Appendix K-1

Utility Infrastructure Technical Report

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AMERICAN JEWISH UNIVERSITY – CAMP ALONIM

MAJOR MODIFICATION TO CONDITIONAL USE PERMIT NO. 1776

COUNTY FILE NO. PL22-0032

UTILITY INFRASTRUCTURE TECHNICAL REPORT: WATER, WASTEWATER AND ENERGY

JANUARY 2025

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Note: Appendices and supplemental documents provided by the Applicant and the County may not be current; it is understood that the Applicant will need to obtain current documentation, and that findings in this report may change accordingly.

1. INTRODUCTION

1.1. PROJECT DESCRIPTION

American Jewish University ("Applicant") requests a Major Modification to Conditional Use Permit No. 1776 be granted to authorize development of additional facilities at Camp Alonim. Proposed facilities include the following:

- Welcome Center: a 4,460 sq. ft. building consisting of a lobby, staff lounge, offices, and meeting rooms;
- Camper Cabins: 13 "duplex-style" camper cabins of 1,930 sq. ft. each;
- Head Counselor Cabins: three cabins of 441 sq. ft. each;
- Arts Pavilion: a 2,307 sq. ft. open-air shade structure for arts and crafts activities;
- Parking Lot: a new 58-space parking lot adjacent to the Welcome Center; and
- Landscaping: landscaping improvements around the new structures.

Three housing trailers, two cottages, and a garage would be demolished to accommodate the new development. Additionally, one of the former cabins would be demolished. The project will also require the removal of 12 protected trees, including eight coast live oaks, one sycamore, two pepper trees, and one gum tree.

The total allowed number of camp attendees would increase from 472 (400 for Camp Alonim, 72 for the Brandeis Collegiate Institute) to 572 (500 for Camp Alonim, 72 for the Brandeis Collegiate Institute). The allowable number of events, which are presently limited to 15 days per year on Saturdays and Sundays with up to 300 attendees, would increase to the following:

- up to 150 annual events with attendance of up to 300 people;
- up to ten annual events with attendance of up to 500 people; and
- up to six annual events with attendance of up to 1,000 people.

1.2. SCOPE OF WORK

The purpose of this report is to analyze the potential impact of the Project to the existing water, wastewater, and energy infrastructure systems.

2. REGULATORY FRAMEWORK

2.1. WATER SUPPLY

There are several plans, policies, and programs regarding Water Supply and Infrastructure at the state, regional, and local levels. Described below, these include:

- California Urban Water Management Plan Act
- Senate Bill 610, Senate Bill 221 and Senate Bill 7
- Senate Bill X7-7 (Water Conservation Act of 2009)
- Sustainable Groundwater Management Act of 2014
- California Code of Regulations
    - Title 20
    - CALGreen Code
    - Plumbing Code
- Executive Order B-40-17
- Executive Order N-10-21
- Callegulas Municipal Water District 2020 Urban Water Management Plan
- Ventura County applicable General Plan Goals and Policies

2.1.1. STATE

(a) California Urban Water Management Plan

The California Urban Water Management Planning Act (Water Code, Section 10610, et seq.) addresses several state policies regarding water conservation and the development of water management plans to ensure the efficient use of available supplies. The California Urban Water Management Planning Act also requires Urban Water Suppliers to develop Urban Water Management Plans (UWMPs) every five years to identify short-term and long-term demand management measures to meet growing water demands during normal, dry, and multiple-dry years. Urban Water Suppliers are defined as water suppliers that either serve more than 3,000 customers or provide more than 3,000 acre feet per year (afy) of water to customers.

(b) Senate Bill 610, Senate Bill 221, and Senate Bill 7

Two of the state laws addressing the assessment of water supply necessary to serve large-scale development projects, Senate Bill (SB) 610 and SB 221, became effective January 1, 2002. SB 610, codified in Water Code Sections 10910–10915, specifies the requirements for water supply assessments (WSAs) and their role in the California Environmental Quality Act (CEQA) process, and defines the role UWMPs play in the WSA process. SB 610 requires that, for projects subject to CEQA that meet specific size criteria, the water supplier prepare WSAs that determine whether the water supplier has sufficient water resources to serve the projected water demands associated with the projects. SB 610 provides specific guidance regarding how future supplies are to be calculated in the WSAs where an applicable UWMP has been prepared. Specifically, a WSA must identify existing water supply entitlements, water rights, or water service contracts held by the public water system, and prior years' actual water deliveries received by the public water system. In addition, the WSA must address water supplies over a 20-year period and consider normal, single-dry, and multiple-dry year conditions. In accordance with SB 610, projects for which a WSA must be prepared are those subject to CEQA that meet any of the following criteria:

- Residential developments of more than 500 dwelling units;
- Shopping centers or business establishments employing more than 1,000 persons or having more than 500,000 square feet of floor space;
- Commercial office buildings employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- Hotels, motels, or both, having more than 500 rooms;
- Industrial, manufacturing, or processing plants, or industrial parks 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;
- Mixed-use projects that include one or more of the projects specified in this subdivision; or
- Projects that would demand an amount of water equivalent to or greater than the amount of water required by a 500-dwelling-unit project. (Water Code Section 912, CEQA Guidelines Section 15155(a).

The WSA must be approved by the public water supplier serving the project at a regular or special meeting and must be incorporated into the CEQA document. The lead agency must then make certain findings related to water supply based on the WSA.

In addition, under SB 610, a water supplier responsible for the preparation and periodic updating of an UWMP must describe the water supply projects and programs that may be undertaken to meet the total project water use of the service area. If groundwater is

identified as a source of water available to the supplier, the following additional information must be included in the UWMP: (1) a groundwater management plan; (2) a description of the groundwater basin(s) to be used and the water use adjudication rights, if any; (3) a description and analysis of groundwater use in the past 5 years; and (4) a discussion of the sufficiency of the groundwater that is projected to be pumped by the supplier.

SB 221 also addresses water supply in the land use approval process for large residential subdivision projects. However, unlike SB 610 WSAs, which are prepared at the beginning of a planning process, SB 221–required Water Supply Verification (WSV) is prepared at the end of the planning process for such projects. Under SB 221, a water supplier must prepare and adopt a WSV indicating sufficient water supply is available to serve a proposed subdivision, or the local agency must make a specific finding that sufficient water supplies are or will be available prior to completion of a project, as part of the conditions for the approval of a final subdivision map. SB 221 specifically applies to residential subdivisions of 500 units or more. However, Government Code Section 66473.7(i) exempts "…any residential project proposed for a site that is within an urbanized area and has been previously developed for urban uses, or where the immediate contiguous properties surrounding the residential project site are, or previously have been, developed for urban uses; or housing projects that are exclusively for very low and low-income households."

SB 7, enacted on November 10, 2009, mandates new water conservation goals for UWMPs, requiring Urban Water Suppliers to achieve a 20-percent-per-capita water consumption reduction by the year 2020 statewide, as described in the "20 x 2020" State Water Conservation Plan.[1] As such, each updated UWMP must now incorporate a description of how each respective urban water supplier will quantitatively implement this water conservation mandate, which requirements in turn must be taken into consideration in preparing and adopting WSAs under SB 610.

(c) Senate Bill X7-7—Water Conservation Act

SB X7-7 (Water Conservation Act of 2009), codified in California Water Code Section 10608, requires all water suppliers to increase water use efficiency. Enacted in 2009, this legislation sets an overall goal of reducing per capita urban water use, compared to 2009 use, by 20 percent by December 31, 2020. The State of California was required to make incremental progress towards this goal by reducing per capita water use by at least 10 percent on or before December 31, 2015. Monthly statewide potable water savings reached 25.1 percent in February 2017 as compared to that in February 2013.[2] Cumulative statewide savings from June 2015 through February 2017 were estimated at 22.5 percent.[3] Following a multi-year drought and improvements to hydrologic conditions, statewide

[1] California State Water Resources Control Board, 20 x 2020 Water Conservation Plan, February 2010.
[2] State Water Resources Control Board, Fact Sheet, February 2017 Statewide Conservation Data, updated April 4, 2017.
[3] State Water Resources Control Board, Media Release, "Statewide Water Savings Exceed 25 Percent in February; Conservation to Remain a California Way of Life," April 4, 2017.

potable water savings reached 14.7 percent in August 2017 as compared to August 2013 potable water production.[4]

(d) Sustainable Groundwater Management Act of 2014[5]

The Sustainable Groundwater Management Act (SGMA) of 2014, passed in September 2014, is a comprehensive three-bill package that provides a framework for the sustainable management of groundwater supplies by local authorities.[6] The SGMA requires the formation of local groundwater sustainability agencies to assess local water basin conditions and adopt locally based management plans. Local groundwater sustainability agencies were required to be formed by June 30, 2017. The SGMA provides 20 years for groundwater sustainability agencies to implement plans and achieve long-term groundwater sustainability and protect existing surface water and groundwater rights. The SGMA provides local groundwater sustainability agencies with the authority to require registration of groundwater wells, measure and manage extractions, require reports and assess fees, and request revisions of basin boundaries, including establishing new subbasins. Furthermore, SGMA requires governments and water agencies of high and medium priority basins to stop overdraft and bring groundwater basins into balanced levels of pumping and recharge. Under SGMA, these basins should reach sustainability within 20 years of implementing their sustainability plans. For the basins that are critically over-drafted, the timeline is 2040. For the remaining high and medium priority basins, the deadline is 2042.

(e) California Code of Regulations

(i) Title 20

Title 20, Sections 1605.3 (h) and 1505(i) of the California Code of Regulations (CCR) establishes applicable State efficiency standards (i.e., maximum flow rates) for plumbing fittings and fixtures, including fixtures such as showerheads, lavatory faucets, and water closets (toilets). Among the standards, the maximum flow rate for showerheads manufactured on or after July 1, 2018, is 1.8 gpm at 80 psi; and lavatory faucets manufactured after July 1, 2016, is 1.2 gpm at 60 psi. The standard for toilets sold or offered for sale on or after January 1, 2016, is 1.28 gallons per flush.[7]

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[4] State Water Resources Control Board, Fact Sheet, August 2017 Statewide Conservation Data, updated October 3, 2017.

[5] Sustainable Groundwater Management Act [And Related Statutory Provisions from SB1168 (Pavley), AB1739 (Dickinson), and SB1319 (Pavley) as Chaptered], 2015 Amendments, effective January 1, 2016.

[6] California Department of Water Resources, SGMA Groundwater Management. https://water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management, accessed January 14, 2025.

[7] California Code of Regulations, Title 20, Section 1605.3(h), https://energycodeace.com/site/custom/public/reference-ace-t20/index.html#!Documents/section16053statestandardsfornonfederallyregulatedappliances.htm, accessed January 14, 2025.

(ii) CALGreen Code

Part 11 of Title 24, the title that regulates the design and construction of buildings, establishes the California Green Building Standards (CALGreen) Code. The purpose of the CALGreen Code is to improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or a positive environmental impact and encouraging sustainable construction practices in the following categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality. The CALGreen Code includes both mandatory measures, as well as voluntary measures. The mandatory measures establish minimum baselines that must be met in order for a building to be approved. The mandatory measures for water conservation provide limits for fixture flow rates, which are the same as those for the Title 20 efficiency standards listed above. The voluntary measures can be adopted by local jurisdictions for greater efficiency.

(iii) Plumbing Code

Title 24, Part 5 of the CCR establishes the California Plumbing Code. The California Plumbing Code sets forth efficiency standards (i.e., maximum flow rates) for all new federally regulated plumbing fittings and fixtures, including showerheads and lavatory faucets. The 2019 California Plumbing Code, which is based on the 2018 Uniform Plumbing Code, has been published by the California Building Standards Commission and went into effect on January 1, 2019.

(f) Executive Order B-40-17

On April 7, 2017, Executive Order B-40-17 was issued. Cities and water districts throughout the state are required to report their water use each month and ban wasteful practices, including hosing off sidewalks and running sprinklers when it rains.

(g) Executive Order N-10-21

Title 24, Part 5 of the CCR establishes the California Plumbing Code. The California Plumbing Code set forth on July 8, 2021, Executive Order N-10-21 (Order) was issued calling for voluntary cutbacks of water usage by 15 percent from 2020 usage levels. The Order lists commonsense measures Californians can undertake to achieve water usage reduction goals and identifies the State Water Resources Control Board (Water Board) for tracking of monthly reporting on the State's progress.

2.1.2. REGIONAL

(a) Metropolitan Water District

As discussed in detail below, the Metropolitan Water District of Southern California (MWD) is a primary source of water supply within Southern California. Based on the

water supply planning requirements imposed on its member agencies and ultimate customers, MWD has adopted a series of official reports on the state of its water supplies. As described in further detail below, in response to recent developments in the Sacramento Delta, the MWD has developed plans intended to provide solutions that, when combined with the rest of its supply portfolio, will ensure a reliable long-term water supply for its member agencies, including the Callegulas Municipal Water District.

(i) 2020 Urban Water Management Plan

The Metropolitan Water District's (MWD) 2020 UWMP (MWD UWMP) addresses the future of MWD's water supplies and demand through the year 2045.[8] Evaluations are prepared for average year conditions, single dry-year conditions, and multiple dry-year conditions. The analysis for multiple-dry year conditions; i.e., under the most challenging weather conditions, such as drought and service interruptions caused by natural disasters, is presented in Table 2-5 of the 2020 RUWMP.[9] The analysis in the 2020 RUWMP concluded that reliable water resources would be available to continuously meet demand through 2045.[10] In the 2020 RUWMP, the projected 2045 demand water during multiple-dry year conditions is 1,564,000 afy, whereas the expected and projected 2045 supply is 2,239,000 afy based on current programs, for a potential surplus in 2045 of 675,000 afy.[11]

MWD has comprehensive plans for stages of actions it would undertake to address up to a 50-percent reduction in its water supplies and a catastrophic interruption in water supplies through its Water Surplus and Drought Management and Water Supply Allocation Plans. MWD has also developed an Emergency Storage Requirement to mitigate against potential interruption in water supplies resulting from catastrophic occurrences within the Southern California region and is working with the State to implement a comprehensive improvement plan to address catastrophic occurrences that could occur outside of the Southern California region. MWD is also working with the State on the Delta Risk Management Strategy to reduce the impacts of a seismic event in the Delta that would cause levee failure and disruption of State Water Project (SWP) deliveries. In addition, MWD has plans for supply implementation and continued development of a diversified resource mix, including programs in the Colorado River Aqueduct, SWP, Central Valley transfers, local resource projects, and in-region storage that enables the region to meet its water supply needs.

