

FINAL

Water Supply Assessment for  
455 Hickey Boulevard Redevelopment Project

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Prepared for  
City of Daly City  
Daly City, California  
October 2023

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# Table of Contents

Executive Summary .....	ES-1
1. Introduction.....	1-1
1.1 Purpose and Scope of Water Supply Assessment.....	1-1
1.2 Proposed Project.....	1-1
2. Service Area Description.....	2-1
2.1 Location.....	2-1
2.2 Climate .....	2-3
2.3 Daly City Water System.....	2-3
2.4 Existing and Projected Demographics.....	2-4
3. Existing and Projected Water Demands.....	3-1
3.1 Historical Water Demand .....	3-1
3.2 Project Site – Current and Historical Demand.....	3-2
3.3 Projected Water Demand .....	3-2
3.3.1 Daly City Water System Projected Water Demands .....	3-2
3.3.2 Estimated Project Water Demands .....	3-2
3.4 Total Projected Water Demand.....	3-3
4. Water Supplies .....	4-1
4.1 Purchased Water .....	4-1
4.1.1 Description.....	4-1
4.1.2 Legal Constraints.....	4-3
4.1.3 SFPUC Additional Water Supplies .....	4-5
4.2 Groundwater .....	4-5
4.2.1 Description.....	4-5
4.2.2 Regional Groundwater Storage and Recovery Project.....	4-8
4.2.3 Historical Groundwater Pumping.....	4-9
4.3 Recycled Water .....	4-9
4.4 Total Projected Water Supply.....	4-11
5. Water Supply to Demand Comparison.....	5-1
5.1 Normal Year .....	5-1
5.2 Single Dry Year.....	5-1
5.3 Multiple Dry Years.....	5-2
5.4 Water Shortage Contingency Plan .....	5-6
5.5 WSA Determination .....	5-6
5.5.1 Approach to Meeting Future Demands.....	5-7
6. Conclusions.....	6-1
7. References.....	7-1

## List of Figures

Figure 1-1. Project site - existing.....	1-3
Figure 1-2. Project site - proposed.....	1-4
Figure 2-1. Daly City water service area and Project location.....	2-2
Figure 4-1. Diagram of City and County of San Francisco’s RWS.....	4-2
Figure 4-2. South Westside Basin.....	4-7
Figure 4-3. RGSR proposed project groundwater wells.....	4-8
Figure 5-1. Supply and demand comparison – Scenario 1: Without Bay-Delta Plan .....	5-5
Figure 5-2. Supply and demand comparison – Scenario 2: With Bay-Delta Plan.....	5-5

## List of Tables

Table 1-1. Project Land Uses at Buildout.....	1-2
Table 2-1. Monthly Average Climate Data Summary <sup>a</sup> .....	2-3
Table 2-2. Daly City Population Current and Projected .....	2-4
Table 3-1. Historical Potable Water Demands.....	3-1
Table 3-2. Project Site Demand .....	3-2
Table 3-3. Projected Water Demands by Use Type (without proposed Project) <sup>a</sup> .....	3-2
Table 3-4. Project Projected Buildout Water Demand.....	3-3
Table 3-5. Total Projected Water Demand .....	3-3
Table 4-1. Groundwater Volume Pumped by Daly City .....	4-9
Table 4-2. Historical Recycled Water Uses.....	4-10
Table 4-3. Current and Projected Recycled Water Uses, MGY <sup>a</sup> .....	4-10
Table 4-4. Projected Normal Year Water Supplies, MGY.....	4-11
Table 4-5. Projected Dry Years Supplies, MGY – Scenario 1: Without Bay-Delta Plan.....	4-12
Table 4-6. Projected Dry Years Supplies, MGY – Scenario 2: With Bay-Delta Plan <sup>a</sup> .....	4-13
Table 5-1. Projected Normal Year Supply and Demand Comparison, MGY.....	5-1
Table 5-2. Single-Dry Year Water Supply and Demand Comparison, MGY – Scenario 1: Without Bay-Delta Plan .....	5-1
Table 5-3. Single Dry Year Water Supply and Demand Comparison, MGY – Scenario 2: With Bay-Delta Plan.....	5-2
Table 5-4. Multiple Dry Years Supply and Demand Comparison, MGY – Scenario 1: Without Bay-Delta Plan .....	5-3
Table 5-5. Multiple Dry Years Supply and Demand Comparison, MGY – Scenario 2: With Bay-Delta Plan.....	5-4

## List of Abbreviations

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BAWSCA	Bay Area Water Supply and Conservation Agency
BC	Brown and Caldwell
CIMIS	California Irrigation Management Information System
CWS	California Water Service Company
Daly City	City of Daly City
DWR	Department of Water Resources
ETo	evapotranspiration
°F	degrees Fahrenheit
gpm	gallons per minute
GWMP	Groundwater Management Plan
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
I-280	Interstate 280
In Lieu Water	additional SFPUC surface water
ISG	Individual Supply Guarantee
JUHSD	Jefferson Union High School District
mgd	million gallons per day
MGY	million gallons per year
NSMCSD	North San Mateo County Sanitation District
RGSR	Regional Groundwater Supply and Recovery
RWS	Regional Water System
sf	square foot/feet
SFPUC	San Francisco Public Utilities Commission
SGMA	Sustainable Groundwater Management Act
SWRCB	State Water Resources Control Board
UWMP	Urban Water Management Plan
WSA	Water Supply Assessment
WSAg	Water Supply Agreement
WSAP	Water Shortage Allocation Plan
WSCP	Water Shortage Contingency Plan
WSIP	Water System Improvement Program
WWTP	wastewater treatment plant

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# Executive Summary

This Water Supply Assessment (WSA) was prepared on behalf of the City of Daly City (Daly City) for the proposed 455 Hickey Boulevard Redevelopment Project (Project) in accordance with Senate Bill 610 (now codified as California Water Code sections 10910 and 10911), which requires land use planning entities that are evaluating certain large development projects to verify that sufficient water supplies exist for the project.

The proposed Project includes demolishing the existing office building and parking garage at 455 Hickey Boulevard to make way for a new 8-story tech office building. It requires the preparation of a WSA because it is a proposed commercial office building that will have an occupancy of more than 1,000 persons or will have more than 250,000 square feet of floor space (DWR, 2003). As summarized in Section 3, the proposed Project is estimated to have an increased water demand compared to the demands of the existing office building and parking garage.

Currently, Daly City purchases treated surface water from the San Francisco Public Utilities Commission (SFPUC) and, historically, the SFPUC supply has been sufficient to meet Daly City's needs. This WSA analysis incorporates reductions in surface water supplies from SFPUC of up to 20 percent of average in dry years per the 2020 Daly City Urban Water Management Plan (2020 UWMP); however, according to the SFPUC Common Language letter (BAWSCA, 2021), SFPUC faces potential for even further reductions of its supply due to scenarios associated with the Bay-Delta Plan Amendment, which could adversely affect water available to Daly City from the SFPUC's Regional Water Supply. Daly City supplements the SFPUC supply with groundwater pumped from local wells, and uses tertiary recycled water whenever feasible (e.g., irrigation demands within Daly City and of nearby golf courses), which lowers the estimated demands for potable water and further enhances overall water supply reliability.

Overall, Daly City's projected available annual potable water supplies under non-drought periods (normal conditions) are sufficient to serve Daly City demands plus the proposed Project, as shown in Table 5-1. However, if in dry years the State of California Department of Water Resources (DWR) implements the Bay-Delta Plan Amendment (Scenario 3) or the Proposed Voluntary Agreement (Scenario 2), a supply shortfall is projected and Daly City may have to implement its Water Shortage Contingency Plan (WSCP) as described in the 2020 UWMP. This would help reduce demands to the level of available supply and help ensure that supplies continue to sufficiently meet all users' needs, including those of the proposed Project.

Daly City has limited ability to increase groundwater pumping from the South Westside Basin to enhance water supply reliability and address added demands. However, Daly City has identified other undeveloped groundwater resources outside of the South Westside Basin that it is currently considering developing. If such resources come to fruition, they could have a substantial impact on overcoming water supply shortfalls and reduce the City's dependence on the Regional Water Supply during droughts with the Bay-Delta Plan Amendment in place.

The Daly City Council's approval of this WSA is not equivalent to approval of the Project for which the WSA is prepared. A WSA is an informational document required to be prepared for use in the City's environmental review of a project under the California Environmental Quality Act (CEQA). Furthermore, this WSA does not verify the adequacy of the existing distribution system's capacity to serve the proposed Project.

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## Section 1

# Introduction

This section discusses the purpose and scope of the Water Supply Assessment (WSA) and describes both the proposed 455 Hickey Boulevard Redevelopment Project (Project) and the existing City of Daly City (Daly City) water system.

## 1.1 Purpose and Scope of Water Supply Assessment

This WSA was prepared to document the availability of water supplies to serve Daly City and the proposed Project. Senate Bill 610 (now codified as California Water Code sections 10910 and 10911) requires land use planning entities that are evaluating certain large development projects to request a water supply assessment and obtain affirmative written verification from the water supply entity that will provide water for the project that sufficient water supplies exist for the project (DWR, 2003). Applicable commercial developments are those that would have a water demand that would be equivalent to or greater than the amount of water used by a building that will have an occupancy of 1,000 persons or has more than 250,000 square feet (sf) of floor space. A water supplier prepares such a WSA in conjunction with a project's land use approval process and must evaluate the sufficiency of the water supplies available to the water supplier to meet existing and anticipated future demands, including the demand associated with the proposed development. The WSA must include the development's demand over a 20-year horizon that recognizes normal years, and single and multiple dry years. The WSA used supply and demand information from the 2020 Daly City Urban Water Management Plan (2020 UWMP), which has a 25-year planning horizon (BC, 2021).

The WSA must identify any existing water supply entitlements, water rights, or water service contracts held by the water supplier (in this case, Daly City) or that are relevant to the identified water supply for the proposed project. The WSA also must document water supplies received from wholesalers, along with prior-year water deliveries from each supply source in the public water system.

If the water supplier relies on groundwater supplies, the WSA must describe all groundwater basins that will supply the proposed project. For each unadjudicated basin, the WSA should indicate whether California Department of Water Resources (DWR) has identified the basin as overdrafted or has projected that the basin will become overdrafted if present management conditions continue. For basins identified as overdrafted, the WSA must detail the efforts undertaken in the basin to eliminate the long-term overdraft condition.

## 1.2 Proposed Project

The proposed Project involves a new tech office building (eight levels and 280,000 sf) located at 455 Hickey Boulevard in Daly City (DES Architects + Engineers [DES], 2023). This proposed Project requires the preparation of a WSA because it is a proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.

