11.7 Water Supply Assessment

Beaumont-Cherry Valley Water District
560 Magnolia Avenue, Beaumont, CA 92223
www.bcvwd.gov

June 11, 2025

Board of Directors

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Santa Ana, CA 92707

Subject here: **Will Serve Letter**
Beaumont Heights Business Center
Beaumont, CA

To whom it may concern:

At the regular meeting of the Beaumont-Cherry Valley Water District Board of Directors held on May 22, 2025, your request for water service ("Will Serve Letter") for the above referenced properties located on Riverside County APNs 424-090-007, 424-090-008, 424-110-007, 424-110-008, 424-110-009, 424-110-010, 424-130-001, 424-130-002, 424-130-003, 424-140-001, and 428-020-001 was approved for water service for the proposed project development as set forth in the May 22, 2025 Staff Report and associated project information provided as part of that "Will Serve Letter" request package.

The Beaumont Cherry Valley Water District will provide water service to the subject property for development conditions and associated water demand conditions set forth in the District's May 22, 2025 Staff Report related to this item, but not limited to, the Rules and Regulations Governing Water Service as amended by the Board of Directors from time to time.

We look forward to working with you in the coming months and please feel free to contact the office should you have any questions.

This letter will expire **May 22, 2026**.

Sincerely,

Daniel K. Jaggers
BCVWD
General Manager

DKJ/lmt
Attachment 1: Resolution 2025-__: Acknowledging the Review, Receipt and Acceptance of the Water Supply Assessment and Consideration of Will-Serve Letter for the Proposed Beaumont Heights Business Center located southeast of the intersection of California Avenue and Highway 79

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TABLE OF CONTENTS

Table of Contents i
List of Tables iii
List of Figures v
Acronyms and Abbreviations vi
1 Introduction 1
1.1 Project Location 1
1.2 Project Characteristics 4
1.3 Environmental Setting 5
2 Legislative Requirements 7
2.1 Is the Project Subject to CEQA? 7
2.2 Is it a “Project” as Defined by CWC Section 10912? 7
2.3 Is There a Public Water System to Serve the Project? 8
2.4 Is There a Current UWMP that Accounts for the Project Demand? 9
3 Urban Water Management Planning Act 10
3.1 Background 10
3.2 San Gorgonio Pass Water Agency 2020 UWMP 11
3.3 BCVWD’s 2020 UWMP 12
4 Estimated Project Water Demand 13
4.1 Project Proposed Water Demand 13
5 BCVWD’s Water System Overview 15
5.1 Overview of BCVWD’s Water System and Operation 17
5.2 Potable Water System 17
5.3 Imported Water and Recharge Facilities 18
5.4 Non-potable (Recycled) Water System 19
6 Updated BCVWD Water Demands in Service Area 21
7 Imported Water Data/Supply Data 23
7.1 BCVWD’s Source of Supply 23
8 Supply Versus Demand Analysis 27
8.1 BCVWD Normal Year Comparison 27
8.2 Summary of Member Agency Imported Water Demands on SGPWA 28
9 Available Imported Water 30

9.1 State Water Project Overview 30
9.1.1 Table A Allocations 30
9.1.2 Table Carryover Water 31
9.1.3 Delta Conveyance Project Future SWP Increment 33
9.2 SGPWA Additional Imported Water Supplies 34
9.2.1 Yuba Accord Water 34
9.2.2 Nickel Agreement 35
9.2.3 San Bernadino Valley Municipal Water District Agreement 35
9.2.4 Sites Reservoir Agreement 36
9.2.5 Ventura Water 36
9.2.6 Water Transfers and Exchanges 37
9.3 Summary of Available Imported Water Supplies 37
10 Water Supply Analysis for Single and Multiple Dry Period 40
10.1 Constraints on Water Sources 40
10.2 Drought Risk Assessment 42
10.3 Single-Dry Year Water Supply and Demand 43
10.4 Multiple-Dry Year Water Supply and Demand 45
11 Water Source Availability 53
11.1 Groundwater 53
11.1.1 Beaumont Basin 53
11.1.2 Edgar Canyon 54
11.2 Imported Water 55
11.3 Recycled Water 56
11.4 Storm Water and Urban Runoff Reliability (Potential Projects). 57
11.5 Water Shortage Contingency Plan 57
12 Conclusions 60
13 References 61

LIST OF TABLES

Table 1-1 Proposed Development 4
Table 3-1 Projected Total Water Supply for SGPWA Region through 2045 [1] [2] 11
Table 3-2 BCVWD Imported Water Needs from BCVWD 2020 UWMP [1] [2] 12
Table 4-1 Estimated Potable Water Demand [3] 13
Table 4-2 Estimated Water Use for Irrigation 14
Table 5-1 BCVWD Potable and Non-potable Water Connections and Deliveries 2023 17
Table 6-1 City of Beaumont and Cherry Valley Historical Population 21
Table 6-2 Current and projected population of City of Beaumont and Cherry Valley 21
Table 6-3 Data from Table 7-6 in the BCVWD 2020 UWMP [1] 22
Table 7-1 Recycled Water Available from City of Beaumont's WWTP 25
Table 7-2 Water Supply Assessment for Normal Year Conditions [1] 26
Table 8-1 Normal Year Supply and Demand Comparison [1] 28
Table 8-2 Regional Summary of Spreadsheet Supply-Demand Model for SGPWA [1] 29
Table 9-1 SWP Table A Allocations and Deliveries [1] 30
Table 9-2 SWP Future Table A Projected Water Year Deliveries During Single and Multi-Year Drought Conditions (AFY) [1] 31
Table 9-3 Future SWP Allocations by Year Type Through 2045 (AFY) [1] 31
Table 9-4 SGPWA Historic SWP Carryover Storage and Use (AFY) [1] 32
Table 9-5 Carryover Supplies Through 2025 (AFY) [1] 33
Table 9-6 Future Available Table A Carryover Supplies (AFY) [1] 33
Table 9-7 Last Five Years of Yuba Accord Water Deliveries (AFY) [1] 34
Table 9-8 Yuba Accord Future Water Deliveries in all Year Types (AFY) [1] 34
Table 9-9 Nickel Agreement Water Deliveries since 2017 (AFY) [1] 35
Table 9-10 Nickel Agreement Future Water Deliveries in all Year Types (AFY) [1] 35
Table 9-11 Future Availability of Sites Reservoir Water (AFY) [1] 36
Table 9-12 SGPWA Future Transfers and Exchanges (AFY) [1] 37
Table 10-1 Factors Resulting in Inconsistency of Supply [1] 40
Table 10-2 BCVWD Water Supplies - Projected [1] 42
Table 10-3 Member Agency's Percent of Available Imported Water When Demand Exceed Supply [1] 43
Table 10-4 Estimated Demand Reductions During Various Dry Year Periods [1] 43
Table 10-5 Water Service Reliability Assessment for Single Dry Year [1] 44
Table 10-6 Water Service Reliability Assessment for 2 Consecutive Dry Years [1] 46
Table 10-7 Water Service Reliability Assessment for 3 Consecutive Dry Years [1] 47
Table 10-8 Water Service Reliability Assessment for 4 Consecutive Dry Years [1] 48
Table 10-9 Water Service Reliability Assessment for 5 Consecutive Dry Years [1] 49
Table 10-10 Water Service Reliability Assessment for 6 Consecutive Dry Years [1] 50
Table 10-11 5-Year Drought Risk Assessment [1] 52
Table 11-1 Summary of BCVWD's Beaumont Storage Credits 54
Table 11-2 Groundwater Available from Edgar Canyon for Single and Multiple Dry Year Analysis 55
Table 11-3 SGPWA SWP Delivery Capability as Percent of Table A [1] 55

Table 11-4 SGPWA SWP Delivery Capability as Percent of Table A (Used for Reliability Analysis) [1].....56
Table 11-5 Estimated Recycled Water Available During Extended Dry Periods [1].....57
Table 11-6 Estimated Storm Water Available During Extended Dry Periods [1].....57
Table 11-7 Water Shortage Contingency Plan Levels [1].....59

LIST OF FIGURES

Figure 1-1: Regional Vicinity 2
Figure 1-2: Site Vicinity 3
Figure 1-3: Conceptual Site Plan 6
Figure 5-1: BCVWD Service Area and Sphere of Influence 16
Figure 8-1: BCVWD's Water Supply and Demand Projection to 2045 27
Figure 8-2: BCVWD's Groundwater Storage Balance to 2045 28
Figure 9-1: SGPWA's Water Service Reliability through 2045 (AFY) [1] 38
Figure 9-2: SGPWA's Drought Risk Assessment from 2021 through 2045 (AFY) [1] 39
Figure 10-1: BCVWD's Beaumont Basin Storage Amount [1] 41

ACRONYMS AND ABBREVIATIONS

ac-ft	acre-feet
AFY	acre-feet per year
AVEK	Antelope Valley-East Kern Agency
AVGB	Antelope Valley Groundwater Basin
BCVWD	Beaumont-Cherry Valley Water District
CEQA	California Environmental Quality Act
Court	Superior Court of California
CWC	California Water Code
DWR	California Department of Water Resources
EBX	East Branch Extension
EMP	Employer
EMWD	Eastern Municipal Water District
gpd	gallons per day
gpm	gallons per minute
IEBL	Inland Empire Brine Line
IS/MND	Initial Study/Mitigated Negative Declaration
LAFCO	Local Agency Formation Commission
MAWA	Maximum Applied Water Allowance
MIH	Miners Inch Hours
RC-EDR	Rural Community – Estate Density Residential
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SGPWA	San Gorgonio Pass Water Agency
SOI	Sphere of Influence
SR	State Route
SWP	State Water Project
SWRCB	California State Water Resources Control Board

UWMP	Urban Water Management Plan
USBR	Bureau of Reclamation
WSCP	Water Supply Contingency Plan
WSA	Water Supply Assessment
YVWD	Yucaipa Valley Water District

1 INTRODUCTION

This Water Supply Assessment (WSA) was prepared for the Beaumont Heights Business Center (Project) pursuant to California Water Code (CWC) Section 10910, as amended by Senate Bill 610 (SB 610). It identifies sources of water supply for the Project to determine if supply is adequate to meet the Project's water demand. A WSA under SB 610 must demonstrate there is sufficient water supply for the next 20 years, based on normal, single-dry, and multiple-dry years, to meet the demand of the Project, plus existing and planned future use, including agricultural and manufacturing uses. The water supply and demand information presented covers a 20-year period, in increments of 5 years. The estimated water demands for the Project is 295 AFY, including demands from the warehouse space, office space, and landscape irrigation.

This WSA is included as part of the Initial Study/Mitigated Negative Declaration (IS/MND) prepared for the Project pursuant to the California Environmental Quality Act (CEQA). CWC Section 10911 requires that the WSA be included in any environmental document pursuant to California Public Resources Code Division 13.

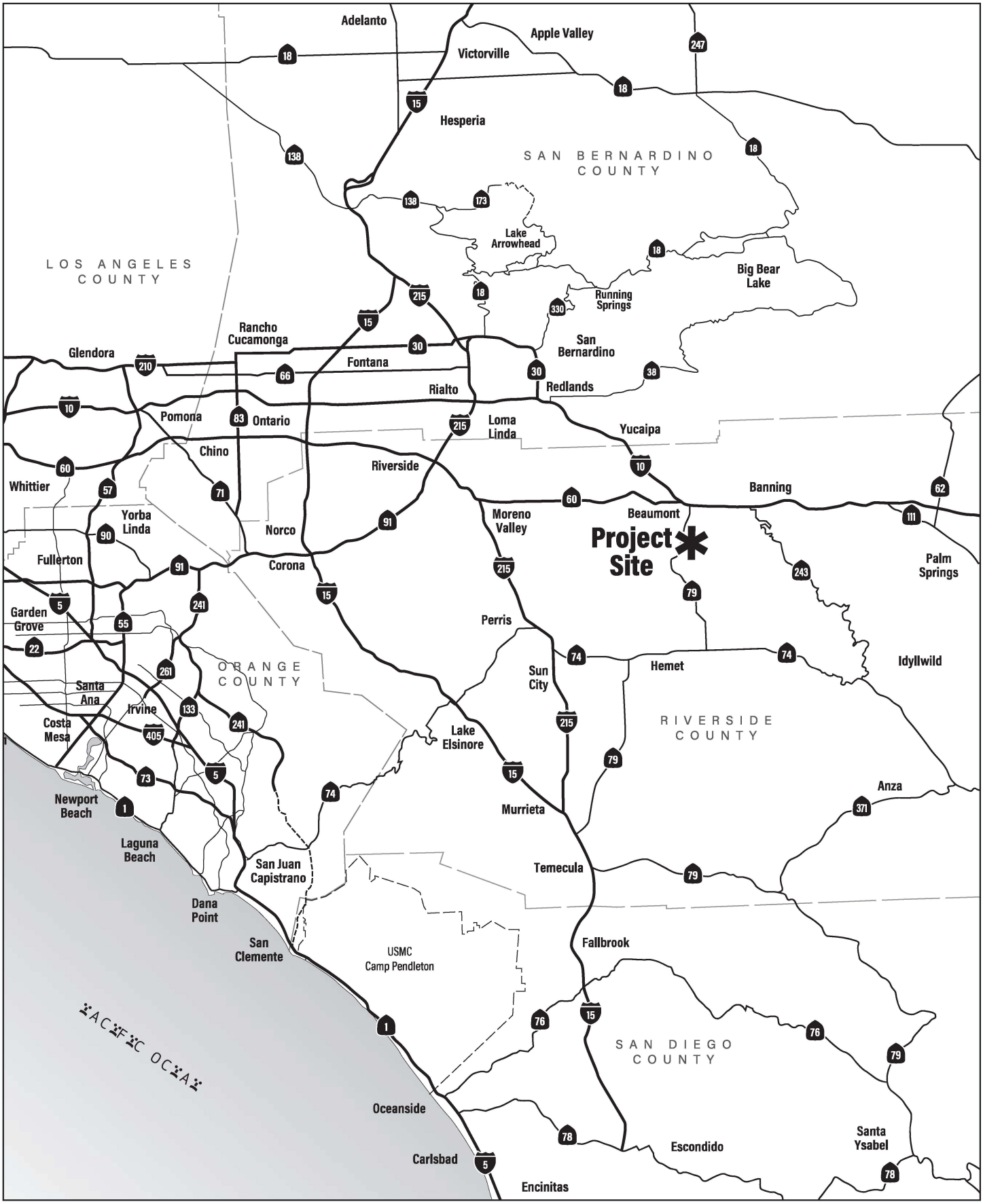
To fully comply with the requirements of SB 610, this report follows the organization of the *Guidebook for Implementation of Senate Bill 610 and Senate Bill 221 of 2001* (Guidebook) developed by the California Department of Water Resources (DWR). Section 1 of this report provides a description of the Project and Sections 2 through 12 provide the WSA under SB 610.

Upon completion of this WSA, the Beaumont-Cherry Valley Water District (BCVWD), the likely water supplier for the Project, will provide a resolution adopting the Project WSA and a will-serve letter for the Project if adequate water supplies are available for the Project. This will be included into the Project's environmental documentation.

1.1 Project Location

The City is located in the westernmost portion of Riverside County (County); refer to Figure 1-1, Regional Vicinity. The City's Sphere of Influence (SOI) is located primarily to the south and west of City boundaries and covers an additional 11.2 square miles beyond the City Boundary. The project site is on the east side of State Route 79 (SR-79); other major transportation routes through the City include Interstate 10 and State Route 60. As shown on Figure 1-2, Site Vicinity, the project site encompasses approximately 384 acres primarily within the City's SOI to the west of the City's current incorporated boundary. Regional and local access is provided via SR-79.

BCVWD owns and operates the water system which would serve the Beaumont Heights Business Center development project. BCVWD's present service area covers approximately 28 square miles, virtually all of which is in Riverside County and includes the City of Beaumont and the community of Cherry Valley. BCVWD-owned watershed land extends across Riverside County line into San Bernardino County where BCVWD operates a number of wells and several reservoirs. BCVWD's SOI, or ultimate service planning area, encompasses an area of approximately 37.5 square miles (14.3 sq. mi. are in the City of Beaumont). This SOI was established by the Riverside and San Bernardino County Local Agency Formation Commissions (LAFCOs).



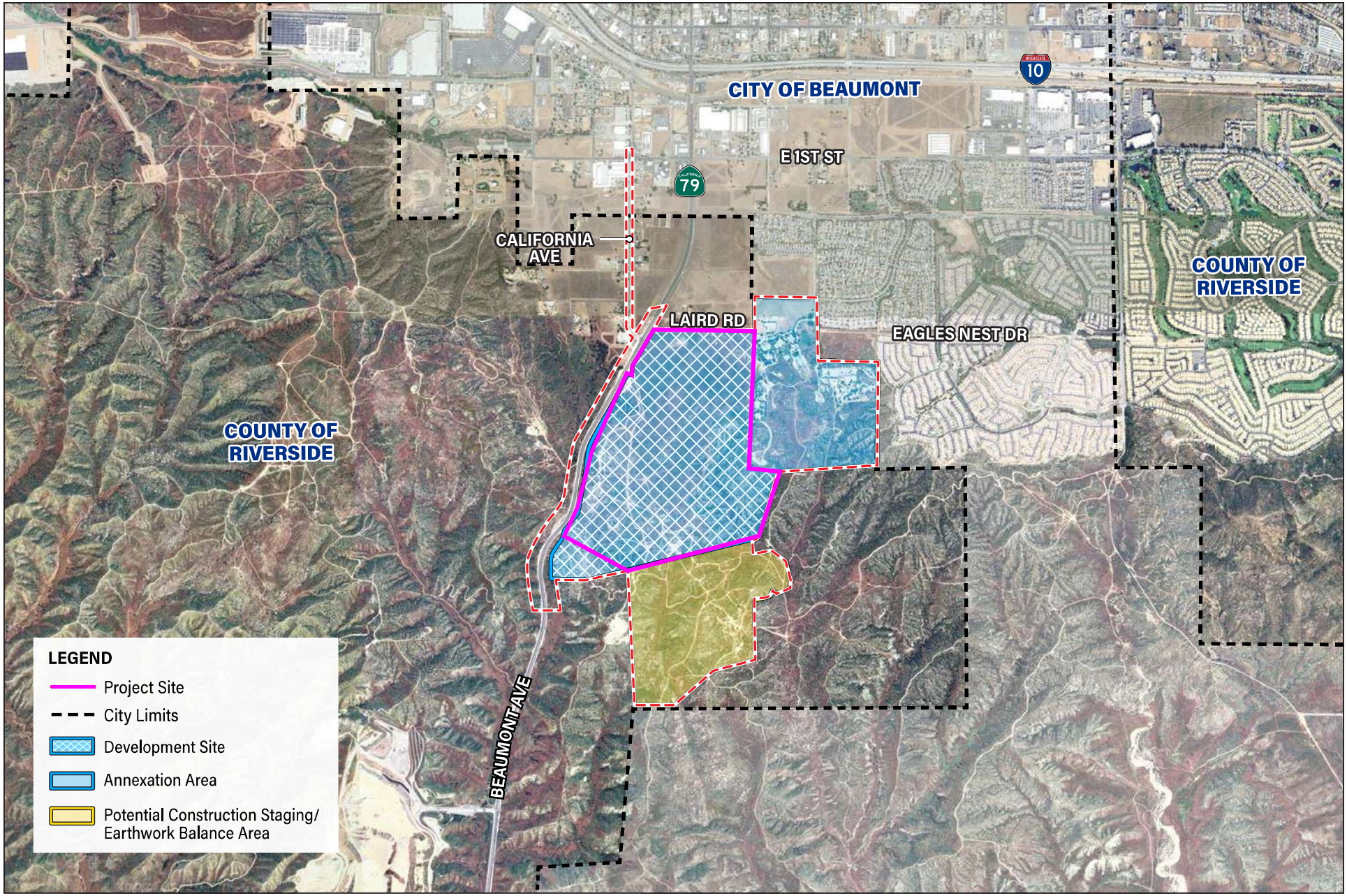
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BEAUMONT HEIGHTS BUSINESS CENTRE PROJECT
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Regional Vicinity



Source: Google Earth Pro, March 2024

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BEAUMONT HEIGHTS BUSINESS CENTRE PROJECT
NOTICE OF PREPARATION

Site Vicinity

FIGURE 1-2

1.2 Project Characteristics

As shown on Figure 1-3, Conceptual Development Site Plan, the project proposes to develop four industrial buildings and associated improvements within the Development Site (blue hatched polygon on Figure 1-2), which encompasses approximately 383.7 acres. The Development Site and the approximately 182.3-acre area to the east of the Development Site (blue polygon on Figure 1-2) are proposed to be annexed into the City's jurisdiction, which would require Riverside County Local Agency Formation Commission (LAFCO) approval. Prior to annexation into the City's Jurisdiction and into the BCVWD Service Boundary, the Project will need a Resolution Adopting the Project WSA from BCVWD. As part of that process, the Owner will need to obtain a will-serve letter from the BCVWD and a Plan of Service (POS) will need to be completed prior to submittal to Riverside LAFCO. Also, the LAFCO requires that an Environmental Impact Report (EIR) will need to be completed to comply with the California Environmental Quality Act (CEQA).

