1st Draft

Water Supply Assessment

Hume SoCal Camp Expansion

Prepared for:
Hume SoCal Camp

Prepared by:

Kimley»Horn

February 2024

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Executive Summary

The Water Supply Assessment (WSA) for Hume SoCal Camp ("the Camp") provides a comprehensive analysis of the Camp expansion's water demand, supply, and management strategies during dry years. The assessment particularly focuses on the Camp's reliance on Crestline-Lake Arrowhead Water Agency (CLAWA) and its own groundwater supply to meet future water demands. The analysis explores various scenarios of water demand and shortages, highlighting the impact of the Camp's expansion on available water resources. It outlines multiple water supply strategies, ranging from a primary reliance on CLAWA to complete self-sufficiency using the Camp's existing groundwater wells. Each strategy has been examined for its feasibility, sustainability, and overall impact on the water supply system.

A key component of this WSA is examining the potential for integrating water from CLAWA with the Camp's existing groundwater resources. This integration, serving as either the primary, supplementary, or backup water supplier to the Camp, requires an agreement between the Camp and CLAWA that delineates CLAWA's supply constraints and establishes specific limits to the supply that can be provided to the Camp.

The Camp's preferred water supply strategy involves a predominant reliance on CLAWA, complemented by the utilization of its groundwater wells. The approach is aimed at ensuring a consistent and sustainable water supply over the long term. To support and validate this strategy, the WSA advises conducting drawdown and water quality tests on all existing wells. These tests are essential for a technical evaluation of the groundwater wells' sustainability and operational reliability.

Introduction

This WSA analyzes the sufficiency of the Camp's water supplies for the proposed expansion from a capacity of 300 occupants to a capacity of approximately 3,000 occupants (Project). This would be accomplished through the continued use of existing campground structures as well as the development of additional campground and recreational structures and uses within a 251-acre area of the Green Valley Lake community. The Project is located directly east of Green Valley Lake Road and approximately 0.4 miles northwest of State Route 18 *(Figure 1)*. The Project would be developed on five parcels totaling approximately 251 acres.

Regulatory Background

Senate Bill (SB) 610, also known as the California Water Code, establishes the primary legal standards for assessing the sufficiency of water supplies for new development projects. In accordance with the SB Section 10190, the Project meets the criteria as a proposed residential development of more than 500 dwelling units, thus is subject to the California Environmental Quality Act (CEQA). As part of the environmental review process pursuant to the CEQA, these statutes require the applicant to prepare a WSA of the reliability of water supplies for the project, considering normal, single dry, and multiple dry years over a 20-year horizon. The basic requirement is that a WSA must "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 water system's existing and planned future uses, including agricultural and manufacturing uses."

All data used in the following analysis was gathered and shared by Bob Mull, Hume Volunteer Fire Chief. The following information was provided to KH to complete the following assessment:

- Historical domestic water usage
- Existing water infrastructure exhibit

Project Location

The 251-acre Project site (APN 0328-071-05, 0328-071-07, 0328-071-10, 0328-121-40, 0328-121-42) is located immediately east of Green Valley Lake Road and approximately 0.4 miles northwest of State Route 18 in Green Valley Lake, CA *(Figure 2)*. The Project is in unincorporated San Bernardino County (the County) and bounded by National Forest to the north, south, west, and east.

Figure 1 Regional Location Map

NORTH

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FIGURE 1 - REGIONAL LOCATION MAP

SAN BERNARDINO COUNTY

HUME SOCAL CAMP

JANUARY 2024

Figure 2 Regional Parcel Map

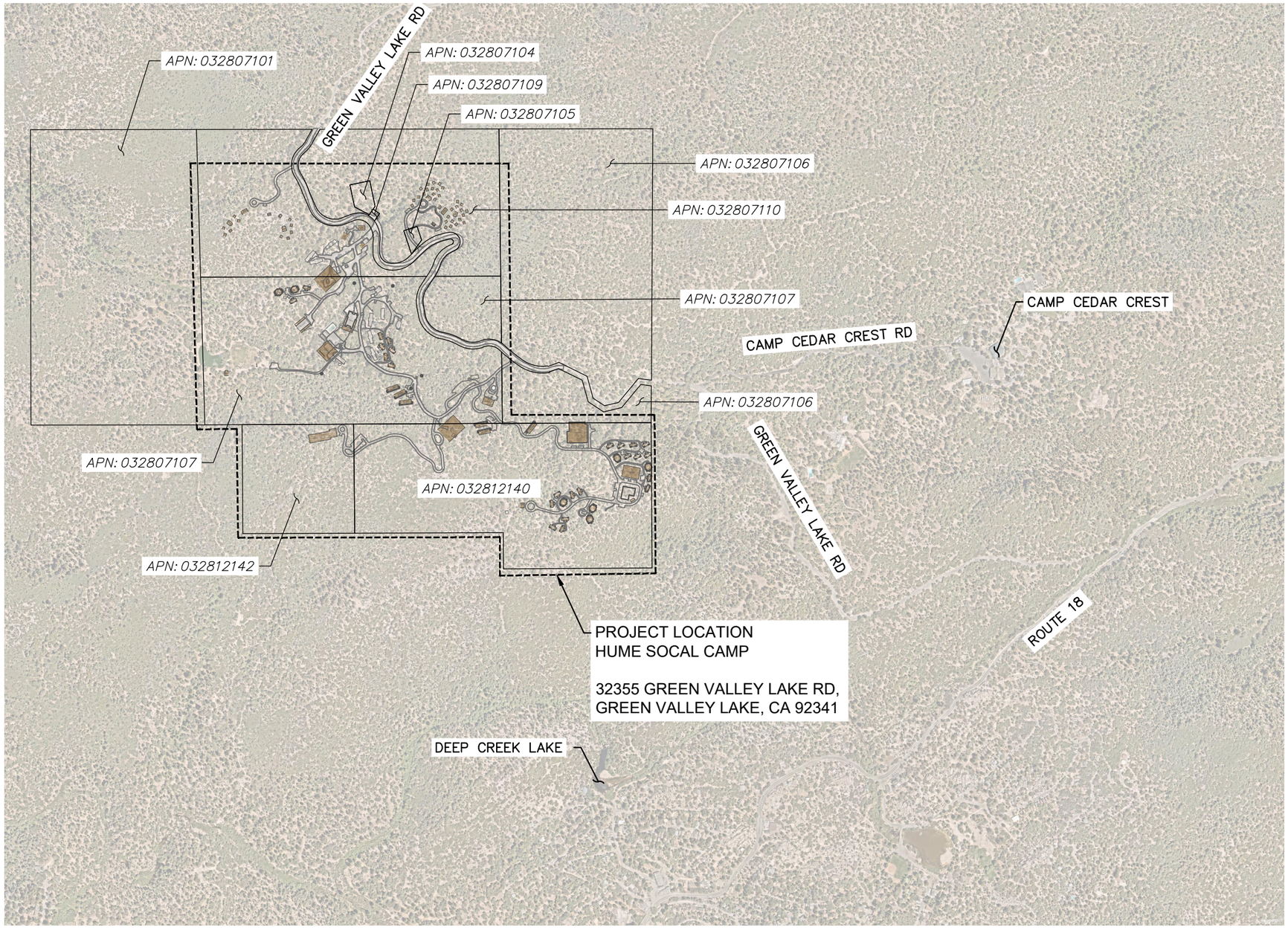

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FIGURE 2 - REGIONAL PARCEL MAP

SAN BERNARDINO COUNTY

HUME SOCAL CAMP

JANUARY 2024

Existing Conditions

The Project site is currently undeveloped recreational land zoned for Hilltop/Special Development-Residential per the County's General Plan. Currently, the water supply to the Camp is sourced from four private, on-site groundwater wells. Of the four well, only one is utilized to satisfy current domestic demands while the others support non-domestic demands such as irrigation and recreational use.

Proposed Project

Development of the Project site would be completed in five phases (*Figure 3*). Each phase of the Project would include the development of expanded infrastructure, additional amenities, support structures, and buildings necessary to accommodate expanded camper capacity as well as paved parking areas and paved access roadways.