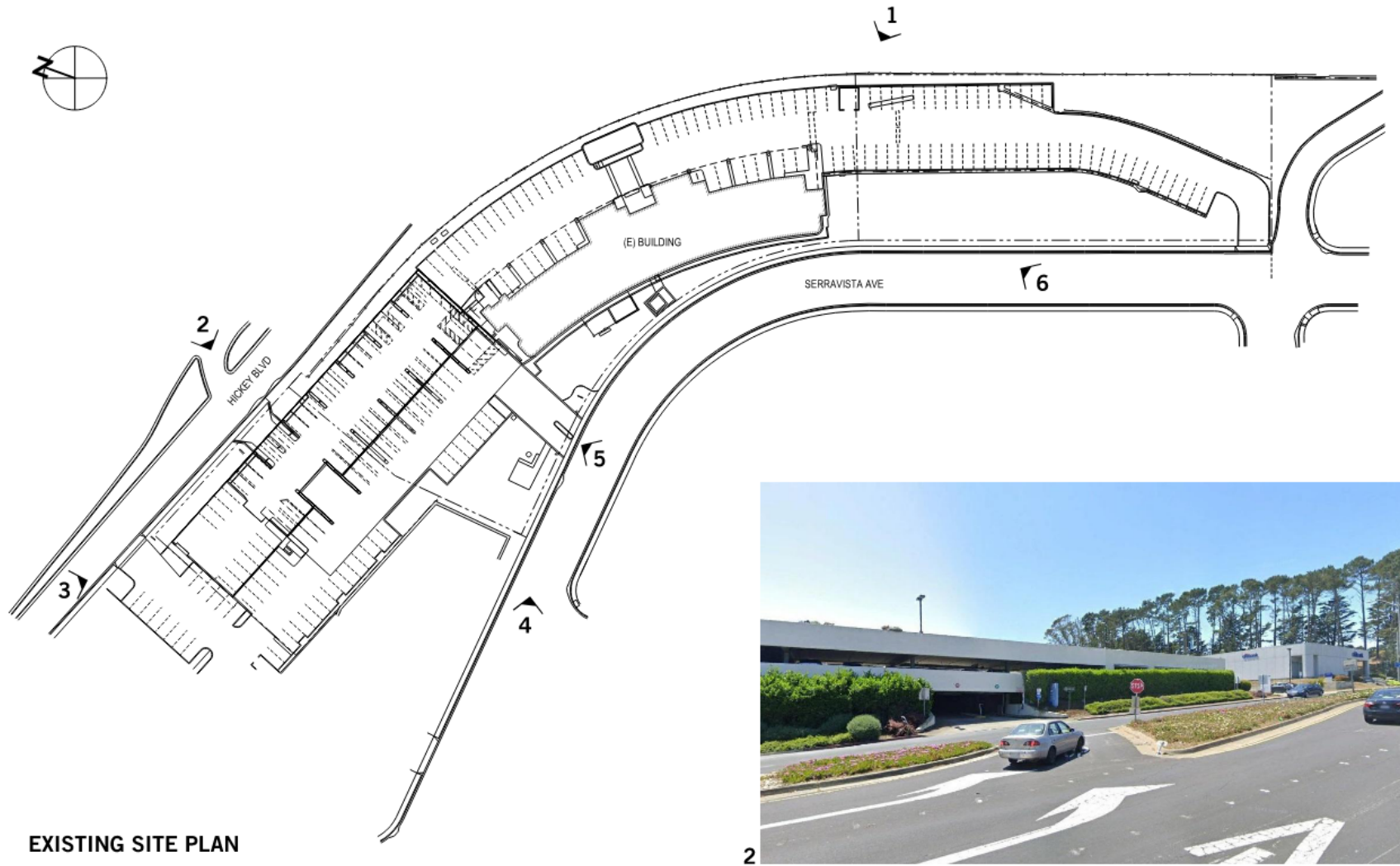
It will be erected on the site of the existing office building and parking garage, which will be demolished as part of the Project. As discussed in Section 3 and shown in Tables 3-2, 3-4, and 3-5, the proposed Project is estimated to have an increased water demand compared to those of the existing office building and garage. The new building’s construction would occur in a single phase and sit above a three-level parking podium that faces Hickey Boulevard. The new building’s occupancy is expected to range between 1,120 and 1,245 employees.

As shown on Figure 1-1 and Figure 1-2, the Project site is located just south of the intersection of Gellert and Hickey boulevards. This particular parcel is crescent shaped and bends toward Interstate 280 (I-280), with most of the street frontage concealed by tall, mature vegetation adjacent to the freeway on-ramp. The southwest property line follows Serravista Avenue, which has an elevation difference of approximately 30 feet from north to south at street level. The Daly City 2030 General Plan designates the site for Commercial Office and Commercial Neighborhood uses (Daly City, 2015). This project includes applying for a new Planned Development rezone, design review with concurrent entitlement, a lot merger, and fire department site plan review.

Table 1-1 summarizes the proposed (buildout) land uses and size of the proposed Project.

<b>Table 1-1. Project Land Uses at Buildout</b>		
<b>Land Use</b>	<b>No. of Parking Spaces</b>	<b>Approximate Area<sup>a</sup>, sf</b>
Demolition of existing site	293	80,652
Proposed Project	900	280,000
<b>Total increase at buildout above existing development</b>	<b>607</b>	<b>199,348</b>

a. Approximate total building areas of all floor levels within the exterior walls as provided by the developer (DES, 2023).



**EXISTING SITE PLAN**  
Source: DES, 2023

Figure 1-1. Project site - existing



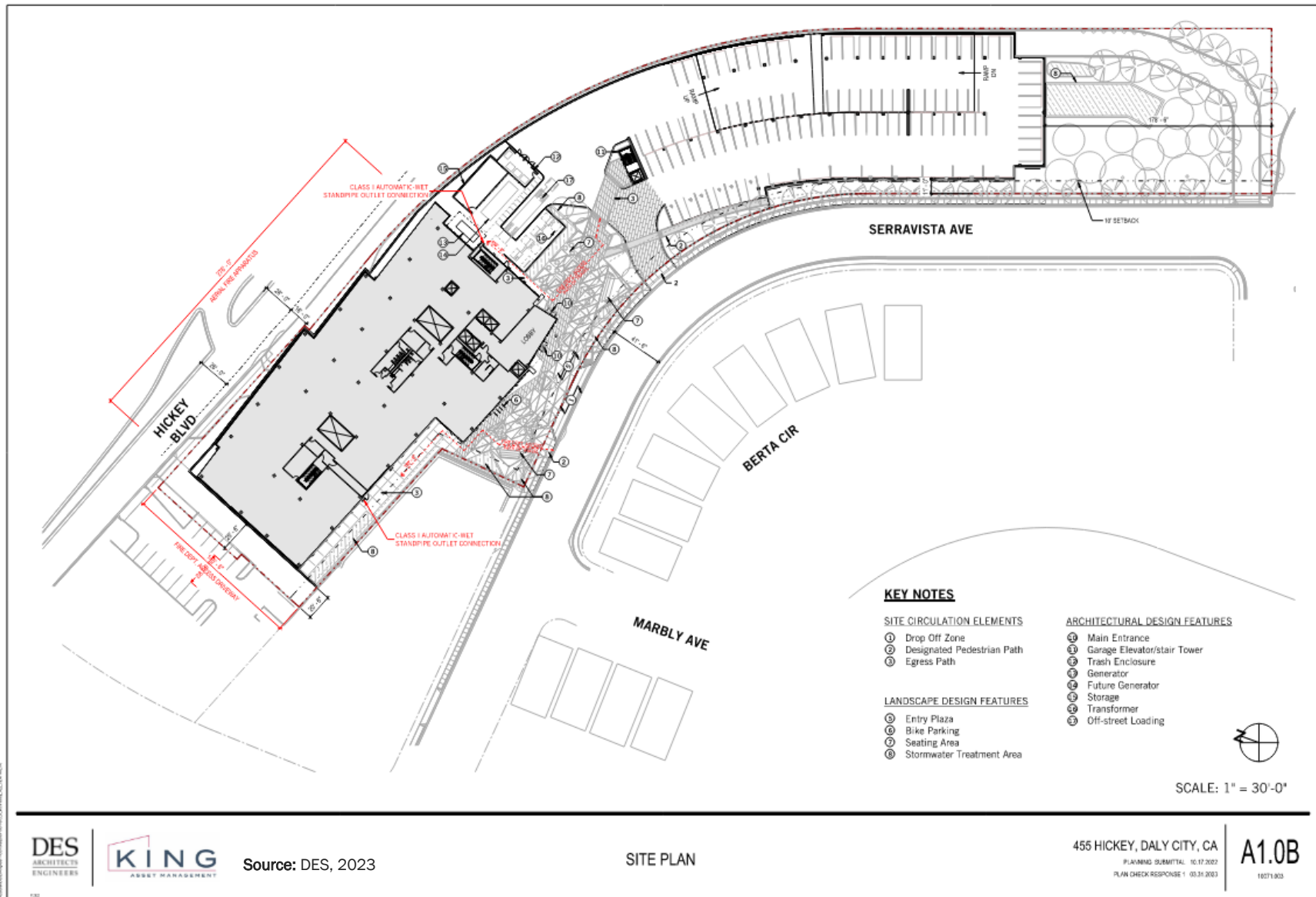


Figure 1-2. Project site - proposed



## Section 2

# Service Area Description

This section describes the existing Daly City water service area, location, climate, water system, and demographics.

## 2.1 Location

Daly City serves water to all residents and businesses within its city limits but does not serve two unincorporated pockets surrounded generally by the Daly City boundaries. Figure 2-1 presents the location of the proposed Project within the Daly City service area.

Located in the northern part of San Mateo County adjacent to the southern boundary of Daly City and County of San Francisco, Daly City is bounded on the east by the cities of South San Francisco, Colma, and Brisbane; San Bruno Mountain; and state and county parks. On the south, it is bounded by the cities of Pacifica and South San Francisco, and on the west by the Pacific Ocean. Topography is typical of the northern California coast. Near Daly City, the coast range rises to an elevation of 600 feet above mean sea level (amsl). A 2-mile-wide valley separates the coast range from San Bruno Mountain, which rises to a peak elevation of 1,300 feet amsl.

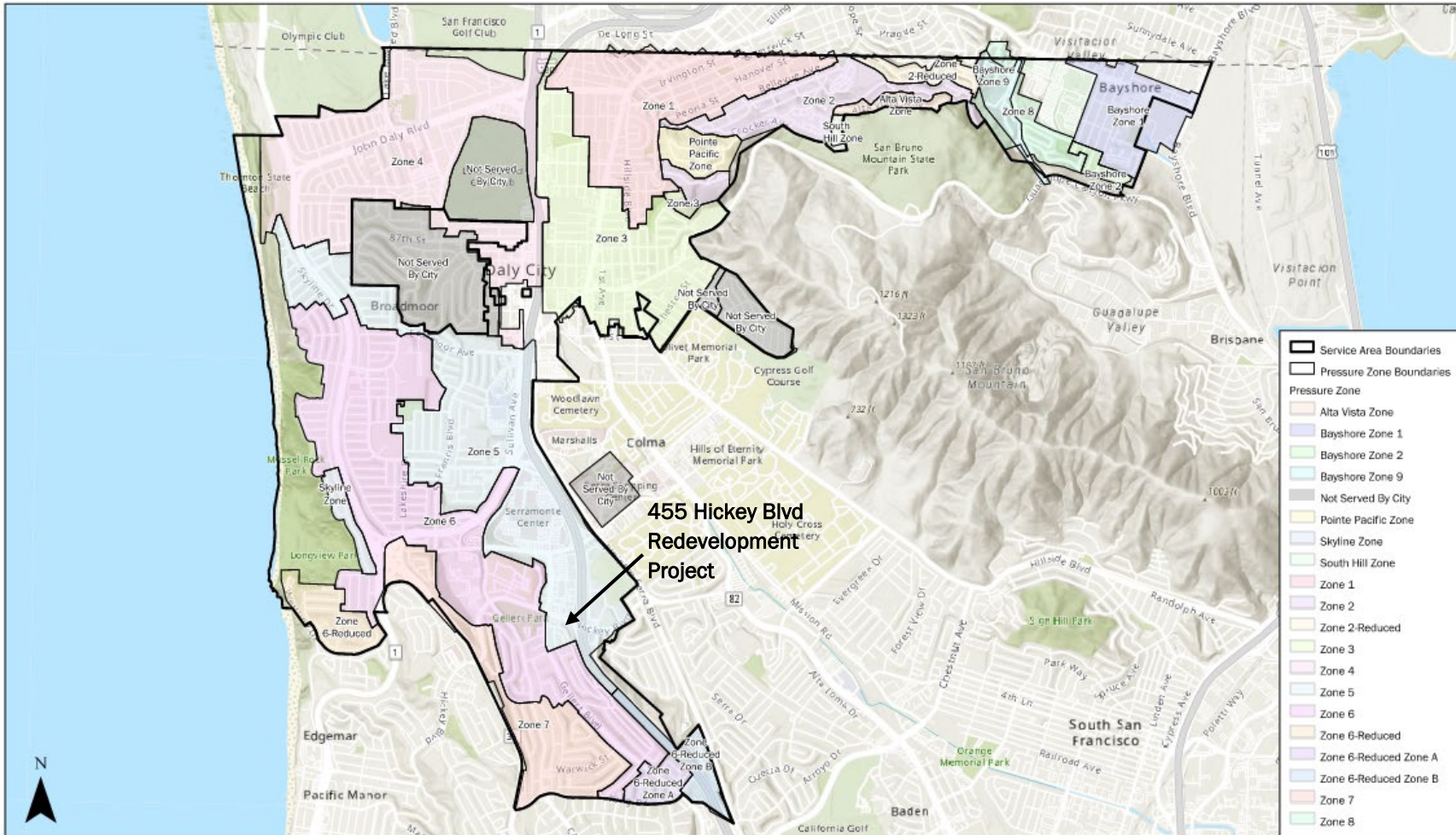


Figure 2-1. Daly City water service area and Project location

## 2.2 Climate

The Pacific Ocean moderates Daly City's climate. Precipitation typically occurs from November through March (BC, 2020). No agency directly measures evapotranspiration ( $ET_o$ ), rainfall, and temperature for Daly City proper; however, Daly City's standard average  $ET_o$ , rainfall, and temperature are relatively close to the data from California Irrigation Management Information System (CIMIS) stations located in Castroville and Pescadero. Both stations are at locations representative of Daly City's climate from the ocean side of San Francisco. Table 2-1 summarizes the standard average  $ET_o$ , rainfall, and temperature for Daly City using the representative Castroville and Pescadero CIMIS stations.