The southern approximately 168.5 acres (yellow polygon on Figure 1-2) are proposed solely for limited temporary construction staging and earthwork balance activities (9 million cubic feet of cut and 9 million cubic feet of fill); no permanent development or annexation is proposed in this portion of the site. The remaining approximately 63.2-acre area of the project site (outside of the blue and yellow polygons) involve transportation improvements along SR-79 and utility installation (water, wastewater, electrical) along California Avenue. A waterline extension from Manzanita Park Road west towards the site, will be required to facilitate looping with the new pipeline in California Avenue. Table 1-1, Proposed Development, provides details regarding each proposed building's site area, building square footage, and provided parking stalls. As shown, the proposed development would include approximately 5,146,891 square feet of combined office and industrial building area.

Table 1-1 Proposed Development

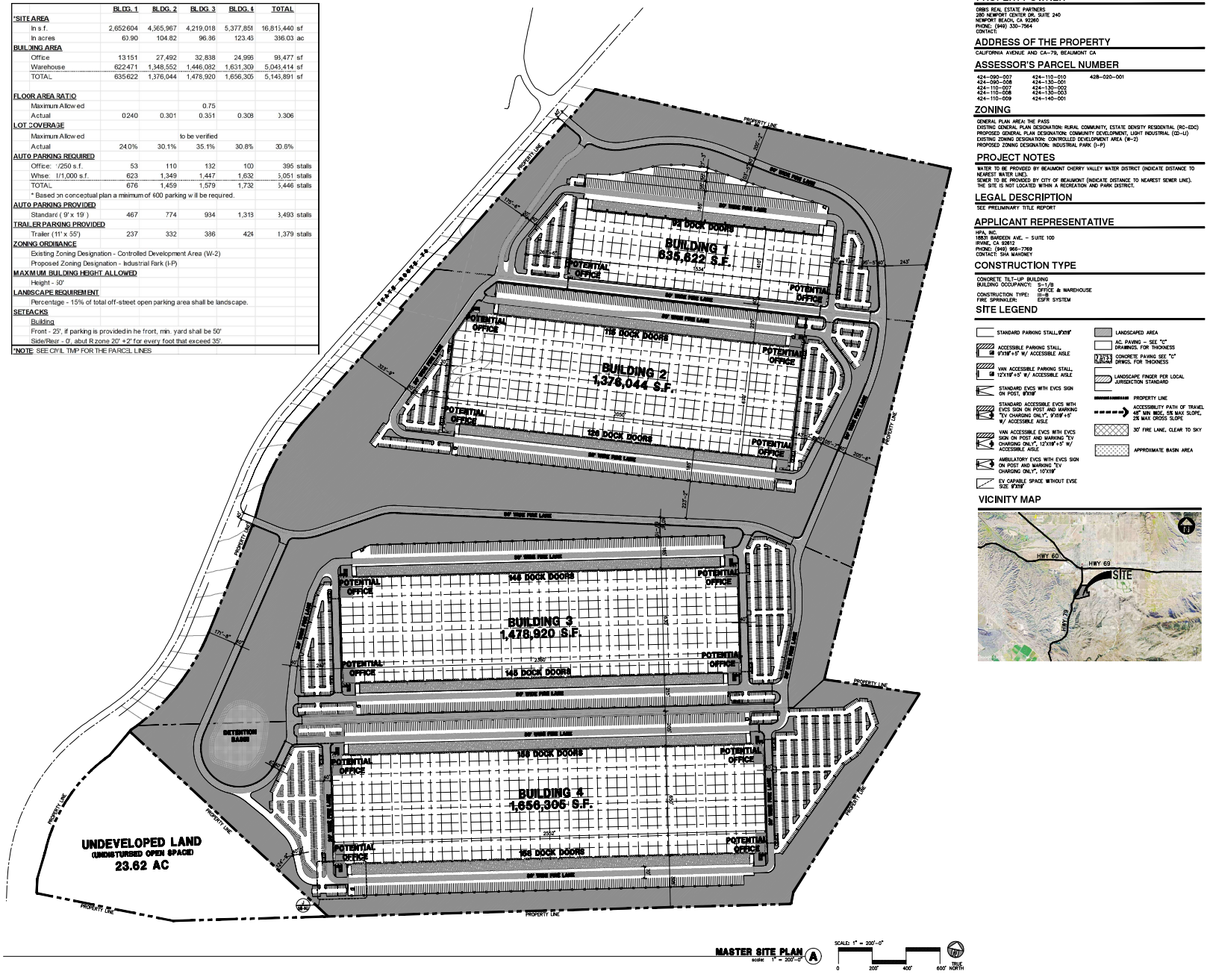
	Building 1	Building 2	Building 3	Building 4	Total
Site Area (SF)	2,652,604	4,565,967	4,219,018	5,377,851	16,815,440
Site Area (Acre)	60.90	104.82	96.86	123.46	386.03
Building Area					
Office	13,151	27,492	32,838	24,996	98,477
Warehouse	622,471	1,348,552	1,446,082	1,631,309	5,048,414
Total	635,622	1,376,044	1,478,920	1,656,305	5,146,891
Parking					
Standard (9'x19')	467	774	934	1,318	3,493
Trailer (11' x 55')	237	332	386	424	1,379

1.3 Environmental Setting

The project site is entirely vacant and undeveloped land with the exception of an existing vulnerable youth housing center in the northeast corner of the site and improved segments of SR-79 and California Avenue (Figure 1-2). Based on the Riverside County Map My County Map, the site has a land use designation of Rural Community – Estate Density Residential (RC-EDR) and Rural Mountainous (RM) and is entirely zoned W-2 (Controlled development areas).

According to the Beaumont General Plan (General Plan) Land Use Map, the project site is designated Urban Village, High Density Residential, Rural Residential 40, and Open Space. The City does not currently identify any zoning districts for the project site.

This facility, formerly Childhelp Merv Griffin Village, was recently acquired by the County and renamed to Harmony Haven. The facility is currently on well water and future annexation into BCVWD is possible; however, it is not proposed as part of this WSA.



Source: HPA Architecture, March 2024

BEAUMONT HEIGHTS BUSINESS CENTRE PROJECT
NOTICE OF PREPARATION

Conceptual Development Site Plan

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FIGURE 1-3

2 LEGISLATIVE REQUIREMENTS

SB 610 seeks to improve the link between water supply availability and land use planning for large development projects. If the project is subject to the California Environmental Quality Act (CEQA), and if it is defined as a "project" defined by CWC Section 10912, a WSA must be prepared.

The following sections address the questions that must be answered by a WSA:

- Is the Project subject to CEQA?
- Is it a "project" as defined by CWC Section 10912?
- Is there a public water system to serve the Project?
- Is there a current Urban Water Management Plan (UWMP) that accounts for the Project demand?
- Is the projected water supply sufficient for the Project?

2.1 Is the Project Subject to CEQA?

CWC Section 10910 states:

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

The Project will undergo environment review pursuant to the requirements of CEQA.

2.2 Is it a "Project" as Defined by CWC Section 10912?

CWC Section 10912 states:

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

(a) "Project" means any of the following:
(1) A proposed residential development of more than 500 dwelling units.
(2) A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
(3) A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.
(4) A proposed hotel or motel, or both, having more than 500 rooms.
(5) A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
(6) A mixed-use project that includes one or more of the projects specified in this subdivision.
(7) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

(b) If a public water system has fewer than 5,000 service connections, then "project" means any proposed residential, business, commercial, hotel or motel, or industrial development that would account for an increase of 10 percent or more in the number of the public water system's existing service connections, or a mixed-use project that would demand an amount of water equivalent to, or greater than, the amount of water required by residential development that would represent an increase of 10 percent or more in the number of the public water system's existing service connections.

The Project is an industrial development that consists of more than five million square feet. Therefore, it is considered a "project" under CWC Section 10912.

2.3 Is There a Public Water System to Serve the Project?

CWC Section 10912 states:

(c) "Public water system" means a system for the provision of piped water to the public for human consumption that has 3,000 or more service connections. A public water system includes all of the following:

(1) Any collection, treatment, storage, and distribution facility under control of the operator of the system which is used primarily in connection with the system.

(2) Any collection or pretreatment storage facility not under the control of the operator that is used primarily in connection with the system.

(3) Any person who treats water on behalf of one or more public water systems for the purpose of rendering it safe for human consumption.

The Project is not located in an area that is currently serviced by a public water system. However, it is located within the BCVWD Sphere of Influence (SOI). The Project Site is located approximately 0.4 miles from Beaumont-Cherry Valley Water District service boundary. Therefore, the Project will need a Resolution Adopting the Project WSA and will be required to undergo the Local Agency Formation Commission (LAFCO) process to annex this area into Beaumont-Cherry Valley Water District.

As part of that process, the Owner will need to obtain a will-serve letter from the BCVWD and a Plan of Service (POS) will need to be completed prior to submittal to Riverside LAFCO. Also, the LAFCO requires that an Environmental Impact Report (EIR) be completed to comply with the California Environmental Quality Act (CEQA).

The Project can be served from one of following water sources:

- Served by Beaumont-Cherry Valley Water District through a new service connection. This is the preferred water source and is explored herein.
- Pumped from a new on-site groundwater well. This will require drilling a new well and/or erection of a new water storage tank at the Project site. This is not the proposed method of service the development; however, it is one potential alternative to BCVWD. This alternative is not explored herein.

2.4 Is There a Current UWMP that Accounts for the Project Demand?

CWC Section 10910 states:

(c)

(1) The city or county, at the time it makes the determination required under Section 21080.1 of the Public Resources Code, shall request each public water system identified pursuant to subdivision (b) to determine whether the projected water demand associated with a proposed project was included as part of the most recently adopted urban water management plan adopted pursuant to Part 2.6 (commencing with Section 10610).

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

(3) If the projected water demand associated with the proposed project was not accounted for in the most recently adopted urban water management plan, or the public water system has no urban water management plan, the water assessment for the project shall include a discussion with regard to whether the public water system's total projected water supplies available during normal, single dry, and multiple dry water years during a 20-year projection will meet the projected water demand associated with the proposed project, in addition to the public water system's existing and planned future uses, including agricultural and manufacturing uses.

(4) If the city or county is required to comply with this part pursuant to subdivision (b), the water assessment for the project shall include a discussion with regard to whether the total projected water supplies, determined to be available by the city or county for the project during normal, single dry, and multiple dry water years during a 20-year projection, will meet the projected water demand associated with the proposed project, in addition to existing and planned future uses, including agricultural and manufacturing uses.

Although the BCVWD does have a current UWMP, the project site is currently not included within that Plan. Therefore, a discussion of the water supplies from the potential sources is included in this WSA and is presented in Sections 5 through 7.

3 URBAN WATER MANAGEMENT PLANNING ACT

3.1 Background

The California Water Code requires that all urban water suppliers within the state, serving over 3,000 acre-feet (AF) of water (1 AF = 325,829 gallons) or having at least 3,000 service connections, to prepare Urban Water Management plans (UWMPs) on a five-year, ongoing basis demonstrating their continued ability to provide water supplies for current and future expected development under normal, single dry and multiple dry year scenarios. The Urban Water Management Planning Act was enacted in 1983 and amendments were made periodically since then. The Act also requires imported water suppliers to prepare UWMPs. Water Code sections §10610 through §10656 detail the information that must be included in the plans. These plans also require the assessment of urban water conservation measures and wastewater recycling as well as a water shortage contingency plan outlining how the municipal water provider will manage water shortages of up to 50 percent of their normal supplies in a given year. It should be noted that the City's wastewater recycling plant is operational but does not yet deliver water to BCVWD.

An UWMP is a planning tool that provides general guidance to water management agencies. It provides managers and the public with past and current water supply issues facing the agency. It is not a substitute for project-specific planning documents, nor was it intended to be, when mandated by the State Legislature. When specific projects are chosen to be implemented, detailed project plans are prepared, environmental analysis (if required) is prepared, and financial and operational plans are developed.

"The UWMP is intended to function as a planning tool to guide broad-perspective decision-making" by water agency managers and directors. It should not be viewed as an exact blueprint for supply and demand management. Water management in California is not a matter of certainty and planning projections may change in response to a number of factors. "Long-term water planning involves expectations and not certainties. The State Supreme Court has recognized the uncertainties inherent in long-term land use and water planning and observed that the generalized information required …in the early stages of the planning process are replaced by firm assurances of water supplies at later stages." It is appropriate to look at the UWMP as a general planning framework, not a specific action plan. It is an effort to generally answer a series of planning questions including:

- What are the potential sources of supply and what is the reasonable probable yield from them?
- What is the probable demand, given a reasonable set of assumptions about growth and implementation of good water management practices?
- How well do supply and demand figures match up, assuming that the various probable supplies will be pursued by the implementing agency?

Based on the answers to these questions, the implementing agency will pursue feasible and cost- effective options and opportunities to meet demands.

The UWMP Act requires the supplier to document water supplies available during normal, single dry, and multiple dry water years over a 20-year projection and the existing and projected future water demand during the same 20-year period. The Act requires that the projected supplies and demands be presented in 5-year increments for the 20-year projection period.

3.2 San Gorgonio Pass Water Agency 2020 UWMP

BCVWD provided data to San Gorgonio Pass Water Agency (SGPWA) on BCVWD's projected demands so the SGPWA could prepare their UWMP. Because the California Department of Water Resources (DWR) required the imported water suppliers to submit their UWMPs earlier than the retail agencies, BCVWD made some preliminary estimates of their demand over the 20-year projection period and provided the projections to SGPWA. These preliminary estimates deviated slightly from the actual demands in BCVWD's 2020 UWMP. Table 3-1 below is taken from Table 3-16 in the SGPWA 2020 UWMP.

Table 3-1 Projected Total Water Supply for SGPWA Region through 2045 [1] [2]

Service Area Water Supply to Meet Demands	2025	2030	2035	2040	2045
City of Banning	9,473	10,198	10,853	11,565	12,278
Beaumont Cherry Valley	14,963	16,160	17,515	18,710	19,693
Yucaipa Valley WD (Riverside Portion)	1,509	1,841	2,174	2,507	2,839
South Mesa WC (Riverside Portion)	1,032	1,084	1,138	1,196	1,196
High Valley WD	3,400	3,600	3,900	4,100	4,300
Cabazon County WD					
Mission Springs (SGPWA area)					
Other SGPWA service area not served by named retailers					
Total SGPWA Boundary Supply to meet Demands	**30,400**	**32,900**	**35,600**	**38,100**	**40,300**

[1] Table 3-1 is taken from Table 3-16 in the SGPWA 2020 UWMP.
[2] The supply totals necessary to meet demands in the table above are rounded to the nearest 100 AFY.

In Chapter 1 of the SGPWA's 2020 UWMP, the UWMP stated the following:

"It is important to note that this UWMP (SGPWA 2020 UWMP) has been completed to address regional resource management and does not address the particular conditions of any specific retail water agency or entity within the SGPWA service area. The retail urban water suppliers within SGPWA service area are preparing their own separate UWMPs where required, though SGPWA has facilitated coordination among the retailers to assure consistency."

BCVWD recognizes and acknowledges the disclaimer statement within the 2020 Urban Water Management Plan prepared by the SGPWA related to regional planning. While the UWMP prepared by the SGPWA "…does not address the particular conditions of any specific retail water agency…" BCVWD relies upon the policies and practices of the SGPWA as a foundation for regional water supply solutions. In other words, while the SGPWA's regional planning document does not address local water conditions, BCVWD does rely upon the policies of the SGPWA to provide comprehensive regional solutions related to the use of imported water in the

SGPWA area. As an example of the policies and practices adopted by the SGPWA and relied upon by BCVWD include, but are not limited, to the following:

- San Gorgonio Pass Water Agency, Ordinance No. 8, An Ordinance Establishing Rules and Regulations for SGPWA Water Service, February 7, 2005;
- San Gorgonio Pass Water Agency Strategic Plan, May 2012;
- San Gorgonio Pass Water Agency, Resolution No. 2014-02, A Resolution of the San Gorgonio Pass Water Agency Establishing a Policy for Meeting Future Water Demands, February 18, 2014;
- San Gorgonio Pass Water Agency, Ordinance No. 10, Ordinance Establishing Water Shortage Plan, July 21, 2014;
- San Gorgonio Pass Water Agency, Resolution No. 2015-05, Resolution of the Board of Directors of the San Gorgonio Pass Water Agency to Adopt Facility Capacity Fees for Facilities and Water, July 27, 2015;
- San Gorgonio Pass Water Agency, State of the Supply PowerPoint Presentation, September 30, 2016;
- San Gorgonio Pass Water Agency, Ordinance No. 13, An Ordinance Amending Rules and Regulations Regarding Authorization for Service, June 5, 2017.

3.3 BCVWD's 2020 UWMP

There were some minor differences between the projections in BCVWD's 2020 UWMP and the projections provided to SGPWA for their 2020 UWMP. These differences stemmed from the need for BCVWD to provide preliminary demand projections early on so the SGPWA could meet their prescribed deadline. This was provided to show a comparison of the SGPWA UWMP and the BCVWD UWMP.

BCVWD's imported water supplies are presented in BCVWD's 2020 UWMP (Table 6-24). Table 3-2 shows the actual imported water demand to meet the potable water demand plus the banking water demand to ensure drought-proofing of future development. Therefore, BCVWD's imported water supplies are equal to its imported water demands. If imported water is not available in a given year, no banking will occur, but when imported water is available, any deficiencies from previous years would be "carried over" and "made up." Comparing Tables 3-2 and 3-1, actual imported water demand is less than the projected BCVWD water demand that was provided to SGPWA.