(ii) 2015 Integrated Resources Plan

The MWD prepares an Integrated Water Resources Plan (IRP) that provides a water management framework with plans and programs for meeting future water needs. It addresses issues that can affect future water supply, such as water quality, climate change, and regulatory and operational changes. The most recent IRP (2015 IRP) was adopted in

[8] Metropolitan Water District of Southern California, 2020 Regional Urban Water Management Plan, May 2021.
[9] Metropolitan Water District of Southern California, 2020 Urban Water Management Plan, p. 2-19.
[10] Metropolitan Water District of Southern California, 2020 Urban Water Management Plan, p. 2-19.
[11] Metropolitan Water District of Southern California, 2020 Urban Water Management Plan, p. 2-19.

January 2016.[12][13] It establishes a water supply reliability mission of providing its service area with an adequate and reliable supply of high-quality water to meet present and future needs in an environmentally and economically responsible way. Among other topics, the 2015 IRP discusses water conservation, local and imported water supplies, storage and transfers, water demand, and adaptation to drought conditions.

The 2015 IRP reliability targets identify developments in imported and local water supply, and in water conservation that, if successful, would provide a future without water shortages and mandatory restrictions under planned conditions. For imported supplies, MWD would make investments to maximize Colorado River Aqueduct deliveries in dry years. MWD would make ecologically-sound infrastructure investments to the SWP so that the water system can capture sufficient supplies to help meet average year demands and to refill the MWD storage network in above-average and wet years.

Planned actions to keep supplies and demands in balance include, among others, lowering regional residential per capita demand by 20 percent by the year 2020 (compared to a baseline established in 2009 state legislation), reducing water use from outdoor landscapes and advancing additional local supplies. IRP Table ES-1, 2015 IRP Update Total Level of Average-Year Supply Targeted (Acre-Feet), of the 2015 IRP, shows the supply reliability and conservation targets. As presented in the IRP, the total supply reliability target for each five-year increase between 2016 and 2040 would exceed the retail demand after conservation. In 2040, retail demand after conservation is estimated to be 4,273,000 acre-feet and the total supply reliability target is approximately 4,539,000 acre-feet, representing an excess of 266,000 acre-feet.[14]

The 2020 IRP planning process is currently in development.[15] The 2020 IRP analyzes multiple scenarios that could plausibly unfold in the future due to climate change, economic growth, legislation and regulations affecting water sources and demands, and other variables. With the variability of these impacts in mind, MWD is developing four scenarios to help understand the challenges of the future and effectively plan to ensure water reliability in the face of those challenges.

(iii) Water Surplus and Drought Management Plan

In 1999, MWD incorporated the water storage contingency analysis that is required as part of any UWMP into a separate, more detailed plan, called the Water Surplus and Drought Management Plan (WSDM Plan). The overall objective of the WSDM Plan is to ensure that shortage allocation of MWD's imported water supplies is not required. The WSDM Plan provides policy guidance to manage MWD's supplies and achieve the goals laid out

[12] Metropolitan Water District of Southern California, Integrated Water Resources Plan, 2015 Update, Report No. 1518, 2016.
[13] While MWD indicates a five-year planning cycle for its IRP; as of the time of printing of this report the 2020 IRP has not been published.
[14] Metropolitan Water District of Southern California, Integrated Water Resources Plan—2015 Update, Report No. 1518, 2016, p. VIII.
[15] Metropolitan Water District of Southern California, Integrated Water Resources Plan, 2020.

in the agency's IRP. The WSDM Plan separates resource actions into two major categories: Surplus Actions and Shortage Actions. The WSDM Plan considers the region to be in surplus only after MWD has met all demands for water, including replenishment deliveries. The Surplus Actions store surplus water, first inside then outside of the region. The Shortage Actions of the WSDM are separated into three subcategories: Shortage, Severe Shortage, and Extreme Shortage. Each category has associated actions that could be taken as part of the response to prevailing shortage conditions. Conservation and water efficiency programs are part of MWD's resource management strategy through all categories.[16]

(iv) Long-Term Conservation Plan

The Long-Term Conservation Plan (LTCP) provides a framework of goals and strategies to reduce per capita water use through conservation and water use efficiency. The plan recognizes the challenges and uncertainties to achieving the IRP target. As a result, the LTCP uses adaptive management and strategies to adjust implementation approaches.

(v) Water Supply Allocation Plan

While the WSDM Plan included a set of general actions and considerations for MWD staff to address during shortage conditions, it did not include a detailed water supply allocation plan or implementation approach. Therefore, in February 2008, MWD adopted a water supply plan called the Water Supply Allocation Plan (WSAP). The WSAP includes a formula for determining equitable, needs-based reductions of water deliveries, with the potential application of a surcharge, to member agencies during extreme water shortages in MWD's service area conditions (i.e., drought conditions or unforeseen interruptions in water supplies).

The WSAP allows member agencies the flexibility to choose among various local supply and conservation strategies to help ensure that demands on MWD stay in balance with limited supplies. The WSAP formula addresses shortages of MWD supplies, by taking into account growth, local investments, changes in supply conditions and the demand hardening aspects of non-potable recycled water use and the implementation of conservation savings programs.[17] The allocation period covers 12 consecutive months from July of a given year through the following June.

2.1.3. LOCAL

(a) Callegulas Municipal Water District 2020 Urban Water Management Plan

Calleguas' 2020 Urban Water Management Plan (UWMP) has been prepared in compliance with the California Water Code (CWC). This Executive Summary satisfies the requirement of CWC Section 10630.5 to include a simple lay description of information

[16] Water Surplus and Drought Management Plan, Report No. 1150, 1999.

[17] Metropolitan water District, 2015 Urban Water Management Plan, p. 2-21.

necessary to provide a general understanding of the plan, including a description of Calleguas' water supply, as well as its needs, strategies, and potential challenges for the foreseeable future. This plan provides assessment of Calleguas' water service reliability, describes and evaluates sources of water supply, efficient uses of water, demand management measures, implementation strategy and schedule, and other relevant information and programs. In addition to the water reliability assessments, the plan includes an evaluation of frequent and severe periods of droughts, as described in the Drought Risk Assessment, and the preparation and adoption of a Water Shortage Contingency Plan (WSCP). Calleguas operates as a member agency of Metropolitan. Metropolitan provides Calleguas with imported water supplies, which Calleguas in turn distributes on a wholesale basis to its retail water purveyors. All factors described for Metropolitan's Water Reliability Assessment (WRA) for its 2020 UWMP can be directly applied to the Calleguas WRA as the District is fully dependent on Metropolitan for its water supply. The information included in Calleguas' 2020 UWMP represents the most current and available planning projections of supply capability and demand forecasts developed through a collaborative process with Metropolitan and the District's purveyors.[18]

As the Project's water purveyor, Brandeis-Bardin Mutual Water Company, is solely supplied by the Callegulas Municipal Water District, it is understood that it is effectively bound to the requirements of this UWMP.

(b) Ventura County applicable General Plan Goals and Policies

The following goals and policies of the Ventura County General Plan are applicable to Water Supply – Quality:

- Countywide Goals, Policies, and Programs: Policy 4.3.2-1

The following goals and policies of the Ventura County General Plan are applicable to Water Supply – Quantity:

- Countywide Goals, Policies, and Programs: Goals 4.3.1-1 through -3
- Countywide Goals, Policies, and Programs: Policies 4.3.2-1 through -3

The following goals and policies of the Ventura County General Plan are applicable to Water Supply – Fire Flow Requirements:

- Countywide Goals, Policies, and Programs: Goal 4.3.1-1
- Countywide Goals, Policies, and Programs: Policies 4.3.2-1 & -2

[18] Callegulas Municipal Water District 2020 Urban Water Management Plan, Executive Summary, June 2021

2.2. WASTE TREATMENT/DISPOSAL

2.2.1. SEWAGE COLLECTION/TREATMENT FACILITIES

There are several plans, policies, and programs regarding Sewage Collection/Treatment Facilities at the state and local levels. Described below, these include:

- California Green Building Standards Code;
- City of Simi Valley Sewer System Management Plan;
- City of Simi Valley Municipal Codes
- Ventura County General Plan Goals and Policies

2.2.2. STATE

(a) California Green Building Code

The California Green Building Standards Code (CALGreen Code) is set forth in California Code of Regulations (CCR) Title 24, Part 11, and establishes voluntary and mandatory standards pertaining to the planning and design of sustainable site development and water conservation, among other issues. Under the CALGreen Code, all flush toilets are limited to 1.28 gallons per flush, and urinals are limited to 0.5 gallon per flush. In addition, maximum flow rates for faucets are established at 2.0 gallons per minute (gpm) at 80 pounds per square inch (psi) for showerheads, 1.2 gpm at 60 psi for residential lavatory faucets, and 1.8 gpm at 60 psi for kitchen faucets.

2.2.3. LOCAL

(a) City of Simi Valley Sewer System Management Plan

The Collections Section operates, maintains, and monitors the sewer system to assure sewage is safely and properly conveyed from nearly 40,000 lateral connections to the City's Water Quality Control Plant.

Sewer System Management Plans are state-mandated requirements for California's public collection system agencies that own or operate sanitary sewer systems greater than one mile in length. The purpose of these plans is to:

- Facilitate proper funding and management of sanitary sewer systems.
- Reduce sanitary sewer overflows.
- Protect public health and the environment.

- Improve the overall maintenance and operation of sewer systems and sewage lift stations.[19]

(b) City of Simi Valley Municipal Code

Title 6, Chapter 13 of the Simi Valley Municipal Code This chapter sets forth uniform requirements for direct and indirect use of the wastewater collection and treatment system of the City to comply with all applicable federal and state standards required by the Clean Water Act of 1977, and all related and applicable federal, state, or local regulations and grant conditions, as they are now constituted, or as they may hereafter be amended or recodified. The objectives of this chapter are:

- To prevent the introduction of pollutants into the publicly owned treatment works (POTW) that will interfere with its operation;

- To prevent the introduction of pollutants into the POTW that will pass through the POTW, inadequately treated, into receiving waters, or otherwise be incompatible with the POTW

- To protect both POTW personnel, who may be affected by wastewater and sludge in the course of their employment, and the public;

- To promote reuse and recycling of industrial wastewater and sludge from the POTW;

- To provide for equitable distribution of the total cost of the City's sewerage system and all related programs through the establishment of fair and equitable fees, charges, and penalties;

- To regulate direct and indirect users of the City's sewerage system through the issuance of permits to certain nondomestic users and through enforcement of general requirements for all other users;

- To provide for monitoring and enforcement activities; and

- To enable the City to comply with its National Pollutant Discharge Elimination System (NPDES) Permit, sludge and/or biosolids use and disposal requirements, and any other federal, state, or local laws to which the POTW is subject.

[19] City of Simi Valley – Sanitation Services – Operations: Collection & Treatment; https://www.simivalley.org/departments/public-works/sanitation-services/operations-collections-treatment; accessed January 14, 2025.

(c) Ventura County applicable General Plan Goals and Policies

The following goals and policies of the Ventura County General Plan are applicable to Sewage Collection/Treatment Facilities:

- Countywide Goals, Policies, and Programs: Goals 4.4.1-1
- Countywide Goals, Policies, and Programs: Policies 4.4.2-1, -3, -4, & -5

2.3. UTILITIES

2.3.1. (1) FEDERAL

(a) United States Department of Energy (Energy Policy Act of 2005)

The United States Department of Energy (DOE) is the federal agency responsible for establishing policies regarding *energy* conservation, domestic energy production and infrastructure. The Federal Energy Regulatory Commission (FERC) is an independent federal agency, officially organized as part of the DOE which is responsible for regulating interstate transmission of natural gas, oil and electricity, reliability of the electric grid and approving of construction of interstate natural gas pipelines and storage facilities. The Energy Policy Act of 2005 has also granted FERC with additional responsibilities of overseeing the reliability of the nation's electricity transmission grid and supplementing state transmission siting efforts in national interest electric transmission corridors.

FERC has authority to oversee mandatory reliability standards governing the nation's electricity grid. FERC has established rules on certification of an Electric Reliability Organization (ERO) which establishes, approves and enforces mandatory electricity reliability standards. The North American Electric Reliability Corporation (NERC) has been certified as the nation's ERO by FERC to enforce reliability standards in all interconnected jurisdictions in North America. Although FERC regulates the bulk energy transmission and reliability throughout the United States, the areas outside of FERC's jurisdictional responsibility include state level regulations and retail electricity and natural gas sales to consumers which falls under the jurisdiction of state regulatory agencies.

The Federal Communications Commission (FCC) requires all new cellular tower construction to be approved by the state or local authority for the proposed site and comply with FCC rules involving environmental review. Additionally, the Telecommunications Act of 1996 requires construction of new cellular towers to comply with the local zoning authority.

2.3.2. (2) STATE

California energy infrastructure policy is governed by three institutions: the California Independent System Operator (California ISO), the California Public Utilities Commission (CPUC), and the California Energy Commission (CEC). These three agencies share similar goals, but have different roles and responsibilities in managing the State's energy needs. The majority of state regulations with respect to electricity and natural gas pertain to energy conservation.

(a) California Independent System Operator

The California ISO is an independent public benefit corporation responsible for operating California's long-distance electric transmission lines. The California ISO is led by a five-member board appointment by the Governor and is also regulated by FERC. While transmission owners and private electric utilities own their lines, the California ISO operates the transmission system independently to ensure that electricity flows comply with federal operational standards. The California ISO analyzes current and future electrical demand and plans for any needed expansion or upgrade of the electric transmission system.