Month	Standard Monthly Average $ET_o$ (inches)	Average Total Rainfall (inches)	Average Temperature (°F)	
			Maximum	Minimum
January	1.67	2.92	60.8	40.0
February	2.44	2.79	61.2	40.8
March	3.20	2.23	61.4	43.1
April	4.07	1.04	61.9	43.7
May	4.67	0.45	62.7	46.8
June	5.33	0.27	64.1	50.0
July	5.39	0.16	64.4	53.4
August	4.77	0.42	65.2	53.7
September	3.88	0.42	66.5	51.3
October	3.19	0.85	67.2	46.4
November	1.93	1.53	64.0	41.7
December	1.48	2.92	60.1	39.3
<b>Total</b>	<b>42.02</b>	<b>16.00</b>	<b>NA</b>	<b>NA</b>

a. Source: 2020 UWMP, with additional data added from CIMIS (DWR, July 2023).

## 2.3 Daly City Water System

Daly City receives a large portion of its water supply from San Francisco Public Utilities Commission (SFPUC) and supplements the SFPUC supply with groundwater pumped from local wells. Daly City has a conjunctive use agreement with SFPUC that influences when it uses groundwater. Daly City also uses tertiary recycled water from the North San Mateo County Sanitation District (NSMCSD) Wastewater Treatment Plant (WWTP) wherever feasible to offset potable/aquifer water demands.

The Daly City water system mainly consists of a groundwater well field (currently with four active wells), approximately 200 miles of water distribution pipelines, 19 pumping facilities with a combined capacity of 21,500 gallons per minute (gpm) with the largest pump at each facility taken out of service, 12 SFPUC turnouts, 11 interties to other systems (City of Brisbane, California Water Service Company [CWS], North Coast County Water District, Westborough Water District), pressure-reducing valves, a centralized supervisory control and data acquisition (SCADA) system, an office building, three maintenance yards, and 13 reservoirs with a total capacity of 23.1 million gallons. The reader can find more information on the City's existing water system in the 2020 UWMP.

## 2.4 Existing and Projected Demographics

This section describes current and projected population of the service area based on information from the 2020 UWMP, which references the Bay Area Water Supply and Conservation Agency’s (BAWSCA) Decision Support System model. The discussion also includes information on social, economic, and demographic factors as well as land use trends potentially affecting water management planning in the service area.

Daly City is currently the most populous city in San Mateo County; Table 2-2 presents current and projected population data. Population was not adjusted to include any portion of the water system outside of city limits since such areas are small.

Year	2020	2025	2030	2035	2040	2045
Population <sup>a</sup>	112,374	115,671	119,147	123,020	127,028	131,037

a. Source: 2020 UWMP.

According to its 2030 General Plan, even with projected increased population and economic growth, Daly City has little physical land available for proposed developments. Daly City estimates in the General Plan that it is approximately 98 percent built out and has limited opportunity to add new developments, except for infill space and redevelopment of existing parcels, such as the proposed Project. According to the General Plan, Daly City’s predominant land use remains lower-density residential development. Although this land use pattern will remain true for quite some time, the density of new developments approved by Daly City has increased markedly in recent years. Increasing development pressures and regional land use policies intended to promote more Bay Area residents living closer to where they work will place additional pressures on Daly City to allow private redevelopment of older buildings and increases in residential densities. The General Plan provides additional information on this topic.

Daly City is a center for retail trades, primarily home furnishings, appliances, apparel, general merchandise, and eating and drinking establishments. Major shopping areas include Serramonte Shopping Center, Westlake Shopping Center, Pacific Plaza, and the Mission Street retail corridor.

I-280, running north and south, divides Daly City into two geographically distinct areas with different development characteristics. Older neighborhoods of medium-density and single-family housing are located east of I-280. Small corner markets and strip developments characterize businesses in this area. West of I-280 development is newer, primarily built after 1949. In this area, lower-density, single-family homes are concentrated around shopping centers often dedicated to serving a region rather than a local population. Daly City has limited manufacturing enterprises located near the Cow Palace in the Bayshore neighborhood east of I-280.



## Section 3

# Existing and Projected Water Demands

This section describes historical and projected water demands for Daly City with and without the proposed Project.

Per California Water Code 10910, the information included in a WSA is dependent on whether the proposed development was accounted for in the most recently adopted UWMP. In this case, it is uncertain whether the population-based 2020 UWMP demand projections for 2025–2045 included the proposed Project.

Based on discussions with BAWSCA and Daly City, demands for the proposed Project were unlikely directly included in the 2020 UWMP. However, because the 2020 UWMP does include the Project location in the study area, and it includes current demands at the project location, there is a good chance that a portion of the projected demands for the proposed Project are included as part of the employment portion of the demand projection.

For this WSA, estimated demands for the proposed Project were added to the projected demands included in the 2020 UWMP (subtracting current demands at the project location). Two other known redevelopment projects (Jefferson Union High School District Master Plan [JUHSD MP] Project and the 1500 Southgate Avenue Project) to which the City expects to deliver water in the next 20 years, were likely also not included in the 2020 UWMP water demand projections. Therefore, projected demands for these redevelopment projects are also incorporated in the demand projection (see Table 3-5) and their current demands were subtracted.

### 3.1 Historical Water Demand

Table 3-1 presents Daly City’s historical water demand in 5-year increments. Water use decreased noticeably from 2005 to 2020.

Use Type <sup>b</sup>	Additional Description	Historical Water Use, MGY <sup>a</sup>			
		2005 <sup>a</sup>	2010 <sup>a</sup>	2015 <sup>b</sup>	2020 <sup>c</sup>
Single family		1,434	1,273	1,113	1,146
Multi-family	Includes apartments, duplexes, and condominiums	630	557	513	529
Commercial, Industrial, Institutional/Governmental		410	391	364	227
Landscape		80	43	45	51
Losses	Treated water distribution system	132	119	158	221
Other	Hydrant flushing and traveling meter (contractor)	13	13	-	-
<b>Total</b>		<b>2,698</b>	<b>2,395</b>	<b>2,193</b>	<b>2,174</b>

a. Source: Water Supply Assessment for Serramonte Center Expansion (BC, 2015)

b. Source: 2015 UWMP

c. Source: Daly City staff

MGY = million gallons per year

## 3.2 Project Site – Current and Historical Demand

The Project site’s current water demand has averaged about 900,000 gallons per year between 2018 and 2022, as shown in Table 3-2.

Year	Total Use (gallons)
2018	1,095,072
2019	1,071,884
2020	1,040,468
2021	638,792
2022	652,256

Source: Daly City staff

## 3.3 Projected Water Demand

This section describes the projected water demands for the Daly City water system and the proposed Project.

### 3.3.1 Daly City Water System Projected Water Demands

Table 3-3 shows the projected water demand for the Daly City water system by use type per the 2020 UWMP. The decreasing water use projections in this table account for both passive and active water-saving measures that Daly City currently has in place or plans to implement.

Use Type	Additional Description	Projected Water Use, MGY				
		2025	2030	2035	2040	2045
Single family		1,100	1,080	1,073	1,076	1,081
Multi-family	Includes apartments, duplexes, and condominiums	491	481	476	476	477
Commercial, Industrial, Institutional/Governmental		339	340	344	349	355
Landscape		55	56	58	60	61
Losses	Treated water distribution system	149	144	144	145	146
<b>Total Potable Demand</b>		<b>2,134</b>	<b>2,101</b>	<b>2,095</b>	<b>2,106</b>	<b>2,120</b>

a. Demand projections include climate change demand increase and passive and active water savings as described in the 2020 UWMP  
MGY = million gallons per year

### 3.3.2 Estimated Project Water Demands

The proposed Project’s water demands were estimated in the “Hydraulic Analysis for the 455 Hickey Boulevard Redevelopment Project” by calculating the domestic average day potable water demands using the sewage generation unit factor provided by the developer (BC, 2023). It was estimated that potable water demand is approximately equal to 110 percent of the sewage generation. The total projected average day demand for the proposed Project are presented in Table 3-4.

**Table 3-4. Project Projected Buildout Water Demand**

Project	Approximate Area <sup>a</sup> (sf)	Approximate No. of Occupants	Land Use	Unit Water Demands <sup>b</sup>	Average Day Demands <sup>c</sup> , gpm	Average Day Demands <sup>e</sup> , MGY
Tech office building	280,000	1,245	Commercial Office	0.11 gpsfpd	21.4	11.24
Site irrigation	29,217	-	Commercial Irrigation	2.08 gpsfpm	1.41 <sup>d</sup>	0.74
<b>Total</b>	<b>309,217</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>22.80</b>	<b>11.98</b>

a. Total building area of all floor levels within the exterior walls per the developer.

b. Unit Water Demands (110 percent of sewage) of occupants per developer. Irrigation demand estimated based on 1-hour of irrigation per day over the proposed landscape areas.

c. gpm = gallons per minute (over 24-hour period)

d. 1.41 gpm when averaged over a 24-hour period is equivalent to 32.7 gpm for a 1-hour period consistent with the "Hydraulic Analysis for the 455 Hickey Boulevard Redevelopment Project."

e. Irrigation demands applied to all months of the year.

gpsfpd = gallons per square foot per day

gpsfpm = gallons per square foot per month

MGY = million gallons per year

### 3.4 Total Projected Water Demand

Table 3-5 presents the projected demand for Daly City, including the proposed Project. It also includes two other known future projects: JUHSD MP Project and the 1500 Southgate Avenue Project to which Daly City expects to deliver water in the next 20 years and that were likely not included in the 2020 UWMP water demand projections, as discussed earlier in this section.

**Table 3-5. Total Projected Water Demand**

	Projected Water Demand, MGY				
	2025	2030	2035	2040	2045
Existing system <sup>a</sup>	2,134	2,101	2,095	2,106	2,120
Demolition of existing 455 Hickey Boulevard site <sup>b</sup>	(0.90)	(0.90)	(0.90)	(0.90)	(0.90)
Demolition of existing JUHSD site <sup>c</sup>	-	-	-	-	-
Demolition of existing 1500 Southgate Avenue site <sup>b</sup>	(0.76)	(0.76)	(0.76)	(0.76)	(0.76)
455 Hickey Boulevard Redevelopment Project <sup>d</sup>	11.98	11.98	11.98	11.98	11.98
JUHSD MP Project <sup>e</sup>	40 (Phases 1 and 2)	86 (Phases 1, 2, and 3)	86 (Phases 1, 2, and 3)	86 (Phases 1, 2, and 3)	86 (Phases 1, 2, and 3)
1500 Southgate Avenue Project <sup>e</sup>	7.4	7.4	7.4	7.4	7.4
<b>Total</b>	<b>2,192</b>	<b>2,205</b>	<b>2,199</b>	<b>2,210</b>	<b>2,224</b>

a. Source: 2020 UWMP. Includes water losses and other uses.

b. Source: Daly City staff

c. Source: Water Supply Assessment for JUHSD MP Project (BC, 2021).

d. Projected potable demand taken from Table 3-4.

e. Water demands estimated by combining unit water demand factors as developed in the Near- and Long-Term Water Resources Planning Technical Memorandum (BC, 2012) for multi-family residential units (60 gallons per capita per day and 3.12 people per residential unit) with the 109 dwelling units proposed in the 1500 Southgate Avenue Initial Plans provided by Daly City (AGI Avant Group, 2023).