- Phase 1 of the Project would involve the development of facilities to be used as a Junior High Camp where existing and proposed facilities would accommodate up to 784 occupants.
- Phase 2 of the Project would involve the development of facilities to be used as a High School Camp where existing and proposed facilities would accommodate up to 1,000 occupants.
- Phase 3 of the Project proposes the development of an Adult Lodge where existing and proposed facilities accommodate up to 140 occupants.
- Phase 4 of the Project would include the development of an Elementary Age Camp and associated facilities where existing and proposed facilities would accommodate up to 500 occupants.
- Phase 5 of the Project proposes the creation of a tent-based youth camp, Wildwood Camp where existing and proposed facilities would accommodate up to 130 occupants.

At full buildout, the Project will accommodate approximately 3,000 total occupants, including campers and staff.

With the completion of this WSA, the Camp aims to ensure water supply sustainability from existing on-site domestic wells and public water service connections.

Estimated Water Demand for the Project

The Project water demand was calculated using San Bernardino County's domestic water use planning standard of 180 gallons per capita per day (GPCPD). To this, 20 GPCPD were added to account for Camp irrigation demand, which also utilizes water from the domestic wells. The combined demand for both domestic and irrigation use, referred to as domestic hereon, is 200 GPCPD. This assessment considers the projected number of occupants at each expansion phase and determines a corresponding water demand based on occupancy duration. This calculation is used to determine the annual domestic water demand for different phases and categories of occupants, including campers, staff, and visitors.

Currently, Hume has a capacity of 300 occupants, including campers and staff. The staff is comprised of 12 full-time residents, 20 part-time employees, 35 winter seasonal employees, and 68 summer seasonal employees.

The summer and winter seasonal periods, which are each 9-weeks long, consist of alternating sessions of high school campers, middle school campers, and combined age campers. The sessions during the seasonal periods range from two to six night stays. It is assumed that all age groups of campers have full occupancy approximately 50 days and nights, or ~ 13%, out of each year. Future number of staff

members were assumed to be proportional to the increase in camp capacity, an increase of approximately 1,000%. *Table 1* displays the breakdown of occupants, including campers and staff, and their corresponding occupancy duration and domestic water demand.

Table 1 Estimated Camp Expansion Water Demand

	Occupant Type	Count	Occupancy Duration (% of year)	Equivalent Days	Annual Domestic Demand[1] (Gallons)
Employee	Full Time Employees	120	100%	365	8,760,000
	Part Time Employees	200	50%	182.5	7,300,000
	Winter Seasonal	350	17%	63.145	4,420,150
	Summer Seasonal	680	17%	63.145	8,587,720
Camper/Guest	High School Guests	1000	13%	50	10,000,000
	Middle School Guests	784	13%	50	7,840,000
	Adult Lodge	140	13%	50	1,400,000
	Elementary Age Guests	500	13%	50	5,000,000
	Wildwood Camp	130	13%	50	1,300,000
			Total Domestic Demand	54,607,870 Gallons per Year (GPY)	
				167.58 Acre-Feet per Year (AFY)	
				149,610 Gallons per Day (GPD)	

[1] *Annual domestic Demand = Equivalent Days *Count* (180 GPCPD (San Bernardino County, Special Districts Department, Standards for Domestic Water Systems, 2020) + 20 GPCPD (Camp irrigation sourced from domestic wells)*

Figure 3 Conceptual Site Plan

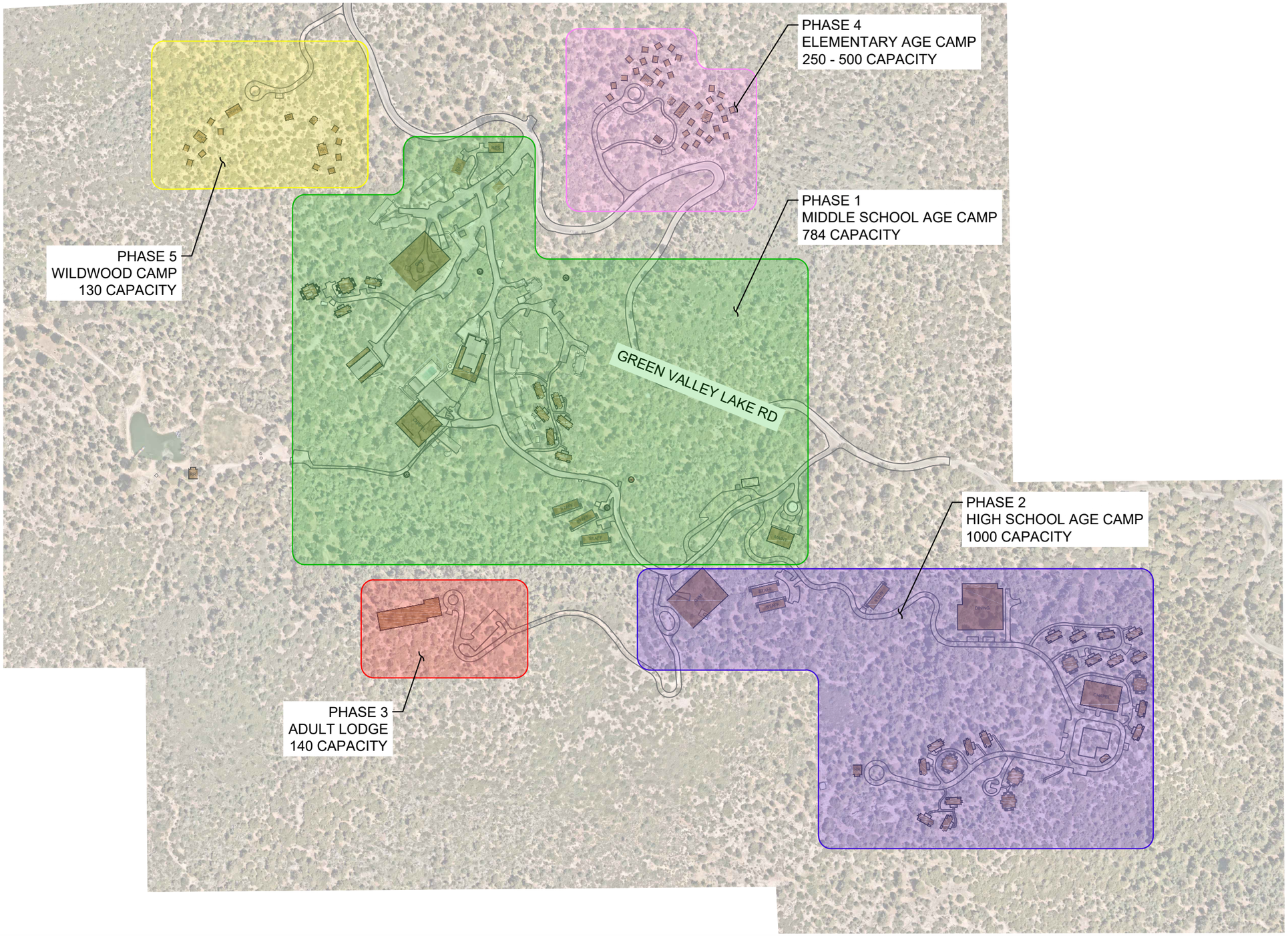

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FIGURE 3 - CONCEPTUAL SITE PLAN

SAN BERNARDINO COUNTY

HUME SOCAL CAMP

JANUARY 2024

Water Supply

Hume sources its water from on-site groundwater wells with the potential to import water via a single connection to Crestline-Lake Arrowhead Water Agency. Hume's main source of water supply is groundwater from their on-site wells, which currently satisfy all domestic and non-domestic water demands for the camp. When groundwater cannot satisfy the demand alone, Hume has the ability to import water from Crestline-Lake Arrowhead Water Agency (CLAWA or "The Agency"), a California State Water Project (SWP) Contractor providing wholesale and retail treated water from Silverwood Lake. CLAWA operates with a maximum entitlement from SWP of 5,800 acre-feet per year (AFY), a long-term average allocation of 3,480 AFY, and a baseline supply of 2,500 AFY. Historically, Hume has never needed to import water from CLAWA.

In FY 2022, Hume's domestic water usage was 5,946,099 gallons, or 18.4 AFY. The Camp's water supply consisted of 100% groundwater. The Camp's 2022 Annual Report to the California State Water Resource Control Board detailing potable water production and sample reports is included in *Appendix A*.