Table 3-2 BCVWD Imported Water Needs from BCVWD 2020 UWMP [1] [2]

	2025	2030	2035	2040	2045
BCVWD Drinking Water Demand, AFY	9,144	9,546	9,966	10,717	11,281
Banking Demands, AFY	1,500	1,200	1,000	1,000	1,000
Total BCVWD Imported Water Demand, AFY	**10,644**	**10,746**	**10,966**	**11,717**	**12,281**

[1] from the BCVWD 2020 UWMP, Table 6-24
[2] Includes imported water for non-potable water system since non-potable water system is supplied with potable groundwater.

4 ESTIMATED PROJECT WATER DEMAND

4.1 Project Proposed Water Demand

Water demand for the Project consists of warehouse, office, and irrigation uses. The water demand was calculated based on demand factors for each land use. To conserve potable water use, the Project should consider utilizing recycled water for non-drinking construction activities such as dust control and soil compaction. Table 4-1 summarizes the potable water demand for the project.

Table 4-1 Estimated Potable Water Demand [3]

Description	Land use	Area (SF)	Employee Count [1]	Indoor water demand factor (gpd/emp) [2]	Indoor water demand (gpd)	Indoor water demand (AFY)
Building 1	Office	13,151	9	15	132	0.15
	Warehouse	622,471	415	15	6,225	6.97
Building 2	Office	27,492	18	15	275	0.31
	Warehouse	1,348,552	899	15	13,486	15.11
Building 3	Office	32,838	22	15	328	0.37
	Warehouse	1,446,082	964	15	14,461	16.20
Building 4	Office	24,996	17	15	250	0.28
	Warehouse	1,631,309	1,088	15	16,313	18.27
Total		**5,146,891**	**3,432**	**-**	**51,469**	**58**

[1] Based on recent WSA prepared by SDR Design Studio, Inc for BCVWD for Legacy Highland Specific Plan, which estimated 1 employee per 1,500 sf of warehouse/office space.
[2] Based on recent WSA prepared by SDR Design Studio, Inc for BCVWD for Legacy Highland Specific Plan.
[3] Should any of the four (4) proposed buildings change from warehouse to fulfillment center, the building(s) consumption will need to be re-evaluated and ultimately require BCVWD Board approval for service.

Table 4-2 summarizes the estimated water use for irrigation based on Estimated Total Water Use (ETWU) and Maximum Allowable Water Use (MAWU).

Table 4-2 Estimated Water Use for Irrigation

Description	Area Description	Total Area (SF)	Parking Landscape requirement [1]	Landscape Area (SF) [1]	Total Landscape Area (SF)	Total Landscape Area (acre)	ETWU factor (AFY / acre) [2]	ETWU Total (AFY)	MAWU factor (AFY / acre) [2]	MAWU Total (AFY)
Building 1	Standard Parking	79,857	15%	11,979	1,122,249	25.8	1.5	38.6	2.1	54.1
	Trailer Parking	143,385	15%	21,508						
	Slope	1,088,763	-	1,088,763						
Building 2	Standard Parking	132,354	15%	19,853	1,713,393	39.3	1.5	59.0	2.1	82.6
	Trailer Parking	200,860	15%	30,129						
	Slope	1,663,411	-	1,663,411						
Building 3	Standard Parking	159,714	15%	23,957	1,131,581	26.0	1.5	39.0	2.1	54.6
	Trailer Parking	233,530	15%	35,030						
	Slope	1,072,594	-	1,072,594						
Building 4	Standard Parking	225,378	15%	33,807	941,702	21.6	1.5	32.4	2.1	45.4
	Trailer Parking	256,520	15%	38,478						
	Slope	869,417	-	869,417						
Total		**6,125,783**	**-**	**4,908,925**	**4,908,925**	**112.7**	**-**	**169.0**	**-**	**237**

[1] 15% of total off-street open parking area shall be landscape, per the City of Beaumont Code of Ordinances 17.06.040 E(1).
[2] According to Table 5-11, BCVWD Non-Potable Water Master Plan.

5 BCVWD'S WATER SYSTEM OVERVIEW

BCVWD owns and operates the water system which would serve the Beaumont Heights Business Center development project. BCVWD was first formed in April 1919, to provide domestic and irrigation water to the developing community of Beaumont and the surrounding area. BCVWD was originally named the Beaumont Irrigation District. In 1973, the name was changed to the Beaumont-Cherry Valley Water District. Sometime after that the hyphen was dropped from the name. However, even though the name has changed, the BCVWD's authority comes from the Irrigation District Law of the State of California.

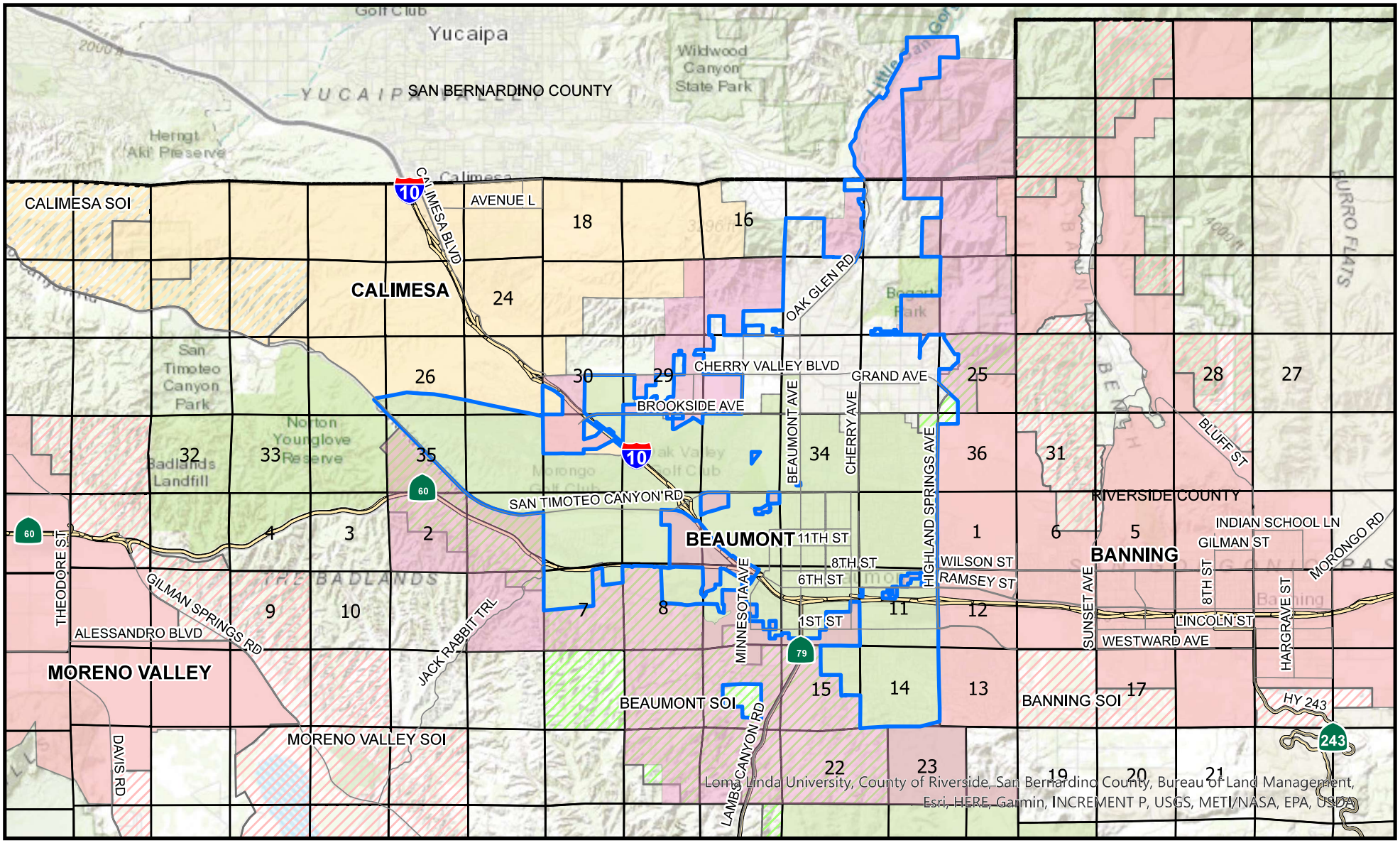
BCVWD owns approximately 1,524 acres of watershed land north of Cherry Valley along the Little San Gorgonio Creek (also known as Edgar Canyon) and Noble Creek. There are two stream diversion locations within Little San Gorgonio Creek that are in the Department of Water Resources, Division of Water Rights, database. The diversions have pre-1914 recorded water rights amounting to 3,000 miners inch hours (MIH) or approximately 45,000 acre-feet per year (AFY) of right for diversion of water for domestic and irrigation uses. However, BCVWD has not yet experienced a demand that requires such large quantities of water supply; and the watersheds may not be capable of supplying such quantities during an average year. The creeks/canyons have been used for water development via diversions for irrigation and domestic service since the latter part of the 1800s. Currently, BCVWD diverts water from Little San Gorgonio Canyon Creek into a series of ponds adjacent to the creek where it percolates and recharges the shallow aquifers in the Canyon. BCVWD's wells located in Edgar Canyon provide a significant portion of BCVWD's water supply.

Figure 5-1 shows BCVWD's present Service Boundary and Sphere of Influence (SOI). BCVWD's present service area covers approximately 28 square miles, virtually all of which is in Riverside County and includes the City of Beaumont and the community of Cherry Valley. BCVWD-owned watershed land extends across Riverside County line into San Bernardino County where BCVWD operates a number of wells and several reservoirs.

BCVWD's SOI, or ultimate service planning area, encompasses an area of approximately 37.5 square miles (14.3 sq. mi. are in the City of Beaumont). This SOI was established by the Riverside and San Bernardino County Local Agency Formation Commissions (LAFCOs). SOIs are established as a planning tool and help establish agency boundaries and avoid problems in service, unnecessary duplication of costs, and inefficiencies associated with overlapping service.

BCVWD's SOI is bounded on the west and north by the Yucaipa Valley Water District (YVWD) and on the east by the City of Banning. The northerly boundary of Eastern Municipal Water District (EMWD) is one mile south of the BCVWD's southerly SOI boundary. The area between EMWD and the BCVWD's SOI is not within any SOI and could be annexed to either BCVWD or EMWD. BCVWD's SOI in Little San Gorgonio Canyon follows Oak Glen Road. The area west of Oak Glen Road is within YVWD's SOI, and the area east of Oak Glen Road is within BCVWD's SOI.

The service area ranges in elevation from 2,095 feet above mean sea level in Fairway Canyon area of Beaumont on the southwestern boundary, to 2,900 feet in Cherry Valley, and to over 4,000 feet in the upper reaches of the SOI.



Source: County of Riverside; District, LAFCO

Legend

- Beaumont-Cherry Valley Water District Boundary
- Beaumont-Cherry Valley Water District Sphere of Influence (SOI)
- Sections

Michael Baker INTERNATIONAL

NOT TO SCALE

03/2024 · JN 198405

BEAUMONT HEIGHTS BUSINESS CENTRE PROJECT
NOTICE OF PREPARATION

Beaumont-Cherry Valley Water District and Sphere of Influence

FIGURE 5-1

The area serves primarily as a “bedroom” community for the Riverside/San Bernardino Area and the communities east of Los Angeles County along the I-10 corridor.

5.1 Overview of BCVWD’s Water System and Operation

BCVWD owns and operates both a potable and non-potable water distribution system. BCVWD provides water and irrigation to users through the potable water system. BCVWD provides non-potable water for landscape irrigation of parks, playgrounds, school yards, street medians and common areas through its non-potable (recycled) water system.

Table 5-1 presents BCVWD 2023 potable and non-potable water connections and pumping amounts. The number of connections was 5,600 in year 2000, before the housing boom that encompassed Western Riverside County and particularly Beaumont.

Table 5-1 BCVWD Potable and Non-potable Water Connections and Deliveries 2023

	Potable Water	Non-Potable Water	Total
Number of Connections [1]	21,117	425	21,542
Average Annual, MGD [1]	10.4	1.1	11.5
Maximum Day, MGD [1]	20.3	4.1	NA
Total Demand, AF [2]	9,807	1,604	11,411

[1] BCVWD provided data from District records.

[2] The Total Demand shown does not include system losses.

5.2 Potable Water System

BCVWD’s potable water system is supplied by wells in Little San Gorgonio Creek (Edgar Canyon) and the Beaumont Basin (sometimes called the Beaumont Storage Unit or the Beaumont Management Zone). The BCVWD has a total of 24 wells (1 well is a standby). One of the wells, Well 26, can pump into either the potable water or the non-potable water system. Currently, it is pumping into the non-potable water system.

The Beaumont Basin is adjudicated and managed by the Beaumont Basin Watermaster. BCVWD augments its groundwater supply with imported State Project Water from the SGPWA which is recharged at BCVWD’s recharge facility at the northeast corner of Brookside Avenue and Beaumont Avenue. The Beaumont Basin Adjudication requires that the extracted amount of water from the Basin must be replaced.

Wells in Edgar Canyon have limited yield, particularly in dry years, and take water from shallow alluvial and fractured bedrock aquifers. Wells in the Beaumont Basin are large capacity and pump from deep aquifers – some as deep as 1,500 ft below the ground surface. The Edgar Canyon wells are very inexpensive to operate and are the preferred source due to there being no replenishment requirement like the Beaumont Basin; however, those wells are not able to meet the current average day demand. The Edgar Canyon wells pump to a gravity transmission main that extends the full length of the District-owned properties in Edgar Canyon. The

transmission main connects to the distribution system in Cherry Valley. Water from the Edgar Canyon Wells, which is not used in the developed areas adjacent to Edgar Canyon or Cherry Valley, is transferred to lower pressure zones serving the City of Beaumont. The Edgar Canyon Wells provide about 15 to 20 percent of the total annual supply; the rest is pumped from wells in the Beaumont Basin supplemented by recharged imported water.

BCVWD has two active stream diversion locations within Little San Gorgonio Creek (Edgar Canyon) that are in the State Water Resources Control Board, Division of Water Rights database (S014351, S014352). The diversions have pre-1914 recorded water rights amounting to 3,000 miner's inch hours (MIH) or approximately 45,000 AFY of right for diversion of water for domestic and irrigation uses. These date back to the early history of the District. However, the District has not yet experienced a demand that requires such large quantities of water supply; and the watersheds may not be capable of supplying such quantities during an average year. At the present time, the District currently diverts streamflow in Edgar Canyon to a series of percolation ponds which recharge the shallow wells in Edgar Canyon. This water is then extracted for domestic purposes.

BCVWD's total well capacity (Edgar Canyon and Beaumont Basin) is about 27.5 mgd with the largest well out of service, which is greater than the current 20.3 mgd maximum day demand (2023). The District has 11 pressure zones and 14 reservoirs (tanks) ranging in size from 0.5 MG to 5 MG. Total storage is approximately 22 MG –just over two average days or just over one maximum day. The reservoirs provide gravity supply to their respective pressure zones. The BCVWD's potable system is constructed such that any higher zone reservoir can supply water on an emergency basis to any lower zone reservoir. There are booster pumps in the system to pump water up from a lower pressure zone to a higher pressure zone also.

The transmission system in the main pressure zones is comprised of 24-in diameter pipelines (there are some 30-in diameter pipelines at some reservoirs). The bulk of the transmission system is ductile iron pipe with cement mortar lining and was installed in the last 15 to 20 years. There are a number of small distribution lines (4-in and smaller) that are gradually being replaced over time with minimum 8-in diameter ductile iron pipe. All developments, since the early 1980s, have installed mortar lined, ductile iron pipe. The distribution system is capable of providing over 4,000 gallons per minute (gpm) fire flow in the industrial/commercial areas of the service area.

5.3 Imported Water and Recharge Facilities

Around 2001, BCVWD began investigating an 80-acre site on the east side of Beaumont Avenue between Brookside Avenue and Cherry Valley Boulevard as a location for a facility to recharge captured storm flow and imported water. After extensive hydrogeologic investigations, including pilot testing, the BCVWD eventually purchased the site (known as the Oda Property) and developed Phase 1 of the recharge facility on the westerly half of the site. The Phase 1 facilities were completed and went online in late summer 2006. Phase 2 of the recharge facility was completed in 2014. The 80-acre site has excellent recharge capabilities with long-term percolation rates around 7 to 10 acre-ft/acre/day, with proper maintenance.

The BCVWD completed construction of a 24-in pipeline from the SGPWA turnout on East Branch Extension (EBX) of the State Water Project to the District's recharge facilities in 2006. A metering station was installed at the turnout at Noble Street and Orchard Street and BCVWD

began taking imported water deliveries from SGPWA for recharge in September of 2006. In 2019, the EBX facility was expanded to allow for additional imported water capacity. Since its operation in 2006 through the end of 2023, nearly 131,136 acre-ft (about 42.7 billion gallons) of imported water have been recharged. As of the end of 2023, BCVWD has 32,844 acre-ft "banked" in the Beaumont Basin; this is more than a three-year supply. From 2020 to 2022, the region experienced a severe drought which required the BCVWD to extract supplies from its storage account.

The BCVWD also recently worked with Riverside County Flood Control and Water Conservation District to complete the construction of the MDP Line 16 Project, which will allow the BCVWD to capture and recharge stormwater at the Phase 2 recharge facilities. This Project was recently completed and the expected volume of stormwater able to be recharged is approximately 250 AFY.

5.4 Non-potable (Recycled) Water System

Currently, BCVWD has over 40 miles of non-potable water transmission and distribution pipelines (6-in and larger) in-place. This construction has occurred since about 2002. A 24-in diameter ductile iron pipeline forms a loop around the City of Beaumont. The system includes a 2-million gallon recycled (non-potable) water reservoir which provides gravity storage and pressurization for the system. The 2 MG non-potable water reservoir is configured to receive potable water or untreated State Project Water (SPW) through air gap connections. The non-potable water system can have a blend of recycled water, imported water, non-potable groundwater, and potable water. The 2 MG reservoir is located at the BCVWD's groundwater recharge facility at Beaumont Avenue between Brookside Avenue and Cherry Valley Boulevard. There are about 425 existing irrigation connections to the non-potable water system receiving about 1,600 acre-ft of water based on 2023 water meter records. The effects of increased development in the BCVWD's service area impacted the non-potable system, also.

A large part of the non-potable water system is currently supplied from Well 26 and supplemented with potable water which is introduced into the 2 MG non-potable water tank through an air gap connection. The non-potable water system in the Tournament Hills, Fairway Canyon and Olivewood areas are currently supplied with potable water through temporary interconnections between the potable and non-potable water system.

BCVWD is currently working with the City of Beaumont to secure recycled water for use in the non-potable water system. The City completed the expansion and upgrade of its existing wastewater treatment facility in 2021 to bring it to 6 MGD capacity and installed a new membrane bioreactor (MBR) treatment unit followed by reverse osmosis membrane treatment. A brine line from the treatment plant to the Inland Empire Brine Line (IEBL) in San Bernardino was constructed in 2020. Upon the availability of recycled water from the City, the non-potable system will be completely severed from the potable system.

A memorandum of understanding between BCVWD and the City for recycled water purchase and use was signed in July 2019 and the City and BCVWD are in the process of finalizing an agreement for purchase of recycled water through an ad-hoc committee consisting of City Council members and BCVWD Board Members.

When the demand for recycled water for landscape irrigation is less than the supply available (winter months), BCVWD may ultimately recharge surplus recycled water at BCVWD's groundwater recharge facility or some alternative facility with appropriate treatment and permits.

Recycled water use and recharge is permitted by the Beaumont Basin Adjudication.