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## Section 4

# Water Supplies

Daly City has three sources of water supply: purchased SFPUC surface water, groundwater, and recycled water. This section describes existing and projected water supplies and water supply reliability.

### 4.1 Purchased Water

Daly City receives water from the City and County of San Francisco's regional water system (RWS), operated by SFPUC. The RWS draws its supply predominantly from the Sierra Nevada, delivered through the Hetch Hetchy aqueducts, but also includes treated water produced by SFPUC from its local watersheds and treatment facilities in Alameda and San Mateo counties. Major system components are shown on Figure 4-1. The reader can find more information on the RWS and SFPUC's water system from the SFPUC 2020 UWMP (SFPUC, June 2021).

#### 4.1.1 Description

Hydrology, physical facilities, and the institutional parameters that allocate the water supply from the Tuolumne River constrain the amount of imported water available to SFPUC's retail and wholesale customers. Due to these constraints, SFPUC depends highly on reservoir storage to increase reliability of its water supplies.

SFPUC serves its retail and wholesale water demands with an integrated operation of local Bay Area water production and imported water from Hetch Hetchy, which accounts for about 85 percent of the RWS supply. In practice, the local watershed facilities operate to capture local runoff.

SFPUC treats these local supplies at the Sunol Valley Water Treatment Plant in Alameda County and the Harry Tracy Water Treatment Plant in San Mateo County, which contribute 60 to 65 million gallons per day (mgd) and 40 to 45 mgd, respectively.

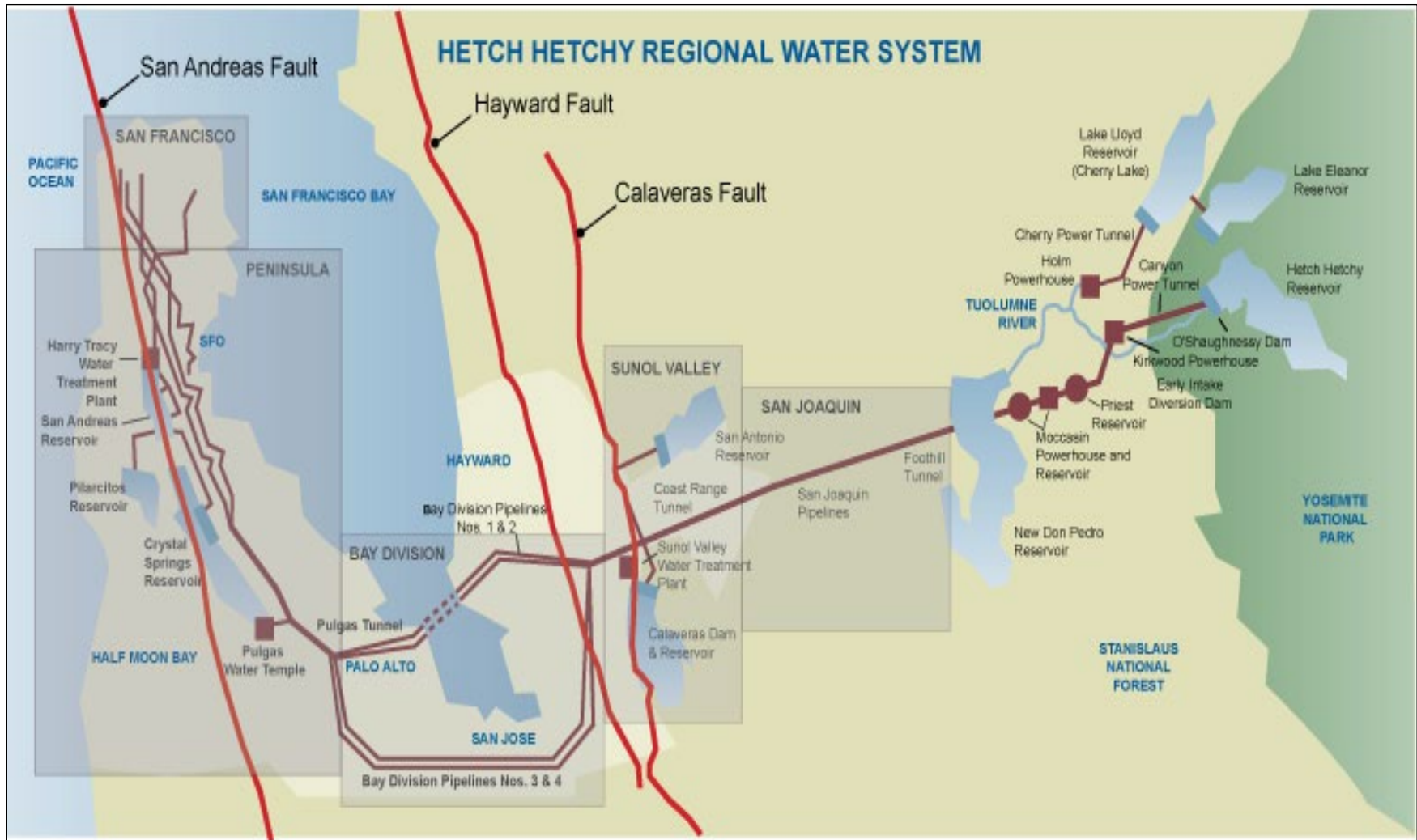


Figure 4-1. Diagram of City and County of San Francisco's RWS

Source: [www.sfwater.org](http://www.sfwater.org)

## 4.1.2 Legal Constraints

Several legal agreements limit the amount of water that Daly City can receive from SFPUC, summarized below.

### 4.1.2.1 2009 Water Supply Agreement

This section describes the Water Supply Agreement (WSAg), which is currently through 2034; the Individual Water Sales Contract with San Francisco; the Individual Supply Guarantee (ISG); and water shortage allocations.

**Water Supply Agreement.** The WSAg defines, in large part, the SFPUC business relationship between San Francisco and its wholesale customers (SFPUC, 2019). It addresses the rate-making methodology SFPUC uses in setting wholesale water rates for its wholesale customers, in addition to addressing water supply and water shortages for the RWS. The WSAg has a 25-year term with an option to extend.

In terms of water supply, the WSAg provides for 184 mgd (expressed on an annual average basis) “Supply Assurance” to SFPUC’s wholesale customers, subject to reduction, to the extent and for the period made necessary by reason of water shortage because of drought, emergencies, or by RWS malfunctioning or rehabilitation. The WSAg does not guarantee that SFPUC will meet peak daily or hourly customer demands. SFPUC’s wholesale customers have agreed to the 184-mgd Supply Assurance, with each entity’s share set forth in Attachment C to the WSAg. The Supply Assurance survives termination or expiration of the WSAg in 2034 and Daly City’s Individual Water Sales Contract with San Francisco in June 2009. San Francisco previously entered into an Individual Water Sales Contract with each of its wholesale customers, one of which being Daly City.

**Individual Supply Guarantee (ISG), Indefinite Duration.** There are 24 permanent wholesale customers, each of which have allocated shares of the 184-mgd Supply Assurance called ISGs. Daly City’s ISG is 4.292 mgd. Although the WSAg expires in 2034, the Supply Assurance (which quantifies San Francisco’s obligation to supply water to its individual wholesale customers) survives its expiration and continues indefinitely.

**SFPUC RWS Water Shortage Allocations.** As described in the SFPUC 2020 UWMP, SFPUC’s RWS supply availability is provided in the Water Shortage Allocation Plan (WSAP) between the SFPUC’s retail and wholesale customers during systemwide shortages of 20 percent or less, which is referred to as Tier 1 WSAP. The WSAP further allocates the supplies among wholesale customers (BAWSCA members) under Tier 2 WSAP for each wholesale customer, including Daly City. It should be noted that with the implementation of the Bay-Delta Plan Amendment, the estimated water shortages for the RWS in a multiple-year drought would be greater than 20 percent, and the Tier 2 Plan would not be applicable.

### 4.1.2.2 Adoption of the 2018 Bay-Delta Plan Amendment or Proposed Voluntary Agreement

In December 2018, the State Water Resources Control Board (SWRCB) adopted amendments to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan Amendment) to establish water quality objectives to maintain the health of the Bay-Delta ecosystem (Delta Stewardship Council, 2019). State law requires that SWRCB 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 to 50 percent of the “unimpaired flow” on the three tributaries from February through June in every year type. SFPUC modeling of the new flow standard assumed that the required release is 40 percent of unimpaired flow.

If SWRCB implements the Bay-Delta Plan Amendment, SFPUC will be able to meet the projected water demands in normal years but would experience supply shortages in single or multiple dry years. Implementation of the Bay-Delta Plan Amendment will require rationing in all single and multiple dry years. SFPUC has initiated an Alternative Water Supply Planning Program to ensure that San Francisco can meet its retail and wholesale customers' water needs, address projected dry-year shortages, and limit rationing to a maximum of 20 percent systemwide in accordance with adopted SFPUC policies (SFPUC, February 2021). This program, currently in the early planning stages, is meant to meet future water supply challenges and vulnerabilities, such as environmental flow needs and other regulatory changes; earthquakes, disasters, and emergencies; population and employment increases; and climate change. As the region faces challenges both known and unknown, SFPUC is considering this suite of diverse non-traditional supplies and leveraging regional partnerships to meet retail and wholesale customers' needs through 2045.

As described in the SFPUC Common Language (BAWSCA, 2021) and SFPUC 2020 UWMP:

*“The adoption of the Bay-Delta Plan Amendment may significantly impact the supply available from the RWS. SFPUC recognizes that the Bay-Delta Plan Amendment has been adopted and that, given that it is now state law, we must plan for a future in which it is fully implemented. SFPUC also acknowledges that the plan is not self-implementing and therefore does not automatically go into effect. SFPUC is currently pursuing a voluntary agreement as well as a lawsuit that would limit implementation of the Plan. With both processes occurring on an unknown timeline, SFPUC does not know currently when the Bay-Delta Plan Amendment is likely to go into effect. As a result, it makes sense to conduct future supply modeling for a scenario that doesn't include implementation of the Bay-Delta Plan Amendment, as that represents a potential supply reliability scenario.”*

More recently, as stated in the SFPUC Draft Alternative Water Supply Plan, the SWRCB has indicated it will consider the voluntary agreement, i.e., the Proposed Voluntary Agreement, for adoption in 2024 (SFPUC, June 2023):

*“On March 1, 2019, the California Natural Resources Agency and the California Fish and Wildlife Service, submitted a proposed project description for voluntary agreements in the Sacramento – San Joaquin Bay-Delta including the Tuolumne River to the SWRCB (Proposed Voluntary Agreement). The voluntary agreement parties, including the SFPUC, have continued to work together to provide detailed information to the SWRCB so that they may evaluate and consider the Proposed Voluntary Agreement. The SWRCB has indicated it will consider the Proposed Voluntary Agreement for adoption in 2024. The SWRCB issued a Notice of Preparation of a California Environmental Quality Act (CEQA)-equivalent document for the Tuolumne Proposed Voluntary Agreement in April 2023. The impact of the Proposed Voluntary Agreement on projected water availability will remain uncertain until the SWRCB completes its evaluation, which will ultimately determine the impact of the Bay-Delta Plan Amendment on the SFPUC's future water supply gap.”*

As of the date of this WSA, negotiations between SFPUC and SWRCB remain ongoing. Given the uncertainties surrounding the extent and timing of the Bay-Delta Plan Amendment implementation and how those amendments, if implemented, will affect the SFPUC's water supply, and thereby Daly City's water supply, this WSA analyzes water supply from SFPUC through 2045 under three scenarios:

- **Scenario 1:** No implementation of the Bay-Delta Plan Amendment or Proposed Voluntary Agreement
- **Scenario 2:** Implementation of the Bay-Delta Plan Amendment
- **Scenario 3:** Implementation of the Proposed Voluntary Agreement (detailed analysis not included in this WSA):

A discussion of Scenarios 1 and 2, along with the projected supplies and demands for Daly City under normal, single-dry, and multiple-dry year conditions, is presented in Section 5.