(b) California Public Utilities Commission

The CPUC establishes policies and rules for electricity and natural gas rates provided by private utilities in California such as Southern California Edison (SCE) and Southern California Gas Company (SoCalGas). Public owned utilities such as the Los Angeles Department of Water and Power (LADWP) do not fall under the CPUCs jurisdiction. The Digital Infrastructure and Video Competition Act of 2006 (DIVCA) established the CPUC as the sole cable/video TV franchising authority in the State of California. DIVCA took effect January 1, 2007.

The CPUC is overseen by five commissioners appointed by the Governor and confirmed by the state Senate. The CPUC's responsibilities include regulating electric power procurement and generation, infrastructure oversight for electric transmission lines and natural gas pipelines and permitting of electrical transmission and substation facilities.

(c) California Energy Commission

The CEC is a planning agency which provides guidance on setting the state's energy policy. Responsibilities include forecasting electricity and natural gas demand, promoting and setting energy efficiency standards throughout the state, developing renewable energy resources and permitting thermal power plants 50 megawatts and larger. The CEC also has regulatory specific regulatory authority over publicly owned utilities to certify, monitor and verify eligible renewable energy resources procured.

(d) Senate Bill 1389

Senate Bill (SB) 1389 (Public Resources Code Sections 25300–25323), adopted in 2002, requires the development of an integrated plan for electricity, natural gas, and transportation fuels. Under the bill, the CEC must adopt and transmit to the Governor and Legislature an Integrated Energy Policy Report every two years. In 2018, the CEC decided to write the Integrated Energy Policy Report in two volumes. Volume I, which was published on August 1, 2018, highlights the implementation of California's innovative policies and the role they have played in moving toward a clean energy economy. Volume II, which was adopted in February 2019, identifies several key energy issues and actions to address these issues and ensure the reliability of energy resources.[20]

2.3.3. LOCAL

(a) Ventura County applicable General Plan Goals and Policies

The following goals and policies of the Ventura County General Plan are applicable to Utlities:

- Countywide Goals, Policies, and Programs: Goals 4.5.1
- Countywide Goals, Policies, and Programs: Policies 4.5.2-1 through 3

2.3.3.1. ELECTRICITY

(a) Senate Bill 350

Senate Bill 350, adopted in 2015, requires the California Public Utilities Commission (CPUC) to focus energy procurement decisions on reducing greenhouse gas (GHG) emissions by 40 percent by 2030, including efforts to achieve at least 50 percent renewable energy procurement, doubling of energy efficiency, and promoting transportation electrification.[21]

Part of this process includes requiring Load Serving Entities (LSE's) to submit biennially an Integrated Resource Plan documenting their ability to reliably meet service and growth demand and reliability while meeting benchmarks toward emissions goals.

[20] California Energy Commission, 2018 Integrated Energy Policy Report Updated, 2019, Volume II.
[21] https://www.cpuc.ca.gov/sb350/; accessed January 14, 2025

2.3.3.2. NATURAL GAS

There are several plans, policies, and programs regarding Electric Power, Natural Gas, and Telecommunications Infrastructure at the federal and state levels. Described above, these include:

- United States Department of Energy (Energy Policy Act of 2005)
- California Independent System Operator
- California Public Utilities Commission
- California Energy Commission
- Senate Bill 1389

3. ENVIRONMENTAL SETTING

The Camp property is comprised of two legal lots (2,558 acres) [Assessor's Parcel Number(s) 685-0-051-040, -050, -140, -190, and -210], and is addressed as 1101 Peppertree Lane. Camp facilities are located within a 328-acre portion of the site. The project site has a General Plan Land Use Designation of Rural and is zoned Rural Agricultural with a 160-acre minimum parcel size (RA-160 ac.).

Access is provided from the southern end of Tapo Canyon Road. Water services are provided from the Brandeis Mutual Water Company, which receives imported water through the Calleguas Municipal Water District. Wastewater is handled by the City of Simi Valley.

3.1. WATER SUPPLY

The Brandeis Mutual Water Company (BBM) is responsible for providing water supply to the Project while complying with County, State, and Federal regulations. BBM exclusively serves the AJU campus.

3.1.1. REGIONAL

BBM, as a water purveyor, is a purchaser of water from the Callegulas Municipal Water District. BBM is wholly supplied through a six-inch water connection capable of supplying 1,000 gallons per minute. This service is responsible for filling BBM's 608,000-gallon Main Reservoir. Water from this reservoir is then drawn through two booster pump stations (understood to be limited to 160 gallons per minute) to supply the 300,000-gallon House of Book (HOB) Reservoir. These reservoirs serve the campus' two pressure zones.

3.1.2. LOCAL

The Water Availability Analysis prepared by Water Resource Engineering Associates assumes that the Project is served exclusively by Pressure Zone 2. As mentioned, this zone consists of the 300,000-gallon HOB Reservoir and is supplied by a pump system capable of replenishing 160 gallons per minute. Replenishment is understood to be automatic and triggered by a series of float switches to activate and de-activate the pump system.

Based on WREA's analysis, it is understood that the existing condition has a Maximum Day Average Demand of 122,525 gallons at a flow of 264 gallons per minute.

3.1.3 EXISTING FIRE INFRASTRUCTURE

BBM provides fire infrastructure to serve the AJU campus through a series of water mains and fire hydrants. WREA's analysis has identified three "Worst Case Scenario" hydrants upon which their fire availability analysis has been based – "LAX", "Book Repository", and "House of Book". Based on their analysis, the fire flow requirements for the site are a flow of 1,250 gallons per minute for a duration of 2 hours. This corresponds to a total

volume of 150,000 gallons, which can be supplied fully from either reservoir in typical conditions.

3.2. WASTE TREATMENT/DISPOSAL

3.2.1. REGIONAL

The City of Simi Valley provides sanitary sewer services to the AJU campus. Simi Valley serves an estimated 40,000 lateral connections, providing conveyance to the City's Water Quality Control Plant (WQCP). The City maintains approximately 380 miles of sewer line, 7,500 manholes, and 3 lift stations that transport wastewater from residential and commercial properties to the wastewater treatment plant. The City serves a population of approximately 127,000. The system's average daily flow is currently approximately 7.9 MGD.[22] The WQCP treats an estimated 10 million gallons per day (MGD) and has a dry weather design capacity of 12.5 MGD.[23]

3.2.2. LOCAL

The AJU campus is served by a private sanitary sewer network. Based on a review of Simi Valley sewer infrastructure, it is assumed that this network connects to the public main at the intersection of Peppertree Lane and Guardian Street. Downstream of the assumed connection consists of 12" ductile iron piping with an intended design slope of 0.4%.[24] The City's sewer design manual specifies that sewers 12" and larger shall be designed to flow two-thirds full at peak flow rate.[25] This suggests a design capacity in the sewer main of approximately 1.15 MGD, or 798 GPM.

Based on the Water Availability analysis, it is conservatively assumed that the peak sewage generation corresponds to the Maximum Day Peak Demand of 264 GPM, or 33% of the design capacity of the downstream sewer conveyance.

3.3. ENERGY

3.3.1. ELECTRICITY

Southern California Edison (SCE) is responsible for providing electricity to Ventura County, including to the Project Site.

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[22] Simi Valley 2019 Sanitary Sewer Management Plan, Page 1-2

[23] https://www.waterboards.ca.gov/losangeles/board_decisions/tentative_orders/individual/npdes/Simi_Valley_WQCP/SimiValleyWQCPNPDESTentativeNPDESPermit9-18-2019.pdf; accessed January 14, 2025

[24] https://simivalley.maps.arcgis.com/home/webmap/viewer.html?webmap=29fede7e15db4be8b7921525d160ccce, accessed January 14, 2025

[25] Manual and Standard Plans for the Design and Construction of Sanitary Sewerage Facilities, p 14.

3.3.2 REGIONAL

Southern California Edison is one of the nation's largest electric utilities, providing electric service to approximately 15 million people through 5 million customer accounts. SCE's service area includes portions of 15 counties and hundreds of cities and communities in a 50,000-square-mile service area within Central, Coastal and Southern California.[26]

3.4 NATURAL GAS

SoCal Gas is responsible for providing natural gas supply to the City and is regulated by the California Public Utilities Commission and other state and federal agencies.

3.4.1 REGIONAL

California utilities continue to focus on Customer Energy Efficiency and other Demand-Side Management programs in their utility electric and gas resource plans. California utilities are committed to helping their customers make the best possible choices regarding use of this valuable resource. California demand for natural gas is forecasted to decline through 2040. Under the Average Demand case [studied in the California Gas Report], gas demand for the entire state is projected to average 4,931 million cubic feet of gas per day (MMcf/d) in 2024 decreasing to 3,593 MMcf/d by 2040, a decline of 2.0 percent per year.[27]

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26 https://download.newsroom.edison.com/create_memory_file/?f_id=5cc32d492cfac24d21aecf4c&content_verified=True; accessed January 14, 2025

27 California Gas and Electric Utilities, 2024 California Gas Report, 2024.

4. SIGNIFICANCE THRESHOLDS

4.1. WATER SUPPLY

Appendix G of the State of California's California Environmental Quality Act (CEQA) Guidelines (CEQA Guidelines) provides a set of sample questions that address impacts regarding water supply. These questions are as follows:

Would the Project:

- Require or result in the relocation or construction of new water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunication facilities or expansion of existing facilities, the construction or relocation of which would cause significant environmental effects?

- Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years?

4.1.1 WATER SUPPLY – QUALITY

In the context of the above questions from the Appendix G of the CEQA Guidelines, the Ventura County Initial Study Assessment Guidelines states that a project that is designed to meet all of the applicable requirements set forth in the following authorities shall not be considered to have a significant impact in this environmental area:

- California Health and Safety Code, Division 104, Part 13, Chapter 4

- California Code of Regulations, Title 22, Division 4

- Ventura County Building Code, Article 1, Section 6

- Ventura County Ordinance Code, Division 4, Chapter 8

Based on these factors, the Project would have a significant impact if the City's water supplies would not adequately serve the Project or water distribution capacity would be inadequate to serve the proposed use after appropriate infrastructure improvements have been installed.

4.1.2 WATER SUPPLY – QUANTITY

In the context of the above questions from the Appendix G of the CEQA Guidelines, the Ventura County Initial Study Assessment Guidelines states that a project's impact is considered significant or not based on whether the General Plan requirement is met.

- A source of water supplied by the following shall be determined to constitute a permanent supply of water . For items a) and b) the source shall constitute a

permanent supply if, and only if, the supplier indicates in writing it has a permanent supply for the project.

- Casitas Municipal Water District
- Cities, water companies, districts, mutuals, public sources – unless there is a special known adverse situation.

  Note: The Calleguas Municipal Water District (CMWD) and the United Water Conservation District (UWCD) are considered to be wholesale water suppliers. Therefore, a water availability letter should be procured from the water retail service provider of CMWD or UWCD in the project area. A water availability letter from CMWD or UWCD will only be accepted under special circumstances.

- Groundwater from a well that meets one of the following criteria as described in the Ventura County Waterworks Manual Section 2.12 Criteria For Demonstrating A Long Term Domestic Groundwater Supply:

  - A category 1 well for which a well pump and recovery test has been completed and the results successfully meet all requirements as described for a Category 1 Well Test (Section 2.12.3), or;
  - A category 2 well for which a study and report have been completed that meet all the requirements for a Category 2 Groundwater Supply Study and Report (Section 2.12.4), or;
  - A well that qualifies as a category 3 well (Section 2.12.5). Wells are those wells located in areas of the County where the presence of a groundwater supply sufficient to meet the long term requirements of all projected consumers is documented by substantial data and overdraft of the basin is not known to exist.

- General Plan Goals and Policies - Any project that is inconsistent with any of the policies or development standards relating to water supply - quantity of the Ventura County General Plan Goals, Policies and Programs or applicable Area Plan (above), may result in a significant environmental impact. This threshold is not applicable if the project includes a General Plan Amendment (GPA) that would eliminate the inconsistency, and the GPA itself would not have a significant impact on water supply-quantity or be inconsistent with any water supply - quantity policy or development standard of the General Plan or applicable Area Plan (above).

- A project has the potential to have a significant impact on water supply - quantity, if it either individually or cumulatively when combined with recently

approved, current, and reasonably foreseeable probable future projects would introduce physical development that would adversely affect the water supply - quantity of the hydrologic unit in which the project site is located.

These thresholds are applicable to the Project and as such are used to determine if the Project would have significant wastewater impacts.

4.1.3 WATER SUPPLY – FIRE FLOW REQUIREMENTS

In the context of the above questions from the Appendix G of the CEQA Guidelines, the Ventura County Initial Study Assessment Guidelines states that a project will have a significant impact if:

- It cannot meet the required fire flow as determined by:
    - The Insurance Services Office, Inc. (ISO) Guide for Determination of Required Fire Flow
    - The Ventura County Waterworks Manual (VCWWM)
    - VCFPD Fire Code
    - Fire Prevention Standards 14.5.1, 14.5.2, 14.5.3
- If it cannot provide an acceptable mitigation factor, i.e., fire sprinklers to allow for a reduction in the required fire flow.
- A private water system cannot meet flow, duration, or reliability requirements as defined in the Ventura County Waterworks Manual and VCFPD Fire Code.

These thresholds are applicable to the Project and as such are used to determine if the Project would have significant wastewater impacts.

4.2 WASTE TREATMENT/DISPOSAL

Appendix G of the CEQA Guidelines provides a set of sample questions that address impacts with regard to wastewater. These questions are as follows:

Would the Project:

- Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which would cause significant environmental effects?
- Result in a determination by the wastewater treatment provider, which serves or may serve the Project, that it has adequate capacity to serve the Project's Projected demand in addition to the provider's existing commitments?

4.2.1 SEWAGE COLLECTION/TREATMENT FACILITIES

In the context of the above questions from the Appendix G of the CEQA Guidelines, the Ventura County Initial Study Assessment Guidelines states that a project that is designed to meet all of the applicable requirements set forth in the following authorities shall not be considered to have a significant impact in this environmental area:

- Porter-Cologne Water Quality Control Act (California Water Code)
- California Code of Regulations, Title 22
- California Regional Water Quality Control Board Basin Plans
- Uniform Plumbing Code
- Ventura County Building Code

These thresholds are applicable to the Project and as such are used to determine if the Project would have significant wastewater impacts.