6 UPDATED BCVWD WATER DEMANDS IN SERVICE AREA

In 2018, BCVWD developed a series of White Papers (White Papers No. 1 through 7) that evaluated water supply, water demands, current and future water supply costs, funding requirements and funding strategies considering both BCVWD's service area and the SGPWA as a whole. The results of this series of White Papers indicated that the regional imported water demands in BCVWD's 2020 may be overstated, primarily because of over-aggressive growth in demand, and limited consideration of recent state- mandated conservation and indoor water use requirements.

Table 6-1 shows the population growth in the City of Beaumont and Cherry Valley from 1980 to 2020.

Table 6-1 City of Beaumont and Cherry Valley Historical Population

Year	1980	1990	2000	2005	2010	2015	2020	2023 [2]
City of Beaumont [1]	6,818	9,685	11,384	19,105	36,877	43,370	53,036	57,844
Cherry Valley [1]	5,012	5,945	5,891	6,126	6,362	6,595	6,509	6,554
Total [1]	11,830	15,630	17,275	25,231	43,239	49,965	59,545	64,438

[1] Data from Table 3-4 in the 2020 BCVWD UWMP
[2] Estimated population data from U.S. Census Bureau

The data in above table shows a very rapid growth for the City of Beaumont and Cherry Valley between the years 2000 to 2023. Nearly 2/3 of this growth occurred between 2000 and 2010 based on building permits issued by the City of Beaumont. The high rate of growth decreased after 2010 following the economic turndown in the U.S. and California in 2008 which continued for several years. The rate of growth in the District's service area has increased again after 2015 after the start of the economic recovery. The population in Cherry Valley remained relatively constant since 1990. The community of Cherry Valley did not experience the same growth spurt that occurred in the City of Beaumont and other areas in Western Riverside County.

Review of the City of Beaumont's Major Project Status Report listed five (5) projects that were currently under development (on-going construction). The housing units yet to be constructed within the limits of BCVWD or the sphere of influence will probably increase the population of the area more than what was expected before.

Table 6-2 presents the current and projected population in BCVWD area.

Table 6-2 Current and projected population of City of Beaumont and Cherry Valley

Year	2020	2023 [2]	2025	2030	2035	2040	2045
City of Beaumont [1]	53,036	57,844	58,467	65,901	73,901	80,335	86,266
Cherry Valley [1]	6,509	6,554	7,682	7,838	8,005	8,197	8,290
Total [1]	59,545	64,438	66,149	73,739	81,906	88,532	94,556

[1] Data from Table 3-4 in the 2020 BCVWD UWMP
[2] Estimated population data from U.S. Census Bureau

Based on the projected populations in the District's service area, it is estimated that the total (potable, non-potable and recycled) water demands will increase to about 20,660 AFY by 2045 (including estimated losses). This results in an increase in demand of about 50% over the next 25 years (shown in Table 6-3). It should be noted that table 6-3 does not include the water demands required for this project.

Table 6-3 Data from Table 7-6 in the BCVWD 2020 UWMP [1]

Year	2020	2023 [2]	2025	2030	2035	2040	2045
Potable Water, Raw, Other Non-Potable, AF	13,818	12,010	14,972	15,698	16,391	17,285	18,082
Recycled Water Demand, AF	0	0	1,957	2,175	2,478	2,561	2,578
Total, AF	13,818	12,010	16,929	17,873	18,869	19,846	20,660

[1] Data from Table ES-2, the BCVWD 2020 UWMP.
[2] BCVWD provided data from District records.

7 IMPORTED WATER DATA/SUPPLY DATA

7.1 BCVWD's Source of Supply

BCVWD water supply consists of:

- **Edgar Canyon (Little San Gorgonio Creek) Groundwater –** BCVWD has long-term records on pumping. From 1957 to 2020, a period of 64 years, the average production from the Edgar Canyon Wells is 1,881 AFY. However, prior to 1983, the ability to utilize the water pumped from Edgar Canyon was limited due to a lack of sufficient conveyance capacity to deliver water from Edgar Canyon to Cherry Valley and Beaumont. In 1983, the District installed the 14-in Edgar Canyon Transmission Main which enabled larger quantities of water to be conveyed from Edgar Canyon to Cherry Valley and Beaumont. From 1983 to 2020, a period of 38 years, the average amount pumped was 2,073 AFY. This is far more indicative of Edgar Canyon's ability to produce water. According to the BCVWD 2020 UWMP the Edgar Canyon Wells produced about 10% of the District's annual demand (potable and non-potable) in 2020.

- **Beaumont Basin**
  - Overlier Potable and Non-Potable Water Forbearance – is credited to a water supplier by Watermaster for any potable and/or recycled water provided to an overlying party or an overlying party's land. The overlier forbears pumping the equivalent amount of water supplied and the appropriator then has the right to pump the volume of water forgone by the overlier. This is done through the Beaumont Basin Watermaster who transfers forgone water to the appropriator's roundwater storage account on an annual basis.
  - Reallocated Unused Overlier Pumping Rights – All of the "safe yield" from the Beaumont Basin is allocated to the overlying parties (overliers). Each overlier was given a share of the safe yield and was allowed to pump no more than five times that share in any five-year period. Most, if not all, of the overliers do not pump their entire share of the safe yield. The amount of groundwater not produced by an overlying party shall be available for allocation to appropriators in accordance with their percentage shares of unused safe yield stated in the Adjudication Exhibit C12. BCVWD's share is 42.51% of the unused overlier pumping rights. The Beaumont Basin Watermaster administers this reallocation and transfers the appropriate amounts into the appropriators' storage accounts n an annual basis.
  - Return Flow Credits – Return flow is defined as the portion of water which is applied to the land which is not evaporated or evapo-transpired and which ultimately percolates (returns) to the groundwater table and which can be re-extracted for use. Return flows originate from irrigation of agricultural land and lawns and landscaped areas in rural and urban settings and from deep percolation of septic tank effluent in unsewered areas, e.g., Cherry Valley. In most adjudicated groundwater basins, credit is given to the supplier of water which is used on land overlying the groundwater basin and which percolates back or "returns" to the groundwater. Watermaster provided annual return flow

estimates from various land uses in Table 3 of the Safe Yield Report and were used in estimating current and future return flow credits.
    - Storm Water – Stormwater capture plays a significant role in BCVWD's local water resources supply development. Diverted stormwater is/will be routed to percolation ponds capable of recharging the groundwater basins. The District currently has stormwater diversion located in the Upper and Middle of Edgar Canyon
    - Potential Stormwater Capture Projects – The District has a number of potential stormwater capture projects.

- **Non-Potable Groundwater**
    - Mouth of Edgar Canyon (Potential) – High nitrate groundwater located at the mouth of Edgar Canyon can supplement the recycled water/non-potable water system flow in the summer, high demand months, making well water available for potable water use. BCVWD believes as much as 300 AFY can be captured and reused.
    - San Timoteo Creek (Potential) – San Timoteo Canyon Extraction Wells to capture groundwater from the Beaumont Basin flowing into San Timoteo Canyon and also to capture City of Beaumont wastewater flow discharged to Cooper's Creek once the water has percolated and is no longer available for habitat maintenance. It is estimated that 400 to 800 AFY can be captured and put into the recycled water/non-potable water system to meet summertime demands.
    - Recycled Water – The District is currently in the process of finalizing its Non-Potable Water Master Plan, which includes more current non-potable system facility requirements and recycled water supply projections. The non-potable/recycled water supply data provided in this WSA addendum are consistent with the District's 2020 UWMP. The non-potable/recycled water supply projections are considered draft as of the date of approval of this Addendum 1. Data from the BCVWD 2020 UWMP is used for consistency. Recycled water is not currently available for use; however, BCVWD and the City of Beaumont are working towards an agreement.

BCVWD is currently working with the City of Beaumont to distribute Title 22 recycled water produced at the City of Beaumont's Treatment Plant No. 1. Phase 1 of the City's wastewater treatment plant construction has been completed, increasing the rated capacity from 4 MGD to 6 MGD. Process upgrades include redundant coarse screens, a grit removal system, a flow equalization basin, a fine screen system, an activated sludge process coupled with a new MBR system followed by a partial RO, and a new UV disinfection system. Another component to the treatment facility upgrades is the construction of a 12-inch diameter gravity pipeline from the Beaumont WWTP to the nearest connection point in the Inland Empire Brine Line (IEBL) to dispose of the brine waste generated by the upgraded treatment facility. Construction of the brine line was completed around early 2020 and is approximately 23 miles long.

Historically, the City of Beaumont's effluent has experienced TDS concentrations of about 400 mg/L, which is an excess of the Regional Board's Maximum Benefit Water Quality Objectives for the Beaumont Basin. With the implementation of the reverse osmosis system, the recycled water from the City will be treated to a high-level and should have no issue in achieving the Maximum Benefit Water Quality Objectives.

Table 7-1 below lists the estimated recycled water produced, the recycled water that must be reserved for habitat mitigation (1.8 mgd), and the net amount of recycled water available for recycling. Please note that not all the wastewater can be recycled due to onsite recycled water demands and reject water from the reverse osmosis process.

Table 7-1 Recycled Water Available from City of Beaumont's WWTP

Year	2020	2025	2030	2035	2040	2045
Wastewater Flow, mgd	3.62	4	4.36	4.87	4.93	4.89
Environmental Mitigation Flow, mgd	1.8	1.8	1.8	1.8	1.8	1.8
Wastewater available for Recycling, mgd	1.82	2.2	2.56	3.07	3.13	3.09
Estimated amount which can be recycled, mgd	1.45	1.8	2.13	2.58	2.64	2.6
Estimated amount which can be recycled, AFY	1,630	2,017	2,381	2,892	2,955	2,915

Data from Table 6-15 in the BCVWD 2020 UWMP

- **Imported Water from SGPWA –** The amount of imported water which BCVWD is able to purchase and recharge is only the amount left over after YVWD, the City of Banning, and others have purchased the amount each needs to meet their demands and banking. The amount available from the SGPWA collectively is discussed later in this WSA. BCVWD has entered into an agreement, and participated financially, with the SGPWA for a share of the yield from the Sites Reservoir Project. This is discussed later in this WSA.

For the normal year, there is more than enough supply to meet the demand and BCVWD can bank water in the Beaumont Basin, which will be needed during dry periods. As noted in Table 7-2, demand totals include BCVWD's imported water banking to ground water storage for drought proofing. Any additional supply available after all demands have been satisfied would be recharged and added to BCVWD's storage account. A summary of the Water Supply Assessment for an average year is indicated below in Table 7-2.

Table 7-2 Water Supply Assessment for Normal Year Conditions [1]

	YEAR				
	2025	**2030**	**2035**	**2040**	**2045**
DEMAND					
Potable Water Demand, AFY	13,196	14,252	15,391	16,285	17,082
Drought Proofing, AFY	1,500	1,200	1,000	1,000	1,000
Beaumont Heights Business Center Potable Water Demand	58	58	58	58	58
Beaumont Heights Business Center Non-Potable Water demand	237	237	237	237	237
Supplemental Water to Non-Potable System, AFY	276	246	-	-	-
Non-Potable Water Demand, AFY	1,957	2,175	2,478	2,561	2,578
Total Water Demand, AFY	**17,224**	**18,168**	**19,164**	**20,141**	**20,955**
LOCAL SUPPLY					
Potable Groundwater					
Edgar Canyon, AFY	2,073	2,073	2,073	2,073	2,073
Beaumont Basin Groundwater Available					
Overlier Potable Forebearance, AFY	-	67	264	384	384
Overlier Non-Potable Forebearance, AFY	471	480	1,123	1,158	1,158
Reallocation of Unused Overlier Rights, AFY	1,322	1,286	1,165	1,099	1,099
Return Flow Credits, AFY	280	514	868	922	1,155
Storm Water, AFY	185	535	535	535	535
Non-Potable Groundwater					
Mouth of Edgar Canyon, AFY	-	-	300	300	300
San Timoteo Creek, AFY	-	-	600	600	600
Recycled Water Available, AFY	0	2,381	2,892	2,955	2,915
Subtotal Local Supply, AFY	**4,331**	**7,335**	**9,820**	**10,026**	**10,219**
BCVWD's Share of Imported Supply					
Table A Allocation (58%), AFY	7,877	7,184	6,653	5,860	5,248
Yuba Accord, AFY	182	166	154	135	121
AVEK Nickel, AFY	1,335	1,217	1,127	993	889
Ventura, AFY	4,553	4,153	3,845	3,387	-
SGPWA Carryover Water, AFY	2,368	2,159	2,000	1,761	1,577
Sites Reservoir, AFY	-	-	3,037	5,623	7,911
Additional SWP Transfers/Exchanges, AFY	455	415	385	339	303
Subtotal Imported Supply, AFY	**16,770**	15,294	17,201	18,098	16,049
Total Supply, AFY	**21,101**	22,629	27,021	28,124	26,268
From (To) Banked Beaumont Basin Storage, AFY	**(3,877)**	**(4,461)**	**(7,857)**	**(7,983)**	**(5,313)**

[1] Modified Table 7-8 from the BCVWD 2020 UWMP to include Ventura Water and tables 4-1 and 4-2

8 SUPPLY VERSUS DEMAND ANALYSIS

8.1 BCVWD Normal Year Comparison

Sections 6 and 7 presented the water demand and water supply requirements, including imported water, under average hydrologic conditions for BCVWD. The 2020 SGPWA UWMP quantified the imported water demands on the SGPWA from BCVWD and the other member agencies of the SGPWA. SGPWA will have enough, or has made commitments for or taken steps to acquire, imported water supply to meet its needs to year 2045 and beyond. Since BCVWD's demands and imported water requirements are included in SGPWA's demands, including imported water, it can be concluded that BCVWD has sufficient supply and imported water to meet demands beyond 2045 under average demand and supply conditions.

According to the 2020 SGPWA UWMP, 28.6% of the Sites Reservoir Project yield, (4,000 AFY/14,000 AFY) is committed to BCVWD by virtue of BCVWD's financial commitment to the Sites Reservoir Project Phase 1 and Phase 2 - 2019.

Figure 8-1 shows BCVWD's demand is less than the available supply. Figure 8-1 is based on the data in Table 6-16. Figure 8-2 shows the accumulated volume in BCVWD's Beaumont Basin groundwater storage account. By 2045, the storage account is significantly full (58,700 AF in storage). Figure 8-2 has been updated to account for the loss of storage due to the drought from 2020 – 2022. Table 6-16 indicates that BCVWD's imported water demand will be 10,440 AFY in 2045; this means that BCVWD is projected to have 7.1 years of imported water demand in storage which can be used to supply water during drought periods even if no SPW is available.

Figure 8-1: BCVWD's Water Supply and Demand Projection to 2045

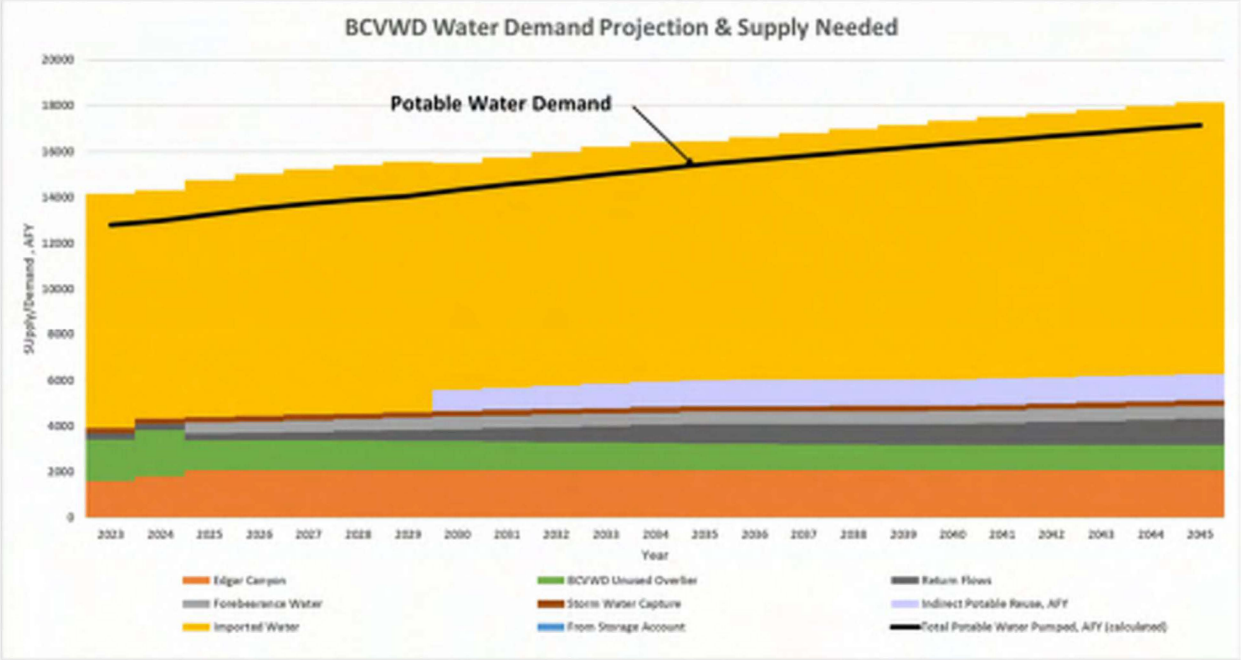
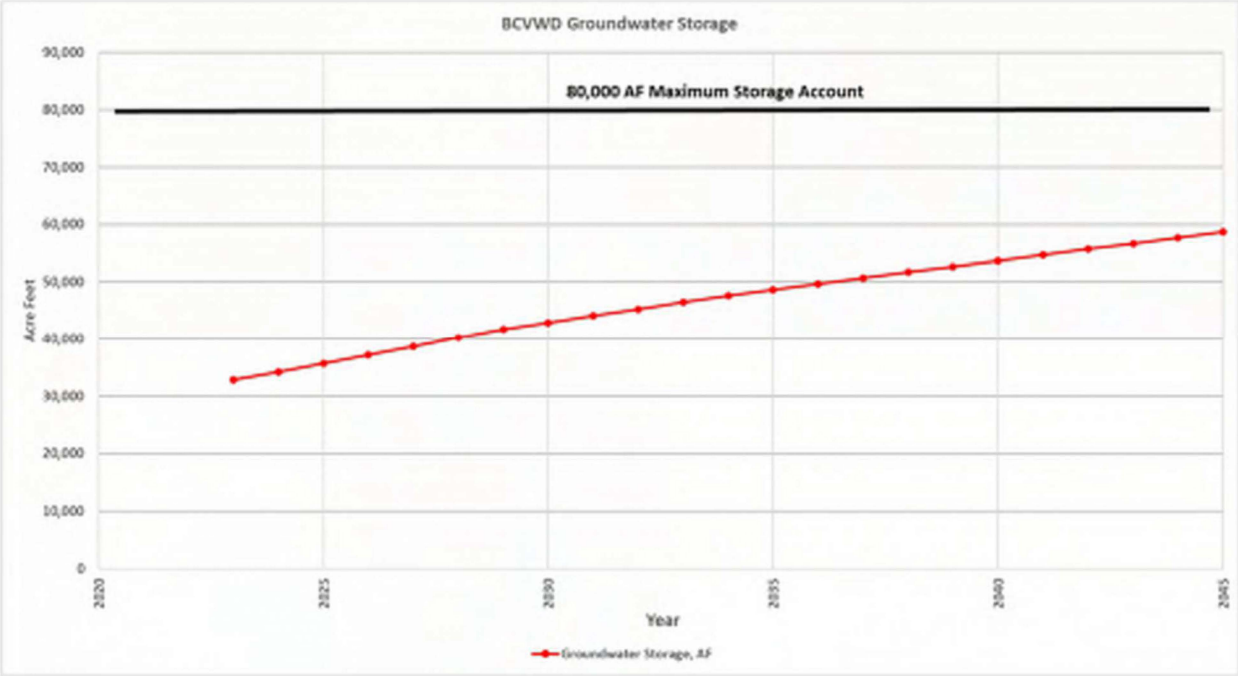


Figure 8-2: BCVWD's Groundwater Storage Balance to 2045



During any normal year conditions (normal is synonymous with average long term supply conditions), the District can expect a surplus in supply, which is ultimately stored in the District's groundwater storage account for drought proofing. A comparison of the District's present and projected supplies and demands is shown below in Table 8-1.

