressively pursue Alternative Water Supplies to address whatever shortfall may ultimately occur pending the outcome of negotiation and/or litigation. The most extreme degree of Regional Water System supply shortfall is modeled to be 93 million gallons per day under implementation of the Bay-Delta Plan amendments. We are actively pursuing more than a dozen projects, including recycled water for irrigation, purified water for potable use, increased reservoir storage and conveyance, brackish water desalination, and partnerships with other agencies, particularly the Turlock and Modesto Irrigation Districts. Our goal is to have a suite of alternative water supply projects ready for CEQA review by July 1, 2023.

In litigation with the State over the Bay-Delta Plan Amendments

On January 10, 2019, we joined in litigation against the State over the adoption of the Bay-Delta Water Quality Control Plan Amendments on substantive and procedural grounds. The lawsuit was necessary because there is a statute of limitations on CEQA cases of 30 days, and we needed to preserve our legal options in the event that we are unsuccessful in reaching a voluntary agreement for the Tuolumne River. Even then, potential settlement of this litigation is a possibility in the future.

In litigation with the State over the proposed Don Pedro FERC Water Quality Certification

The State Water Board staff raised the stakes on these matters by issuing a Water Quality Certification for the Don Pedro FERC relicensing on January 15, 2021 that goes well beyond the Bay-Delta Plan amendments. The potential impact of the conditions included in the Certification appear to virtually double the water supply impact on our Regional Water System of the Bay-Delta Plan amendments. We requested that the State Water Board reconsider the Certification, including conducting hearings on it, but the State Water Board took no action. As a result, we were left with no choice but to once again file suit against the State. Again, the Certification includes a clause that it could be replaced by a Voluntary Agreement, but that is far from a certainty.

I hope this makes it clear that we are actively pursuing all options to resolve this difficult situation. We remain committed to creating benefits for the Tuolumne River while meeting our Water Supply Level of Service Goals and Objectives for our retail and wholesale customers.

cc.: SFPUC Commissioners
Nicole Sandkulla, CEO/General Manager, BAWSCA