Neither the Camp nor CLAWA have prepared Urban Water Management Plans (UWMP) to aid in future projection of domestic and non-domestic water demand. Therefore, the following analysis makes assumptions for the Camp's groundwater well sustainability and CLAWA allotted domestic water to the Camp. Multiple scenarios are explored to determine water supply and sustainability under varying conditions.

The following sections aim to project Hume's water supply, future water demand, and ensure long term water sustainability of both the Camp and CLAWA and detail the assumptions made throughout the analysis.

Groundwater

The Camp has historically relied solely on the use of groundwater to satisfy all of their domestic and non-domestic water needs. *Table 2* below displays the existing on-site wells and their production. Well pump logs, detailing historical usage for each operational well, are included in *Appendix B.*

Table 2 Existing on-site groundwater wells

Well No.	Well Use	Well Production (gpm)
1	Domestic	44
2	Non-Domestic, Recreational	Unknown
3	Domestic, Non-Operational, Abandoned	-
4	Domestic	46
5	Domestic	85

Domestic Wells No. 1, 4, and 5 are used to supply the Camp's domestic and irrigation needs. Currently, domestic Well No. 5 is the main producer of domestic water for the Camp. The domestic production is pumped to the Camp's domestic tank and irrigation tank. The combined production of the three active domestic wells is 91,980,000 Gallons per Year (GPY), or 282.23 AFY. Non-domestic Well No. 2 is utilized to fill and maintain the Camp's lined, recreational pond. Well No. 2 is not included in the domestic and irrigation network and is not tested for water quality.

These wells, ranging in depth from 270 feet to 425 feet, draw water from the surrounding groundwater, which has not been characterized as a defined aquifer. This poses challenges in predicting the sustainability of the groundwater supply for long-term usage.

The Camp anticipates continued usage of the wells for the foreseeable future, including after full buildout, either as a predominant or supplemental source of domestic water. To ensure the existing groundwater wells can continue to provide the Camp with sufficient supply, Kimley-Horn advises conducting drawdown tests on each well to understand their capacity and the health of the underlying aquifer. The test well should be installed to a depth consistent with the existing wells to accurately monitor the aquifer's response to sustained pumping. The drawdown test will involve pumping the well at a constant rate and measuring the decline in water level in the well over time. This data will help determine the well's specific capacity, the groundwater recharge rate, and identify any potential long-term depletion or other issues that could affect the Camp's groundwater supply. Additionally, to use Domestic Wells No. 1 and 4 for drinking water, water quality is required to verify the domestic water meets drinking water standards. These wells, which have been used mainly for irrigation, are permitted as drinking water wells but must be retested prior to repurposing as reliable sources of domestic drinking water for the Camp.

Imported Water

The Camp has the option to import from CLAWA as a source of domestic water, however, the connection has never been utilized. Imported water is delivered to the Camp by single CLAWA connection. The Agency provides both wholesale and retail treated water from Silverwood Lake across the mountain to Green Valley lake. The Agency owns and operates an intake tower at Silverwood Lake, a Surface Water Treatment Plant, nine booster stations, 20 tanks, and over 54 miles of waterlines. As of 2023, Hume is one of more than 20 camps and wholesale supplemental water connections supplied by CLAWA. Additionally, the Agency serves approximately 1,225 retail customers. The State Water Project (SWP) has allotted CLAWA with a maximum entitlement of 5,800 AFY and long-term average allocation of 3,480 AFY.

Silverwood Lake, the Agency's source of wholesale and treated water, is supplied adequate water by the East Branch Aqueduct of the State Water Project's (SWP) Southern Field Division. The SWP is a state-level water management project overseen by the state's Department of Water Resources (DWR) consisting of pump stations, reservoirs, aqueducts, tunnels, and power plants. The SWP conveys water from the Feather River to the Central Valley, South Bay Area, and Southern California via the 444-mile-long California Aqueduct. Approximately 30% of SWP is used for irrigation and 70% is used for residential, commercial, and industrial needs in Southern California and the Bay Area.

Kimley-Horn was unable to obtain record drawings of CLAWA's domestic water system during this analysis to determine the location of the Camp's connection. A fire flow test is advised at the nearest location to the site to determine the available pressure at the connection. The system pressure at the connection, in conjunction with a water use agreement between the Camp and CLAWA, will dictate the flow of water that can be provided to the Camp.

Recycled Water

The Camp currently has no recycled water supply in place, nor is there a demand for recycled water. This is due to the lack of nearby recycled water treatment facilities to supply recycled water and future need for recycled water, as the existing groundwater wells adequately meet the Camp's water requirements.

Water Storage and Distribution System

The water storage and distribution system at Hume is comprised of two main storage tanks fed by three domestic wells (No. 1, No. 4, and No. 5). A 212,000-gallon tank is utilized for domestic water storage, while a separate 50,000-gallon tank is designated for irrigation water storage. Distribution from these storage tanks is managed through a gravity-fed system, conveying domestic water through 10-inch and 4-inch distribution mains which branches into a network of 3-inch to 1-inch PVC distribution pipes servicing the camp.

The Camp also operates a system for recreational water use. Water from a non-domestic well (Well No. 2) is used to fill a 1.5 million-gallon recreational pond annually. The pond is lined to prevent seepage and is replenished in the spring and emptied in the fall to serve recreational activities throughout the summer camp season.

Water Demand

This section outlines the projected water demands for the Camp, considering the production from domestic wells for both domestic and irrigation purposes, and the use of non-domestic water from an untested recreational well for filling the recreational pond. These projections are based on current usage patterns, San Bernardino County planning guidelines, expected growth in camp occupancy, and expansions of camp facilities. The estimates are based on a comprehensive analysis rather than periodic intervals, ensuring they are aligned with the Camp's development phases.

The following demands were calculated under the assumption that there are no new expansions planned after Phases 1 – 5 for the foreseeable future. Therefore, the future demand analyzed is for full Camp occupancy after the construction and completion of all phases. The FY 2022 water use (Pre-Project Demand) and projected water use after the construction and completion of all phases (Post-Project Demand) are detailed in the following sections.

Domestic Water Demand

The Camp's domestic water demand is based on San Bernardino County's standard of 180 GPCPD. To account for irrigation demand also sourced from the domestic wells, the Camp's domestic water demand was increased to 200 GPCPD. This figure is used to calculate the annual water demand by considering the number of camp occupants, including campers, staff, and visitors, and their respective length of stay.

With the proposed expansion, the Camp's capacity is projected to increase by approximately 1,000%. This will proportionally increase the number of staff required. The expected increase in domestic water demand, corresponding to the increase in occupants and expansion of facilities, is detailed in *Table 1* and summarized in *Table 3*.

Non-Domestic Water Demand

The Camp's non-domestic water demand is supplied by Well No. 2, primarily used to fill a seasonal 1.5 million-gallon, lined, recreational pond. With the proposed expansion, the addition of three new ponds will necessitate an evaluation of Well No. 2's capacity to determine if it can meet the increased water requirements.

The dimensions and volumes of the proposed recreational ponds are not yet established, but it is assumed the cumulative volume is equivalent to the existing 1.5 million-gallon existing recreational pond, doubling the non-domestic water demand from the existing camp demand. It is recommended to perform a thorough assessment of the well's ability to sustain the additional demand. A network distribution system with adjustable controls and valves is recommended to effectively manage the water distribution to each pond.

FY 2022 flow data for Non-Domestic Well No. 2, retrieved from the Camp's well pumping logs, and proposed post-project demand are displayed in *Table 3*. The demand accounts for filling of the ponds at the beginning of the summer season and periodic refilling, primarily driven by evaporation.

Water Loss

The Camp does not monitor water losses caused by real losses (e.g., leaks in mains and service lines), apparent losses (e.g., unauthorized consumption, metering inaccuracies, and data handling errors), and unlogged water (e.g., hydrant flushing, firefighting, and blow-off water from well start-up).