Table 8-1 Normal Year Supply and Demand Comparison [1]

YEAR	2020	2025	2030	2035	2040	2045
Supply Total, AFY	14,246	23,118	22,629	27,021	28,124	26,268
Demand Total, AFY	14,114	17,224	18,168	19,164	20,141	20,955
Surplus (Shortfall), AFY	**132**	**5,894**	**4,461**	**7,857**	**7,983**	**5,313**

[1] Data from tables 4-1, 4-2, and 7-2 of this WSA; and Table ES-3 of the BCVWD 2020 UWMP, modified to include Ventura Imported Water Supply for 2025 and beyond.

8.2 Summary of Member Agency Imported Water Demands on SGPWA

Table 8-2 includes a projected amount of imported water for member agencies in SGPWA that are not currently taking SPW. These amounts were taken from SGPWA's 2020 UWMP. BCVWD believes these amounts are conservative considering the growth rates in the SGPWA Area.

Table 8-2 Regional Summary of Spreadsheet Supply-Demand Model for SGPWA [1]

Demand or Supply	Year				
	2025	**2030**	**2035**	**2040**	**2045**
Potable Water Demand Banning, YVWD (Calimesa), BCVWD, Potable and Non-Potable, AFY	39,094	40,600	42,050	43,388	44,473
Local Supply Banning, YVWD (Calimesa), BCVWD, AFY	26,005	26,094	27,671	26,934	26,203
Imported Water Demand, AFY	19,277	19,262	22,530	24,733	23,880
Total Imported Water and Local Supply, AFY	45,282	45,356	50,201	51,667	50,083
Total To (From)_ Regional Groundwater Storage, AFY	6,188	4,756	8,151	8,279	5,610
SGPWA Imported water demands for those agencies not currently taking imported water, from SGPWA 2020 UWMP, AFY	3,400	3,600	3,900	4,100	4,300
Total Imported Water Demand, AFY	**22,677**	**22,862**	**26,430**	**28,833**	**28,180**

[1] Taken data from City of Banning 2020 UWMP Table 7.1, YVWD 2020 UWMP Table 11-28, and 7-2.

9 AVAILABLE IMPORTED WATER

9.1 State Water Project Overview

9.1.1 Table A Allocations

SGPWA's Table A Annual Amount is 17,300 acre-feet per year up through the 2045 UWMP planning horizon. SGPWA's Table A represents a maximum contract amount that could be available each year assuming that the SWP could deliver 100% contract supplies to all SWP contractors. Though not shown on Table 9-1, 2023 was a 100% allocation year. Prior to 2023, the last 100% allocation year occurred in 2006. Currently, the Table A Allocation for 2024 is 40%. SGPWA's SWP Contract has numerous components that allow SGPWA to manage and control the annually available SWP water supplies.

More often than not, actual SWP allocations are less than 100% SGPWA's Table A Annual Amount. Annual SWP percentage Table A allocations fluctuate based upon hydrology, water storage, and regulatory criteria in the Delta. Table 9-1 below shows the SGPWA Table A Annual Amount from 2010 through 2020, the SWP allocation percentage, and the final available Table A allocation from 2010-2020. During this period, the SGPWA received on average 8,335 acre-feet, or about 48% of the Table A contract amount. It is important to recognize that this period included a significant and recent drought event.

Table 9-1 SWP Table A Allocations and Deliveries [1]

Year	SWP Contract Table A	Percent Allocation	Allocation Amount
2010	17,300	50%	8,650
2011	17,300	80%	13,840
2012	17,300	65%	11,245
2013	17,300	35%	6,055
2014	17,300	5%	865
2015	17,300	20%	3,460
2016	17,300	60%	10,380
2017	17,300	85%	14,705
2018	17,300	35%	6,055
2019	17,300	75%	12,975
2020	17,300	20%	3,460

[1] Taken from Table 3-1 in the 2020 SGPWA UWMP.

The single dry year characterization and five consecutive dry year characterization for the SWP supplies are also an important consideration in SGPWA's UWMP. The 2017 and 2019 DCR represent the single driest year as 1977 with an 8% SWP allocation estimate in 2017 DCR and a 7% SWP allocation estimate in 2019 DCR. The single lowest historical SWP allocation occurred in 2014 at 5%, and this 5% allocation is also representative of the 2021 Table A Allocation. As such, to be conservative in its projections, SGPWA will use 5% of 17,300 acre-

feet or 865 acre-feet per year as the single dry year allocation through 2045 as depicted in Table 9-2 and 9-3.

Table 9-2 SWP Future Table A Projected Water Year Deliveries During Single and Multi-Year Drought Conditions (AFY) [1]

Table A	Year Type	Amount
Normal		10,034
Single Dry Year		865
Multi-Year Drought	Year 1	6,055
	Year 2	865
	Year 3	865
	Year 4	3,460
	Year 5	6,055

[1] Taken from Table 3-3 in the 2020 SGPWA UWMP.

The 2019 DCR also identifies various drought periods for purposes of characterizing SWP allocation percentages that would accompany those drought periods. The averaging of the allocations over the course of the drought period is not representative of SGPWA drought planning purposes. SGPWA will use the following drought characterization for its short-term and long-term planning: year 1 at 35%; year 2 at 5%; year 3 at 5%; year 4 at 20%; and year 5 at 35%. SGPWA examined the historical record and determined that there was no representative five consecutive year historical SWP delivery dry period that adequately reflects a potential future five-year critical drought condition that could drastically reduce SWP supply deliveries for SGPWA's service area. As such, taking a more conservative planning approach, SGPWA created a more restrictive dry year characterization that adequately represents a critical drought over five consecutive years. In this dry year modeled sequence, two consecutive critically dry years are bounded by Table A allocations that are reflected in the recent historical record. Table 9-3 shows the normal year, single dry year, and five consecutive dry years planned SWP Table A Allocation for San Gorgonio Pass Water Agency through 2045.

Table 9-3 Future SWP Allocations by Year Type Through 2045 (AFY) [1]

Total Supply		2025	2030	2035	2040	2045
Normal		10,034	10,034	10,034	10,034	10,034
Single Dry Year		865	865	865	865	865
Multi-Year Drought	Year 1	6,055	6,055	6,055	6,055	6,055
	Year 2	865	865	865	865	865
	Year 3	865	865	865	865	865
	Year 4	3,460	3,460	3,460	3,460	3,460
	Year 5	6,055	6,055	6,055	6,055	6,055

[1] Taken from Table 3-4 in the 2020 SGPWA UWMP.

9.1.2 Table Carryover Water

SGPWA's SWP Contract allows it to forego use of its allocated SWP Table A supply and retain a portion of that allocated supply in storage for future use. This retained supply is termed "Carryover" and is governed under Article 56 of SGPWA's SWP contract. Carryover water is water that is released from Oroville dam and reservoir, re-diverted at the Delta, and then stored in San Luis Reservoir – an off-stream reservoir located just outside the City of Santa Nella at the junction of Interstate 5 and California State Highway 152. San Luis Reservoir is jointly owned

and operated by the state and federal governments and all SWP contractors may use the storage facility to manage Carryover water supplies. In short, the San Luis Reservoir receives, regulates, and stores exported water derived from the State Water Project and Federal Central Valley Project.

The amount of water that SGPWA may carryover in any given year is subject to a set of rules that implicate all SWP contractors throughout California. In brief, SGPWA delivers its Table A supplies to Carryover in San Luis Reservoir with an expectation that it will be able to divert all or a portion of these supplies in a subsequent year. In the event that water supplies are abundant, San Luis Reservoir may "spill." When San Luis Reservoir reaches a "spill" stage, DWR releases SGPWA's Carryover in accordance with the aforementioned rules as they apply in the context of all entities with stored water in San Luis Reservoir. Nevertheless, over the last 10 years SGPWA has retained a portion of its Table A Allocation as Carryover even in the driest years and continues to maintain a Carryover balance. Table 9-5 shows SGPWA's Carryover balance from 2010 through 2020.

Table 9-4 SGPWA Historic SWP Carryover Storage and Use (AFY) [1]

Year	Source	Available Carryover
2010	97-12 Historic Delivery Database	2,719
2011	97-12 Historic Delivery Database	4,535
2012	97-12 Historic Delivery Database	4,956
2013	Finalization Report	5,277
2014	Finalization Report	5,264
2015	Finalization Report	954
2016	Finalization Report	936
2017	Finalization Report	1,700
2018	Finalization Report	5,159
2019	Finalization Report	2,668
2020	Finalization Report	4,211

[1] Taken from Table 3-5 in the 2020 SGPWA UWMP.

The Carryover supplies noted in Table 9-4 combine a number of water management factors that impact SGPWA's overall water supply availability. For example, where SGPWA is able to acquire additional water assets in normal and wet year types, SGPWA may carryover SWP supplies to water shortage years for use. Moreover, where SGPWA may acquire alternative supplies through transfers and exchanges, even in the driest years, the Agency may then manage its supply portfolio to preserve Carryover supplies for later use. For instance, in 2015, the SGPWA stored 954 acre-feet of water supplies as Carryover when SWP allocations were at the lowest historical allocation on record – five percent (5%) – in the 2014 water year (see Table 9-1). Similarly, in 2015 – a 20% allocation year – SGPWA was able to carryover 936 acre-feet of water into the 2016 water year by acquiring alternative supplies and flexibly managing regional supplies in coordination with the retail agencies. SGPWA's management actions coordinated the Agency's available water supply portfolio in these years with the regional retail agencies water supply portfolios and water conservation efforts in order to preserve SWP supplies for future uses.

The SGPWA will have access to its Table A Carryover supplies in future years based upon the hydrological and regulatory conditions. The Table A Carryover supplies result from a number of

variables that are tied to the SWP Table A annual percent allocation, operations in San Luis Reservoir, and water supply management by SGPWA throughout its service area. In wet years, SGPWA carries over substantial supplies that are considered in the annual carryover numbers.

Accordingly, water years 2013 through 2017 above are representative of a five-year Carryover supply availability for SGPWA – and include 2014 and 2015 two of the driest years on record. Furthermore, SGPWA conservatively estimates future Carryover supplies in a normal year to be approximately 5,200 acre-feet similar to 2013, 2014, and 2018 and carryover in a single dry year to be just over 900 acre-feet like 2015 and 2016. These supplies are estimated based upon typical SWP management in a normal year in context of SGPWA's total water supply portfolio. The future normal year Carryover supply represents approximately half of SGPWA's normal year carryover number as noted in Table 9-4 but other years represent Carryover supplies that may result from additional SGPWA multi-year management actions that allow Carryover supplies to be available in these year types. Table 9-5 shows the Carryover supplies through 2025 and Table 9-6 shows the representative Table A Carryover supplies through 2045.

Table 9-5 Carryover Supplies Through 2025 (AFY) [1]

Table A	Year Type	Amount
Normal		3,000
Single Dry Year		936
Multi-Year Drought	Year 1	3,000
	Year 2	2,500
	Year 3	954
	Year 4	936
	Year 5	1,700

[1] Taken from Table 3-6 in the 2020 SGPWA UWMP.

Table 9-6 Future Available Table A Carryover Supplies (AFY) [1]

Total Supply		2025	2030	2035	2040	2045
Normal		3,000	3,000	3,000	3,000	3,000
Single Dry Year		936	936	936	936	936
Multi-Year Drought	Year 1	3,000	3,000	3,000	3,000	3,000
	Year 2	2,500	2,500	2,500	2,500	2,500
	Year 3	954	954	954	954	954
	Year 4	936	936	936	936	936
	Year 5	1,700	1,700	1,700	1,700	1,700

[1] Taken from Table 3-7 in the 2020 SGPWA UWMP.

9.1.3 Delta Conveyance Project Future SWP Increment

The Delta Conveyance Project, if implemented, would increase the future reliability of SGPWA water supplies derived from the SWP. Consistent with Executive Order N-10-19, in early 2019, the state announced a new single tunnel project, which proposed a set of new diversion intakes along Sacramento River in the north Delta for SWP. In 2019, the California Department of Water Resources (DWR) initiated planning and environmental review for a single tunnel Delta Conveyance Project (DCP) to protect the reliability of State Water Project (SWP) supplies from the effects of climate change and seismic events, among other risks. DWR's current schedule for the DCP environmental planning and permitting extends through the end of 2024. DCP will

potentially be operational no later than 2040 following extensive planning, permitting, and construction.

SGPWA anticipates that the DCP will increase access to water assets by providing conveyance opportunities that are currently unavailable. SGPWA recently increased its investment in the DCP from 1.22% to 2% of project capacity in order to improve future conveyance actions related to its water asset portfolio. As such, the DCP investment should provide better access to SWP supplies in normal and wet years as well as opportunities to deliver alternative planned supplies as they become available to SGPWA.

9.2 SGPWA Additional Imported Water Supplies

9.2.1 Yuba Accord Water

In 2008, SGPWA entered into the Yuba Accord Agreement and has amended the agreement several times through 2014. The Yuba Accord Agreement allows SGPWA to purchase water from Yuba County Water Agency through its contractual arrangement with DWR that permits 21 SWP contractors (including SGPWA) and the San Luis and Delta-Mendota Water Authority regular access to the supply. Yuba Accord water comes from the Yuba River, located north of the Delta, and the water purchased under this agreement is subject to losses associated with transporting it to SGPWA's service area. While the amount of this water varies each year depending on hydrologic conditions, the Agency anticipates receiving an average future amount of approximately 300 AFY. The Agency recently signed an extension to this agreement allowing it to purchase this water well into the future. Table 9-7 shows the Yuba Accord water supplies from 2015 - 2020 coming to SGPWA. Table 9-8 shows the normal, single dry, and five consecutive dry year water supplies available under the Yuba Accord.

Table 9-7 Last Five Years of Yuba Accord Water Deliveries (AFY) [1]

Year	Yuba Accord Deliveries
2015	0
2016	0
2017	0
2018	124
2019	0
2020	406

[1] Taken from Table 3-8 in the 2020 SGPWA UWMP.

Table 9-8 Yuba Accord Future Water Deliveries in all Year Types (AFY) [1]

Total Supply		2025	2030	2035	2040	2045
Normal		400	400	400	400	400
Single Dry Year		100	100	100	100	100
Multi-Year Drought	Year 1	300	300	300	300	300
	Year 2	100	100	100	100	100
	Year 3	100	100	100	100	100
	Year 4	200	200	200	200	200
	Year 5	300	300	300	300	300

[1] Taken from Table 3-9 in the 2020 SGPWA UWMP.

9.2.2 Nickel Agreement

SGPWA signed an agreement with Antelope Valley – East Kern Water Agency (AVEK) on July 7, 2017 (hereafter called "Nickel Agreement"). The Nickel Agreement entitles SGPWA to purchase 1,700 acre-feet of AVEK water each year under a take or pay provision. The AVEK water is non-project water that is provided by the Kern County Water Agency. The Nickel Agreement expires in 2036 and SGPWA has a right of first refusal for an additional 20-year term. AVEK is required to deliver 100% of the supply in all years. Table 9-9 shows SGPWA Nickel Agreement water deliveries from 2017 to 2020.

Table 9-9 Nickel Agreement Water Deliveries since 2017 (AFY) [1]

Year	Nickel Agreement Deliveries
2017	1,700
2018	1,700
2019	1,700
2020	1,700

[1] Taken from Table 3-10 in the 2020 SGPWA UWMP.

SGPWA may consider the Nickel Agreement water supply always available in normal, single dry, and five consecutive dry years. The Nickel Agreement is a take or pay contract with no shortage provision that obligates AVEK to deliver the water in all year types. Table 9-10 shows the SGPWA Nickel Agreement future water supply availability.

Table 9-10 Nickel Agreement Future Water Deliveries in all Year Types (AFY) [1]

Nickel Agreement Deliveries		2025	2030	2035	2040	2045
Normal		1,700	1,700	1,700	1,700	1,700
Single Dry Year		1,700	1,700	1,700	1,700	1,700
Multi-Year Drought	Year 1	1,700	1,700	1,700	1,700	1,700
	Year 2	1,700	1,700	1,700	1,700	1,700
	Year 3	1,700	1,700	1,700	1,700	1,700
	Year 4	1,700	1,700	1,700	1,700	1,700
	Year 5	1,700	1,700	1,700	1,700	1,700

[1] Taken from Table 3-11 in the 2020 SGPWA UWMP.

9.2.3 San Bernadino Valley Municipal Water District Agreement

SGPWA entered the Surplus Water Sale Agreement with San Bernardino Valley Municipal Water District Surplus Water Sale Agreement (SBVMWD Agreement) in June of 2018. SBVMWD is a SWP contractor that holds an entitlement to 102,600 acre-feet under its Table A Annual Amount in its 1960 SWP contract. The SBVMWD Agreement entitles SGPWA to purchase up to 5,000 acre-feet of SWP entitlement each year with SBMVWD's express concurrence. The SBVMWD Agreement expires on December 31, 2032, and there is no right of renewal. Nevertheless, SGPWA anticipates renewing this contract. The amount of water available under the contract varies each year and is subject to the "sole discretion" of SBVMWD whether the water will be made available for SGPWA to purchase. The water supply under this agreement may be available depending upon SBVMWD's supply availability determination. The SGPWA is not incorporating this potential supply into its water supply reliability determinations

for all year types but considers the supply a component of its available transfer and exchange supplies and, when acquired, may be incorporated into its groundwater storage facilities.

9.2.4 Sites Reservoir Agreement

SGPWA signed the Sites Reservoir Agreement in 2019. Sites Reservoir is a proposed new 1,500,000 acre-feet off-stream storage reservoir in northern California near Maxwell. Sacramento River flows will be diverted during excess flow periods and stored in the off-stream reservoir and released for use in the drier periods. Sites Reservoir is expected to provide water supply, environmental, flood, and recreational benefits. The proponents of Sites Reservoir include 30 entities including several individual SWP Public Water Agencies (PWAs). Sites Reservoir is expected to provide approximately 240 TAF of additional deliveries on average to participating agencies under existing conditions. Sites Reservoir is currently undergoing environmental planning and permitting. Full operations of the Sites Reservoir are estimated to start by 2029 following environmental planning, permitting, and construction. Sites was conditionally awarded $816 million from the California Water Commission for ecosystem, recreation, and flood control benefits under Proposition 1. Reclamation has also invested in Sites Reservoir and has allocated $13.7 million in 2021 for the project. Both SGPWA and Beaumont Cherry Valley Water District have purchased shares in Sites Reservoir, 10,000 shares and 4,000 shares respectively, that would augment supplies in the San Gorgonio Pass Water Agency service area. Table 9-11 shows the future availability of Sites Reservoir water in the SGPWA's service area and incorporates both the SGPWA and Beaumont Cherry Valley potential supplies. Other stakeholders with investments in Sites Reservoir have accounted for available supplies in 2035 as well.