### 4.1.3 SFPUC Additional Water Supplies

Considering the adoption of the Bay-Delta Plan Amendment and the resulting potential limitations to RWS supply during dry years, SFPUC is increasing and accelerating its efforts to acquire additional water supplies and exploring other projects that would increase overall water supply resilience. As described in the SFPUC 2020 UWMP, SFPUC nears completion of its Water System Improvement Program (WSIP) but faces new and continued factors that are impacting supply reliability (SFPUC, June 2021). SFPUC recently prepared a Draft Alternative Water Supply Plan that aims to address future potential supply shortfalls and identify whether the cities of San José and Santa Clara would be made permanent customers of SFPUC (SFPUC, June 2023).

#### 4.1.3.1 SFPUC Water System Improvement Program

The WSIP will deliver capital improvements aimed at enhancing SFPUC's ability to meet its water service mission of providing high-quality water to customers in a reliable, affordable, and environmentally sustainable manner (SFPUC, 2019).

Capital projects being considered to develop additional water supplies include surface water storage expansion, recycled water expansion, water transfers, desalination, and potable reuse. SFPUC also is considering developing related policies and ordinances, such as funding for innovative water supply and efficiency technologies and requiring potable water offsets for new developments. The SFPUC 2020 UWMP and 2023 Draft Alternative Water Supply Plan present a more detailed list and descriptions of these efforts.

#### 4.1.3.2 Alternative Water Supply Program<sup>1</sup>

SFPUC has increased and accelerated its efforts to acquire additional water supplies and explore other projects that would increase overall water supply resilience through the Alternative Water Supply Program and Plan, which includes the following planned projects:

- Daly City Recycled Water Expansion (recycled water/groundwater)
- San Francisco-Peninsula Regional PureWater (potable reuse)
- Alameda County Water District-Union Sanitary District Purified Water Partnership (potable reuse)
- South Bay Purified Water (potable reuse)
- Los Vaqueros Expansion, Conveyance Alternatives, and Supply Alternatives projects (storage, conveyance, and transfers and/or alternative supply)
- Calaveras Reservoir Expansion (storage with conveyance)

Given the limited availability of water supply alternatives, unless the supply risks are significantly reduced or needs change significantly, SFPUC will continue to plan, develop, and implement all project opportunities that can help bridge the anticipated water supply gaps during droughts.

## 4.2 Groundwater

This section describes Daly City's groundwater use.

### 4.2.1 Description

Daly City extracts groundwater from the South Westside Basin (southern portion of Westside Basin, Basin 5-35 as defined by DWR). Daly City has five active wells with a combined capacity of about 4.25 mgd (1,551 million gallons per year [MGY] or 2,950 gpm). Daly City will use no more than five wells simultaneously

<sup>1</sup> Text from this section is copied and paraphrased from BAWSCA's *Final Common Language for BAWSCA Member Agencies' 2021 UWMPs*, with additions from the *2023 Draft Alternative Water Supply Plan*.

because the sixth well serves as a backup (firm capacity of about 3.20 mgd [1,170 MGY or 2,230 gpm]). The A Street Well is currently out of service because of elevated nitrate concentrations in the pumped water.

In December 2014, Daly City, along with SFPUC, City of San Bruno, and CWS, entered into a comprehensive Regional Groundwater Supply and Recovery (RGSR) Agreement among the municipal pumpers within the South Westside Basin Aquifer to self-limit pumping within the aquifer to no more than 6.90 mgd, from which Daly City's aggregated designated quantity is 3,842 acre-feet per year extracted at an annual average rate of 3.43 mgd (1,252 MGY or 2,382 gpm).

Daly City chloraminates and fluoridates its groundwater and blends it with SFPUC water in its pump station wet wells to meet customer demands. Daly City adjusts the output of its wells and the flow rate of water it purchases from SFPUC to create a blended water quality that consistently meets all state and federal maximum contaminant levels.

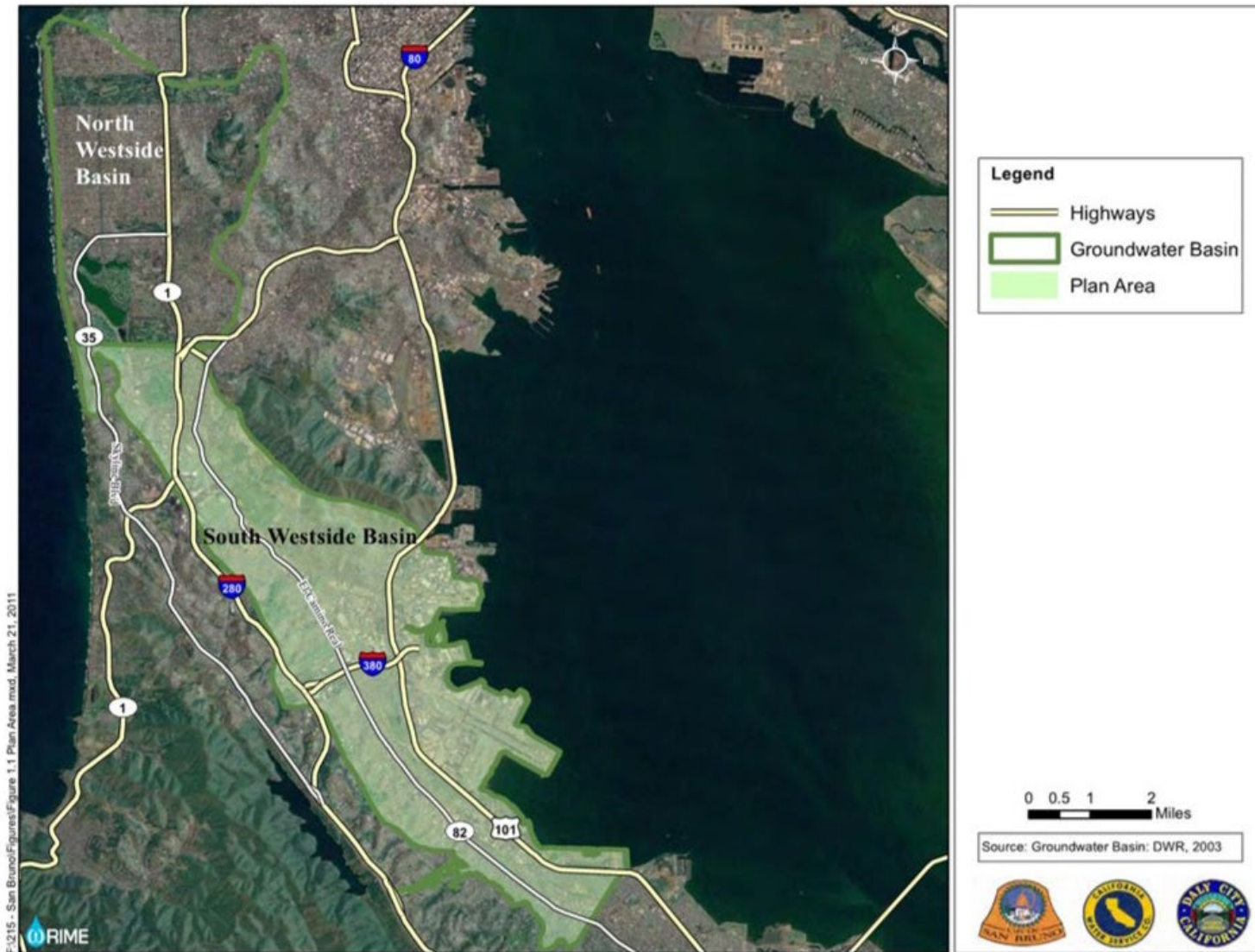
The North and South Westside basins underly parts of San Francisco and northern San Mateo counties. The basins extend from Golden Gate Park in the north and past the San Francisco Airport in the south. The basins extend to the west beneath the Pacific Ocean at least as far as the San Andreas Fault, and to the east an unknown distance beneath San Francisco Bay. The cities of San Francisco, Daly City, South San Francisco, Colma, San Bruno, Millbrae, and parts of Burlingame and Hillsborough lie above the basins. Figure 4-2 shows the approximate outline of the South Westside Basin.

To respond to the benefits of managing the South Westside Basin and ensure local control of the process, SFPUC and the cities of San Bruno and Daly City came together with CWS to form a partnership in 1997 to develop a groundwater management plan (GWMP) for the South Westside Basin that includes the following elements:

- Groundwater storage and quality monitoring
- Saltwater intrusion control
- Conjunctive use
- Recycled water
- Source water protection

The GWMP was completed for the South Westside Basin in July of 2012 (WRIME, 2012). In 2014, the California Legislature enacted the Sustainable Groundwater Management Act (SGMA), with subsequent amendments in 2015. The SGMA requires groundwater management in priority groundwater basins, which includes forming groundwater sustainability agencies (GSA) and developing groundwater sustainability plans (GSP) for groundwater basins or subbasins that DWR designates as medium or high priority. In 2017, the cities of San Bruno and Daly City and the CWS signed a Memorandum of Agreement to develop the South Westside Basin Groundwater Sustainability Plan (South Westside Basin, 2017) to transition the 2012 South Westside Basin GWMP into an SGMA-compliant GSP.

The priority designation of groundwater basins was established as part of the 2014 California Statewide Groundwater Elevation Monitoring (CASGEM) Basin Prioritization Program, the SGMA 2015 Basin Prioritization, and most recently the SGMA 2019 Basin Prioritization (DWR, August 2023b). SGMA requires medium- and high-priority basins to develop GSAs, GSPs, and to manage groundwater for long-term sustainability. As of 2023, DWR has ranked the Westside Basin (CASGEM basin number 2-35), which includes both the North and South Westside Basins, as "very low" priority. Currently, no GSA or GSP has been formed for the South Westside Basin as of 2023 per the SGMA Portal (DWR, August 2023c).

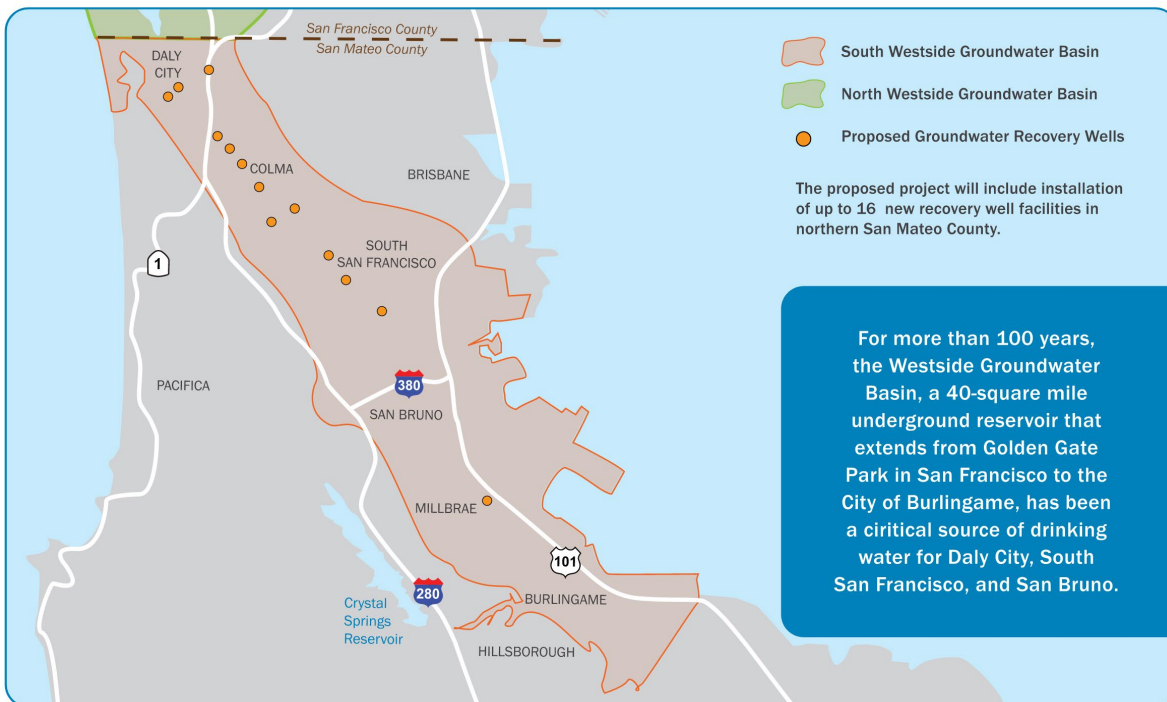


### 4.2.2 Regional Groundwater Storage and Recovery Project

Daly City entered a pilot conjunctive use program with SFPUC to enhance regional water resource management by storing water in wet years and recovering that water for use during dry years (SFPUC, 2019). The project’s first phase, concluded in November 2003, took advantage of the availability of surplus SFPUC system water at a reduced cost. In return, Daly City agreed to use additional SFPUC surface water (In Lieu Water) and reduce pumping groundwater from the South Westside Basin. This action created the opportunity to observe basin response from recharge that takes place from the reduced groundwater pumping. A second phase of the conjunctive use program began in March 2004 and continued into 2011 and had promising results. The pilot project assessed, in part, the feasibility of a permanent program. As tentatively outlined, the permanent program would:

- Increase groundwater levels in the South Westside Basin
- Reduce the potential for seawater intrusion
- Develop increased SFPUC system yield from the overall surface and groundwater system
- Potentially improve water quality conditions at Lake Merced

Initial results from this project showed that groundwater levels increased within the basin. Daly City has an added benefit of saving its local resource, which would result in enhanced emergency and drought protection. With the promising results of the pilot conjunctive use program, and as one of the WSIP projects, the RGSR project proceeded with the construction of up to 16 new recovery wells and associated facilities, such as pumping systems, pipelines, and chemical treatment equipment. Figure 4-3 provides a schematic of the RGSR proposed groundwater wells. As of 2023, 13 Phase 1 wells and two Phase 2 test wells have been constructed (SFPUC, August 2023). Construction of this regional groundwater storage project started in April 2015 and was completed in March 2023. The RGSR project provided a significant benefit to Daly City from a water supply insurance policy perspective, as well as a systemwide benefit.