4.3 UTILITIES

Appendix F of the CEQA Guidelines states that the potentially significant energy implications of a Project should be considered in an EIR. Environmental impacts, as noted in Appendix F, may include:

- The Project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the Project's life cycle including construction, operation, maintenance and/or removal. if appropriate, the energy intensiveness of materials may be discussed;
- The effects of the Project on local and regional energy supplies and on requirements for additional capacity;
- The effects of the Project on peak and base period demands for electricity and other forms of energy;
- The degree to which the Project complies with existing energy standards;
- The effects of the Project on energy resources;
- The Project's Projected transportation energy use requirements and its overall use of efficient transportation alternatives.

Appendix G of the CEQA Guidelines has the following questions:

- Would the Project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction.

- Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

In the context of the above questions from the Appendices F and G of the CEQA Guidelines, the Ventura County Initial Study Assessment Guidelines states that any project that

- would individually or cumulatively cause a disruption or re-routing of an existing utility facility; or

- would individually or cumulatively increase demand on a utility that results in expansion of an existing utility facility which has the potential for secondary environmental impacts

has the potential for significant impacts. Based on these factors, the Project would have a significant impact on energy resources if the Project would result in an increase in demand for electricity or natural gas that exceeds available supply or distribution infrastructure capabilities, or the design of the Project fails to incorporate energy conservation measures that go beyond existing requirements.

5. METHODOLOGY

5.1. WATER SUPPLY

The methodology for determining the significance of a Project as it relates to a Project's impact on water supply and distribution infrastructure is based on the *Ventura County Initial Study Assessment Guidelines*.

This report analyzes the potential impacts of the Project on the existing public water infrastructure by comparing the estimated Project demand with the calculated available capacity of the existing facilities. This analysis has been performed by the Brandeis-Bardin Mutual Water Company (BBM) and its findings are discussed herein.

BBM additionally performed a hydraulic analysis of their water system to determine if adequate fire flow is available to the fire hydrants surrounding the Project Site.

This methodology involves the following:

5.1.1. WATER SUPPLY – QUALITY

Review the project application, project description questionnaire, and required materials to obtain the following regulations:

- Determine if the project requires a supply of domestic water.
- Determine if domestic water will be provided by a water purveyor or from an individual source (water well).
- If water is provided by a public water purveyor, a water availability letter must be submitted with the project application. The California Department of Public Health regulates and issues permits for public water systems with 15 or more connections. Public water purveyors with fewer than 15 connections are regulated and permitted by the County Environmental Health Division.
- If domestic water is obtained from an individual source (a water well or wells), applicable water quality analysis must be submitted with the project application. Compliance with state drinking water standards must be demonstrated before the application for the proposed project is deemed complete.

  Note: Compliance with applicable drinking water standards must be demonstrated before the application is deemed complete.

A determination of no project or cumulative impact will be made when:

- The proposed project does not require a supply of domestic water

- Domestic water is obtained from a public water purveyor operating with a valid permit from either the California Department of Public Health or the Environmental Health Division.

- Domestic water is obtained from an individual source and the water quality analysis demonstrates compliance with applicable drinking water standards.

5.1.2. WATER SUPPLY – QUANTITY

Projects obtaining water from any of the above three sources (1.a., 1.b., and 1.c.) of supply using Threshold Criteria No. 1 from above shall be considered to have a permanent source of water and shall be considered to not have a significant effect on water supply - quantity.

Projects not conforming to the above permanent sources of supply shall be considered potentially significant.

When necessary for determining cumulative impacts (larger or more complex projects), the Watershed Protection District (Staff) will obtain a list from the County Planning Division of the recently approved, current, and probable future projects that are located within the same hydrologic unit as the project site, in order to assess the project's contribution to cumulative impacts on water supply - quantity.

After acquiring the information stated above, Staff must compare the project's potential water supply quantity impacts, as well as the goals, objectives, policies, and/or development standards that apply to the project in order to identify, and evaluate the significance of, the impacts using the threshold criteria (above).

Note: A spring does not meet the requirement for a permanent source of water supply.

5.1.3. WATER SUPPLY – FIRE FLOW REQUIREMENTS

The Fire Protection District staff responsible for the project will review the information submitted by the applicant relative to water availability. If there is not an acceptable water purveyor, plans for a private water system will be required. The fire flow for the project will be determined predicated on the size of structures, construction type, use, and proximity to other structures.
A determination of no impact will be made if there are:

- No requirements for fire flow, or

- If the project is served by a water purveyor that can provide the required fire flow in accordance with VCWWM and VCFPD Fire Code.

5.2. WASTE TREATMENT/DISPOSAL

The methodology for determining the significance of a Project as it relates to a Project's impact on wastewater collection and treatment infrastructure is based on the *Ventura County Initial Study Assessment Guidelines.*

This report analyzes the potential impacts of the Project on the existing public sanitary sewer infrastructure by comparing the estimated Project demand with the calculated available capacity of the existing facilities. This analysis has been performed, in part, by the City of Simi Valley as the sewerage purveyor and their findings are discussed herein.

This methodology includes the following:

5.2.1. SEWAGE COLLECTION/TREATMENT FACILITIES

Review the project application, project description questionnaire, and required materials and consult with the Regional Water Quality Control Board to obtain the following information:

- Determine if the project requires connection to a public sewer.
- If sewage disposal will be provided by a public sewer agency identified in the County General Plan Public Facilities Map, a sewer availability letter must be provided with the application. The letter must include information to demonstrate that the sewer agency has sufficient sewer/treatment capacity to serve the project and other cumulative development. Sewer availability for the project must be demonstrated before the application for the proposed project is deemed complete.
- If sewage disposal will be provided by a facility not listed in the County General Plan Public Facilities Map, or a new facility is proposed, soils engineering/percolation testing reports and other required information must be submitted with the project application for review and evaluation.

A determination of no impact will be made for project and cumulative impacts when it is determined that:

- The proposed project will not generate sewage and connection to the public sewer is not required.
- The sewer entity has indicated that the facility has existing capacity to serve the project and cumulative development and no improvements to existing facilities are required.
- The sewage treatment facility is operating in conformance with California Regional Water Quality Control Board requirements.

5.3. UTILITIES

The methodology for determining the significance of a Project as it relates to a Project's impact on utility infrastructure is based on the *Ventura County Initial Study Assessment Guidelines*. The Discretionary Entitlement, Zone Change, and Subdivision Application

Questionnaire must identify the utilities that are in proximity to and would serve the proposed project.

5.3.1. ELECTRIC

If the project is already served by existing electrical facilities, check the "N" (No Impact) column, and so indicate in the discussion of responses. If the project is not currently served with electricity, but is located in an area which is currently served by existing facilities, check "LS" (Less than Significant) and so state in the discussion of responses.

5.3.2. GAS

If the project would not use natural gas, check the "N" (No Impact) column and so state in the discussion of responses. If the project would use natural gas and there are natural gas transmission facilities in the immediate area, check "LS" (Less Than Significant) column and state: "Natural gas transmission facilities already exist in the area."

6. PROJECT IMPACTS

6.1. WATER SUPPLY

Brandeis-Bardin Mutual Water Company (BBM) is a water purveyor serving domestic and fire protection water for the Project. As a State water purveyor located in Ventura County, BBM is mandated to comply with provisions of Title 22 of the California Administrative Code "The California Waterworks Standards" (CWS) and with the provisions of the Ventura County Waterworks Manual (VCWWM). VCWWM establishes uniform policies and procedures for the design and construction of water supply facilities within County rights-of-way and on projects subject to approval by the County.[28]

As discussed in this section, it is anticipated that temporary impacts may exist associated with the construction of the Project (e.g. installation of new on-site water distribution piping and upgrades to BBM infrastructure as identified in the water infrastructure analysis conducted for the Project (*Conditional Engineering Analysis and Information for Water Availability Letter)* conducted by Water Resource Engineering Associates (WREA), included as Exhibit 2 to this Report). It is understood that these impacts would be temporary in nature (not extending beyond the anticipated duration of these construction activities) and would not create demands exceeding the supply available to the water system. Accordingly, no potentially significant impacts have been identified regarding water supply.

6.1.1. WATER SUPPLY – QUALITY

The Project will obtain domestic water from a public water purveyor (BBM) understood to be under the direct jurisdiction of the State of California Water Resources Control Board, Division of Drinking Water (DDW). It is understood that the purveyor is registered with the State of California and is accordingly required to comply with applicable laws and regulations.

The Project is anticipated to require construction of new, on-site water distribution lines to serve new buildings and facilities of the proposed Project. Construction impacts associated with the installation of water distribution lines would primarily involve trenching in order to place the water distribution lines below surface and would be limited to on-site water distribution, and minor off-site work associated with connection to the public main if required. Prior to ground disturbance, Project contractors would coordinate with BBM to identify the locations and depth of all lines. Further, BBM would be notified in advance of proposed ground disturbance activities to avoid water lines and disruption of water service.

The Project has obtained a Will-Serve letter from the purveyor (included as Exhibit 1 to this Report) indicating that service can be provided to the Project. Therefore, it is understood that the Project will have no significant impact on water supply-quality.

6.1.2. WATER SUPPLY – QUANTITY

[28] Conditional Engineering Analysis and Information for Water Availability Letter – Brandeis-Bardin Mutual Water Company; Water Resource Engineering Associates, August 1, 2023

The analysis conducted for the Project (*Conditional Engineering Analysis and Information for Water Availability Letter)* conducted by Water Resource Engineering Associates (WREA) indicates that the BBM's water supply infrastructure consists generally of the following:

- Zone 1: Zone 1 consists of an approximately 608,000-gallon Main Reservoir which is supplied by a 6-inch Calleguas Municipal Water District (CMWD) water meter, capable of delivering 1,000 gallons per minute (gpm) of water

- Zone 2: Zone 2 consists of an approximately 300,000-gallon House of Book (HOB) Reservoir which is supplied by two booster stations, which is supplied from the Main Reservoir by two pump stations:

    - Booster Pump Station #1 is located at the Main Reservoir and can supply 300 gpm to fill the HOB Reservoir.

    - Booster Pump Station #2 is located between the Main and HOB Reservoirs and can supply 160 gpm to fill the HOB Reservoir.

  It is assumed by WREA that the Booster Pump Stations operate in series; as such it is understood that Zone 2 is capable of supplying a maximum of 160 gpm.

It is understood that, through BBM as retail customers of CMWD, is capable of providing a permanent water supply of up to 1,000 gpm, and the Project will be supplied by the HOB Reservoir which has a storage volume of approximately 300,000 gallons and recharge capacity of 230,400 gallons per day. WREA's analysis estimates a Full Build-Out Condition peak demands of 285 gpm and 130,888 gallons per day (compared to the existing condition peak demands of 264 gpm and 122,525 gallons per day) which can be supplied from and recharged within 24 hours; as such it is understood that the Project is not anticipated to have a significant impact on water supply – quantity.

As noted in the analysis, the Project is to be supplied through Zone 2, which is currently limited at Booster Pump Station #2 to a recharge rate of 160 gpm.

6.1.3. WATER SUPPLY – FIRE FLOW REQUIREMENTS

In their analysis, WREA states that the fire flow requirements for the Project (as determined by the International Fire Code) are a flow rate of 1,250 gpm for a minimum duration of 2 hours (150,000 gallons). As this flow rate exceeds the supply available to the water system (100,000 gpm), it is assumed that the fire flow will be supplied by the HOB reservoir. As this reservoir is designed to maintain a storage capacity of 300,000 gallons, it is understood that the water purveyor is capable of supplying the necessary fire flow volume.

WREA analyzed the Project assuming the full build-out Maximum Day Demand (285 gpm) distributed evenly across each junction and individually analyzed three hydrants determined to be "worst case" with a flow of 1,250 gpm. Their findings suggest that the

system in its existing condition is not capable of providing the required flow in all areas with the minimum VCFPD requirement for residual pressure (20 psi). Accordingly, WREA has recommended for the replacement of approximately 1,655 linear feet of 6-inch water main piping with 8-inch PVC water main piping. These improvements would allow the system to appropriately meet VCFPD requirements. Though there would be temporary construction-related impacts associated with these improvements, it is understood that they would not affect the service capacity of CMWD and the Project would not be anticipated to create operational or cumulative impact to water supply – fire flow requirements.

6.2. WASTE TREATMENT/DISPOSAL

6.2.1. SEWAGE COLLECTION/TREATMENT FACILITIES

The City of Simi Valley provides sanitary sewer collection and treatment services to the Project. As indicated in the Sewer Availability letter provided for the Project (included as Exhibit 3 to this Report), the City has indicated that capacity exists both in their trunk mainlines and their wastewater treatment plant to serve the proposed development. The [City of Simi Valley's wastewater collection] system has an average flow rate of approximately 7.8 mgd with a design capacity for 12.5 mgd. The Water Quality Control Plant is located on 33 acres in the western end of Simi Valley and has capacity to treat approximately 10 mgd at the tertiary level of treatment.[29] As identified in WREA's analysis of the water system, the peak domestic water demand is projected to increase by approximately 8,363 gallons to 130,888 gallons per day. This increase represents an increase in discharge to the sanitary sewer system of approximately 8.6 percent, and approximately 0.38 percent of the current available capacity to the Water Quality Control Plant. This represents a nominal increase which, as indicated in the Sewer Availability Letter, can be accommodated by the sewer purveyor. As such, it is anticipated that the Project will not result in a significant impact to the sewage treatment facility or trunk mainline system.