Table 9-11 Future Availability of Sites Reservoir Water (AFY) [1]

Sites Reservoir		2025	2030	2035	2040	2045
Normal		0	0	10,000	12,000	15,000
Single Dry Year		0	0	10,000	12,000	15,000
Multi-Year Drought	Year 1	0	0	10,000	12,000	15,000
	Year 2	0	0	10,000	12,000	15,000
	Year 3	0	0	10,000	12,000	15,000
	Year 4	0	0	10,000	12,000	15,000
	Year 5	0	0	10,000	12,000	15,000

[1] Taken from Table 3-12 in the 2020 SGPWA UWMP.

9.2.5 Ventura Water

In 2022, SGPWA entered into a 20-year Agreement with the City of San Buenaventura (Ventura) and the Casitas Municipal Water District (Casitas). Together, the City of Ventura and the Casitas Municipal Water District have a combined Table A water allocation of 20,000 acre-feet. Ventura and Casitas do not plan to take direct delivery of their respective Table A water. The Ventura Water Agreement allows SGPWA to purchase water from Ventura and Casitas through its contractual arrangement. Of the 20,000 acre-feet total Table A allocation, the agreement allows for SGPWA to receive up to 10,000 acre-feet in addition to the existing 17,300 acre-feet Table A allocation for SGPWA.

9.2.6 Water Transfers and Exchanges

SGPWA also engages in water transfers and exchanges involving its SWP assets and other contractors' SWP water assets. Historically, SGPWA has both received and delivered water through these transfers and exchanges with various agencies throughout California. These transfers are essentially spot market transfers where short-term opportunities are identified and then actions taken for acquisition. These transfers help support management of SGPWA's and the retail agencies' water supply portfolios. Future SGPWA transfers and exchanges depend upon the allocations available to SGPWA and other water purveyors. As noted in Section 7.2.1., SGPWA has regularly acquired Yuba Accord water through its transfer and exchange activities. In addition, the State Water Contractors collectively develop annual water transfer and exchange programs to develop transferable supplies and negotiate transfer terms. SGPWA regularly participates in SWC's transfer programs. SGPWA seeks to augment potential opportunities for exchanges and transfers with SWP contractors and alternative transfer opportunities like the SWC annual transfer program. Table 9-12 shows the planned future SWP and other water transfer opportunities that could be available for SGPWA.

Table 9-12 SGPWA Future Transfers and Exchanges (AFY) [1]

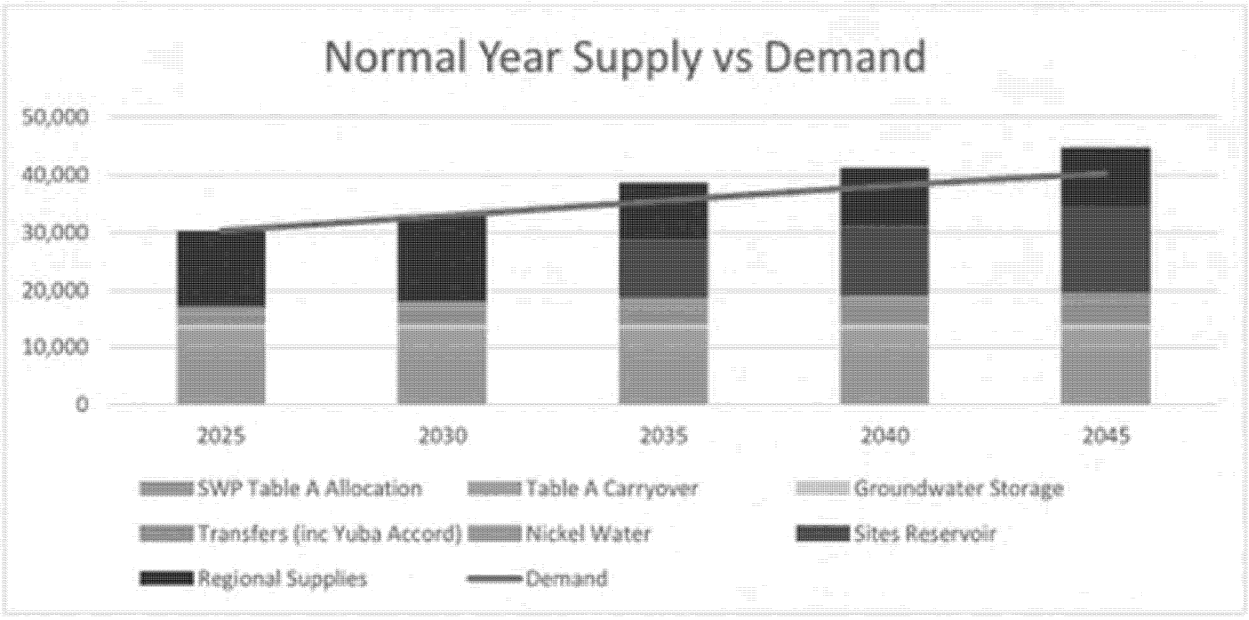
Target Supply	2025	2030	2035	2040	2045
State Water Project	500	1,000	1,000	1,000	1,000
Additional Supplies	600	1,100	1,600	2,100	2,600
Total Transfers	1,100	2,100	2,600	3,100	3,600

[1] Taken from Table 3-13 in the 2020 SGPWA UWMP.

9.3 Summary of Available Imported Water Supplies

As shown in Figure 9-1, SGPWA has reliable water supplies through the 2045 planning horizon. SGPWA has assessed the available SWP supplies, imported supplies, and locally available managed water supplies to assess regional water supply reliability through this planning horizon. In addition, SGPWA engages in annual water transfers and exchanges and stores water both within SGPWA's service area boundaries and outside its boundaries to address variable water conditions. Together, these supplies make up SGPWA's regional water asset portfolio that is actively managed by coordinated actions between SGPWA and the regional retail agencies to ensure long-term reliability.

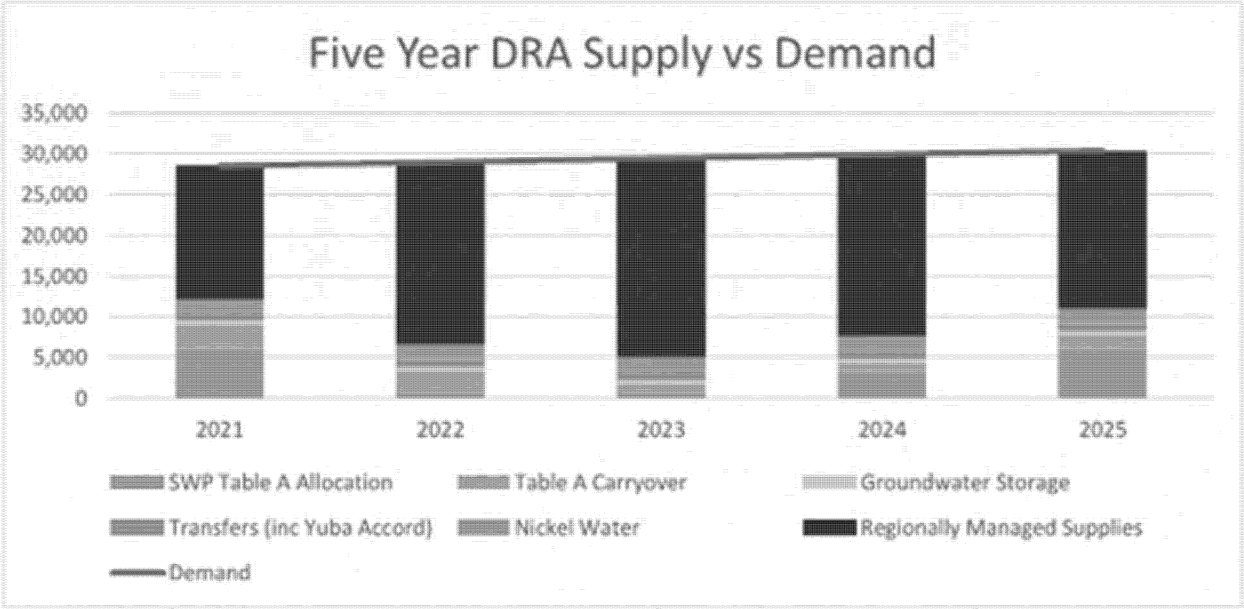
Figure 9-1: SGPWA's Water Service Reliability through 2045 (AFY) [1]



[1] Taken from Figure ES-2 in the 2020 SGPWA UWMP.

SGPWA also coordinates management of its water supplies with the retail agencies to address projected dry conditions. Specifically, SGPWA and the retail agencies capture and store surplus imported water in normal and wet years in order to use the stored water assets to meet regional demands in dry years. Moreover, the retail agencies rely upon locally managed water supplies, including native groundwater, recycled supplies, surface water assets, and return flows, to meet their annual demands. These actions stabilize annual fluctuations in recurring imported supplies that may not meet regional demands under certain dry conditions. Figure 9-2 shows a water reliability assessment for a drought lasting five consecutive years where the retail agencies in SGPWA service area use stored water and regionally managed supplies to offset fluctuations in its SWP supplies. In summary, SGPWA's diverse surface water supply portfolio, combined with its coordinated management of regionally managed surface and groundwater resources with retail purveyors, provide stable and reliable water supplies to meet SGPWA's current and 2045 future water demands in its service area.

Figure 9-2: SGPWA's Drought Risk Assessment from 2021 through 2045 (AFY) [1]



[1] Taken from Figure ES-3 in the 2020 SGPWA UWMP.

10 WATER SUPPLY ANALYSIS FOR SINGLE AND MULTIPLE DRY PERIOD

10.1 Constraints on Water Sources

A detailed description of BCVWD's current and future water sources are described previously in Sections 7, 8, and 9 of this WSA. Table 10-1, below shows a summary of BCVWD's current and future water sources and identifies the factors that affect the specific source's consistency of supply. Climate affects the amount of water available from most of the sources; there are some legal constraints on the Beaumont Groundwater Basin Source due to the Adjudication and contractual and environmental constraints on the imported State Project Water.

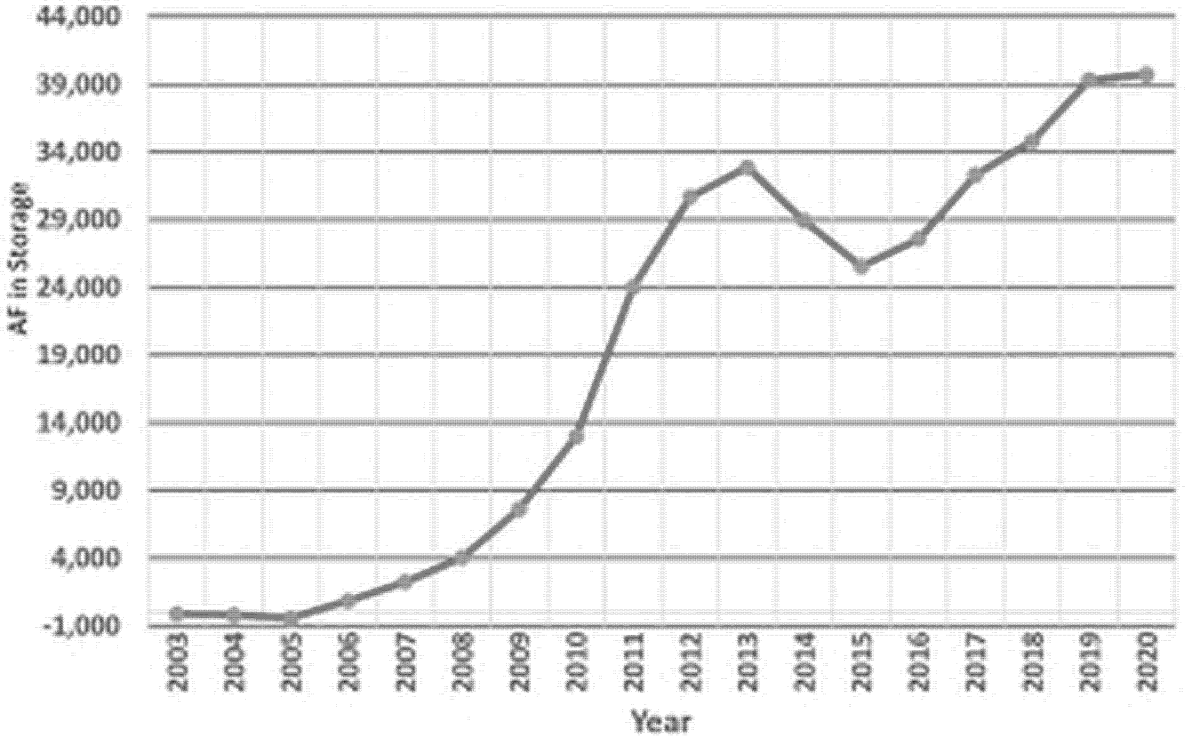
Table 10-1 Factors Resulting in Inconsistency of Supply [1]

Water Supply Source	Cause of Inconsistent Supply				Additional Information
	Legal	Environmental	Water Quality	Climate	
Edgar Canyon Groundwater				X	
Beaumont Basin Groundwater Appropriator Rights	X				(1)
Beaumont Basin Groundwater Unused Overlier Rights	X			X	(2)
Imported State Project Water	X	X		X	(3)
Recycled Water				X	(4)
Stormwater Capture and Percolation				X	
Urban Runoff Capture and Percolation				X	
Nitrate-contaminated Groundwater from mouth of Edgar Canyon				X	

(1) After 2014, the Appropriator production rights are zero after Adjudication.
(2) Reallocation of Overlier pumping rights are variable. Estimated to drop to 200 AFY by 2045.
(3) SWP reliability discussed in text. 10% of Table A is available 100% of the time; adjusted per draft allocation agreement.
(4) Recycled water is not subject to any significant variations; but some drought period reductions in flow are experienced – maybe 10%. Domestic water restrictions typically have the greatest impact on outdoor water use.

The District relies on groundwater banking within the Beaumont Basin during wet periods to supply demands during specified dry periods. Complementing the large storage capacity is the fact that percolation and recharge occur at relatively high rates making it very easy to "bank" water in the Beaumont Basin. Figure 10-1 below shows the amount of water BCVWD has accumulated in its storage account since 2003. Please note that imported water began to be recharged in 2006.

Figure 10-1: BCVWD's Beaumont Basin Storage Amount [1]



[1] Taken from Figure 7-1 in the BCVWD 2020 UWMP.

With the ability to bank water and the large "underground" reservoir, BCVWD and its neighboring agencies can withstand extended periods of drought without severe restrictions. At the end of 2020, for example, BCVWD had 39,750 AF in storage. This amount in BCVWD's storage account has seen an increase of about 14,182 AF since 2015. BCVWD can store up to 80,000 AF in the Beaumont Basin managed by the Watermaster.

In Table 10-2 below (Table 6-24 in the 2020 BCVWD UWMP) a quantity of BCVWD-purchased imported water was identified as "From SGPWA for Banking." This varied from 1,000 AFY to 1,500 AFY and is over and above the amount of imported water needed to meet demands. The purpose of this "banking water" is to build up BCVWD's Beaumont Basin Groundwater Storage Account to be used as reserve for drought periods when adequate SPW is not available.

SGPWA is to supply the imported water requested in Table 10-2 below to meet BCVWD's needs plus the anticipated SPW for banking. If, in any year(s), either of these quantities cannot be supplied for any reason, the accumulated shortfall is expected to be delivered to BCVWD by SGPWA as soon as possible once imported water is available. In this way, BCVWD will be able to keep adequate water in storage for current (2020) needs and accommodate growth in BCVWD's service area. BCVWD anticipates banking around 28,500 AF of water over the next 25 years, which would bring BCVWD's storage account to about 68,250 AF. This is over 3 years of SPW requirements to meet 2045 demands with no SPW for over 3.5 years. The following subsections quantify the variability in BCVWD's water sources.

Table 10-2 BCVWD Water Supplies - Projected [1]

DWR Table 6-9 Retail: Water Supplies — Projected											
Water Supply		Projected Water Supply * Report To the Extent Practicable									
Drop down list May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool	Additional Detail on Water Supply	2025		2030		2035		2040		2045 (opt)	
		Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)
Add additional rows as needed											
Groundwater (not desalinated)	Little San Gorgonio Canyon	2,070	2,200	2,070	2,200	2,070	2,200	2,070	2,200	2,070	2,200
Groundwater (not desalinated)	Beaumont Basin (Reallocated unused overlier rights)	1,322		1,286		1,165		1,099		1,099	
Groundwater (not desalinated)	Beaumont Basin total forbearance water	471		547		1,387		1,542		1,542	
Groundwater (not desalinated)	Return flows	280		514		868		922		1,155	
Stormwater Use	Beaumont MDP Line 16	185		185		185		185		185	
Stormwater Use	Misc. Stormwater	0		350		350		350		350	
Purchased or Imported Water	From SGPWA for Replenishment of Beaumont Basin (Potable water)	8,868		9,300		9,966		10,717		11,281	
Recycled Water	From City of Beaumont for Landscaping	2,017		2,381		2,892		2,955		2,915	
Purchased or Imported Water	To supplement Non-Potable Water Supply (Purchased for Replenishment)	276		246		0		0		0	
Groundwater (not desalinated)	Non-Potable Groundwater at Mouth of Edgar Canyon	0		0		300		300		300	
Groundwater (not desalinated)	Non-Potable Groundwater along San Timoteo Creek	0		0		600		600		600	
Purchased or Imported Water	From SGPWA for Banking	1,500		1,200		1,000		1,000		1,000	
Purchased or Imported Water	Additional Imported Water Available from SGPWA	1,572		396		2,389		2,994		3,769	
	Total	18,561	2,200	18,475	2,200	23,172	2,200	24,734	2,200	26,266	2,200
Total Imported Water Required		10,644		10,746		10,966		11,717		12,281	
Total Imported Water Available to BCVWD from SGPWA (See Table 7-8)		12,216		11,142		13,355		14,711		16,050	
*Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.											

[1] Taken from Figure 6-24 in the 2020 BCVWD UWMP.

10.2 Drought Risk Assessment

A conservative approach was taken when considering the amount of imported supply BCVWD could expect in future conditions. BCVWD has included in its anticipated imported water supplies, the anticipated Table A Allocation available, as well as additional potential sources of imported water identified in SGPWA's 2020 UWMP (June 2021). In any given year, when the demand for imported water exceeds the available supply, it is reasonable to assume that the imported water will be allocated by SGPWA in proportion to each member agency's fraction of the total imported water demand without banking. A summary of the expected allocation percentages for each agency is indicated in Table 10-3, below. Percentages as indicated were determined based on a series of White Papers (White Papers No. 1 through 7) that evaluated water supply and demand for the major retailers in the SGPWA service area.

Table 10-3 Member Agency's Percent of Available Imported Water When Demand Exceed Supply [1]

Agency	Year				
	2025	2030	2035	2040	2045
City of Banning	0.0%	0.0%	0.0%	5.6%	5.6%
YVWD/Calimesa	7.0%	7.3%	7.9%	8.1%	8.5%
BCVWD	78.5%	71.6%	66.3%	58.4%	52.3%
Other Member Agencies	14.5%	21.1%	25.8%	27.9%	33.6%
Total	100%	100%	100%	100%	100%

[1] Taken from Table 7-9 in the BCVWD 2020 UWMP

In the future, other SGPWA water retailers will require greater supplies of imported water to meet growing demands. As a result, the allocation percentages described above will continue to change. BCVWD expects to update these percentages after the adoption of the 2020 UWMP updates for the other member agencies in the SGPWA service area.