**Figure 4-3. RGSR proposed project groundwater wells**

Source: SFPUC, 2020



The WSAG describes “put” (normal years) and “take” (dry years) concepts associated with conjunctive water use. SFPUC is installing new wells as a systemwide asset of SFPUC (thereby becoming a joint asset), the terms for which the reader can find in the 2009 WSAG. Daly City would defer payment of stored conjunctive use water until actual extraction of that water occurs; Daly City would pay SFPUC at the then-applicable wholesale rate of SFPUC system surface water. During put years, SFPUC would provide In Lieu Water to Daly City beyond the ISG amount, which would reduce Daly City’s need to pump groundwater and allow the basin to naturally recharge. SFPUC would bank the additional surface water delivered in lieu of groundwater until it is needed during a drought or emergency. In take years, Daly City will maximize its use of groundwater and supplement with surface water and SFPUC-banked groundwater supplies, as needed.

### 4.2.3 Historical Groundwater Pumping

Historically, Daly City has pumped less than the designated sustainable yield of 1,252 MGY (3.43 mgd). Table 4-1 shows Daly City did not pump any groundwater from 2018 to 2020. Instead, SFPUC provided In Lieu Water to meet water demand so the South Westside Basin could recharge. The table shows the quantities of groundwater pumped by Daly City in 2021 and 2022.

Groundwater Type	Basin	Volume Pumped, MGY <sup>a</sup>				
		2018	2019	2020	2021	2022
Alluvial basin	South Westside Basin	0	0	0	364	769
<b>Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>364</b>	<b>769</b>

a. Source: 2020 UWMP for 2018-2020; Daly City staff for 2021-2022.

Notes: Daly City did not pump any groundwater from 2018 to 2020 to allow groundwater recharge. Daly City’s groundwater production was replaced by SFPUC surface water for In Lieu Water banking.

## 4.3 Recycled Water

Recycled water is not a source of water supply for the proposed Project. Municipal recycled water is municipal wastewater treated to a specified quality to enable it to be used again for a beneficial purpose. For this WSA, recycled water means only municipal recycled water, that is, water that NSMCSD has treated and discharged from its municipal wastewater facility. This section provides information on current and projected future recycled water supply for Daly City.

In 2004, Daly City completed a \$7.5 million tertiary treatment project at the NSMCSD WWTP. The upgrades provided Daly City with an unrestricted tertiary recycled water capacity of about 1,011 MGY.

On average, Daly City uses approximately 238 MGY of its unrestricted tertiary recycled water. The recycled water program pumps recycled water for irrigation of five golf courses (two Olympic Club courses, San Francisco, Lake Merced, and Harding Park), two city parks (Westlake and Marchbank), and median strips along John Daly Boulevard, Junipero Serra Boulevard, and the Westlake off-ramp.

Table 4-2 shows historical recycled water use from 2009 through 2022.

Table 4-2. Historical Recycled Water Uses	
Year	Recycled Water, MGY
2009	191
2010	178
2011	147
2012	190
2013	373
2014	259
2015	278
2016	405
2017	521
2018	186
2019	118
2020	10
2021	198
2022	273
Average	238

Source: 2020 UWMP for 2009-2020; Daly City staff for 2021-2022

Table 4-3 presents the projected future reuse water demands in Daly City's service area. The projected recycled water usage of 550 MGY (1.51 mgd) derives from the most recent maximum yearly usage, which was recorded in 2017.

Table 4-3. Current and Projected Recycled Water Uses, MGY <sup>a</sup>							
Beneficial Use Type	Potential Beneficial Uses	Level of Treatment	2020 <sup>b</sup>	2025	2030	2035	2040
Landscape irrigation <sup>c</sup> (excludes golf courses)	City parks and medians (plus cemeteries for projected future use in 2025-2040)	Disinfected tertiary	3	250	250	250	250
Golf course irrigation	Used for all but greens	Disinfected tertiary	7	300	300	300	300
Total			10	550	550	550	550

- a. Source: 2020 UWMP. Note: This table does not include Colma projected demands. Most of the recycled water distributed does not replace a potable water supply. Increase in future years is contingent on an additional recycled water facility being constructed for watering cemeteries in Colma and/or for groundwater regeneration. This project is anticipated complete by 2035.
- b. Due to a digester project at the WWTP, the 2020 tertiary recycled water production amounts were much lower than typical.
- c. Landscape recycled water use is dependent on financial and regulatory factors as well as demands for recycled water.

## 4.4 Total Projected Water Supply

Table 4-4 summarizes the projected water supplies for an average climate year. If SFPUC imposes surface water supply reductions, Daly City would increase its aggregated designated quantity as described in Section 4.2. Table 4-5 and Table 4-6 summarize dry year availability of these supplies for Scenario 1: Without Bay-Delta Plan, and Scenario 2: With Bay Delta Plan, respectively.

Table 4-4. Projected Normal Year Water Supplies, MGY						
Water Supply <sup>a</sup>	Additional Detail on Water Supply	2025	2030	2035	2040	2045
		Reasonably Available Volume	Reasonably Available Volume	Reasonably Available Volume	Reasonably Available Volume	Reasonably Available Volume
Purchased water	ISG	1,567	1,567	1,567	1,567	1,567
Groundwater <sup>b</sup>	Sustainable yield per RGSR	1,252	1,252	1,252	1,252	1,252
Recycled water <sup>c</sup>		1,011	1,011	2,251	2,251	2,251
<b>Total</b>		<b>3,830</b>	<b>3,830</b>	<b>5,070</b>	<b>5,070</b>	<b>5,070</b>

a. Source: 2020 UWMP & 2015 UWMP

b. Some or all of Daly City's groundwater production may be replaced by SFPUC surface water for In Lieu Water banking; however, for consistency with the 2020 UWMP, the projected groundwater supply totals do not vary by year type to account for this conjunctive use strategy.

c. Recycled water is used to offset potable water in irrigation whenever feasible and accounts for a small percentage of Daly City's total water use. Increase in future years is contingent on an additional recycled water facility being constructed for watering cemeteries in Colma and/or for groundwater regeneration. This project is anticipated to complete by 2035.

**Table 4-5. Projected Dry Years Supplies, MGY – Scenario 1: Without Bay-Delta Plan**

Water Supply <sup>a,d</sup>	Additional Detail on Water Supply	2025	2030	2035	2040	2045
First year (Single dry year)	Purchased <sup>a</sup> (% of ISG) <sup>c</sup>	1,303 (83%)	1,285 (82%)	1,274 (81%)	1,263 (81%)	1,252 (80%)
	Groundwater <sup>b</sup> (Sustainable yield per RGSR)	1,252	1,252	1,252	1,252	1,252
	Total	2,555	2,537	2,526	2,515	2,504
Second year	Purchased <sup>a</sup> (% of ISG) <sup>c</sup>	1,303 (83%)	1,285 (82%)	1,274 (81%)	1,263 (81%)	1,252 (80%)
	Groundwater <sup>b</sup> (Sustainable yield per RGSR)	1,252	1,252	1,252	1,252	1,252
	Total	2,555	2,537	2,526	2,515	2,504
Third year	Purchased <sup>a</sup> (% of ISG) <sup>c</sup>	1,303 (83%)	1,285 (82%)	1,274 (81%)	1,263 (81%)	1,252 (80%)
	Groundwater <sup>b</sup> (Sustainable yield per RGSR)	1,252	1,252	1,252	1,252	1,252
	Total	2,555	2,537	2,526	2,515	2,504
Fourth year	Purchased <sup>a</sup> (% of ISG) <sup>c</sup>	1,303 (83%)	1,285 (82%)	1,274 (81%)	1,263 (81%)	1,099 (70%)
	Groundwater <sup>b</sup> (Sustainable yield per RGSR)	1,252	1,252	1,252	1,252	1,252
	Total	2,555	2,537	2,526	2,515	2,351
Fifth year	Purchased <sup>a</sup> (% of ISG) <sup>c</sup>	1,303 (83%)	1,285 (82%)	1,274 (81%)	1,263 (81%)	1,099 (70%)
	Groundwater <sup>b</sup> (Sustainable yield per RGSR)	1,252	1,252	1,252	1,252	1,252
	Total	2,555	2,537	2,526	2,515	2,351

a. Source: 2020 UWMP.

b. Some or all of Daly City's groundwater production may be replaced by SFPUC surface water for In Lieu Water banking; however, for consistency with the 2020 UWMP, the project groundwater supply totals do not vary by year type to account for this conjunctive use strategy.

c. Percentages are dry year supply allocation divided by Daly City's ISG of 1,567 MGY (4.292 mgd).

d. Recycled water is not included as a source of supply in this table as it is only supplied to a minimal percentage of Daly City's total demand.

However, Daly City does offset potable water use with recycled water whenever feasible.

Note Water supply reductions are applied to the projected purchased water supply, not the actual ISG amount. For example, there is a 12.4 percent cutback to the projected purchase of 1,099 MGY (3.01 mgd) in the 4th and 5th consecutive dry year of 2045, but 0 percent cutback in all other years.



Table 4-6. Projected Dry Years Supplies, MGY – Scenario 2: With Bay-Delta Plan <sup>a</sup>						
Water Supply <sup>a,d</sup>	Additional Detail on Water Supply	2025	2030	2035	2040	2045
First year (Single dry year)	Purchased <sup>b</sup> (% of ISG) <sup>c</sup>	832 (53%)	818 (52%)	810 (52%)	803 (51%)	683 (44%)
	Groundwater (Sustainable yield per RGSR)	1,252	1,252	1,252	1,252	1,252
	Total	2,084	2,070	2,062	2,055	1,935
Second year	Purchased <sup>b</sup> (% of ISG) <sup>c</sup>	715 (46%)	701 (45%)	694 (44%)	686 (44%)	683 (44%)
	Groundwater (Sustainable yield per RGSR)	1,252	1,252	1,252	1,252	1,252
	Total	1,967	1,953	1,946	1,938	1,935
Third year	Purchased <sup>b</sup> (% of ISG) <sup>c</sup>	715 (46%)	701 (45%)	694 (44%)	686 (44%)	683 (44%)
	Groundwater (Sustainable yield per RGSR)	1,252	1,252	1,252	1,252	1,252
	Total	1,967	1,953	1,946	1,938	1,935
Fourth year	Purchased <sup>b</sup> (% of ISG) <sup>c</sup>	715 (46%)	701 (45%)	694 (44%)	606 (39%)	580 (37%)
	Groundwater (Sustainable yield per RGSR)	1,252	1,252	1,252	1,252	1,252
	Total	1,967	1,953	1,946	1,858	1,832
Fifth year	Purchased <sup>b</sup> (% of ISG) <sup>c</sup>	715 (46%)	701 (45%)	635 (41%)	606 (39%)	580 (37%)
	Groundwater (Sustainable yield per RGSR)	1,252	1,252	1,252	1,252	1,252
	Total	1,967	1,953	1,887	1,858	1,832

- a. Source: 2020 UWMP
  - b. Some or all of Daly City’s groundwater production may be replaced by SFPUC surface water for In Lieu Water banking; however, for consistency with the 2020 UWMP, the project groundwater supply totals do not vary by year type to account for this conjunctive use strategy.
  - c. Percentages are dry year supply allocation divided by Daly City’s ISG of 1,567 MGY (4.292 mgd).
  - d. Recycled water is not included as a source of supply in this table as it is only supplied to a minimal percentage of Daly City’s total demand. However, Daly City does offset potable water use with recycled water whenever feasible.
- Note: Water supply reductions are applied to the projected purchased water supply, not the actual ISG amount.