The Project will require construction of new on-site infrastructure to serve the new buildings. Construction impacts associated with wastewater infrastructure would primarily be confined to trenching for connections to public infrastructure. Installation of wastewater infrastructure will be limited to on-site wastewater distribution, and minor off-site work associated with connections to the public main, if required. The Project is required to obtain a Will Serve Letter from the City of Simi Valley. While it is understood that the trunk main infrastructure and treatment plant are unlikely to be affected by the Project, part of the Project permitting process will require determining impacts on the public infrastructure into which the Project will directly connect, and whether capacity exists at that point to accommodate the Project. If it is determined that upgrades are necessary, such work will be subject to the permitting requirements of the Authority Having Jurisdiction. A Construction Management Plan would be implemented to reduce any temporary pedestrian and traffic impacts. The contractor would implement the Construction Management Plan, which would ensure safe pedestrian access and vehicle travel and emergency vehicle access throughout the construction phase. Temporary sewer bypass plans will be implemented to

[29] Ventura County 2040 General Plan, Chapter 7 (Public Facilities, Services, and Infrastructure), September 2020

prevent the unintended spillage of existing sewer flows. Overall, when considering impacts resulting from the installation of any required wastewater infrastructure, all impacts are of a relatively short-term duration (i.e. months) and would cease to occur once the installation is complete. As the increase in sewer flow is anticipated to be nominal and can be accommodated by the Purveyor's heavy infrastructure, Project impacts on sewage collection and treatment facilities are understood to be less than significant.

6.3. UTILITES

6.3.1. UTILITIES

6.3.1.1. ELECTRIC

It is understood that the AJU campus is actively served with electricity by SCE, and that proposed improvements are located in an area which is currently served by existing facilities. It is understood that campus infrastructure is capable of serving the Project and will be extended to serve the new facilities. While the construction of new electrical infrastructure is required, it is understood that such improvements are typical to construction projects and would not be expected to result in more than intermittent service interruptions corresponding to construction activities. There are no anticipated operational or cumulative impacts as it is anticipated that the existing condition includes adequate capacity for the Project. The Project is currently served by existing electrical facilities and would not increase demand that would result in the expansion of an existing utility facility. As such, it is understood that impacts from the Project would be less than significant.

6.3.1.2. NATURAL GAS

It is understood that the AJU campus is currently served by So Cal Gas. Construction activities are anticipated to include the construction of new site distribution lines to provide natural gas to serve the Project, but existing infrastructure is otherwise capable of accommodating the Project. The Project is currently served by existing natural gas facilities and is not anticipated to increase demand that would result in the expansion of an existing utility facility. As such, it is understood that impacts from the Project would be less than significant.

7. LEVEL OF SIGNIFICANCE

Based on the analysis contained in this report the existing municipal water, wastewater and energy infrastructure is adequate to meet the demand of the Project.

EXHIBIT 1

Brandeis Mutual Water Company System #5603301 1101 Peppertree Lane Brandeis, CA 93064

February 8, 2022
County of Ventura
Resource Management Agency
Planning Division
800 S. Victoria Avenue #1740
Ventura, CA 93009-1740

Subject: Will-Serve for Project at APN 685-0-051-040 – Brandeis-Bardin Campus of American Jewish University – Cabin and Welcome Center construction.

To Whom It May Concern:

This letter is to advise you that Brandeis Mutual Water Company, (system #5603301) is willing and able to provide service to the proposed camper cabins and Welcome Center construction located on the Brandeis-Bardin Campus of American Jewish University. The planned usage of the space will reduce water requirements from the previous iteration by means of current water efficiency standards.
As we understand your service requirements, this project will not significantly add to the usage of water on campus currently. These estimated service requirements can be satisfied from Brandeis Mutual Water Company's currently available resources.
If you have any questions, please feel free to call me at (805) 582-4450, ext. 720.

Sincerely,
Daniel Maccabee 2-8-2022
Daniel Maccabee
Water Distribution Operator
#40899

EXHIBIT 2

CONDITIONAL ENGINEERING ANALYSIS AND INFORMATION FOR WATER AVAILABILITY LETTER

Brandeis-Bardin Mutual Water Company
Brandeis, CA
State Water System Number 5603301

Draft: Aug 1, 2023

Prepared by:

Water Resource Engineering Associates
2300 Alessandro Dr. Ste 215, Ventura, CA 93001
805.653.7900 800.25.WATER 805.653.0610(fax)
www.wreassoc.net

3583-WAL20230802

BRANDEIS-BARDIN MUTUAL WATER COMPANY
BRANDEIS, CA

CONDITIONAL ENGINEERING ANALYSIS AND INFORMATION FOR WATER AVAILABILITY LETTER

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BRANDEIS-BARDIN MUTUAL WATER COMPANY
BRANDEIS, CA

CONDITIONAL ENGINEERING ANALYSIS AND INFORMATION FOR WATER AVAILABILITY LETTER

Background

Brandeis-Bardin Mutual Water Company (BBM) is a water purveyor serving domestic and fire protection water supplied by the system's 6" Calleguas Municipal Water District (CMWD) metered connection adjacent to Peppertree Lane at the intersection of Guardian Street and Tapo Canyon Road.

BBM was formed in 1967 to purvey water to meet domestic and fire protection needs to American Jewish University (AJU), formally Brandeis Bardin institute (BBM). BBM holds a Water Supply Certificate, number 5603301, from the State of California Water Resources Control Board, Division of Drinking Water (DDW), and is therefore under their direct jurisdiction. In December 2022, the water system was reclassified from a Non-Transient Non-Community (NTNC) Water System to a Community Water System (CWS). This determination was made based on current population numbers as reported by the purveyor.

Normally, and especially for new systems, a CWS is required to have two firm water sources, however, DDW is allowing only one source because the system has been in existence since 1967 and the area wholesaler, CMWD, is the supplier.

As a State water purveyor located in Ventura County, BBM is mandated to comply with provisions of Title 22 of the California Administrative Code "The California Waterworks Standards" (CWS) and with the provisions of the Ventura County Waterworks Manual (VCWWM). VCWWM establishes uniform policies and procedures for the design and construction of water supply facilities within County rights-of-way and on projects subject to approval by the County. The VCWWM includes provisions for fire flow.

The Ventura County Fire Protection District (VCFPD) Ordinance and Fire Code (Ordinance) specifies the minimum requirements for fire protection and fire flow for a particular project or area. The International Fire Code is used as the basis for the fire flow and duration standards in the Ordinance.

Analysis Purpose

Pursuant to Section 1.3.6 of the VCWWM, "Water Availability Letter", BBM must present to the County "…A letter from the Water Purveyor declaring that the purveyor's water system has the necessary water capacity available to supply the domestic and firefighting requirements for the project or service area identified in the letter. The Water Availability Letter must be signed by a member of the purveyor's Board of Directors or General Manager…". The term "…*necessary water capacity available*…" is taken to mean compliance with the VCWWM.

This Engineering Analysis (Analysis) will serve at least three purposes as follows:

- First, it will inform BBM of the state of compliance, and indicate improvements necessary to achieve compliance (if any).

- Second, depending on the status of compliance, the analysis will be used as a basis for determining if the system has the "…*necessary water capacity available*…" for any additional connections to the system without affecting compliance.
- Third, this analysis will inform recommendations for necessary infrastructure improvements in the event that the existing or proposed system is found to be out of compliance.

System Description

Service Area Description

BBM exclusively serves AJU's Simi Valley, CA campus. Although two parcels (APN 685-0-051-040 and 685-0-051-140) are associated with the Campus's 1101 Peppertree Lane address, APN 685-0-051-040 is the only one that receives water service from BBM and thus, the only parcel considered as part of this analysis.

The zoning is a mixture of Open Space and Rural Agriculture. Elevations range from approximately 944' to 1,400', generally increasing in grade from the University entrance on the northwest side of the subject parcel to the House of the Book on the southeast side of the parcel.

Facility Description

The BBM system is divided into two pressure zones: Zone 1 and Zone 2. Zone 1 is supplied by a 6-inch CMWD connection (capacity 1,000 GPM) to the pipeline filling the existing 608,000 G Main Reservoir.

Booster Pump Station #1 (consisting of 2-25 HP 300 GPM pumps[1]) is located at the Main Reservoir and is capable of 300 GPM to fill the 300,000 G House of Book (HOB) reservoir. Only one pump operates at a time and the system is controlled by VFDs.

Zone 2 is supplied by Booster Pump Station #'s 1 and 2 that fill the 300,000 G House of Book (HOB) Reservoir.

Booster Pump Station #2 (consisting of 1-15 HP 100 GPM and 1-7.5 HP 60 GPM pumps[1]) is located between the Main Reservoir and the HOB Reservoir. Booster Pump Station #2 serves the adjacent HOB reservoir[2].

The BBM system also includes two 6" main interconnections. The first is located at the Activities Building and splits the single 6" PVC line into a 6" GIP pipe and 8" PVC pipe. The 8" pipe continues on to connect to the HOB Reservoir. A second 6" main interconnection occurs near the Alonim Dining Hall and connects the aforementioned 8" pipe to a 6" DI pipe that extends south to supply other areas of the campus.

[1] Pump flow rates and system details supplied by BBM Staff. Booster Pump Station #2 limits the supply to HOB Reservoir to 160 gpm. Booster Pump Station #1 and #2 are assumed to be in series.
[2] HOB requirements are listed separately since there is a separate sub-system of Zone 2 supplying the HOB building.

BRANDEIS-BARDIN MUTUAL WATER COMPANY
BRANDEIS, CA

CONDITIONAL ENGINEERING ANALYSIS
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Operation Description

The system is fully automated. Demand is satisfied by one of two reservoirs, the Main Reservoir supplied by the previously described connection to CMWD via a 6" meter (capacity approximately 1,000 GPM), and the HOB Reservoir being filled via booster pump stations.

Starting with full reservoirs, each reservoir feeds demand to its respective zone.

As the level in the Main Reservoir decreases the inlet control valve opens and allows water to enter from the 6" CMWD meter. As the level in the main reservoir increases to a pre-determined point, the inlet control valve closes and pump de-energizes, shutting off flow.

As the level in the HOB Reservoir decreases, the inlet control valve opens, energizing the booster pumps and allows water to enter through the supply pipe from the booster pump stations 1 and 2. As the level in the HOB Reservoir increases to a pre-determined point, the inlet control valve closes and the booster pumps de-energize, shutting off flow.

Note that pressure reducing stations are situated across campus to regulate pressure, mostly for small connections to larger mains. These have not been analyzed, only worst-case fire flow plus MDD are a part of the Hydraulic Modeling Memo in Appendix.

VCWWM Calculation Results[1]

1.3.6-a Service Area Map

A Service Area Map also showing assessor's parcel numbers for each lot, is included in the appendix.

1.3.6-b Planned Changes to the Existing System[2]

Minor changes to the BBM system that have not been identified will be necessary to serve the replacement/expansion facilities. These will be determined as the Project continues further in the detailed design phase.

[1] Numbers shown herein refer to VCWWM Sections. Statements followed by section numbers demonstrate compliance to those sections.

[2] A planned expansion proposes to replace existing Housing Trailer 1, Housing Trailer 2, and Housing Trailer 3 with a new Welcome Center, which will include central offices, a resource center, a staff lounge, and restrooms. An existing storage garage and two staff housing cottages are proposed to be replaced with thirteen, 32-bed Camper Cabins with bathrooms. Two new Head Counselor Cabins capable of housing 2 people each are also proposed. A new open-air shade pavilion with two storage rooms will not have a service connection and thus, is not considered as part of this Report.

1.3.6-d Out of Compliance Areas[1]

Zone 1:

See Hydraulic Model Memo in Appendix.

Zone 2:

See Hydraulic Model Memo in Appendix.

2.3.1 Peak Hour Flow Multiplier (M):

$M = 10.56 / N^{0.333}$ for $N < 500$

Zone 1: No M required. No usage.

Zone 2:
M = 1.9 for N = 185 (existing)
M = 1.8 for N = 200 (full build-out)

HOB (Zone 2):
M = 6.2 for N = 5 (existing)

2.3.2 Required Duration of Peak Flow (D), and 2.3.3 Fire Flow Requirements (F):

The International Fire Code (IFC) determines fire flow duration based on fire flow rates. The minimum duration is 2 hours for fire flows less than 3,000 Gallons Per Minute (GPM) (VCFPD Standard 14.5.2, Page 2, Section 2.A.1 from the International Fire Code): F for BBM = 1,250 GPM (Commercial).

Conclusion:

Based on the IFC, the required duration (D) of fire flow for the BBM service area is 2 hours, and the required fire flow (F) is 1,250 GPM (Commercial per VCWWM).

2.3.4 Number of Services (N, EC):

Establishment of the equivalent number of service connections (N) is required to initiate system demand and required performance calculations. The BBM service area covers only a small portion of APN 685-0-051-040 and includes 35 Commercial and 15 Residential services on the domestic system.

[1] The Hydraulic Model Memo has identified, pipes that are recommended for replacement/upsizing to reduce friction and these meet residual pressure requirements. Final size, location and other related appurtenances that may also need upgrading will be determined in the detailed design phase.

BRANDEIS-BARDIN MUTUAL WATER COMPANY
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CONDITIONAL ENGINEERING ANALYSIS
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Table 1. Number of Services (N, EC) for Zone 2

Category	Existing Condition			Full Build-Out Condition		
	Number	"N"	"N" Subtotal	Number	"N"	"N" Subtotal
Residential Connections	15	1.0	15	25	1.0	25
Commercial Acres	34	5.0	170	35	5.0	175
Totals =			185			200

Table 2. Number of Services (N, EC) for HOB (Zone 2)

Category	Existing Condition		
	Number	"N"	"N" Subtotal
Residential Connections	0	1.0	0
Commercial Acres	1	5.0	5
Totals =			5

Conclusion:

10 Residential "N" and 1-additional acre of Commercial N=5 is to be added to the existing condition for full build-out.

Zone 1:
N=0, EC=0 No usage.

Zone 2:
Existing N = 185, currently served by the BBM system.
Full build-out N = 200, proposed to be served by the BBM system.

HOB (Zone 2):
Existing N = 5, currently served by the BBM system. (No change at full build-out.)

2.3.5 Maximum Day Average Demand (Q_0), Required Storage (V_O):

Zone 1:
No MDAD or RS. No usage.