Water losses are assumed to be 2% of total domestic and non-domestic water use. *Table 3* displays the Camp's anticipated water loss during for existing and proposed demands. Proposed demand is following

Table 3 Summary of Camp Water Demand

Demand Type	Existing Demand	Proposed Demand
Domestic[1]	5,946,099 Gallons 18.4 AFY	54,607,870 Gallons 167.6 AFY
Non-Domestic	3,718,190 Gallons 11.4 AFY	7,436,380 Gallons 22.8 AFY
Water Loss[2]	193,286 Gallons 0.6 AFY	1,131,670 Gallons 3.5 AFY
Total Demand	9,857,575 Gallons 30.2 AFY	63,175,920 Gallons 173.3 AFY

[1] Domestic water demand includes irrigation demand
[2]Water losses are assumed to be 2 percent of total domestic and non-domestic water demand

Water Supply Strategy

In assessing the future water demand for the Camp and its reliance on CLAWA for domestic water, the utilization of CLAWA as either a primary or supplemental water source is a key consideration for determining the most suitable water supply strategy to satisfy the Camp's future demand.

Utilizing CLAWA as a domestic water provider offers benefits to the Agency. The introduction of additional water from CLAWA would assist of maintaining satisfactory water quality throughout the public system by decreasing residence time of the water in the pipes. Additionally, it would offer a cost-effective and reliable solution for procuring domestic water, particularly during dry periods. This financial consideration of importing domestic water from CLAWA would need to be assessed against the cost and feasibility of relying exclusively on the Camp's groundwater wells or constructing new wells.

The scenarios analyzed for incorporating CLAWA's imported water into the Camp's water supply include:

1. Majority Reliance on CLAWA (75% CLAWA / 25% Camp Groundwater Wells): This scenario would see the Camp dependent on CLAWA for 75% of its domestic water needs, supplemented by the Camp's groundwater wells for the remaining 25%. Previous correspondence with CLAWA indicated a lack of system capacity to fully provide the Camp with adequate water supply, therefore, this scenario is assumed to be the maximum reliance on CLAWA's supply. This scenario ensures a significant portion of the water supply is sourced from CLAWA, mitigating the reliance on groundwater wells, particularly beneficial during dry years when groundwater levels might be lower. This approach aligns with the Camp's preference for a majority reliance on CLAWA to alleviate the stress on their groundwater supply and meet long-term water demands.

2. Balanced Reliance (50% CLAWA / 50% Camp Groundwater Wells): This scenario proposes an equal reliance on both CLAWA and the Camp's groundwater wells. Additionally, it provides a long term balance approach to diversify the water supply and mitigate risks. The balanced resilience approach ensures a stable water supply if one source faces temporary challenges, such as infrastructure issues or environmental factors affecting water level or quality.

3. Supplementary Reliance (25% CLAWA / 75% Camp Groundwater Wells): This approach involved the Camp as the main supplier of their domestic water demand with supplemental use of CLAWA's supply during times of peak demand. This scenario is ideal for maintaining a high level of self-sufficiency for the Camp while still acknowledging the advantages of integrating CLAWA's resources and diversifying domestic water sources.

4. No Reliance on CLAWA (100% Groundwater Wells): Assuming a dependable supply of groundwater, the Camp's groundwater wells can provide sufficient supply for the projected future water demand. This scenario implies confidence in the groundwater wells' capacity and quality of groundwater and will involve proactive measures by the Camp for groundwater management and conservation to maintain a sustainable long term supply. Test well drawdown results will provide insight into the groundwater supply sustainability and feasibility of this scenario.

The projected Camp demand, discussed in *Water Demand* section, from CLAWA is assessed against their 2,500 AFY baseline, 3,480 AFY long-term, and 5,800 AFY maximum entitlement allocations to determine

the impact of the Camp's potential source scenarios on CLAWA. It is assumed that the Camp's non-domestic demand and water losses are supplied by Camp groundwater wells. The following analysis is based on the future Camp annual domestic demand of 54,607,870 gallons, or 167.6 AFY.

Table 4 Analysis of the Camp's Projected Water Demand Against CLAWA's Allocation Levels

Allocation Type	CLAWA Allocation (AFY)	Majority Reliance Camp Demand Impact (125.7 AFY)	Balanced Reliance Camp Demand Impact (83.8 AFY)	Supplementary Reliance Camp Demand Impact (41.9 AFY)
Baseline	2,500	5.03%	3.35%	1.68%
Long-Term	3,480	3.61%	2.41%	1.20%
Maximum	5,800	2.17%	1.44%	0.72%

Meeting Dry Year Demands

This section, as required by Senate Bill 52, expands on the available options that may need to be implemented by CLAWA in order to reconcile any short falls in supply that may occur during any of the dry year scenarios. Depending on the Camp's water allowance from CLAWA, water shortage contingency plans that go into effect may affect the availability of imported water. The Camp is expected to implement similar conservation efforts during dry year scenarios to mitigate the impact on groundwater and CLAWA's imported water demand. The Camp's reliance scenarios were compared to CLAWA water shortage supply to determine the impact to the Agency's allotted supply.

Water Shortage Contingency Plan

It is critical that during dry years, especially extreme drought conditions, CLAWA implements continued preventive actions and demand-reducing measures to its customers. While water efficiency measures and voluntary conservation should be maintained at all times, CLAWA has the right to implement strict demand-reducing measures with potential penalties during extreme dry conditions to ensure water security for essential needs within its service area. This section summarizes CLAWA's 2023 Abridged Water Shortage Contingency Plan (WSCP) prepared by Webb Associates. For more detailed information on the CLAWA's approach to mitigating supply deficits and water shortages, please refer to CLAWA's WSCP.

Water shortages may occur due to several reasons such as population growth, climate change, drought, and natural disasters. The WSCP addresses the necessary steps for the Agency to take in the event of a water shortage, which have effects on the supply of available water for import to the Camp. The WSCP outlines six measures that CLAWA will take for water shortage percentages ranging from 10%-50%. The six shortage levels are summarized in *Table 5.*

Table 5 CLAWA Water Shortage Stages, Triggers, and Actions for Retail Customers

Shortage Level	Percent Shortage Range	Water Supply (AFY)	Shortage Response Actions
1	Up to 10%	2,250 - 2,500	Voluntary conservation.
2	11% to 20%	2,000 - 2,249	Mandatory conservation and BMPs for supply management.
3	21% to 30%	1,750 - 1,999	Mandatory conservation and BMPs for supply management. Update messaging.
4	31% to 40%	1,500 - 1,749	Mandatory conservation and BMPs for supply management. Update messaging and reduce flushing.
5	41% to 50%	1,250 - 1,499	Mandatory conservation and BMPs for supply management. Update messaging and reduce flushing. No new connections or turnouts. Allocation plan may be declared.
6	> 50% Reduction	< 1,250	Mandatory conservation and BMPs for supply management. Update messaging and reduce flushing. No new connections or turnouts. Allocation plan may be declared.

The following analysis in *Table 6* addresses how the Camp's future domestic demand impacts CLAWA's supply when the WSCP is enacted. Both Majority and Balanced Resilience scenarios are analyzed to depict the range in impact of the Camp's water use on CLAWA's system. The Majority, Balanced, and Supplementary Reliance demands used in *Table 6* are 125.7 AFY, 83.8 AFY, and 41.9 AFY, respectively.

Table 6 Implications of Camp's Demand on CLAWA Shortage Supply

Shortage Level	Majority Reliance Demand (125.7 AFY) - Camp Demand % of Shortage Water Supply	Balanced Reliance Demand (83.8 AFY) - Camp Demand % of Shortage Water Supply	Supplementary Reliance Demand (41.9 AFY) - Camp Demand % of Shortage Water Supply
1	5.0% - 5.6%	3.4% - 3.7%	1.7% - 1.9%
2	5.6% - 6.3%	3.7% - 4.2%	1.9% - 2.1%
3	6.3% - 7.2%	4.2% - 4.8%	2.1% - 2.4%
4	7.2% - 8.4%	4.8% - 5.6%	2.4% - 2.8%
5	8.4% - 10.1%	5.6% - 6.7%	2.8% - 3.4%
6	> 10.1%	> 6.7%	> 3.4%

Conclusion

In summary, this WSA for the Camp has evaluated various aspects of water demand, supply, and management strategies, particularly in relation to its reliance on CLAWA and the Camp's groundwater resources. The analysis, considering multiple scenarios of water shortages and demand, details the Camp's current and future water demand and its impact on available water resources.