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## Section 5

# Water Supply to Demand Comparison

This section compares projected water supplies to demands and describes water shortage expectations. In this WSA, Sections 3 and 4 discuss water demand and supply, respectively. This section provides a comparison of normal year and single- and multiple-dry-years supply and demand for Daly City with the proposed Project demands included. Recycled water is not included as a source of supply in this section as it is only supplied to a minimal percentage of Daly City’s total demand. However, Daly City does offset potable water use with recycled water whenever feasible.

### 5.1 Normal Year

Table 5-1 compares the projected normal year water supplies with demand and shows there are sufficient water supplies to meet the projected demands through 2045.

Table 5-1. Projected Normal Year Supply and Demand Comparison, MGY					
Use Type	2025	2030	2035	2040	2045
Projected supply totals <sup>a</sup>	2,819	2,819	2,819	2,819	2,819
Purchased	1,567	1,567	1,567	1,567	1,567
Groundwater <sup>b</sup>	1,252	1,252	1,252	1,252	1,252
Projected demand totals <sup>c</sup>	2,192	2,205	2,199	2,210	2,224
Difference (supply minus demand) <sup>d</sup>	627	614	620	609	595

- a. The supply totals are taken from Section 4.4 of this WSA, originally from the 2020 UWMP.
- b. Some or all of Daly City’s groundwater production may be replaced by SFPUC surface water for In Lieu Water banking; however, for consistency with the 2020 UWMP, the project groundwater supply totals do not vary by year type to account for this conjunctive use strategy.
- c. The demand totals are from Section 3.4 of this WSA, which includes the proposed Project.
- d. Difference is supply minus demand. A positive number represents a supply surplus. A negative number (number in parentheses) represents a deficit.

### 5.2 Single Dry Year

Table 5-2 and Table 5-3 compare the projected water supplies to the demands for a single dry year.

Table 5-2. Single-Dry Year Water Supply and Demand Comparison, MGY – Scenario 1: Without Bay-Delta Plan					
Use Type	2025	2030	2035	2040	2045
Supply totals <sup>a</sup>	2,555	2,537	2,526	2,515	2,504
Purchased	1,303	1,285	1,274	1,263	1,252
Groundwater <sup>b</sup>	1,252	1,252	1,252	1,252	1,252
Demand totals <sup>c</sup>	2,192	2,205	2,199	2,210	2,224
Difference (supply minus demand) <sup>d</sup>	363	332	327	305	280

- a. The supply totals are taken from Section 4.4 of this WSA, originally from the 2020 UWMP.
- b. Some or all of Daly City’s groundwater production may be replaced by SFPUC surface water for In Lieu Water banking; however, for consistency with the 2020 UWMP, the project groundwater supply totals do not vary by year type to account for this conjunctive use strategy.
- c. The demand totals are from Section 3.4, which include the proposed Project.
- d. Difference is supply minus demand. A positive number represents a supply surplus. A negative number (number in parentheses) represents a deficit.

Use Type	2025	2030	2035	2040	2045
Supply totals <sup>a</sup>	2,084	2,070	2,062	2,055	1,935
Purchased	832	818	810	803	683
Groundwater <sup>b</sup>	1,252	1,252	1,252	1,252	1,252
Demand totals <sup>c</sup>	2,192	2,205	2,199	2,210	2,224
Difference (supply minus demand) <sup>d</sup>	(108)	(135)	(137)	(155)	(289)

- a. The supply totals are taken from Section 4.4 of this WSA, originally from the 2020 UWMP.
- b. Some or all of Daly City's groundwater production may be replaced by SFPUC surface water for In Lieu Water banking; however, for consistency with the 2020 UWMP, the project groundwater supply totals do not vary by year type to account for this conjunctive use strategy.
- c. The demand totals are from Section 3.4, which include the proposed Project.
- d. Difference is supply minus demand. A positive number represents a supply surplus. A negative number (number in parentheses) represents a deficit.

Under Scenario 1: Without Bay-Delta Plan, the reduced purchased water supply values are based on the 2020 actual City purchase of 3.97 mgd and SFPUC projections of continued decreased demands through 2045 when the estimated City purchase would be 3.43 mgd, which is 20 percent less than the contractual ISG of 4.292 mgd.

Under Scenario 2: With Bay-Delta Plan, SFPUC applies cutbacks ranging from 36 percent in 2025 to 46 percent in 2045 for single dry years. As described in Section 4, Daly City has partnered with SFPUC through the RGSR Program to make more groundwater available during drought years; however, blending with surface water from SFPUC to maintain safe water quality levels (i.e., control excess nitrate and possibly chromium VI in the ground water through dilution) must be considered when devising a solution to address these dry year shortfalls. For consistency with the 2020 UWMP, however, the projected groundwater supply totals do not vary by year type to account for this conjunctive use strategy.

### 5.3 Multiple Dry Years

Table 5-4 and Table 5-5 compare the projected water supplies to the demands for multiple dry years. Under Scenario 1: Without Bay-Delta Plan, SFPUC will apply an additional 15 percent cutbacks to the fourth and fifth consecutive dry years starting in 2045. Under Scenario 2: With Bay-Delta Plan, SFPUC will apply cutbacks ranging from 36 percent in 2025 to 54 percent in 2045 for multiple dry years.

**Table 5-4. Multiple Dry Years Supply and Demand Comparison, MGY – Scenario 1: Without Bay-Delta Plan**

		2025	2030	2035	2040	2045
First year (Single dry year)	Supply total	2,555	2,537	2,526	2,515	2,504
	Purchased <sup>a</sup>	1,303	1,285	1,274	1,263	1,252
	Groundwater <sup>b</sup>	1,252	1,252	1,252	1,252	1,252
	Demand total <sup>c</sup>	2,192	2,205	2,199	2,210	2,224
	Difference <sup>d</sup>	363	332	327	305	280
Second year	Supply total	2,555	2,537	2,526	2,515	2,504
	Purchased <sup>a</sup>	1,303	1,285	1,274	1,263	1,252
	Groundwater <sup>b</sup>	1,252	1,252	1,252	1,252	1,252
	Demand total <sup>c</sup>	2,192	2,205	2,199	2,210	2,224
	Difference <sup>d</sup>	363	332	327	305	280
Third year	Supply total	2,555	2,537	2,526	2,515	2,504
	Purchased <sup>a</sup>	1,303	1,285	1,274	1,263	1,252
	Groundwater <sup>b</sup>	1,252	1,252	1,252	1,252	1,252
	Demand total <sup>c</sup>	2,192	2,205	2,199	2,210	2,224
	Difference <sup>d</sup>	363	332	327	305	280
Fourth year	Supply total	2,555	2,537	2,526	2,515	2,351
	Purchased <sup>a</sup>	1,303	1,285	1,274	1,263	1,099
	Groundwater <sup>b</sup>	1,252	1,252	1,252	1,252	1,252
	Demand total <sup>c</sup>	2,192	2,205	2,199	2,210	2,224
	Difference <sup>d</sup>	363	332	327	305	127
Fifth year	Supply total	2,555	2,537	2,526	2,515	2,351
	Purchased <sup>a</sup>	1,303	1,285	1,274	1,263	1,099
	Groundwater <sup>b</sup>	1,252	1,252	1,252	1,252	1,252
	Demand total <sup>c</sup>	2,192	2,205	2,199	2,210	2,224
	Difference <sup>d</sup>	363	332	327	305	127

- a. The supply totals are taken from Section 4.4 of this WSA, originally from the 2020 UWMP.
- b. Some or all of Daly City’s groundwater production may be replaced by SFPUC surface water for In Lieu Water banking; however, for consistency with the 2020 UWMP, the project groundwater supply totals do not vary by year type to account for this conjunctive use strategy.
- c. The demand totals are from Section 3.4, which include the proposed Project.
- d. Difference is supply minus demand. A positive number represents a supply surplus. A negative number (number in parentheses) represents a deficit.

Table 5-5. Multiple Dry Years Supply and Demand Comparison, MGY – Scenario 2: With Bay-Delta Plan						
		2025	2030	2035	2040	2045
First year (Single dry year)	Supply total	2,084	2,070	2,062	2,055	1,935
	Purchased <sup>a</sup>	832	818	810	803	683
	Groundwater <sup>b</sup>	1,252	1,252	1,252	1,252	1,252
	Demand total <sup>c</sup>	2,192	2,205	2,199	2,210	2,224
	Difference <sup>d</sup>	(108)	(135)	(137)	(155)	(289)
Second year	Supply total	1,967	1,953	1,946	1,938	1,935
	Purchased <sup>a</sup>	715	701	694	686	683
	Groundwater <sup>b</sup>	1,252	1,252	1,252	1,252	1,252
	Demand total <sup>c</sup>	2,192	2,205	2,199	2,210	2,224
	Difference <sup>d</sup>	(225)	(252)	(253)	(272)	(289)
Third year	Supply total	1,967	1,953	1,946	1,938	1,935
	Purchased <sup>a</sup>	715	701	694	686	683
	Groundwater <sup>b</sup>	1,252	1,252	1,252	1,252	1,252
	Demand total <sup>c</sup>	2,192	2,205	2,199	2,210	2,224
	Difference <sup>d</sup>	(225)	(252)	(253)	(272)	(289)
Fourth year	Supply total	1,967	1,953	1,946	1,858	1,832
	Purchased <sup>a</sup>	715	701	694	606	580
	Groundwater <sup>b</sup>	1,252	1,252	1,252	1,252	1,252
	Demand total <sup>c</sup>	2,192	2,205	2,199	2,210	2,224
	Difference <sup>d</sup>	(225)	(252)	(253)	(352)	(392)
Fifth year	Supply total	1,967	1,953	1,887	1,858	1,832
	Purchased <sup>a</sup>	715	701	635	606	580
	Groundwater <sup>b</sup>	1,252	1,252	1,252	1,252	1,252
	Demand total <sup>c</sup>	2,192	2,205	2,199	2,210	2,224
	Difference <sup>d</sup>	(225)	(252)	(312)	(352)	(392)

- a. The supply totals are taken from Section 4.4 of this WSA, originally from the 2020 UWMP.
- b. Some or all of Daly City’s groundwater production may be replaced by SFPUC surface water for In Lieu Water banking; however, for consistency with the 2020 UWMP, the project groundwater supply totals do not vary by year type to account for this conjunctive use strategy.
- c. The demand totals are from Section 3.4, which include the proposed Project.
- d. Difference is supply minus demand. A positive number represents a supply surplus. A negative number (number in parentheses) represents a deficit.

Figure 5-1 and Figure 5-2 provide the supply vs. demand information in a visual format using the data from tables and information presented previously in this section.