Zone 2:
Existing Condition
Q_O = 264 gpm (N = 185, T = 75° F)
V_O = 122,525 gallons

Full Build-Out Condition
Q_O = 285 gpm (N = 200, T = 75° F)
V_O = 130,888 gallons

HOB (Zone 2):
Existing Condition
Q_O = 10 gpm (N = 5, T = 75° F)
V_O = 9,997 gallons

Conclusion:

Zone 1:
The connection to CMWD and the Main Reservoir are capable of supplying the existing MDD, Q_O and V_O requirements by the existing reservoir storage totaling 608,000 G.

Zone 2:
Pump Station #1 with Pump Station #2 can supply Zone #2 and the HOB Reservoir with 160 GPM. This does not meet MDD requirement for Q_O, Zone 2. The V_O requirements are met by the existing HOB reservoir storage totaling 300,000 G.

HOB (Zone 2):

The HOB Reservoir is capable of supplying the existing MDD, Q_O and V_O requirements. The requirement is met by the existing HOB reservoir storage totaling 300,000 G.

2.4 Minimum Supply (Q_M):

The minimum supply is calculated by adding the MDD flow rate and the flow rate required to fill the calculated fire protection storage in five days. In this case, the calculated fire protection storage for both Zones is 150,000 G for 1,250 gpm at a 2-hour duration, with a five-day-flow rate of 30,000 GPD (≈ 21 GPM).

Zone 1:
No Min Supply calculation required. No usage.

Zone 2:
Q_O = 264 + 21 = 285 gpm (existing)
Q_O = 285 + 21 = 306 gpm (full build-out)

HOB (Zone 2):
Q_O = 10 + 21 = 31 gpm (existing)

Conclusion:

Zone 1:
The minimum supply is provided by the CMWD meter connection which can supply 1,000 gpm or 1,440,000 gpd. This meets the requirements.

Zone 2:
The existing BBM systems primary supply for Zone #2 are the two booster pump stations which combine to produce a maximum of 160 gpm or 230,400 gpd. This does not meet the requirements for existing or build-out condition.

HOB (Zone 2):
The existing BBM system primary supply for Zone #2 is storage at HOB Reservoir (300,000 G). This meets the requirements for the existing condition.

2.5 Peak Demand Rate:

2.5.1 All systems must meet Title 22 requirements for Peak Hour Demand, either by usage data, or the estimate method in 2.5.2. These calculations reflect the estimate method.

2.5.1.1 The distribution system is designed for the flows indicated in 2.5.2.

2.5.2 Peak Hour (Demand) flow rate Peak Hour Demand (PHD)

Zone 1:
No P_A or P_B calculation required. No usage.

Zone 2:
Existing Condition
$P_A = (M \times Q_O/2) + F = (1.9 \times 264/2) + 1{,}250 = 1{,}501$ gpm
$P_B = M \times Q_O = 1.9 \times 264 = 502$ gpm

Full Build-Out Condition
$P_A = (M \times Q_O/2) + F = (1.8 \times 285/2) + 1{,}250 = 1{,}507$ gpm
$P_B = M \times Q_O = 1.8 \times 285 = 513$ gpm

HOB (Zone 2):
Existing Condition
$P_A = (M \times Q_O/2) + F = (6.2 \times 10/2) + 1{,}250 = 1{,}281$ gpm
$P_B = M \times Q_O = 6.2 \times 10 = 62$ gpm

Conclusion:

Zone 1:
No P_A or P_B calculation required. No usage.

Zone 2:
For the existing condition, PHD = P_A = 1,501 gpm is met by stored water in the reservoirs delivered through the distribution system.

For the full build-out condition, PHD = P_A = 1,507 gpm, is met by stored water in the reservoirs delivered through the distribution system.

HOB (Zone 2):
For the existing condition, PHD = P_A = 1,281 gpm, is met by stored water in the reservoirs delivered through the distribution system.

2.7 Storage (V_M)

Zone 1:
No calculation required. No usage.

Zone 2:
For the existing condition, the installed storage must not be less than $V_O + V_F$ = 122,525 + 150,000 (fire) = 272,525 gallons; actual storage = 608,000 gallons.

For the full build-out condition, the installed storage must not be less than $V_O + V_F$ = 130,888 + 150,000 (fire) = 280,888 gallons; actual storage = 608,000 gallons.

HOB (Zone 2):
For the existing condition, the installed storage must not be less than $V_O + V_F$ = 9,997 + 150,000 (fire) = 159,997 gallons; actual storage = 300,000 gallons.

2.8.2 PE equals the larger of PEF or PED:

Zone 1:
No PE calculation required. No usage.

Zone 2:
Existing Condition
$P_{EF} = (M \times Q_O / 4) + 0.75 \times F = 1,063$
$P_{ED} = M \times Q_O / 2 = 251$ GPM

Full Build-Out Condition
$P_{EF} = (M \times Q_O / 4) + 0.75 \times F = 1,066$
$P_{ED} = M \times Q_O / 2 = 257$ GPM

HOB (Zone 2):
Existing Condition
$P_{EF} = (M \times Q_O / 4) + 0.75 \times F = 953$
$P_{ED} = M \times Q_O / 2 = 31$ GPM

Conclusion:

Zone 1:
No PE calculation required. No usage.

Zone 2:
For the existing condition, $P_E = P_{EF}$ = 1,063 gpm, is delivered through the distribution system.

For the full build-out condition, $P_E = P_{EF}$ = 1,066 gpm, is delivered through the distribution system.

HOB (Zone 2):
For the existing condition, $P_E = P_{EF}$ = 953 gpm, is met by stored water in the tanks, delivered through the distribution system.

2.8.3 V_E equals the larger of V_{E1} or V_{E2}:

Zone 1:
No calculation required. No usage. No volume requirements.

Zone 2:
Existing Condition
$V_{E1} = 60 \times P_E$ = 63,600 gallons
$V_{E2} = V_O + 0.75 \times 60 \times F$ = 178,775 gallons

Full Build-Out
$V_{E1} = 60 \times P_E$ = 63,960 gallons
$V_{E2} = V_O + 0.75 \times 60 \times F$ = 187,138 gallons

HOB (Zone 2):
Existing Condition
$V_{E1} = 60 \times P_E$ = 57,180 gallons
$V_{E2} = V_O + 0.75 \times 60 \times F$ = 66,247 gallons

Conclusion:

Zone 1:
No calculation required. No usage. No volume requirements.

Zone 2:
For the existing and full build-out condition, $V_E = V_{E2}$ is met by the Main Reservoir with a total storage capacity of 608,000 gallons.

HOB (Zone 2):
For the existing condition, $V_E = V_{E2}$ is met by the HOB Reservoir with a total storage capacity of 300,000 gallons.

2.8.4 Required Duration during Emergency Periods:

P_E must be sustained for a period of one hour during a power outage and a two-hour period (D_F) for other emergencies. V_E is required for a one-hour emergency and during a one to four-day type emergency period. The total system facilities remaining in operation during emergency periods must include two or more of the following together (with larger diameter pipe to reduce friction losses in some cases).

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	Zone 1- No usage		Zone 2
a.	Water stored at elevation which provide service by gravity. *Analysis: The Main Reservoir is at an elevation which can provide service by gravity.*	a.	Water stored at elevation which provide service by gravity. *Analysis: The HOB Reservoir is at an elevation which can provide service by gravity.*
b.	Duplex booster pump installations (for **§ 2.8.1.2**). *Analysis: No usage. Zone 1 is supplied 1000 gpm by CMWD meter supplying the main reservoir.*	b.	Duplex booster pump installations (for **§ 2.8.1.2**). *Analysis: BBM Booster Pump Station 1 is comprised of two 25-HP pumps, one duty pump and the other a standby unit plumbed in parallel. Booster Pump Station 2 has a 7.5 HP and 15 HP pump plumbed in parallel. Booster Pump Stations 1 and 2 exist in the BBM system in series. The duplex booster pump emergency requirement is met for Booster Pump Station #1, but not for Pump Station #2.*
c.	Wells or low-level storage utilizing pumps with two sources of power (gas fueled emergency generators + electric powered emergency generators, or electric powered emergency generators + hydrocarbon fueled emergency generators) and automatic power source transfer (for **§ 2.8.1.1**). *Analysis:* N/A	c.	Wells or low-level storage utilizing pumps with two sources of power (gas fueled emergency generators + electric powered emergency generators, or electric powered emergency generators + hydrocarbon fueled emergency generators) and automatic power source transfer (for **§ 2.8.1.1**). *Analysis: N/A*
d.	Wells (with pumps and power supplies as in 2.8.4 c) not required to meet the basic supply requirements (for **§ 2.8.1.2 and § 2.8.1.3**). *Analysis: N/A*	d.	Wells (with pumps and power supplies as in 2.8.4 c) not required to meet the basic supply requirements (for **§ 2.8.1.2 and § 2.8.1.3**). *Analysis: N/A*
e.	Water stored at an elevation that does not provide gravity service can be combined with above (for **§ 2.8.1.2 and § 2.8.1.3**). *Analysis: N/A*	e.	Water stored at an elevation that does not provide gravity service can be combined with above (for **§ 2.8.1.2 and § 2.8.1.3**). *Analysis: N/A*
f.	Emergency standby connection to another water system (for **§ 2.8.1.2 and § 2.8.1.3**). *Analysis: N/A*	f.	Emergency standby connection to another water system (for **§ 2.8.1.2 and § 2.8.1.3**). *Analysis: N/A*

BRANDEIS-BARDIN MUTUAL WATER COMPANY
BRANDEIS, CA

CONDITIONAL ENGINEERING ANALYSIS
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Conclusion:

Zone 1:
Zone 1 meets the gravity stored water requirement 2.8.4.a) and duplex booster pump emergency is not applicable. There is no usage and Zone 1 is supplied 1000 gpm by CMWD meter.

Zone 2:
Zone 2 meets the gravity stored water requirement 2.8.4.a) and duplex booster pump station #1 emergency requirement 2.8.4.b) but does not meet 1.8.4.b) for booster pump station #2.

HOB (Zone 2):

HOB meets the stored water requirement 2.8.4.a) and the duplex booster pump emergency requirement 2.8.4.b).

Compliance Statement

The existing Brandeis-Bardin Mutual Water Company system, after the improvements described herein and in the Hydraulic Model Memo[1] are implemented, will meet the requirements of the California Waterworks Standards as set forth in California Code of Regulations Title 22, Division 4. The system will also meet the requirements of the Ventura County Waterworks Manual and the Ventura County Fire Protection District Ordinance and Fire Code.

This statement, made on August 1, 2023, is valid for the adequacy for the addition of 15 N, totaling 200 N at full build-out.

_____	_____	_____
Print Name, Title	Signature	Date

Phone: _____ Corporate Address:_____

[1] Certain pipes as described in the Hydraulic Model Memo will need upsizing/replace.

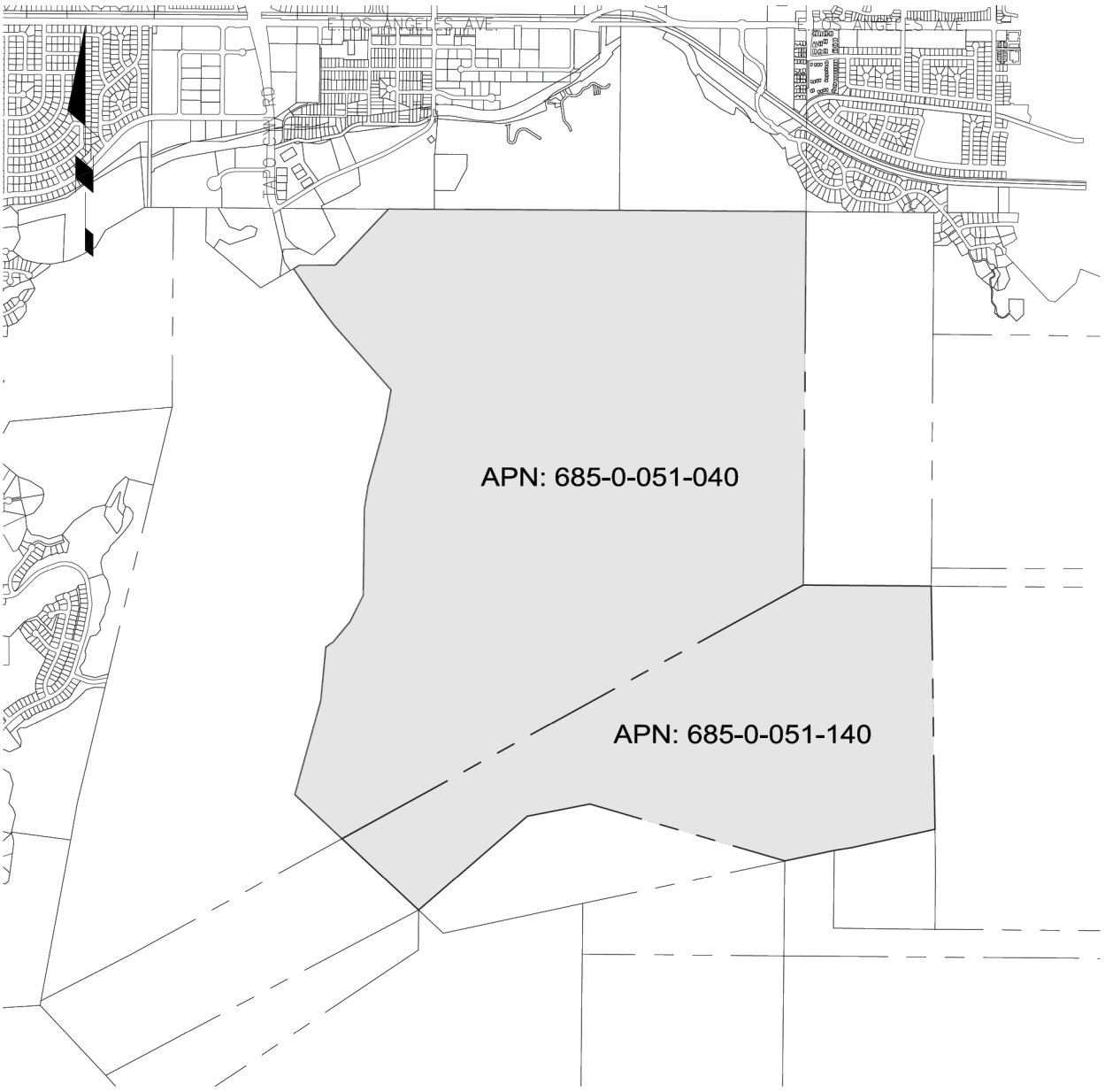
BRANDEIS-BARDIN MUTUAL WATER COMPANY
BRANDEIS, CA