Multiple strategies were identified for the Camp's water supply, ranging from majority reliance on CLAWA to complete independence on its groundwater wells. Each strategy has been considered for its feasibility, sustainability, and impact on the overall water supply system, including during dry years and drought conditions. The integration of CLAWA as either a primary, supplementary, or emergency water source offers a range of benefits for both the Camp and CLAWA, should the connection need to be utilized. Based on communication with CLAWA, a formalized agreement between the Camp and CLAWA is required. The attached agreement outlines CLAWA's supply limitations and establishes a cap on the water provided to the Camp based on the scenarios outlined in the *Water Supply Strategies* section. The Camp's preference leans towards maximizing its reliance on CLAWA, supplemented by its groundwater wells to establish a stable, long-term water supply.

Additionally, it is recommended that the Camp conduct well drawdown tests to determine the sustainability and reliability of its groundwater wells. The results of the tests will provide insights into the capacity of the groundwater wells and will inform the development of an effective water management strategy for the Camp.

Appendix A Hume SoCal Camp Annual Report (2022)

CA3600595 CALVARY CHAPEL CHRISTIAN CAMP

To view last year's report, click here (../TakeSurvey/PreviousSummary?surveysTakenId=455853).

California State Water Resource Control Board
2022 electronic Annual Report (eAR) to the Division of Drinking Water
for the year ending December 31, 2022

[Section 116530 Health & Safety Code]

A. WATER SYSTEM INFORMATION

Water System Number:	CA3600595
Water System Name:	CALVARY CHAPEL CHRISTIAN CAMP
Water System Classification: ⓘ	Nonpublic
Related Regulating Agency: ⓘ	LPA66 - SAN BERNARDINO COUNTY
Water System Ownership ⓘ	Privately owned business (non-community)

If the address recorded is a PO Box or similar, please update to a physical address that would most accurately describe the location of the water system.

Physical location ⓘ Address 1	32355 GREEN VALLEY LAKE RD	
Address 2		
City Zip Code	GREEN VALLEY LAKE	92314
General Office Phone: ⓘ *(with area code)*		
Web site address:		

Answer fields shaded yellow are **Mandatory Questions** and must be answered to complete this report. Based on previous answers, some answer fields are shaded salmon indicating **Conditionally Mandatory Questions.** Any missed responses to Mandatory and Conditionally Mandatory questions will be shown in the Finalize Section.

REPORT STARTED BY ⓘ

Name:

Title:

Work phone:

Cell phone:

Email address:

Bmull@hume.org

Please be aware that all comment boxes throughout this electronic annual report will be made publicly available WITH THE EXCEPTION of the comment box below. Only Waterboard staff and other people with your water system's login credentials will have access to this comment box. You are encouraged to provide any comments that you believe may help improve this annual report process.

CA3600595 CALVARY CHAPEL CHRISTIAN CAMP

To view last year's report, click here (../TakeSurvey/PreviousSummary?surveysTakenId=455853).

2. Public Water System Contacts

IMPORTANT: Each water system **must have one and only one Administrative Contact AND one and only one Financial Contact.** The same person may be both the Administrative and Financial Contacts.

The Division of Drinking Water will be send important information to the Administrative Contact email address. The Administrative Contact's address, business phone number, and email will be publicly accessible at: https://sdwis.waterboards.ca.gov/PDWW/ (https://sdwis.waterboards.ca.gov/PDWW/)

EXISTING CONTACTS: To edit a contact, select the "Edit Contact" checkbox, this will allow for editing all fields except the contact name. To indicate an individual should no longer be associated with the water system, select the "Remove Contact" checkbox.

NEW CONTACTS: To add a new contact for the water system scroll down to subsection B, "ADD NEW CONTACT HERE" header and enter the contact information for the new contact. All contacts must have a form of communication provided and at least one role type selected.

A. EXISTING CONTACTS	Contact Record	Phone Type	Phone Number & Extension	Contact Type (Modify with checkbox)	
Contact 1 First Name, Middle Initial	ROBERT	Business	(559) 500-9100	☐Remove Contact 1	☐Edit Contact 1
Last Name	MULL	Home		☑Administrative	☐Operator
Title	SITE DIRECTOR	Facsimile		☑Financial	☑Emergency
Address 1	PO BOX 8560	Mobile		☐Designated Operator In Charge	☐Sampler / Water Quality
Address 2					
City	GREEN VALLEY LAKE	Emergency		☐Contract Operator	☐Legal
State	CA				
Zip Code	92341				
Email 1	bmull@hume.org			☐Owner	☐Funding
Email 2				☐Carbon Copy	
Contact 2 First Name, Middle Initial		Business		☐Remove Contact 2	☐Edit Contact 2
Last Name		Home		☐Administrative	☐Operator
Title		Facsimile		☐Financial	☐Emergency

CA3600595 CALVARY CHAPEL CHRISTIAN CAMP

To view last year's report, click here (../TakeSurvey/PreviousSummary?surveysTakenId=455853).

3. Population Served

Total Population in DDW Records: ⓘ 110 7/19/2023

Population Type ⓘ	Population Count	Annual Operating Period ⓘ Begin Date MM	Begin Date DD	End Date MM	End Date DD
Residential	12	1	1	12	31
Transient	110	3	24	3	26
Non-Transient	10	1	1	12	31

Method Used to Determine Population: ⓘ Other

If population is based on "Other" , identify the methods or sources of how it was estimated:

Residential - Four Families are serviced daily by the system
Transient - On the 60th business day of 2023, 110 guests were untilizing the system (3/24 - 3-26)
Non-transient - Full time/ Part time workers working on the facility on a routine bases

List the names of communities served by the system identifying both incorporated and unincorporated areas:

COMMENTS (Note: Comments will be made publicly available): ⓘ

Prefill this section
Save and Exit
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CA3600595 CALVARY CHAPEL CHRISTIAN CAMP

To view last year's report, click here (../TakeSurvey/PreviousSummary?surveysTakenId=455853).

4. Number of Service Connections

A. Active Service Connections:

Total Active Potable Water Connections currently in Division of Drinking Water database:	18

The total number of Service Connections as of December 31, 2022 must be reported as either Unmetered or Metered for each Service Connection Type as appropriate.

TYPE	Potable Water Unmetered	Metered	2022 Total*	2021 Total*
Single-family Residential: single family detached dwellings	0	0	0	0
Multi-family Residential: Apartments, condominiums, town houses, duplexes and trailer parks	17	0	17	17
Commercial/Institutional: Retail establishments, office buildings, laundries, schools, prisons, hospitals, dormitories, nursing homes, hotels, churches, campgrounds	0	0	0	0
Industrial: All manufacturing	0	0	0	0
Landscape Irrigation: Parks, play fields, cemeteries, median strips, golf courses	1	0	1	1
Agricultural Irrigation: Irrigation of commercially-grown crops	0	0	0	0

Do NOT report fire sprinkler connections and fire hydrants. These connections are not counted toward "service connections" for compliance purposes.

Total Active Connections*	18	0	18	18

* Calculated field

B. Number of Inactive Connections (all types)

Include only service connections that have been physically disconnected (e.g, meter removed) from the water system. All other service connections should be considered as "Active."	0

CA3600595 CALVARY CHAPEL CHRISTIAN CAMP

To view last year's report, click here (../TakeSurvey/PreviousSummary?surveysTakenId=455853).

5. Source Inventory

Section A

(A) Small Water System Source Type

As a Small Water System, sources are listed in Section A tables by either groundwater or surface water. The existing inventory is prefilled for groundwater sources in table A1, and for surface water sources in table A3. You may view these sources at Public Drinking Water Watch (https://sdwis.waterboards.ca.gov/PDWW/). You may suggest inventory updates for groundwater sources in table A2, and for surface water in table A4. For any source(s) not listed, please select "Email for Help on this page" at the bottom of this page to be connected with your Regulating Agency.

A1. Groundwater Source Inventory - Existing

Source ID	Source Name	Source Activity	Source Type, Availability
001	WELL #1	A	Well Permanent
004	WELL #4	A	Well Permanent
005	WELL #5	A	Well Permanent

A2. Groundwater Source Inventory - Updated

Add the Source listed from above and describe any changes. An example might be a change to activity or availability. Must include comment describing change listed.
Note: Please include Source ID and Source Name as displayed in table A1.