For the Single Dry Year, potable and non-potable water demands in Table 10-5 do not reflect any conservation. For 2 consecutive dry years through 6 consecutive dry years, demand reductions for potable and non-potable water were included. The estimated demand reductions (as percent) that could be seen during various multiple dry years are indicated below in Tables 10-6 through 10-11 (Tables 7-12 through 7-16 in the BCVWD 2020 UWMP).

Table 10-4 Estimated Demand Reductions During Various Dry Year Periods [1]

Dry Year Analysis Period	Demand Reduction
Single Dry Year	0%
2 Consecutive Dry Year	10%
3 Consecutive Dry Year	20%
4 Consecutive Dry Year	25%
5 Consecutive Dry Year	30%
6 Consecutive Dry Year	40%

[1] Data from Table 7-10 in the BCVWD 2020 UWMP

This is a reasonable assumption since there would be adequate time to implement the potential water use restrictions identified in Section 10 for a dry period lasting longer than a single year.

Tables 10-5 through 10-11 present the water service reliability assessment for single through 6 consecutive dry years. Due to this Project's demands having not been accounted for in the BCVWD 2020 Urban Water Management Plan, the demands in Tables 10-5 through 10-11 below have been increased to include the demands of the proposed Project and reflect that there is adequate water supply. The tables also include Ventura Water Supply, which is not accounted for in the BCVWD 2020 UWMP.

10.3 Single-Dry Year Water Supply and Demand

During drought conditions, the District has the benefit of utilizing groundwater stored in the Beaumont Basin to augment any shortfalls in supply from the State Water Project. A summary of the District's projected supplies and demands during a single dry year period is indicated below in Table 10-5. A shortfall in supply during a single dry year as shown in Table 10-5 would

be met with stored groundwater from the District's storage account in the Beaumont Basin. At the end of 2023, the District had 32,844 AF of banked water in its storage account for use during low supply conditions.

Table 10-5 Water Service Reliability Assessment for Single Dry Year [1]

YEAR	2025	2030	2035	2040	2045
DEMAND					
Potable Water Demand, AFY	13,196	14,252	15,391	16,285	17,082
Supplemental Water to Non-Potable System, AFY	276	246	228	278	328
Beaumont Heights Business Center Potable Water Demand	58	58	58	58	58
Beaumont Heights Business Center Non-Potable Water demand	237	237	237	237	237
Non-Potable Water Demand, AFY	1,957	2,175	2,478	2,561	2,578
Total Water Demand, AFY	**15,724**	**16,968**	**18,392**	**19,419**	**20,283**
LOCAL SUPPLY					
Groundwater					
Edgar Canyon, AFY	1,058	1,058	1,058	1,058	1,058
Beaumont Basin Groundwater Available					
Overlier Potable Forebearance, AFY	-	67	264	384	384
Overlier Non-Potable Forebearance, AFY	471	480	523	558	558
Reallocation of Unused Overlier Rights, AFY	1,322	1,286	1,165	1,099	1,099
Return Flow Credits, AFY	280	514	868	922	1,155
Storm Water, AFY	66	192	192	192	192
Recycled Water Available, AFY	0	2,150	2,610	2,660	2,630
Subtotal Local Supply, AFY	**3,197**	**5,746**	**6,680**	**6,873**	**7,076**
BCVWD's Share of Imported Supply					
Table A Allocation (5%), AFY	679	619	573	505	452
Yuba Accord, AFY	16	14	13	12	10
AVEK Nickel, AFY	1,335	1,217	1,127	993	889
Ventura, AFY	393	358	332	292	-
SGPWA Carryover Water, AFY	204	186	172	152	136
Sites Reservoir, AFY	-	-	286	571	1,143
Additional SWP Transfers/Exchanges, AFY	39	36	33	29	26
Subtotal Imported Supply, AFY	**2,666**	**2,430**	**2,536**	**2,554**	**2,656**
Total Supply, AFY	**5,863**	**8,176**	**9,216**	**9,427**	**9,732**
From Banked Beaumont Basin Storage, AF	**9,861**	**8,792**	**9,176**	**9,992**	**10,551**

[1] Data from Table 7-11, the BCVWD 2020 UWMP in combination with tables 4-1 and 4-2

10.4 Multiple-Dry Year Water Supply and Demand

Tables 10-6 to 10-11 show multiple-dry water year scenario for the projected demand. The multiple-dry year scenario is based on six consecutive dry years. For the Single Dry Year, potable and non-potable water demands in Table 10-5 (Table 7-11 in the BCVWD 2020 UWMP) did not reflect any conservation. For 2 consecutive dry years through 6 consecutive dry years, demand reductions for potable and non-potable water were included. The estimated demand reductions (as percent) that could be seen during various multiple dry years are indicated below in Tables 10-6 through 10-11 (modified Tables 7-12 through 7-17 from the BCVWD 2020 UWMP).

Table 10-6 Water Service Reliability Assessment for 2 Consecutive Dry Years [1]

YEAR	2025	2030	2035	2040	2045
DEMAND					
Potable Water Demand, AFY	13,196	14,252	15,391	16,285	17,082
Supplemental Water to Non-Potable System, AFY	276	246	228	278	328
Beaumont Heights Business Center Potable Water Demand	58	58	58	58	58
Beaumont Heights Business Center Non-Potable Water demand	237	237	237	237	237
Non-Potable Water Demand, AFY	1,957	2,175	2,478	2,561	2,578
Total Water Demand, AFY	15,724	16,968	18,392	19,419	20,283
Total Water Demand (10% Demand Reduction), AFY	**14,152**	**15,271**	**16,553**	**17,477**	**18,255**
LOCAL SUPPLY					
Groundwater					
Edgar Canyon, AFY	1,074	1,074	1,074	1,074	1,074
Beaumont Basin Available, AFY					
Overlier Potable Forebearance, AFY	-	60	237	346	346
Overlier Non-Potable Forebearance, AFY	424	432	471	502	502
Reallocation of Unused Overlier Rights, AFY	1,190	1,157	1,049	989	989
Return Flow Credits, AFY	280	514	868	922	1,155
Storm Water, AFY	241	241	241	241	241
Recycled Water, AFY	0	2,030	2,460	2,520	2,480
Subtotal Local Supply, AFY	**3,209**	**5,508**	**6,400**	**6,594**	**6,787**
BCVWD's Share of Imported Supply					
Table A Allocation (12.5%), AFY	1,698	1,548	1,434	1,263	1,131
Yuba Accord, AFY	39	36	33	29	26
AVEK Nickel, AFY	1,335	1,217	1,127	993	889
Ventura, AFY	981	895	829	730	-
SGPWA Carryover Water, AFY	510	465	431	380	340
Sites Reservoir, AFY	-	-	286	571	1,143
Additional SWP Transfers/Exchanges, AFY	98	90	83	73	65
Subtotal Imported Supply, AFY	**4,661**	4,251	4,223	4,039	3,594
Total Supply, AFY	**7,870**	**9,759**	**10,623**	**10,633**	**10,381**
From Banked Beaumont Basin Storage, AF	6,282	5,512	5,930	6,844	7,874
Total Withdrawn from Storage during Dry Period, AF	**12,564**	**11,024**	**11,860**	**13,688**	**15,748**

[1] Data from Table 7-12, the BCVWD 2020 UWMP in combination with tables 4-1 and 4-2

Table 10-7 Water Service Reliability Assessment for 3 Consecutive Dry Years [1]

YEAR	2025	2030	2035	2040	2045
DEMAND					
Potable Water Demand, AFY	13,196	14,252	15,391	16,285	17,082
Supplemental Water to Non-Potable System, AFY	276	246	228	278	328
Beaumont Heights Business Center Potable Water Demand	58	58	58	58	58
Beaumont Heights Business Center Non-Potable Water demand	237	237	237	237	237
Non-Potable Water Demand, AFY	1,957	2,175	2,478	2,561	2,578
Total Water Demand, AFY	15,724	16,968	18,392	19,419	20,283
Total Water Demand (20% Demand Reduction), AFY	**12,579**	**13,574**	**14,714**	**15,535**	**16,226**
LOCAL SUPPLY					
Groundwater					
Edgar Canyon, AFY	1,143	1,143	1,143	1,143	1,143
Beaumont Basin Available, AFY					
Overlier Potable Forebearance, AFY	-	54	211	308	308
Overlier Non-Potable Forebearance, AFY	377	384	418	446	446
Reallocation of Unused Overlier Rights, AFY	1,058	1,028	932	880	880
Return Flow Credits, AFY	280	514	868	922	1,155
Storm Water, AFY	241	241	241	241	241
Recycled Water, AFY	0	2,030	2,460	2,520	2,480
Subtotal Local Supply , AFY	**3,099**	**5,394**	**6,274**	**6,459**	**6,652**
BCVWD's Share of Imported Supply					
Table A Allocation (18%), AFY	2,444	2,230	2,065	1,819	1,629
Yuba Accord, AFY	57	52	48	42	38
AVEK Nickel, AFY	1,335	1,217	1,127	993	889
Ventura, AFY	1,413	1,289	1,193	1,051	-
SGPWA Carryover Water, AFY	735	670	621	547	490
Sites Reservoir, AFY	-	-	286	571	1,143
Additional SWP Transfers/Exchanges, AFY	141	129	119	105	94
Subtotal Imported Supply, AFY	**6,125**	5,586	5,458	5,128	4,282
Total Supply, AFY	**9,223**	**10,980**	**11,732**	**11,587**	**10,934**
From Banked Beaumont Basin Storage, AF	3,356	2,594	2,982	3,948	5,292
Total Withdrawn from Storage during Dry Period, AF	**10,068**	**7,782**	**8,946**	**11,844**	**15,876**

[1] Data from Table 7-13, the BCVWD 2020 UWMP in combination with tables 4-1 and 4-2

Table 10-8 Water Service Reliability Assessment for 4 Consecutive Dry Years [1]

YEAR	2025	2030	2035	2040	2045
DEMAND					
Potable Water Demand, AFY	13,196	14,252	15,391	16,285	17,082
Supplemental Water to Non-Potable System, AFY	276	246	228	278	328
Beaumont Heights Business Center Potable Water Demand	58	58	58	58	58
Beaumont Heights Business Center Non-Potable Water demand	237	237	237	237	237
Non-Potable Water Demand, AFY	1,957	2,175	2,478	2,561	2,578
Total Water Demand, AFY	15,724	16,968	18,392	19,419	20,283
Total Water Demand (25% Demand Reduction), AFY	**11,793**	**12,726**	**13,794**	**14,564**	**15,212**
LOCAL SUPPLY					
Groundwater					
Edgar Canyon, AFY	1,184	1,184	1,184	1,184	1,184
Beaumont Basin Available, AFY					
Overlier Potable Forebearance, AFY	-	50	198	288	288
Overlier Non-Potable Forebearance, AFY	353	360	392	418	418
Reallocation of Unused Overlier Rights, AFY	992	964	874	825	825
Return Flow Credits, AFY	280	514	868	922	1,155
Storm Water, AFY	241	241	241	241	241
Recycled Water, AFY	0	2,030	2,460	2,520	2,480
Subtotal Local Supply, AFY	**3,050**	**5,343**	**6,217**	**6,398**	**6,591**
BCVWD's Share of Imported Supply					
Table A Allocation (26%), AFY	3,531	3,221	2,982	2,627	2,352
Yuba Accord, AFY	82	74	69	61	54
AVEK Nickel, AFY	1,335	1,217	1,127	993	889
Ventura, AFY	2,041	1,862	1,724	1,518	-
SGPWA Carryover Water, AFY	1,061	968	896	790	707
Sites Reservoir, AFY	-	-	286	571	1,143
Additional SWP Transfers/Exchanges, AFY	204	186	172	152	136
Subtotal Imported Supply, AFY	**8,254**	**7,528**	**7,256**	**6,712**	**5,281**
Total Supply, AFY	**11,304**	**12,871**	**13,473**	**13,110**	**11,872**
From Banked Beaumont Basin Storage, AF	489	(145)	321	1,454	3,340
Total Withdrawn from Storage during Dry Period, AF	**1,956**	**(580)**	**1,284**	**5,816**	**13,360**

[1] Data from Table 7-14, the BCVWD 2020 UWMP in combination with tables 4-1 and 4-2
[2] Numbers in ( ) indicate a surplus of water.

Table 10-9 Water Service Reliability Assessment for 5 Consecutive Dry Years [1]

YEAR	2025	2030	2035	2040	2045
DEMAND					
Potable Water Demand, AFY	13,196	14,252	15,391	16,285	17,082
Supplemental Water to Non-Potable System, AFY	276	246	228	278	328
Beaumont Heights Business Center Potable Water Demand	58	58	58	58	58
Beaumont Heights Business Center Non-Potable Water demand	237	237	237	237	237
Non-Potable Water Demand, AFY	1,957	2,175	2,478	2,561	2,578
Total Water Demand, AFY	15,724	16,968	18,392	19,419	20,283
Total Water Demand (30% Demand Reduction), AFY	**11,007**	**11,878**	**12,874**	**13,593**	**14,198**
LOCAL SUPPLY					
Groundwater					
Edgar Canyon, AFY	1,234	1,234	1,234	1,234	1,234
Beaumont Basin Available, AFY					
Overlier Potable Forebearance, AFY	-	47	185	269	269
Overlier Non-Potable Forebearance, AFY	330	336	366	390	390
Reallocation of Unused Overlier Rights, AFY	926	900	816	770	770
Return Flow Credits, AFY	280	514	868	922	1,155
Storm Water, AFY	241	241	241	241	241
Recycled Water, AFY	0	2,030	2,460	2,520	2,480
Subtotal Local Supply, AFY	**3,010**	**5,302**	**6,170**	**6,346**	**6,539**
BCVWD's Share of Imported Supply					
Table A Allocation (24%), AFY	3,259	2,973	2,753	2,425	2,171
Yuba Accord, AFY	75	69	64	56	50
AVEK Nickel, AFY	1,335	1,217	1127	993	889
Ventura, AFY	1,884	1,718	1,591	1,402	-
SGPWA Carryover Water, AFY	980	894	827	729	653
Sites Reservoir, AFY	-	-	286	571	1,143
Additional SWP Transfers/Exchanges, AFY	188	172	159	140	126
Subtotal Imported Supply, AFY	**7,721**	**7,043**	**6,807**	**6,316**	**5,032**
Total Supply, AFY	**10,731**	**12,345**	**12,977**	**12,662**	**11,571**
From Banked Beaumont Basin Storage, AF	276	(467)	(103)	931	2,627
Total Withdrawn from Storage during Dry Period, AF	**1,380**	**(2,335)**	**(515)**	**4,655**	**13,135**

[1] Data from Table 7-15, the BCVWD 2020 UWMP in combination with tables 4-1 and 4-2
[2] Numbers in ( ) indicate a surplus of water.

Table 10-10 Water Service Reliability Assessment for 6 Consecutive Dry Years [1]

YEAR	2025	2030	2035	2040	2045
DEMAND					
Potable Water Demand, AFY	13,196	14,252	15,391	16,285	17,082
Supplemental Water to Non-Potable System, AFY	276	246	228	278	328
Beaumont Heights Business Center Potable Water Demand	58	58	58	58	58
Beaumont Heights Business Center Non-Potable Water demand	237	237	237	237	237
Non-Potable Water Demand, AFY	1,957	2,175	2,478	2,561	2,578
Total Water Demand, AFY	15,724	16,968	18,392	19,419	20,283
Total Water Demand (40% Demand Reduction), AFY	**9,434**	**10,181**	**11,035**	**11,651**	**12,170**
LOCAL SUPPLY					
Groundwater					
Edgar Canyon, AFY	1,240	1,240	1,240	1,240	1,240
Beaumont Basin Available, AFY					
Overlier Potable Forebearance, AFY	-	40	158	231	231
Overlier Non-Potable Forebearance, AFY	283	288	314	335	335
Reallocation of Unused Overlier Rights, AFY	793	771	699	660	660
Return Flow Credits, AFY	280	514	868	922	1,155
Storm Water, AFY	241	241	241	241	241
Recycled Water, AFY	0	2,030	2,460	2,520	2,480
Subtotal Local Supply , AFY	**2,837**	**5,124**	**5,980**	**6,148**	**6,341**
BCVWD's Share of Imported Supply					
Table A Allocation (25%), AFY	3,395	3,097	2,867	2,526	2,262
Yuba Accord, AFY	79	72	66	58	52
AVEK Nickel, AFY	1,335	1,217	1,127	993	889
Ventura, AFY	1,963	1,790	1,658	1,460	-
SGPWA Carryover Water, AFY	1,021	931	862	759	680
Sites Reservoir, AFY	-	-	286	571	1,143
Additional SWP Transfers/Exchanges, AFY	196	179	166	146	131
Subtotal Imported Supply, AFY	**7,989**	**7,286**	**7,032**	**6,513**	**5,157**
Total Supply, AFY	**10,826**	**12,410**	**13,012**	**12,661**	**11,498**
From Banked Beaumont Basin Storage, AF	(1,392)	(2,229)	(1,977)	(1,010)	672
Total Withdrawn from Storage during Dry Period, AF	**(8,352)**	**(13,374)**	**(11,862)**	**(6,060)**	**4,032**

[1] Data from Table 7-16, the BCVWD 2020 UWMP in combination with tables 4-1 and 4-2
[2] Numbers in ( ) indicate a surplus of water.

In all of the assessments, water must be extracted from BCVWD's Beaumont Basin Storage account. Tables 9-3 through 9-7 clearly indicate the importance of maintaining substantial amounts of water in the storage account. The total amount required to be withdrawn from banked storage will decrease if conservation measures and restrictions are achieved. If no conservation occurs (worst case, conservative), BCVWD will need to maintain approximately 13,200 AF in its storage account to meet the demands during a 5 consecutive year dry period.

A summary of the available supplies expected during a 5-year drought, beginning in 2020 are summarized in Table 10-11 below. The results of the Multiple Dry Year Period Analysis above assume that the demand reductions and conservation measures described in Section 8 in the BCVWP 2020 UWMP are achieved.

Table 10-11 5-Year Drought Risk Assessment [1]

YEAR	2021	2022	2023	2024	2025
DEMAND					
Potable Water Demand, AFY	12,412	12,604	12,787	12,952	13,472
Beaumont Heights Business Center Potable Water Demand	58	58	58	58	58
Beaumont Heights Business Center Non-Potable Water demand	237	237	237	237	237
Non-Potable Water Demand, AFY	1,642	1,664	1,686	1,696	1,957
Total Water Demand, AFY	14,349	14,563	14,768	14,943	15,724
Demand Reduction (%)	0%	10%	20%	25%	30%
Total Water Demand (Including Reductions), AFY	**14,349**	**13,107**	**11,814**	**11,207**	**11,007**
LOCAL SUPPLY					
Groundwater					
Edgar Canyon, AFY	1,058	1,074	1,143	1,184	1,234
Beaumont Basin Available, AFY					
Overlier Potable Forebearance, AFY	-	-	-	-	-
Overlier Non-Potable Forebearance, AFY	-	-	-	-	330
Reallocation of Unused Overlier Rights, AFY	2,025	1,826	1,827	2,017	926
Return Flow Credits, AFY	235	246	258	269	280
Storm Water, AFY	-	185	185	185	241
Recycled Water, AFY	0	1,520	1,580	1,650	0
Subtotal Local Supply, AFY	**3,318**	**4,851**	**4,993**	**5,305**	**3,011**
BCVWD's Share of Imported Supply					
Table A Allocation (%), AFY	5%	12.50%	18%	26%	24%
Table A Allocation, AFY	679	1,698	2,444	3,531	3,259
Yuba Accord, AFY	16	39	57	82	75
AVEK Nickel, AFY	1,335	1,335	1,335	1,335	1,335
Ventura, AFY	393	981	1,413	2,041	1,884
SGPWA Carryover Water, AFY	204	510	735	1,061	980
Sites Reservoir, AFY	-	-	-	-	-
Additional SWP Transfers/Exchanges, AFY	39	98	141	204	188
Subtotal Imported Supply, AFY	**2,665**	**4,661**	**6,125**	**8,253**	**7,721**
Total Supply, AFY	**5,983**	**9,512**	**11,118**	**13,558**	**10,732**
From Banked Beaumont Basin Storage, AF [2]	8,366	3,595	696	(2,351)	275
Total Withdrawn from Storage during Dry Period, AF	**8,366**	**11,961**	**12,657**	**10,306**	**10,581**

[1] Data from Table 7-17, the BCVWD 2020 UWMP in combination with tables 4-1 and 4-2
[2] Numbers in ( ) indicate a surplus of water.