CONDITIONAL ENGINEERING ANALYSIS

AND INFORMATION FOR WATER AVAILABILITY LETTER

APPENDIX 1

SERVICE AREA MAP



SERVICE AREA MAP

NOT TO SCALE

REGISTERED PROFESSIONAL ENGINEER
LOUIS M. NAGY
No. 47648
Exp. 12-31-23
CIVIL
STATE OF CALIFORNIA

PREPARED BY:

WREA

WATER RESOURCE ENGINEERING ASSOCIATES

2300 ALESSANDRO DR, SUITE 215, VENTURA, CA 93001
• 805.653.7900 • 800-25-WATER •FAX: 805.653.0610

PLAN DATE: 08/01/23 JOB NO. 3583

BRANDEIS BARDIN MUTUAL WATER COMPANY

BRANDEIS, CA

PAGE *1* OF *1*

Plot by: Steve Plot date: Jul 31, 2023 - 7:31pm Drawing name: N:\Shared drives\Data\Projects\3500's\3583-AJU WAL\04 DWG\03 Exhibits\3583 Service Area Map.dwg

BRANDEIS-BARDIN MUTUAL WATER COMPANY
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CONDITIONAL ENGINEERING ANALYSIS

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APPENDIX 2

VCWWM COMPLIANCE CHECK PRINTOUTS

County of Ventura Waterworks Manual Compliance Check

Water Purveyor: Brandeis-Bardin Mutual (BBM) Water Company

System or Zone: Existing Condition - Zone 1

1. Determine Number of Service Connections (N)

Category	Qty	Value	Total	Section	Comments
a. Number of single residential homes or lots =	15	1.0	15		
b. Number of 2nd residential units ≤ 1,200 sf =	0	0.5	0		
c. Number of 2nd residential units > 1,200 sf =	0	1.0	0		
d. Number of multifamily housing units =	0	0.5	0		
e. Number of commercial and industrial acres =	34	5.0	170		
f. Number of agricultural acres =	0	2.0	0		
Maximum Service Connections (N) =			**185**		
Actual Service Connections Issued =			**0**		
Connections Available =			**185**		

2. Determine Maximum Day Demand (Q_0) and Storage (V_0) from N

			Section	Comments
a. Temerature in °F =	75	degrees		
b. The System is metered.	TRUE			
b. Maximum Day Average Demand (Q_0) =	264	GPM		
c. Required Storage Volume (V_0) =	122,525	Gal		

3. Determine Minimum Required Fire Flow (F) and Duration (D_F)

			Section	Comments
a. Minimum Fire Flow (F) =	1,250	GPM		Minimum fire flow for commercial areas[1]
b. Minimum Fire Flow Duration (D_F) =	2	Hours		

4. Determine Required Minimum Total Storage (V_M)

				Section	Comments
a. Domestic Storage Required (V_0) =	122,525	Gal			
b. Fire Storage Required (V_F) = 60 * F * D_F =	150,000	Gal			
c. Total Storage Required (V_M) = V_o + V_F =	272,525	Gal			
d. Actual Storage Available (V_1) =	608,000	Gal	OK		

5. Determine Minimum Required Total Supply (Q_M)

				Section	Comments
a. Actual Supply Available in the System (Q_1) =	608,000	GPD	OK		
b. Storage Factor (S) =	1.0				
c. Domestic Supply Required (Q_D) = 1440 * S * Q_0 =	379,620	GPD			
d. Fire Supply Required (Q_F) =	30,000	GPD			
e. Total Supply Required (Q_M) = Q_D + Q_F =	409,620	GPD			

6. Determine Minimum Required Peak Hour Demand (PHD_M)

				Section	Comments
a. Peak Hour Demand Multiplier (M) =	1.9				
b. P_A = (M * Q_0 / 2) + F =	1,495	GPM			
c. P_B = M * Q_0 =	489	GPM			
d. PHD_M = greater of P_A and P_B =	1,495	GPM			
e. Actual Peak Flow Rate (PHD_1) =	300	GPM	NG		

County of Ventura Waterworks Manual Compliance Check

7. Determine Emergency Requirements (P_E, VE_1 and VE_2)				Section	Comments
a. $P_{ED} = M * Q_0 / 2 =$	245				
b. $P_{EF} = (M * Q_0 / 4) + 0.75 * F =$	1,060	GPM			
c. P_E = the greater of P_{ED} and P_{EF} =	1,060	GPM			
d. $V_{E1} = 60 * P_E =$	63,591	Gal			
e. $V_{E2} = V_0 + 0.75 * 60 * F =$	178,775	Gal			
f. Power Interuption of 1 Hour					
Peak Hour Demand (must be ≥ P_E) =	1,495	GPM	OK		
Volume (must be ≥ V_{E1}) =	300,000	Gal	OK		
g. Pump Out of Service					
Peak Hour Demand (must be ≥ P_E) =	1,495	GPM	OK		
Volume (must be ≥ V_{E2}) =	300,000	Gal	OK		
h. Source Interruption					
Peak Hour Demand (must be ≥ P_E) =	1,495		OK		
Volume (must be ≥ V_{E2}) =	908,000		OK		

8. Comments

Results vary slightly from hand calculations.

[1]Per Ventura County Waterworks Manual and 2019 California Plumbing Code.

Water Purveyor

Prepared By: _____ **Title:** _____ **Date:** _____

Approve By: _____ **Title:** _____ **Date:** _____

County Use Only

Accepted By: _____ **Date:** _____

County of Ventura Waterworks Manual Compliance Check

Water Purveyor: Brandeis-Bardin Mutual (BBM) Water Company

System or Zone: Existing Condition - Zone 2

1. Determine Number of Service Connections (N)

Category	Qty	Value	Total	Section	Comments
a. Number of single residential homes or lots =	0	1.0	0		
b. Number of 2nd residential units ≤ 1,200 sf =	0	0.5	0		
c. Number of 2nd residential units > 1,200 sf =	0	1.0	0		
d. Number of multifamily housing units =	0	0.5	0		
e. Number of commercial and industrial acres =	1	5.0	5		
f. Number of agricultural acres =	0	2.0	0		
Maximum Service Connections (N) =			**5**		
Actual Service Connections Issued =			**0**		
Connections Available =			**5**		

2. Determine Maximum Day Demand (Q_0) and Storage (V_0) from N

			Section	Comments
a. Temerature in °F =	75	degrees		
b. The System is metered.	TRUE			
b. Maximum Day Average Demand (Q_0) =	10	GPM		
c. Required Storage Volume (V_0) =	9,997	Gal		

3. Determine Minimum Required Fire Flow (F) and Duration (D_F)

			Section	Comments
a. Minimum Fire Flow (F) =	1,250	GPM		Minimum fire flow for commercial areas[1]
b. Minimum Fire Flow Duration (D_F) =	2	Hours		

4. Determine Required Minimum Total Storage (V_M)

				Section	Comments
a. Domestic Storage Required (V_0) =	9,997	Gal			
b. Fire Storage Required (V_F) = 60 * F * D_F =	150,000	Gal			
c. Total Storage Required (V_M) = V_o + V_F =	159,997	Gal			
d. Actual Storage Available (V_1) =	300,000	Gal	OK		

5. Determine Minimum Required Total Supply (Q_M)

				Section	Comments
a. Actual Supply Available in the System (Q_1) =	300,000	GPD	OK		
b. Storage Factor (S) =	1.0				
c. Domestic Supply Required (Q_D) = 1440 * S * Q_0 =	14,491	GPD			
d. Fire Supply Required (Q_F) =	30,000	GPD			
e. Total Supply Required (Q_M) = Q_D + Q_F =	44,491	GPD			

6. Determine Minimum Required Peak Hour Demand (PHD_M)

				Section	Comments
a. Peak Hour Demand Multiplier (M) =	6.2				
b. P_A = (M * Q_0 / 2) + F =	1,281	GPM			
c. P_B = M * Q_0 =	62	GPM			
d. PHD_M = greater of P_A and P_B =	1,281	GPM			
e. Actual Peak Flow Rate (PHD_1) =	300	GPM	NG		

County of Ventura Waterworks Manual Compliance Check

7. Determine Emergency Requirements (P_E, VE_1 and VE_2)				Section	Comments
a. $P_{ED} = M * Q_0 / 2 =$	31				
b. $P_{EF} = (M * Q_0 / 4) + 0.75 * F =$	953	GPM			
c. P_E = the greater of P_{ED} and P_{EF} =	953	GPM			
d. $V_{E1} = 60 * P_E =$	57,183	Gal			
e. $V_{E2} = V_0 + 0.75 * 60 * F =$	66,247	Gal			
f. Power Interuption of 1 Hour					
Peak Hour Demand (must be ≥ P_E) =	1,495	GPM	OK		
Volume (must be ≥ V_{E1}) =	300,000	Gal	OK		
g. Pump Out of Service					
Peak Hour Demand (must be ≥ P_E) =	1,495	GPM	OK		
Volume (must be ≥ V_{E2}) =	300,000	Gal	OK		
h. Source Interruption					
Peak Hour Demand (must be ≥ P_E) =	1,495		OK		
Volume (must be ≥ V_{E2}) =	908,000		OK		

8. Comments

Results vary slightly from hand calculations.

[1]Per Ventura County Waterworks Manual and 2019 California Plumbing Code.

Water Purveyor

Prepared By: _____ **Title:** _____ **Date:** _____

Approve By: _____ **Title:** _____ **Date:** _____

County Use Only

Accepted By: _____ **Date:** _____

BRANDEIS-BARDIN MUTUAL WATER COMPANY
BRANDEIS, CA

CONDITIONAL ENGINEERING ANALYSIS

AND INFORMATION FOR WATER AVAILABILITY LETTER

APPENDIX 3

HYRAULIC MODEL MEMO

WATER RESOURCE ENGINEERING ASSOCIATES

CONSULTING CIVIL AND ENVIRONMENTAL ENGINEERS IN WATER AND WASTEWATER
COLLECTION, CONSERVATION, DISTRIBUTION AND TREATMENT

MEMO July 31, 2023

To: Mr. Jon Friedman
Jfriedman@jemstreet.com

From: Lou Nagy
lou@wreassoc.net

Subject: **Brandeis-Bardin Mutual Water Co. c/o American Jewish University- Preliminary Hydraulic Modeling Summary**

WREA respectfully submits the following preliminary hydraulic modeling results regarding the Brandeis-Bardin Mutual Water Company's (BBM) water system.

Hydraulic Modeling Assumptions and Methodology

The hydraulic modeling of the BBM water system used the following assumptions:

1. The BBM water system can adequately supply the minimum flow rate into the Main Reservoir and House Of Book Reservoir.

2. The BBM water system's hydraulic model was run beginning at initial time zero, with max HGL (both reservoirs being full).

3. For simplicity, only Pressure Reducing Station (PRS) #5, located on the 8-in water mainline, was included in the hydraulic model. This is the sole PRS on the existing mainline that supplies the system fire hydrants. In the model the PRS is set at 110 psi.

4. The Max Day Demand per Ventura County Water Works Manual (VCWWM) for built-out condition was distributed evenly throughout all of the junctions in the model.

5. Fire flow (FF) was assumed at 1250 gpm at 20 psi residual pressure for commercial uses within the service area per VCWW.[1]

6. The Calleguas Municipal Water District meter, with an approximate maximum flow rate of 1000 gpm, adequately supplies the Main Reservoir.

[1] If certain buildings do not have installed fire sprinklers, the demand may be higher based on fire code criteria, building SF, construction type, and occupancy of building.

Methodology also included using the most conservative scenario, meant to represent the BBM water system's hydraulic characteristics at built-out condition. In more detail, the built-out condition was used with Maximum Day Demand (MDD, Q_O) = 285 gpm (for N = 200, T = 75° F). The existing scenario includes a MDD or Q_O = 264 gpm (for N = 185, T = 75°), which is 21 gpm less than the proposed, built-out condition.

In the model, water supply was provided via gravity flow from the HOB Reservoir, which was assumed to be full.

For each run of the hydraulic model the MDD was divided evenly at each junction of the model, with the added fire flow demand of 1250 gpm applied at a single fire hydrant. The model was run with the 1250 gpm demand applied to one of 3 worst case selected hydrants in the system at a time. The hydrant locations included at/near the LAX building, at Book Repository, and at the House of Book. The scenario for each run begins at time 0, with a full system/full HOB Reservoir. The HOB reservoir gravity feeds each node in the system, including the 1250 gpm applied at the selected hydrant.

Results of the hydraulic model runs are provided in the table below:

Hydraulic Modeling Results- Existing System

TABLE 1 Hydrant Flow and Pressure- Existing System Buildout Demand Conditions + Fire Flow

Hydrant Location	Pipe ID	Start Node	Stop Node	Flow (GPM)	Residual Pressure (psi)
LAX	P-70(2)(1)	J-154	J-179	1250	-3
Book Repository	P 136	J-85	J-157	1250	21
House of Book	P-133	J-118	J-146	1250	13

The system hydraulic model, which conservatively incorporates supply from HOB reservoir gravity flow only, identified at least two areas that had less than the VCFPD's required 20 psi available at their respective hydrant. The residual pressure at the LAX (-3 psi) and HOB (13 psi) hydrants does not meet VCFPD minimum requirement for residual pressure available at the hydrant (20 psi)[2].

[2] The output at the Book Repository hydrant at 21 psi residual pressure (with a full tank) if very close to the 20 psi minimum required and so piping improvements are also recommended for the system supplying this hydrant, see page 7.