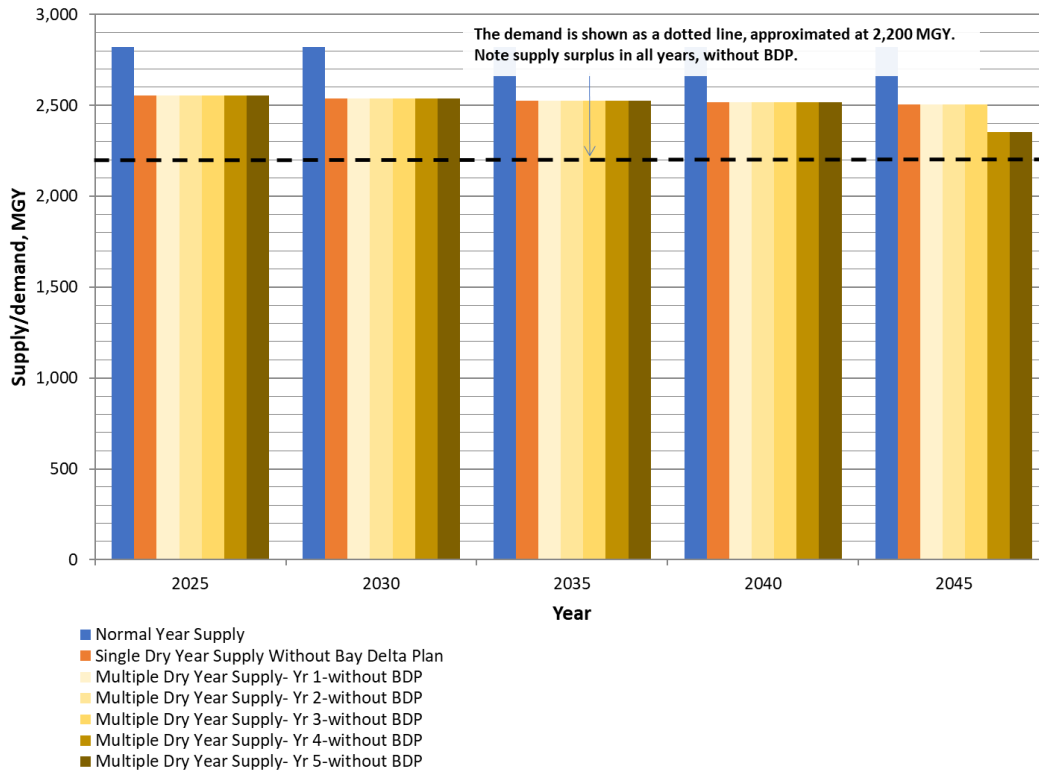


Figure 5-1. Supply and demand comparison – Scenario 1: Without Bay-Delta Plan

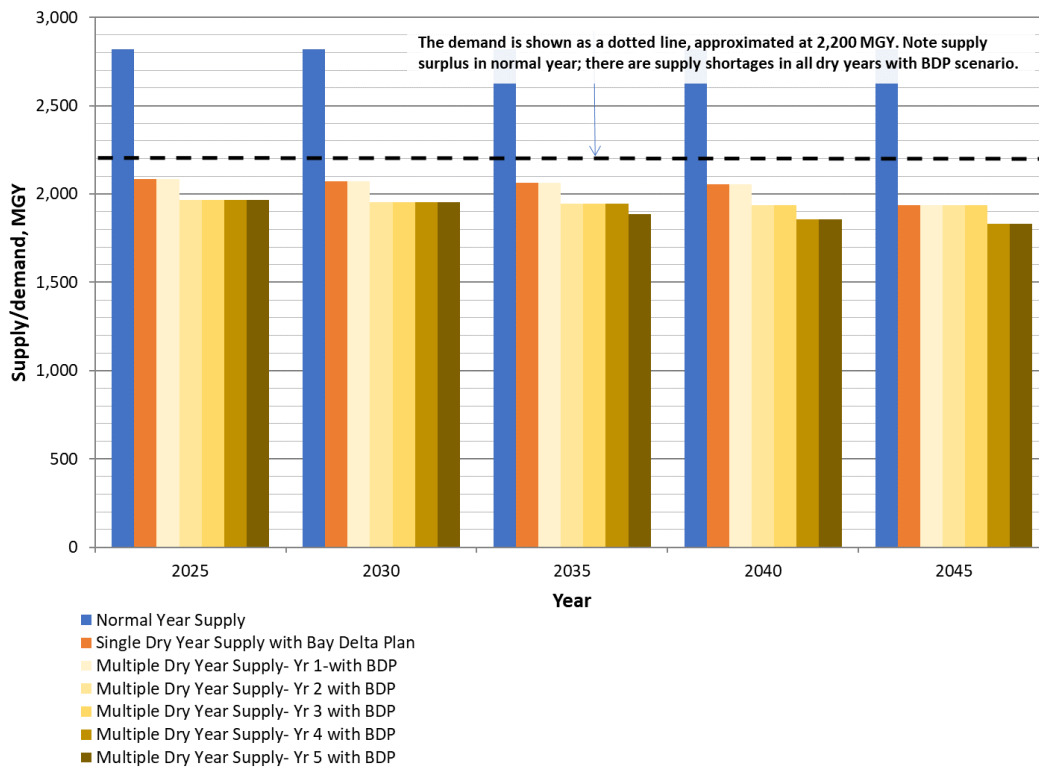


Figure 5-2. Supply and demand comparison – Scenario 2: With Bay-Delta Plan



## 5.4 Water Shortage Contingency Plan

In dry years, Daly City may need to implement its Water Shortage Contingency Plan (WSCP), as described in the 2020 UWMP. Daly City assumed in its 2020 UWMP that water demand in single dry or multiple dry years would be equal to normal year water demand. However, the WSCP includes a six-stage plan that describes specific actions to reduce water demand by more than 50 percent in the event of a water supply shortage or emergency. Under the WSCP, Daly City would apply the appropriate water demand reduction actions to reduce demands and ensure that its supplies remain sufficient to serve all users, including those of the proposed Project. The WSCP stages required to achieve the necessary demand reductions would range from Stage 1 to Stage 3, depending on the supply shortage. The water shortage stages and their respective anticipated reduction in potable water demand are shown in the 2020 UWMP.

## 5.5 WSA Determination

This section presents the WSA supply determination summary.

### Scenario 1: No Implementation of the Bay-Delta Plan Amendment or the Proposed Voluntary Agreement

Daly City has sufficient water supply to meet all its expected future water demands, including the demands of the proposed Project, in normal and single-, and multiple-dry-year scenarios.

### Scenario 2: Implementation of the Bay-Delta Plan Amendment

Under this scenario, Daly City has sufficient water supplies to meet all its expected future water demands, including the demands of the proposed Project in normal years; however, supplies are insufficient to meet demand in single and multiple dry years.

With the implementation of the Bay-Delta Plan Amendment as written, the SFPUC RWS is projected to experience significant shortfalls in single and multiple dry years starting as soon as 2023 and through 2045, regardless of whether the proposed Project is constructed. These significant shortfalls are a result of Bay-Delta Plan Amendment implementation and, to a lesser extent, the incremental demand associated with the proposed Project.

Although the WSAP does not address implications to supply during systemwide shortages greater than 20 percent, the WSAP indicates that if these shortages were to occur, SFPUC RWS supply would be allocated between retail and wholesale customers per WSAP rules, which correspond to a 16 percent to 20 percent systemwide reduction, subject to consultation and negotiation between the SFPUC and its wholesale customers to modify the allocation rules.

During single and multiple dry years, Daly City's total projected water supplies would not meet projected demands, thus Daly City would have to implement its WSCP to reduce demands and ensure that its supplies remain sufficient to serve all users, including the proposed Project.

### Scenario 3: Implementation of the Proposed Voluntary Agreement (detailed analysis not included in this WSA)

The SWRCB is still evaluating the Proposed Voluntary Agreement as an alternative to the Bay-Delta Plan Amendment. The projected RWS shortages that would occur with its implementation are uncertain but likely to be less severe than under Scenario 2. Detailed supply and demand analysis was not included because there is not enough information to analyze Daly City's ISG reduction under Scenario 3. It is expected that the degree of water use reduction during dry years would also more closely align with the SFPUC's RWS level of service goal of limiting water use reduction to no more than 20 percent on a systemwide basis in drought years.



Daly City is anticipated to have sufficient water supplies to meet all its expected future water demands, including the demands of the proposed Project in normal years; however, WSCP implementation may be necessary in dry years to reduce demands and ensure that its supplies remain sufficient to serve all users, including the proposed Project.

### **5.5.1 Approach to Meeting Future Demands**

To meet future demands and to cope with the reductions of dry-year purchased-water supplies that would result if DWR implements the Bay-Delta Plan Amendment, Daly City would need to take some or all of the following approaches:

1. Coordinate with SFPUC to implement regional actions.
2. Consider options for additional supply. Some options may include water transfers from other SFPUC wholesale customers, further groundwater exploration/development outside the existing developed groundwater basin, increased recycled water use, and/or increased conservation. For example, a new well producing 500 gpm (263 MGY) would make up nearly all the projected shortfalls under Scenario 2 in a single dry year. Refer to the 2020 UWMP to see additional projects to reduce any anticipated shortfall.
3. Reduce water demands on a temporary basis by implementing Daly City's WSCP as presented in the 2020 UWMP.
4. Decline projects seeking development approval. An obvious solution to the increasing supply deficit is to not approve further development unless the developer clearly demonstrates a secured water right apart from Daly City's supplies that said developer can deliver to Daly City as a right in perpetuity.

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## Section 6

# Conclusions

In accordance with the requirements of California Water Code sections 10910 through 10915, the WSA has determined that Daly City has sufficient water supplies available to serve the proposed Project under Scenario 1: No Bay-Delta Plan implementation. This conclusion is based on the availability of water supply for the proposed project primarily on the following findings:

- The projected available potable water supplies under non-drought (normal year) and drought (single and multiple dry year) conditions for the Daly City water system, including this proposed Project are shown in Table 5-1 (normal year), Table 5-2 (single dry year), and Table 5-4 (multiple dry years). From this information, it was determined that sufficient Daly City water supplies are available to serve the proposed Project under Scenario 1.
- Both groundwater and surface water supplies would provide water needed to serve the proposed Project. Historically, SFPUC has delivered sufficient treated surface water supplies to Daly City. This analysis incorporates reductions in surface water supplies from SFPUC of up to 20 percent of average in dry years per the 2020 UWMP; however, according to the SFPUC Common Language letter (BAWSCA, 2021), SFPUC faces potential for further reductions of its supply due to the Bay-Delta Plan Amendment that could adversely affect water available to Daly City from the RWS.

This WSA identifies projected shortages needing to be met by reducing demands according to the WSCP and uncertainties regarding future supplies under Scenario 2: Implementation of the Bay-Delta Plan Amendment and Scenario 3: Implementation of the Proposed Voluntary Agreement. This determination was based on the following information:

- Under Scenarios 2 and 3, Daly City expects to experience shortfalls in single and multiple dry years starting as soon as 2023 and through 2045, regardless of whether the proposed Project is constructed. As shown in Table 5-3 and Table 5-5, these shortfalls result from Bay-Delta Plan Amendment implementation and, to a lesser extent, to the incremental demand associated with the proposed Project. While the supply planning analysis uses a yearly time step, shortfalls can be more severe for summer months when demands are higher.
- In dry years with a supply shortfall, Daly City would have to implement its WSCP as described in the 2020 UWMP to reduce demands to the level of available supply and ensure that its supplies remain sufficient to serve all users, including the proposed Project.
- Daly City has limited ability to increase groundwater pumping from the South Westside Basin to enhance water supply reliability and address added demands. Daly City currently has a sustainable yield of 1,252 MGY anticipated through 2045; however, Daly City has identified other undeveloped groundwater resources outside of the South Westside Basin that it is currently considering developing. If such resources come to fruition, they could substantially overcome shortfalls in Daly City's dependence on the RWS during droughts with the Bay-Delta Plan Amendment in place.
- Recycled water currently serves irrigation demands within Daly City and to nearby golf courses, which lowers the estimated demands for potable water minimally and further enhances overall water supply reliability. Daly City's recycled water expansion project (to be completed by 2035) would expand recycled water use and further enhance groundwater availability.

The Daly City Council's approval of this WSA is not equivalent to approval of the proposed Project for which this WSA is prepared. A WSA is an informational document required to be prepared for use in the City's environmental review of a project under CEQA. Furthermore, this WSA does not verify the adequacy of existing distribution system capacity to serve the proposed Project.

## Section 7

# References

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