To add a new row, select the green plus sign in the upper right corner of the table. To remove a row, select the trash can at the end of a row. Save changes by selecting the green check mark at the end of the row.

Source ID	Name	Activity	Comments
Not found			

A3. Surface Water Source Inventory-Existing ⓘ

Source ID	Source Name	Source Activity	Source Type, Availability
		Not found	

A4. Surface Water Source Inventory - Updated

Add the Source listed from above and describe any changes. An example might be a change to activity or availability. Must include comment describing change listed.
Note: Please include Source ID and Source Name as displayed in table A3.

To add a new row, select the green plus sign in the upper right corner of the table. To remove a row, select the trash can at the end of a row. Save changes by selecting the green check mark at the end of the row.

Source ID	Name	Activity	Comments
		Not found	

A5. Source Inventory Comment

Section B. Source Metering and Well Monitoring

1. Are your water sources metered?	Yes
2. Do you have equipment on hand to monitor groundwater levels at all your wells?	No

☐ Check this box if you have funding available to achieve this.

3. Do you routinely monitor the *static* water levels in your wells?	No
4. Do you routinely monitor the *pumping* water levels in your wells?	No
5. Are these levels recovering, declining or steady?:	Don't Know

Section C. Standby Source Use

If a standby source was used in 2022, provide the following information.
To add a new row, select the green plus sign in the upper right corner of the table. To remove a row, select the trash can at the end of a row. Save changes by selecting the green check mark at the end of the row.

Name of the Standby Source used in 2022:	No. of days the Standby Source was in operation:	Were customers notified? (Y/N)	Was the Division of Drinking Water notified? (Y/N)	Describe the reason the Standby Source was used:
Not found				

COMMENTS (Note: Comments will be made publicly available):

Prefill this section
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CA3600595 CALVARY CHAPEL CHRISTIAN CAMP

To view last year's report, click here (../TakeSurvey/PreviousSummary?surveysTakenId=455853).

6. Water Supply and Delivery

A. WATER PRODUCED, PURCHASED, AND SOLD

Units of Measure for tables in Section 6A: Gallons

Volumes are based on: METERED VOLUMES

6.A1 - Water Produced, Purchased, and Sold

If only total annual production is available, report your monthly estimated volumes by dividing the total by 12 for monthly reporting. If you have no annual production, please use the checkboxes to prefill zero values and advance to subsection 6.A2 for water purchasing details.

A	B	C	D	E	F	G	H	I
	Potable Water					Non-potable Water		
Month	Water Produced from Groundwater (Wells)	Water Produced from Surface Water	Finished Water Purchased or Received from another PWS	Total Amount of Potable Water*	Water Sold to Another PWS	Total Amount of Non-potable Water	Water Sold to Another PWS	Recycled
Check here if no production for every month	☐	☑	☑		☑	☑	☑	☑
January	495508.333	0	0	495508.333	0	0	0	0
February	495508.333	0	0	495508.333	0	0	0	0
March	495508.333	0	0	495508.333	0	0	0	0
April	495508.333	0	0	495508.333	0	0	0	0
May	495508.333	0	0	495508.333	0	0	0	0
June	495508.333	0	0	495508.333	0	0	0	0
July	495508.333	0	0	495508.333	0	0	0	0
August	495508.333	0	0	495508.333	0	0	0	0
September	495508.333	0	0	495508.333	0	0	0	0
October	495508.333	0	0	495508.333	0	0	0	0
November	495508.333	0	0	495508.333	0	0	0	0
December	495508.333	0	0	495508.333	0	0	0	0
Annual Total*	5946099.99599	0	0	5946099.9959	0	0	0	0
Percent Treated								

PWS = Public Water System

*Calculated field

The **Maximum Day** is the day during 2022 with the highest total water usage. Provide the date for Maximum volume supplied to the Distribution System, and report individual volumes recorded that day for each supply type.

Maximum Daily Demand (Date)	
Maximum Day - Groundwater (Volume)	
Maximum Day - Surface Water (Volume)	
Maximum Day - Purchased or Received (Volume)	
Maximum Day - Total Potable Water (Calculated)	0
Maximum Day - Sold (Volume)	

6.A2 - Water Purchased or Sold or Transferred

The sources with buyer and seller relationships in Division of Drinking Water's SDWIS databased are listed below, and available publicly at https://sdwis.waterboards.ca.gov/PDWW/. Use the dropdown to the right of each row to indicate if your source was used during the 2022 calendar year.

To edit a row, select the pencil sign at the end of the row. Save changes by selecting the green check mark at the end of the row. To remove a row, select the trash can at the end of a row. If you do not see a source listed, please select "Email for Help" at the bottom of the page to be connected with your Regulating Agency.

WSID	WSFID - Name	Sells to and/or Buys from	OtherWSID	OtherWSName	OtherWSFID-WSName	Was this source used during 2022?

Not found

6.A3 - Recycled Water Supplied

If recycled water was *supplied* to *your customers*, complete the table below:

The table below is prefilled with recycled water systems reported in last year's eAR. To edit a row, select the pencil image to the right of the row. To add a new row, select the green plus sign in the upper right corner of the table. To remove a row, select the trash can at the end of a row. Save changes by selecting the green check mark at the end of the row.

Specify the level of treatment (e.g., tertiary, disinfected secondary)	Name of Recycled Water supplier

Not found

CA3600595 CALVARY CHAPEL CHRISTIAN CAMP

To view last year's report, click here (../TakeSurvey/PreviousSummary?surveysTakenId=455853).

10. Backflow–Cross Connection Control

A. Backflow Assemblies and Air Gaps

	Total Number Reported in 2021	Total Number in System in 2022	Number Installed in 2022	Number Tested in 2022	Number Failed in 2022	Number Repaired/ Replaced
Backflow Assemblies on the Service Connections or Meter (Reduced Pressure Principle and Double Check Valve assemblies)	5	5	00	5	0	0
Backflow Assemblies On-site but not on the Service Connections or Meter (Reduced Pressure Principle and Double Check Valve assemblies)	0	0	0	0	0	0
Air-gap Separation	1	1	0			

No. of *Inactive* Backflow Prevention Assemblies in water system in 2022: 0

B. Cross Connection Control Program

Are cross-connection control surveys regularly conducted on the system? Yes

Date of last cross-connection control survey done on the system: 07/05/2022

Cross Connection Control Program Coordinator

Name:

Business Phone: Email Address:

Certification or training received:

Certification Number (if applicable):

Describe any cross-connection incidents that occurred during 2022:

CALVARY CHAPEL CHRISTIAN CAMP - WELL #1 (3600595-001)

LAST AND NEXT SAMPLE REPORT

PS Codes	Group Name	Analyte Number	Analyte Name	Detected Level	Less Than	RL	Unit	MCL	DLR	Last Sampled	Frequency	Next Due	Notes
CA3600595_001_001	NITRATE/ NITRITE	1040	NITRATE		<	0.400	MG/ L	10	.4	03-22-2023	12	2024/03	
CA3600595_001_001	NITRATE/ NITRITE	1041	NITRITE		<	0.400	MG/ L	1	.4	12-17-2020	36	2023/12	DUE NOW

CALVARY CHAPEL CHRISTIAN CAMP - WELL #4 (3600595-004)

LAST AND NEXT SAMPLE REPORT

PS Codes	Group Name	Analyte Number	Analyte Name	Detected Level	Less Than	RL	Unit	MCL	DLR	Last Sampled	Frequency	Next Due	Notes
CA3600595_004_004	NITRATE/ NITRITE	1040	NITRATE		<	0.400	MG/ L	10	.4	01-24-2023	12	2024/01	DUE NOW
CA3600595_004_004	NITRATE/ NITRITE	1041	NITRITE		<	0.400	MG/ L	1	.4	12-17-2020	36	2023/12	DUE NOW

CALVARY CHAPEL CHRISTIAN CAMP - WELL 5 (3600595-005)

LAST AND NEXT SAMPLE REPORT

PS Codes	Group Name	Analyte Number	Analyte Name	Detected Level	Less Than	RL	Unit	MCL	DLR	Last Sampled	Frequency	Next Due	Notes
CA3600595_005_005	NITRATE/ NITRITE	1040	NITRATE		<	0.400	MG/ L	10	.4	03-22-2023	12	2024/03	
CA3600595_005_005	NITRATE/ NITRITE	1041	NITRITE		<	0.400	MG/ L	1	.4	12-17-2020	36	2023/12	DUE NOW

Appendix B Hume SoCal Camp Pump Logs

Well 1 - Main Road

Irrigation and Domestic. Mainly used for irrigation.