11 WATER SOURCE AVAILABILITY

BCVWD has a very diverse water portfolio that allows it to maintain a reliable water supply to its current and future customers. The existing sources include:

- Unadjudicated groundwater from the Little San Gorgonio Creek (Edgar Canyon)
- Adjudicated groundwater from the Beaumont Basin
- Stormwater capture in Edgar Canyon (Little San Gorgonio Creek) and recharge in percolation ponds in Upper and Middle Canyon and at the Canyon mount in recently added desilting and recharge basins.
- Non-potable groundwater supplying the existing non-potable water system
- Imported State Project Water from SGPWA
- AVEK-Nickel Water leased through SGPWA
- Yuba Accord water purchased through SGPWA
- Stormwater capture and recharge via the MDP Line 16 Storm Drain (cost shared with RCFC&WCD, SAWPA grant and preparing for construction)

Potential Future Sources include the following:

- Recycled water from the City of Beaumont for landscape irrigation and with potential for advanced treatment for indirect potable reuse (groundwater recharge).
- Improved recharge of captured urban runoff from Sundance development
- Non-potable groundwater from the mouth of Edgar Canyon
- Non-potable groundwater from San Timoteo Creek
- Stormwater capture from Noble and Marshall Creek
- Additional urban runoff capture and recharge from developing areas

BCVWD's water management strategy since its formation has always been to maximize local water resources including local groundwater and capture and percolate surface flows in Little San Gorgonio Creek for subsequent extraction in the District's Edgar Canyon wells. With the development that occurred starting about year 2000, BCVWD began installation of a non-potable water system with the intent of using recycled water from the City of Beaumont. Currently (2023), the water demand in the non-potable system is about 10% of the total water demand. This demand is being partially met by non-potable groundwater. When recycled water becomes available, the District's non-potable demand will be primarily met with recycled water. Any additional non-potable demands will be met with non-potable groundwater.

BCVWD has an 80,000 AF storage account in the Beaumont Basin to purchase and store imported water when available in ample supply during wet years.

11.1 Groundwater

11.1.1 Beaumont Basin

The Beaumont Basin is managed by the Beaumont Basin Watermaster. In any given year, BCVWD can pump out its stored (banked) water. The storage is replenished, at least partially, every year by forbearance water, reallocated unused Overlying Party pumping rights, return flows, and imported water, when available. The amount of imported water that can be recharged

in any year depends on DWR's SWP allocation and varies from year to year. The amount of unused Overlying Party rights is based on a 5-year moving average and could decrease slightly during drought periods as the Overlying Parties use more well water to compensate for the lack of rainfall. The forbearance water and return flows will also decrease during dry periods as users reduce water consumption.

Table 11-1 below (Table 7-2 in the BCVWD 2020 UWMP) shows the estimated amount of water credited to BCVWD by Watermaster for a single or multiple dry year analysis. For the dry year analysis, it was estimated that there would be a 15% conservation effect; in other words, for dry year analysis, only 85% of average annual forbearance, reallocated Overlying Party rights, etc. would be available. In Table 11-1, the 15% reduction factor is also applied to the recycled forbearance water to account for a potential reduction in treated wastewater due to water conservation effects. This is believed to be conservative.

Return flow credits, included in Table 11-1 below, were not applied with a 15% reduction factor as return flows are dependent upon the conservation factors in effect during the year for which credits are given.

Table 11-1 Summary of BCVWD's Beaumont Storage Credits

Item	2025	2030	2035	2040	2045
Total Return Flow Credits, Reallocated Unused Overlier Rights, and Forbearance Water from Table 6-10, AFY	2,073	2,346	2,820	2,963	3,196
Expected Ground Water Available for Dry Year Analysis, AFY	1,804	2,065	2,483	2,583	2,816

Data from Table 7-2 in the BCVWD 2020 UWMP
Reference Table 6-10 included in the table above should reference to Table 7-8 in the 2020 BCVWD UWMP

11.1.2 Edgar Canyon

Groundwater from Edgar Canyon is affected to some degree by dry and wet years. The average annual extraction from Edgar Canyon is 2,015 AFY based on records from 1983- 2023. During that period of time, the minimum extracted was 1,058 AFY, which occurred in 2022. This can be considered the "Single Dry Year Water Available." The 2-year, 3- year, 4-year, 5-year and 6-year moving averages for the extractions from 1983 -20 were determined and are presented in Table 11-2 (Table 7-3 in the BCVWD 2020 UWMP) along with the Base Period for moving averages.

Table 11-2 Groundwater Available from Edgar Canyon for Single and Multiple Dry Year Analysis

Drought Condition (Base Years)	Average Available over the Drought Period, AFY
Single Dry Year (2022)	1,058
2 Consecutive Dry Years (2021-2022)	1,074
3 Consecutive Dry Years (2020 – 2022)	1,143
4 Consecutive Dry Years (2019 – 2022)	1,184
5 Consecutive Dry Years (2018 – 2022)	1,234
6 Consecutive Dry Years (2017 – 2022)	1,240

11.2 Imported Water

The amount of imported water available from the SGPWA via the State Water Project is very climate dependent. By using the 2023 DWR Delivery Capability Report simulation data (1922 to 2003) for SGPWA to develop an estimate of the delivery capability for the single dry year and multiple dry year reliability analysis. The single, 2-, 3-, 4-, 5-, and 6-year moving averages of annual estimated delivery allocations were determined for the period 1922-2003. A summary of the Table A delivery percentages is shown in Table 11-3 (Table 7-4 in the BCVWD 2020 UWMP).

Table 11-3 SGPWA SWP Delivery Capability as Percent of Table A [1]

Year	Long-term Average		Single Dry Year (1977)		Dry Periods							
					2-Year Drought (1976-1977)		4-Year Drought (1931-1934)		6-Year Drought (1987-1992)		6-Year Drought (1929-1934)	
2017 Report	2,571	62%	336	8%	1,206	29%	1,397	34%	1,203	29%	1,408	34%
2019 Report	2,414	58%	288	7%	1,311	32%	1,228	30%	1,058	26%	1,158	28%
2023 Report [2]	2,261	55%	161	4%	1,093	26%	-	-	934	23%	859	21%

[1] Data from Table 7-4 in the BCVWD 2020 UWMP.
[2] Data from 2023 DWR Delivery Capability Report

The percentages in Table 11-3 were compared to actual SWP delivery allocations for the period 1922 to 2020. The allocations found in BCVWD's analysis of available data are indicated below:

Minimum year	5% (2015, 2020)
Minimum 2 consecutive years	12.5% (2014 - 2015)
Minimum 3 consecutive years	18% (1990 – 1992)
Minimum 4 consecutive years	26% (1988 – 1991)
Minimum 5 consecutive years	24% (1988 – 1992)
Minimum 6 consecutive years	25% (1987 – 1992)

As can be seen, the actual minimum single dry year and minimum consecutive dry years are not far from the 2023 DWR SWP Delivery Capability Report. For the reliability analysis in this 2020 UWMP and this WSA, the allocation percentages identified in the list above (Table 7-5 in the BCVWD 2020 UWMP) will be used.

Table 11-4 SGPWA SWP Delivery Capability as Percent of Table A (Used for Reliability Analysis) [1]

Dry Year(s)	Single	2-Year	3-Year	4-Year	5-Year	6-Year
Table A Annual Delivery Average Over the Drought Period, %	5	12.5	18	26	24	25

[1] Data from Table 7-5 in the BCVWD 2020 UWMP.

For the reliability analysis, the percentages in Table 11-4 will be applied to BCVWD's estimated available imported water supplies for any particular dry year period. The results of the reliability analysis are presented in Tables 10-5 through 10-10.

By Resolution 2015-05, the SGPWA Board of Directors established an obligation to meet the future water supply needs of the region, including BCVWD. BCVWD can rely on the SGPWA to secure and deliver the imported water needed to meet BCVWD's current and future demands as set forth in the 2020 UWMP and subsequent UWMP updates in concert with DWR's Delivery Capability Reports.

11.3 Recycled Water

Recycled water is consistently available; although during droughts, consumers are more aware of water conservation and reduce their indoor water consumption. They are more aware of the need to do only full loads of laundry, full loads for the dishwasher etc. Agencies, including the City of Beaumont, have observed a reduction in wastewater flows during the current drought.

BCVWD is counting on one source of recycled water, the City of Beaumont. For a single dry year, an estimate of 90% of the normal, average recycled water will be available. As the drought becomes more pervasive, the amount of recycled water is estimated to reduce further to 85% of normal. Table 11-5 provides an estimate of the available recycled water during extended dry periods.

Table 11-5 Estimated Recycled Water Available During Extended Dry Periods [1]

Year		2025	2030	2035	2040	2045
City of Beaumont Recycled Water Available (AFY)	Availability %	2017	2,381	2,892	2,955	2,915
Single Dry Year	90%	1,820	2,150	2,610	2,660	2,630
2-Year	85%	1,720	2,030	2,460	2,520	2,480
3-Year	85%	1,720	2,030	2,460	2,520	2,480
4-Year	85%	1,720	2,030	2,460	2,520	2,480
5-Year	85%	1,720	2,030	2,460	2,520	2,480
6-Year	85%	1,720	2,030	2,460	2,520	2,480

[1] Data from Table 7-6 in the BCVWD 2020 UWMP.

11.4 Storm Water and Urban Runoff Reliability (Potential Projects).

Storm water and Urban Runoff quantities are very dependent on rainfall. Review of the rainfall record at Beaumont for the period 1888 – 2006 resulted in the data shown in Table 11-6 (Table 7-7 in the BCVWD 2020 UWMP). To determine the multiple dry year rainfall as a percent of the average rainfall, the 2-, 3-, 4-, 5- and 6-year moving averages of the annual rainfall was determined.

Table 11-6 Estimated Storm Water Available During Extended Dry Periods [1]

Dry Year (s)	Normal	Single	2-Year	3-Year	4-Year	5-Year	6-Year
% of Annual Average		36%	45%	52%	52%	61%	63%
Facility	Estimated Average Annual Stormwater Capture, AFY						
MDP Line 16	185	66	83	96	96	113	117
Misc. Urban Runoff Basins	350	126	158	182	182	213	222
Total Stormwater Capture	535	192	241	279	278	325	339

[1] Data from Table 7-7 in the BCVWD 2020 UWMP.

11.5 Water Shortage Contingency Plan

A long-term, reliable supply of water is essential to protect the productivity of California's businesses and economic climate, and increasing long-term water conservation among residents, improving water use efficiency within the users, and strengthening local and regional drought planning are critical to resilience for drought and climate change.

As part of the long-range planning activities, every urban water supplier should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry water years now and into the foreseeable future, and every urban water supplier should collaborate closely with local land-use authorities to ensure water demand forecasts are consistent with current land-use planning.

As a companion to the BCVWD 2020 UWMP and required by the State, the District prepared and approved the BCVWD 2020 Water Shortage Contingency Plan (WSCP) as a strategic planning process to prepare for and respond to water shortages. As part of this new requirement, BCVWD will assess each year's water supplies to determine if there was a water volume shortage for that year. Based on the water shortage plan, the District may implement one of the six water conservation levels (shown in Table 10-1 below), as defined in the District's WSCP, to encourage or require water conservation among its service area. These stages could be implemented as a result of BCVWD water shortages, including reduction in imported water allocation and associated water placed previously in storage by BCVWD (i.e. conjunctive use drought and emergency water supply), or mandatory water conservation targets by the Governor's office.

These stages and the percent reductions in demand are based on BCVWD's experience during the state mandated water conservation program targets comparing 2020 with a similar period in 2015, where BCVWD was able to reduce consumption by 24.3% for the period May 2015 through April 2016. This was done through the restrictions in Board of Directors Resolution 2015-05, which limited watering to two days per week due to mandatory reductions in the District's demands of 36% (when compared to 2013 water usages).

In establishing the "Stages," BCVWD has the advantage of the Beaumont Basin, its large storage capacity for banked water, and BCVWD's 80,000 AF storage account. BCVWD currently has 32,884 AF in storage, despite an average SWP allocation of only 43% for the period 2017 through 2020 (approximately 15% difference from normal, "long-term" supply). BCVWD's plan is to purchase additional imported water (when available in advance of annual need (i.e., conjunctive use purchases)) over the amount needed to meet annual demands to add to the storage account balance each year, including making up for any shortfall(s) that may occur during dry years. This results in a conjunctive use activity and hence the averaged annual water supply approach outlined herein and as identified in Table 11-7, below.

Table 11-7 Water Shortage Contingency Plan Levels [1]

Shortage Level	Percent Shortage Range	Shortage Response Actions (Narrative description)
1	Up to 10%	Up to 10% reduction in normal, "long term" water supply (including conjuntive use water in storage); response actions includes voluntary public dem and reduction of 10%, and community outreach encouraging conservation.
2	Up to 20%	Up to 20% reduction in normal, "long term" water supply (including conjuntive use water in storage); includes any actions from Shortage Level 1. Response actions include mandatory 10% reduction - Increased public outreach, restaurants serve water upon request, lodging must offer opt out of linen services
3	Up to 30%	Up to 30% reduction in normal, "long term" water supply (including conjuntive use water in storage); response actions includes any actions from Shortage Levels 1 and 2. Response actions include mandatory 20% reduction - limit landscape irrigation to certain number of days per week
4	Up to 40%	Up to 40% reduction in normal, "long term" water supply (including conjuntive use water in storage); response actions includes any actions from Shortage Levels 1, 2 and 3. Response actions include mandatory 25% reduction - limit irrigation of lawns to once a week except for lawns and turf irrigate with recycled water, restrict water use for decorative water features, limit filling of pools only to cases where appropriate cover is in place
5	Up to 50%	Up to 50% reduction in normal, "long term" water supply (including conjuntive use water in storage); response actions includes any actions from Shortage Levels 1 - 4. Response actions include mandatory 30% reduction - prohibit filling of swimming pools, washing of automobiles only limited to facilities using recycled water, prohibit potable water use for construction activities,industrial water users required to reduce water use (food processing, concrete mixing plant)
6	>50%	Greater than 50% reduction in normal, "long term" water supply (including conjuntive use water in storage); response actions includes any actions from Shortage Levels 1 - 5. Response actions include mandatory 30% reduction - prohibit landscape irrigation except for irrigation with use of recycled water, industrial water users required to further reduce water use (food processing, concrete mixing plant)

[1] Data from Table 8-1 of the BCVWD 2020 UWMP.

12 CONCLUSIONS

This WSA assessed water supplies available during normal, single-dry, multiple-dry water years to see if they can meet the projected water demand of the proposed Project, in addition to the water supplier's existing and planned future uses. The Project will add approximately 295 AFY of water demand in the current year. Water demand for the Project was calculated using demand factors for each of the Project land uses. The Project is not located in an area that is currently serviced by a public water system but is located less than a mile away from the District's service border.

BCVWD has sufficient supply to meet the current and projected supply during normal, single-dry, and multiple-dry years. Multiple dry-year reliability analysis demonstrates that BCVWD will be able to meet its existing demands and the demands of the other planned developments within its service area which were listed in the Beaumont Heights Business Center WSA. BCVWD will supplement its existing supply sources during these dry periods with banked water in BCVWD's Beaumont Basin Groundwater Storage Account, and implement its Water Shortage Contingency Plan, when appropriate.

In single-dry and multiple-dry years, BCVWD can meet existing and future demands together with the Project's demands by pumping groundwater from its banked supplies.

BCVWD can meet the Project needs as well as BCVWD's existing demands and the demands of the other planned developments within BCVWD's service area which are listed in the Beaumont Heights Business Center WSA.

Upon completion of this WSA, the BCVWD, the likely water supplier for the Project, will provide a (1) resolution adopting the WSA for the Project and (2) a Will-Serve Letter for the Project. This will be included into the Project's environmental documentation.

Consistent with the provisions of SB 610, neither this WSA nor its approval shall be construed to create a right or entitlement to water service or any specific level of water service, and shall not impose, expand, or limit any duty concerning the obligation of BCVWD to provide certain service to its existing customers or to any future potential customers.

This WSA does not constitute a will-serve, plan of service, or agreement to provide water service to the Project, and does not entitle the Project, Project Applicant, or any other person or entity to any right, priority or allocation in any supply, capacity, or facility. To receive water service, the Project will be subject to an agreement with BCVWD, together with any and all applicable fees, charges, plans and specifications, conditions, and any and all other applicable BCVWD requirements in place and as amended from time to time. Nor does anything in the WSA prevent or otherwise interfere with BCVWD's discretionary authority to declare a water shortage emergency in accordance with the CWC.

13 REFERENCES

2020 Urban Water Management Plan, Beaumont Cherry Valley Water District, adopted by Board of Directors, August 26, 2021

https://bcvwd.gov/wp-content/uploads/2021/10/2020-BCVWD-UWMP-ADOPTED_2021-08-26a.pdf

Potable Water Master Plan, Beaumont Cherry Valley Water District, adopted by Board of Directors, January 13, 2016.

https://bcvwd.org/wp-content/uploads/2017/08/2016-Potable-Water-System-Master-Plan.pdf

San Gorgonio Pass Water Agency, Update of Sites Reservoir, presentation to Board of Directors, July 9, 2018

https://bcvwd.gov/wp-content/uploads/2018/07/2018-07-26-Workshop-Agenda.pdf

DWR (California Department of Water Resources). 2003. Guidebook for Implementation of Senate Bill 610 and Senate Bill 221 of 2001. Accessed at: http://sntbberry.cityofsanteeca.gov/sites/FanitaRanch/Public/Remainder%20of%20the%20Record/(2)%20Reference%20Documents%20from%20EIR%20&%20Technical%20Reports/Tab%20185%20-%202003-10%20CDWR%20Guidebook%20for%20Impl%20SB%20610.pdf

NOAA (National Oceanic Atmospheric Administration). Website, accessed at: https://www.ncei.noaa.gov/access/us-climate-normals/#dataset=normals-daily&timeframe=30&location=CA&station=USW00003159&month=3.

SWRCB (California State Water Resources Control Board). 2020. Website, accessed at: https://www.waterboards.ca.gov/waterrights/board_info/water_rights_process.html

USBR (Bureau of Reclamation). 2021. Website, accessed at: https://www.usbr.gov/lc/yuma/programs/YAWMS/GROUNDWATER

Supplemental Data Provided By District Staff