Hydraulic Modeling –
Preliminary Proposed System/Pipeline Replacement

After preliminary analysis of the hydraulic modeling results described above, four pipelines causing significant pressure loss in the system were identified. The following system improvements/pipeline replacements are proposed:
See figures below for more detail on the proposed system improvements/pipeline replacement[3].

1. At P-71(2)(1), replace approximately 575 LF of existing 6-in PVC pipe along Arness Fire Rd, with 8-in PVC pipe. See Figure 1 below.

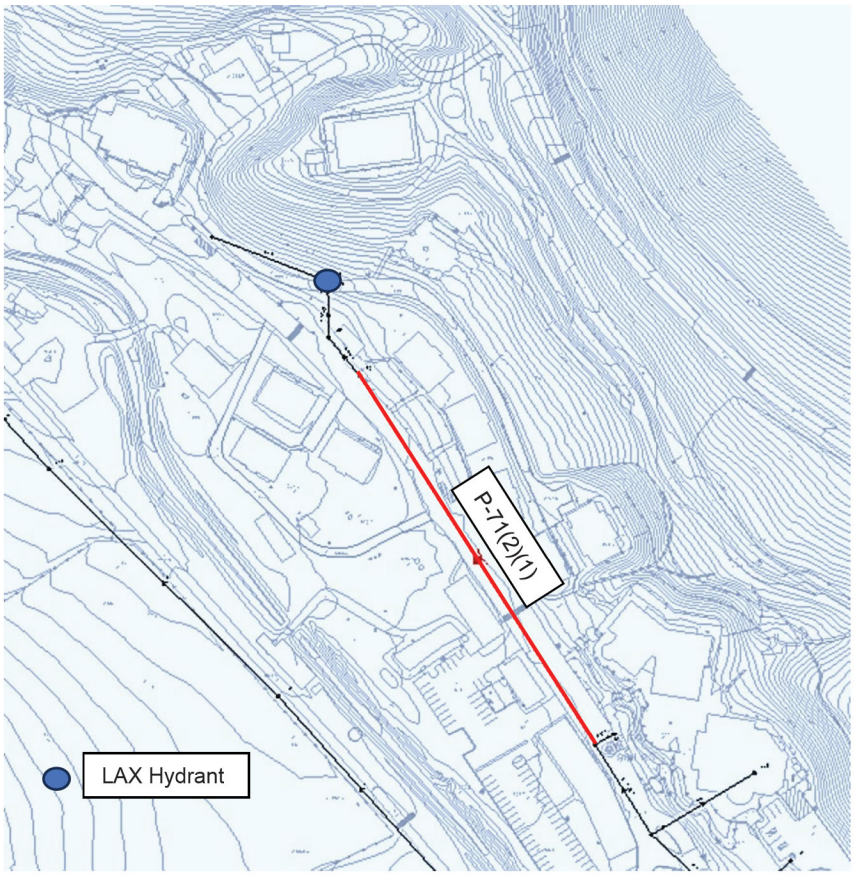


Figure 1- Proposed pipeline replacement along Arness Fire Rd.
Note: red line is pipe to be replaced.

[3] There will likely be additional piping and appurtenances required for a complete upgraded system replacement, the extent of which will be determined after additional research is completed in the detailed design phase. Note that this analysis may need to be revisited when the hydrant location plan for the new development is completed.

2. At P-75(1), replace approximately 720 LF of existing 6-in PVC along Peppertree Ln, with 8-in PVC pipe. See Figure 2 below.

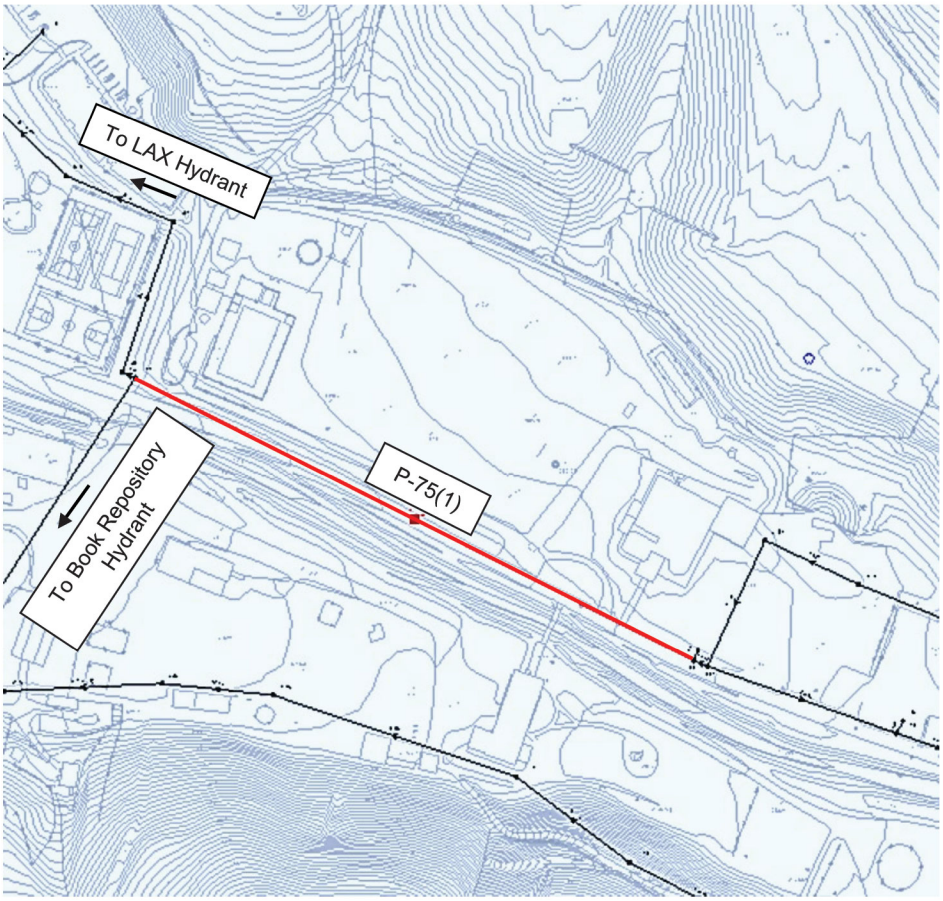


Figure 2- Proposed pipeline replacement along Peppertree Ln.
Note: red line is pipe to be replaced.

3. At P-135(1) & P-133, replace approximately 360 LF of existing 6-in ACP supplying HOB building with 8-in PVC. See Figure 3 below.

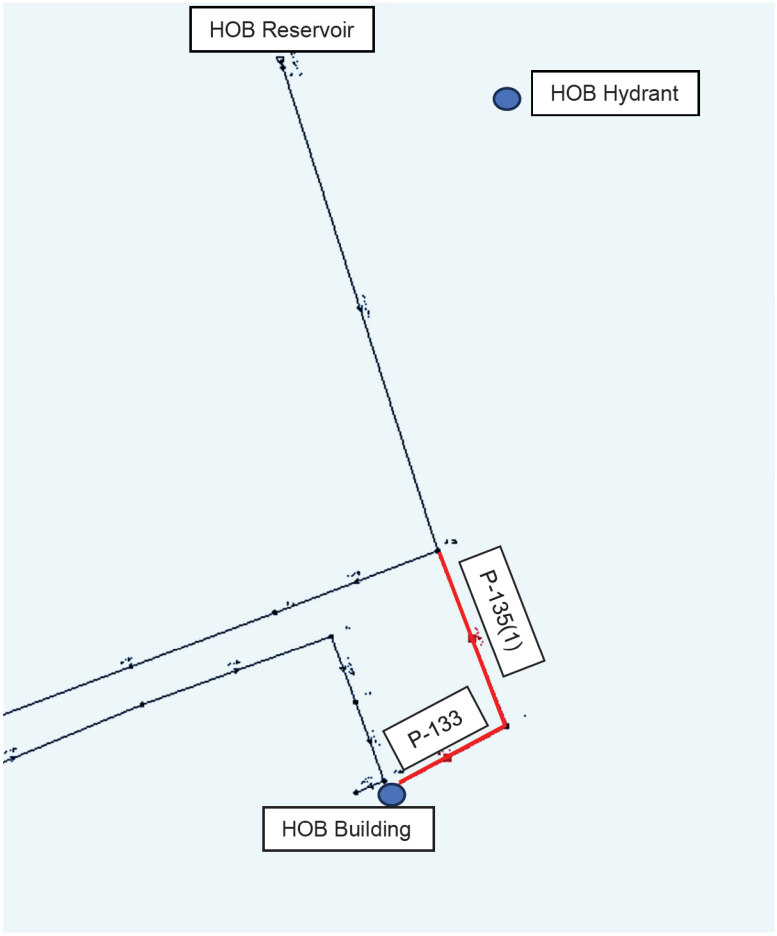


Figure 3- Proposed pipeline replacement of existing 6-in ACP supplying HOB.
Note: red line is pipe to be replaced.

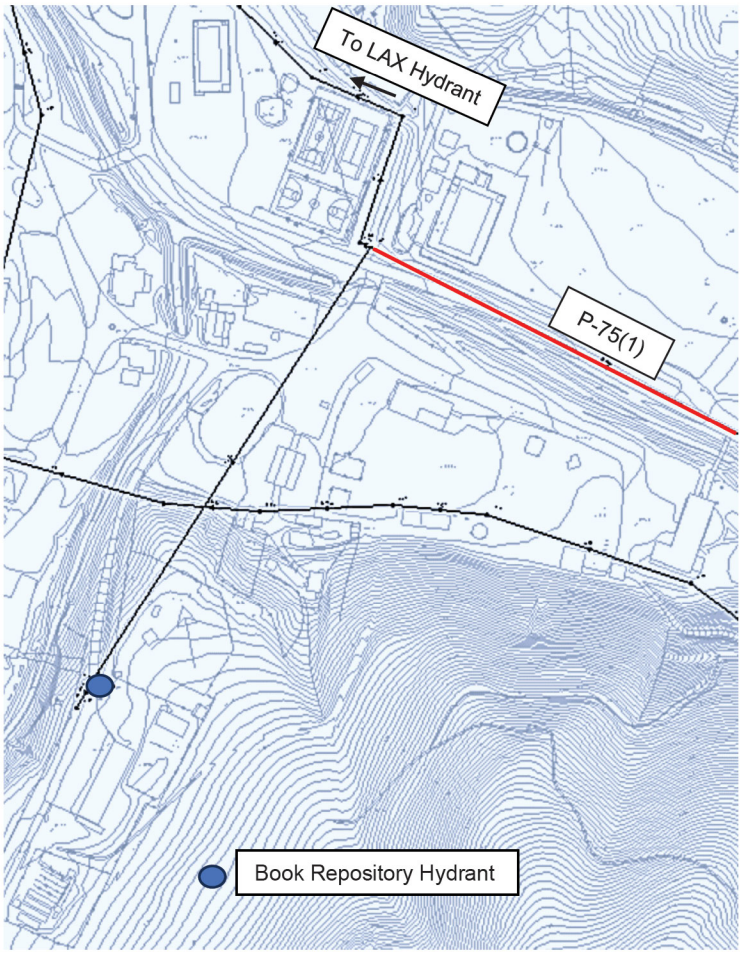


Figure 4- Location of Hydrant at Book Repository.

Hydraulic Modeling Results, Pipeline Replacement

The proposed system improvements/pipeline replacements were incorporated into the BBM water system hydraulic model at P-71(2)(1), P-75(1), P-135(1) & P-133, which correspond to the fire hydrants located at LAX, Book Repository, and House of Book, respectively.

See Table 2 below, a summary of the expected available fire flow and residual pressure at each of the locations analyzed.

TABLE 2 Hydrant Flow and Pressure- Proposed System with Pipeline Improvements Buildout Demand Conditions + Fire Flow

Hydrant Location	Pipe ID	Start Node	Stop Node	Flow (GPM)	Residual Pressure (psi)
LAX	P-70(2)(1)	J-154	J-179	1250	47
Book Repository	P 136	J-85	J-157	1250	49
House of Books	P-133	J-118	J-146	1250	24

The hydraulic model demonstrated that the proposed system pipeline improvements would ensure that the BBM water system will adequately meet VCFPD requirements for Fire Flow and residual pressure.

Summary

The hydraulic modeling encompassed three worst-case fire hydrants, with water supply from the HOB Reservoir. Initial results showed system deficiencies. Further preliminary analysis indicated that by replacing four 6-in pipe segments with 8-in, the hydraulic modeling results met the VCWWM flow and pressure requirements.

EXHIBIT 3

CITY OF SIMI VALLEY

SEWER AVAILABILITY LETTER

Date: 11/15/2022

AJU BBI HOLDINGS LLC ATTN UNIVERSITY OF JUDAISM
15600 MULHOLLAND DR
LOS ANGELES, CA 90077-1519

SUBJECT: N/A /
1101 PEPPERTREE LN
SIMI VALLEY, CA
APN: 6850051040

To: AJU BBI HOLDINGS LLC ATTN UNIVERSITY OF JUDAISM,

With regard to the availability of sewer service for the proposed development, the following relates to the availabilit of the public sewer and wastewater treatment systems:

1. Project Location: The subject property is located within the City of Simi Valley's Sanitation service area and is therefore eligible for public sewer service.

2. Availability of Sewerage Service: The City of Simi Valley has adequate wastewater treatment plant and trunk line sewerage capacity to serve the proposed development. All on-site and/or off-site sewer improvements required to connect to the City's existing sewer facilities are the responsibility of the Applicant. The Applicant shall construct all public sewer facilities in compliance with the Manual and Standard Plans for the Design and Construction of Sanitary Sewerage Facilities adopted by the City Council of the City of Simi Valley on August 28, 2006, and subsequent revisions.

3. Financial Agreement: The applicant agrees to pay all applicable fees for the proposed project to provide connection to the City's public sewerage system.

Next step for Applicant: Obtain a "Sewer Will-Serve Letter" from the City of Simi Valley's Sanitation Services Division. This Sewer Availability Letter expires one year from the date of issue.

If you have any questions, please contact the undersigned at (805) 583-6795.

Sincerely,

Ramona Mejia, Assistant Engineer