Date	Meter Reading	Volume Pumped (Gallons)	Days in Period	Average Daily Flow (GPD)
10/2/2023	27639600	736300	31	23751.6
9/1/2023	26903300	712600	29	24572.4
8/3/2023	26190700	561600	31	18116.1
7/3/2023	25629100	776200	32	24256.3
6/1/2023	24852900	747100	31	24100.0
5/1/2023	24105800	0	30	0.0
4/1/2023	24105800	0	31	0.0
3/1/2023	24105800	0	28	0.0
2/1/2023	24105800	200	29	6.9
1/3/2023	24105600	0	32	0.0
12/2/2022	24105600	0	29	0.0
11/3/2022	24105600	0	31	0.0
10/3/2022	24105600	318000	32	9937.5
9/1/2022	23787600	682600	30	22753.3
8/2/2022	23105000	744500	32	23265.6
7/1/2022	22360500	707100	30	23570.0
6/1/2022	21653400	115800	30	3860.0
5/2/2022	21537600	0	30	0.0
4/2/2022	21537600	0	31	0.0
3/2/2022	21537600	0	29	0.0
2/1/2022	21537600	0	26	0.0
1/6/2022	21537600	0	36	0.0
12/1/2021	21537600	0	30	0.0
11/1/2021	21537600	655700	61	10749.2
9/1/2021	20881900	660700	30	22023.3
8/2/2021	20221200	565300	32	17665.6
7/1/2021	19655900	540400	29	18634.5
6/2/2021	19115500	2500	41	61.0
4/22/2021	19113000	0	31	0.0
3/22/2021	19113000	0	28	0.0
2/22/2021	19113000	0	31	0.0
1/22/2021	19113000	0	30	0.0
12/23/2020	19113000	115200	47	2451.1
11/6/2020	18997800	164700	21	7842.9
10/16/2020	18833100	93600	7	13371.4
10/9/2020	18739500	228700	7	32671.4
10/2/2020	18510800	357400	15	23826.7
9/17/2020	18153400	353000	14	25214.3
9/3/2020	17800400	120100	6	20016.7
8/28/2020	17680300	190000	7	27142.9
8/21/2020	17490300	145500	21	6928.6
7/31/2020	17344800	78300	7	11185.7
7/24/2020	17266500	137100	7	19585.7

7/17/2020	17129400	149700	7	21385.7
7/10/2020	16979700	218200	7	31171.4
7/3/2020	16761500	311900	14	22278.6
6/19/2020	16449600	314700	17	18511.8
6/2/2020	16134900	347800	14	24842.9
5/19/2020	15787100	199600	8	24950.0
5/11/2020	15587500	19400	17	1141.2
4/24/2020	15568100			
9/18/2019	15565800	327600	14	23400.0
9/4/2019	15238200	424000	18	23555.6
8/17/2019	14814200	164800	7	23542.9
8/10/2019	14649400	457000	21	21761.9
7/20/2019	14192400	241600	8	30200.0
7/12/2019	13950800	242500	10	24250.0
7/2/2019	13708300	266400	11	24218.2
6/21/2019	13441900	170200	7	24314.3
6/14/2019	13271700	219000	9	24333.3
6/5/2019	13052700			
10/27/2018	12812600	155900	7	22271.4
10/20/2018	12656700	157900	7	22557.1
10/13/2018	12498800	472200	21	22485.7
9/22/2018	12026600	316000	14	22571.4
9/8/2018	11710600	138400	6	23066.7
9/2/2018	11572200	175600	8	21950.0
8/25/2018	11396600	94500	4	23625.0
8/21/2018	11302100	409600	18	22755.6
8/3/2018	10892500	136300	6	22716.7
7/28/2018	10756200	182100	8	22762.5
7/20/2018	10574100	160700	7	22957.1
7/13/2018	10413400	137700	6	22950.0
7/7/2018	10275700	157900	7	22557.1
6/30/2018	10117800	540300	65	8312.3
4/26/2018	9577500			
			Max, gpd	32671.4

Well 2 - Activity Road

Non-Domestic, feeds lake

Date	Meter Reading	Volume Pumped (Gallons)	Days in Period	Average Daily Flow (GPD)
10/2/2023	4727210	172950	31	5579.0
9/1/2023	4554260	371010	29	12793.4
8/3/2023	4183250	443860	31	14318.1
7/3/2023	3739390	328860	32	10276.9
6/1/2023	3410530	357290	29	12320.3
5/3/2023	3053240	0	30	0.0
4/3/2023	3053240	0	31	0.0
3/3/2023	3053240	0	28	0.0
2/3/2023	3053240	0	31	0.0
1/3/2023	3053240	0	32	0.0
12/2/2022	3053240	0	29	0.0
11/3/2022	3053240	0	31	0.0
10/3/2022	3053240	428970	32	13405.3
9/1/2022	2624270	405090	30	13503.0
8/2/2022	2219180	448670	32	14020.9
7/1/2022	1770510	369840	30	12328.0
6/1/2022	1400670	377910	30	12597.0
5/2/2022	1022760	13740	27	508.9
4/5/2022	1009020	0	35	0.0
3/1/2022	1009020	0	28	0.0
2/1/2022	1009020	0	26	0.0
1/6/2022	1009020	0	36	0.0
12/1/2021	1009020	0	30	0.0
11/1/2021	1009020			
9/1/2021	10476940	419300	30	13976.7
8/2/2021	10057640	436270	32	13633.4
7/1/2021	9621370	367510	28	13125.4
6/3/2021	9253860	561960	42	13380.0
4/22/2021	8691900	92600	31	2987.1
3/22/2021	8599300	0	28	0.0
2/22/2021	8599300	0	31	0.0
1/22/2021	8599300			
11/22/2020	8599300	0	9	0.0
11/13/2020	8599300	630	7	90.0
11/6/2020	8598670	100020	7	14288.6
10/30/2020	8498650	100610	7	14372.9
10/23/2020	8398040	100470	7	14352.9
10/16/2020	8297570	113810	8	14226.3
10/8/2020	8183760	84080	6	14013.3
10/2/2020	8099680	223160	15	14877.3
9/17/2020	7876520	47160	6	7860.0

9/11/2020	7829360	150080	8	18760.0
9/3/2020	7679280	73730	6	12288.3
8/28/2020	7605550	116810	6	19468.3
8/22/2020	7488740	88560	8	11070.0
8/14/2020	7400180	59950	7	8564.3
8/7/2020	7340230	149070	7	21295.7
7/31/2020	7191160	60200	7	8600.0
7/24/2020	7130960	82720	7	11817.1
7/17/2020	7048240	94940	7	13562.9
7/10/2020	6953300	138010	7	19715.7
7/3/2020	6815290	186410	14	13315.0
6/19/2020	6628880	171460	7	24494.3
6/12/2020	6457420	152820	10	15282.0
6/2/2020	6304600	218840	14	15631.4
5/19/2020	6085760	280020	18	15556.7
5/1/2020	5805740			
10/26/2019	5805740	149250	11	13568.2
10/15/2019	5656490	161230	11	14657.3
10/4/2019	5495260	237520	16	14845.0
9/18/2019	5257740	72520	5	14504.0
9/13/2019	5185220	133450	9	14827.8
9/4/2019	5051770	277740	18	15430.0
8/17/2019	4774030	90840	7	12977.1
8/10/2019	4683190	291350	19	15334.2
7/22/2019	4391840	156410	10	15641.0
7/12/2019	4235430	157190	10	15719.0
7/2/2019	4078240	174270	11	15842.7
6/21/2019	3903970	159570	10	15957.0
6/11/2019	3744400			
8/3/2018	3178810	31530	6	5255.0
7/28/2018	3147280	77150	8	9643.8
7/20/2018	3070130	63600	7	9085.7
7/13/2018	3006530	62380	6	10396.7
7/7/2018	2944150	72550	7	10364.3
6/30/2018	2871600	675670	65	10394.9
4/26/2018	2195930			
			Max, gpd	24494.3

Well 4 - Building "B"

Not used in long time. Primariliy used for irrigation and domestic. Split between two.

Date	Meter Reading	Volume Pumped (Gallons)	Days in Period	Average Daily Flow (GPD)
10/2/2023	33307400	0	31	0.0
9/1/2023	33307400	0	29	0.0
8/3/2023	33307400	0	31	0.0
7/3/2023	33307400	0	32	0.0
6/1/2023	33307400	1200	31	38.7
5/1/2023	33306200	0	30	0.0
4/1/2023	33306200	0	31	0.0
3/1/2023	33306200	0	28	0.0
2/1/2023	33306200	2900	29	100.0
1/3/2023	33303300	0	31	0.0
12/3/2022	33303300	0	30	0.0
11/3/2022	33303300	258800	31	8348.4
10/3/2022	33044500	543900	32	16996.9
9/1/2022	32500600	463300	30	15443.3
8/2/2022	32037300	527900	32	16496.9
7/1/2022	31509400	337200	29	11627.6
6/2/2022	31172200	63900	32	1996.9
5/1/2022	31108300	100	26	3.8
4/5/2022	31108200	0	34	0.0
3/2/2022	31108200	0	29	0.0
2/1/2022	31108200	0	26	0.0
1/6/2022	31108200	500	36	13.9
12/1/2021	31107700	0	30	0.0
11/1/2021	31107700	569000	61	9327.9
9/1/2021	30538700	525900	30	17530.0
8/2/2021	30012800	547900	32	17121.9
7/1/2021	29464900	597800	28	21350.0
6/3/2021	28867100	1053100	42	25073.8
4/22/2021	27814000	273600	31	8825.8
3/22/2021	27540400	0	28	0.0
2/22/2021	27540400	0	32	0.0
1/21/2021	27540400	0	30	0.0
12/22/2020	27540400	4400	53	83.0
10/30/2020	27536000	143100	7	20442.9
10/23/2020	27392900	143700	7	20528.6
10/16/2020	27249200	83000	7	11857.1
10/9/2020	27166200	207600	7	29657.1
10/2/2020	26958600	336000	15	22400.0
9/17/2020	26622600	68600	6	11433.3
9/11/2020	26554000	271600	8	33950.0
9/3/2020	26282400	120600	6	20100.0
8/28/2020	26161800	193000	7	27571.4
8/21/2020	25968800	148700	7	21242.9

8/14/2020	25820100	104700	7	14957.1
8/7/2020	25715400	258700	7	36957.1
7/31/2020	25456700	104100	7	14871.4
7/24/2020	25352600	151700	7	21671.4
7/17/2020	25200900	166200	7	23742.9
7/10/2020	25034700	252300	7	36042.9
7/3/2020	24782400	360500	14	25750.0
6/19/2020	24421900	251700	7	35957.1
6/12/2020	24170200	63600	32	1987.5
5/11/2020	24106600	438300	17	25782.4
4/24/2020	23668300			
11/13/2019	23630100	389100	28	13896.4
10/16/2019	23241000	484700	12	40391.7
10/4/2019	22756300	374400	16	23400.0
9/18/2019	22381900	339700	14	24264.3
9/4/2019	22042200	456300	18	25350.0
8/17/2019	21585900	185000	7	26428.6
8/10/2019	21400900	528900	21	25185.7
7/20/2019	20872000	280400	8	35050.0
7/12/2019	20591600	279100	10	27910.0
7/2/2019	20312500	310300	11	28209.1
6/21/2019	20002200	200900	7	28700.0
6/14/2019	19801300	266600	9	29622.2
6/5/2019	19534700			
11/8/2018	19332700	70300	5	14060.0
11/3/2018	19262400	98400	7	14057.1
10/27/2018	19164000	99300	7	14185.7
10/20/2018	19064700	101400	7	14485.7
10/13/2018	18963300	311900	21	14852.4
9/22/2018	18651400	119900	8	14987.5
9/14/2018	18531500	89800	6	14966.7
9/8/2018	18441700	95400	6	15900.0
9/2/2018	18346300	123400	8	15425.0
8/25/2018	18222900	66200	4	16550.0
8/21/2018	18156700	295700	18	16427.8
8/3/2018	17861000	100600	6	16766.7
7/28/2018	17760400	138200	8	17275.0
7/20/2018	17622200	124200	7	17742.9
7/13/2018	17498000	109400	6	18233.3
7/7/2018	17388600	128000	7	18285.7
6/30/2018	17260600			
			Max, gpd	40391.7

Well 5 - Tank Road (Domestic, Main Domestic Source)

Main domestic source. Newest well.

Date	Meter Reading	Volume Pumped (Gallons)	Days in Period	Average Daily Flow (GPD)
12/1/2023	36807200	147400	30	4913.3
11/1/2023	36659800	255100	30	8503.3
10/2/2023	36404700	657400	31	21206.5
9/1/2023	35747300	1138500	29	39258.6
8/3/2023	34608800	1620500	31	52274.2
7/3/2023	32988300	1497100	32	46784.4
6/1/2023	31491200	1540900	31	49706.5
5/1/2023	29950300	182800	30	6093.3
4/1/2023	29767500	210500	31	6790.3
3/1/2023	29557000	223500	28	7982.1
2/1/2023	29333500	225000	29	7758.6
1/3/2023	29108500	137700	33	4172.7
12/1/2022	28970800	200950	29	6929.3
11/2/2022	28769850	200950	30	6698.3
10/3/2022	28568900	540100	32	16878.1
9/1/2022	28028800	518500	30	17283.3
8/2/2022	27510300	1188000	32	37125.0
7/1/2022	26322300	496500	30	16550.0
6/1/2022	25825800	1222900	30	40763.3
5/2/2022	24602900	498500	27	18463.0
4/5/2022	24104400	188100	34	5532.4
3/2/2022	23916300	276800	29	9544.8
2/1/2022	23639500	252100	26	9696.2
1/6/2022	23387400	189300	36	5258.3
12/1/2021	23198100	191100	30	6370.0
11/1/2021	23007000	223000	30	7433.3
10/2/2021	22784000	222000	30	7400.0
9/2/2021	22562000	326800	31	10541.9
8/2/2021	22235200	553000	32	17281.3
7/1/2021	21682200	549500	28	19625.0
6/3/2021	21132700	884900	42	21069.0
4/22/2021	20247800	804200	31	25941.9
3/22/2021	19443600	37800	28	1350.0
2/22/2021	19405800	108100	31	3487.1
1/22/2021	19297700	28900	31	932.3
12/22/2020	19268800	175000	60	2916.7
10/23/2020	19093800	0	7	0.0
10/16/2020	19093800	23500	7	3357.1
10/9/2020	19070300	51700	7	7385.7
10/2/2020	19018600	70300	15	4686.7
9/17/2020	18948300	33800	6	5633.3
9/11/2020	18914500	38200	8	4775.0
9/3/2020	18876300	49200	6	8200.0

8/28/2020	18827100	32900	7	4700.0
8/21/2020	18794200	28100	7	4014.3
8/14/2020	18766100	26600	7	3800.0
8/7/2020	18739500	54500	7	7785.7
7/31/2020	18685000	21000	7	3000.0
7/24/2020	18664000	214000	7	30571.4
7/17/2020	18450000	40000	7	5714.3
7/10/2020	18410000	94400	7	13485.7
7/3/2020	18315600	812600	14	58042.9
6/19/2020	17503000	152700	7	21814.3
6/12/2020	17350300	189600	10	18960.0
6/2/2020	17160700	90000	14	6428.6
5/19/2020	17070700	1155700	18	64205.6
5/1/2020	15915000	56100	11	5100.0
4/20/2020	15858900	43700	7	6242.9
4/13/2020	15815200	37400	7	5342.9
4/6/2020	15777800	53700	33	1627.3
3/4/2020	15724100	34000	4	8500.0
2/29/2020	15690100	64300	8	8037.5
2/21/2020	15625800	67400	8	8425.0
2/13/2020	15558400	87400	7	12485.7
2/6/2020	15471000	38600	8	4825.0
1/29/2020	15432400	183400	27	6792.6
1/2/2020	15249000			
			Max, gpd	64205.6