2008 GRANT STREET PROJECT

ENVIRONMENTAL CHECKLIST, INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION

PREPARED BY

Metropolitan Planning Group
499 HUMBOLDT STREET
SANTA ROSA, CA 95404

FEBRUARY 2022

M-GROUP

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2008 GRANT STREET PROJECT
CEQA ENVIRONMENTAL CHECKLIST AND INITIAL STUDY

Initial Study Checklist	
Project Title:	2008 Grant Street Project
Lead agency name and address:	City of Calistoga Planning & Building Department 1232 Washington Street Calistoga, CA 94515
Contact person and phone number:	Samantha Thomas, Associate Planner (707) 942-2763
Project Location:	2008 Grant Street, City of Calistoga, Napa County, California APNs 011-010-033
Project Sponsor:	Kerri Watt Civic Park Properties 1500 Willow Pass Court Concord, CA 94520
Property Owner:	Curtis and Jillian Helmer 1556 Silver Trail Napa, CA 94558
General Plan Designations:	Medium Density Residential (4-10 du/acre)
Zoning:	One-Family Residential (R-1)
Description of Project:	The Project consists of a residential subdivision with 15 lots to support single-family residences and Parcels A-F on a 5.84-acre property.
Surrounding land uses and setting; briefly describe the Project's surroundings:	The Project site is adjacent to single-family residential to the east, west and south; a church to the southwest; and single-family residential and a vacant lot to the north.
Other public agencies whose approval may be required (e.g., permits, financial, or participation agreements):	California Department of Fish and Wildlife – Lake or Streambed Alteration Agreement in accordance with Section 1602 of the Fish and Game Code Regional Water Quality Control Board – Clean Water Act Section 401 Water Quality Certification
Have California Native American tribes requested consultation pursuant to Public Resources Code section 21080.3.1?	The City conducted notification pursuant to Public Resources Code §21080.3.1. Notice was delivered to tribes on June 28, 2021. The City did not receive a response requesting consultation within the statutory timeframe and to date, January 2022, no response has been received.

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2008 GRANT STREET PROJECT
CEQA ENVIRONMENTAL CHECKLIST AND INITIAL STUDY

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1. INTRODUCTION

1.1. PURPOSE AND INTENT

This Initial Study/Mitigated Negative Declaration (IS/MND) for the 2008 Grant Street Project, consisting of a proposed residential subdivision with 15 single-family residences, a roadway extension serving the subdivision, and other ancillary improvements (hereinafter referred to as the "Project") has been prepared by the City of Calistoga as lead agency in full accordance with the procedural and substantive requirements of the California Environmental Quality Act (CEQA) and the CEQA Guidelines.

This IS/MND is intended to inform City decision-makers, responsible agencies, interested parties and the general public of the proposed Project and its potential environmental effects. This IS/MND is also intended to provide the CEQA-required environmental documents for all city, regional and state approvals or permits that might be required to implement the proposed Project.

CEQA Guidelines Section 15063(c) lists the following purposes of an Initial Study:

1. Provide the Lead Agency with information to use as the basis for deciding whether to prepare an Environmental Impact Report (EIR) or a Negative Declaration.
2. Enable an Applicant or Lead Agency to modify a Project, mitigating adverse impacts before an EIR is prepared, thereby possibly enabling the Project to qualify for a Negative Declaration.
3. Assist in the preparation of an EIR, if one is required.
4. Facilitate environmental assessment early in the design of a Project.
5. Provide documentation of the factual basis for the finding in a Negative Declaration that a Project will not have a significant effect on the environment.
6. Eliminate unnecessary EIRs.
7. Determine whether a previously prepared EIR could be used with the Project.

The City of Calistoga, as the lead agency, has conducted an Initial Study to determine the level of environmental review necessary for the proposed Project. Consistent with Section 15070(b) of the CEQA Guidelines, the Initial Study identified potentially-significant effects, but revisions in the Project made by or agreed to by the applicant would avoid the effects or mitigate the effects to a point where clearly no significant effect would occur and there is no substantial evidence, in light of the whole record before the City of Calistoga, that the Project as revised and with implementation of identified mitigation measures would have a significant effect on the environment. Therefore, as the lead agency, the City of Calistoga has determined that a Mitigated Negative Declaration is the appropriate level of environmental review.

1.2. PUBLIC REVIEW

In accordance with CEQA and the state CEQA Guidelines, a 30-day public review period for the Project begins on February 7, 2022 and will conclude on March 8, 2022. This IS/MND has been distributed to interested or involved public agencies, organizations, and private individuals for review. In addition, the IS/MND has been made available for general public review at the following location:

City of Calistoga
Planning & Building Department
1232 Washington Street
Calistoga, CA 94515
Hours: 8:00 am to 4:30 pm, Monday – Friday, Closed 12:00 to 12:30 pm for lunch

And on the City's web site at:

www.ci.calistoga.ca.us

During the public review period, the public will have an opportunity to provide written comments on the information contained within this IS/MND.

In reviewing the IS/MND and as articulated in Section 15204(a) of the CEQA Guidelines, affected public agencies and interested members of the public should focus on the sufficiency of the document in identifying and analyzing potential impacts on the environment from the proposed Project, and ways in which the significant effects of the Project can be avoided or mitigated. Pursuant to Section 15204(b) of the CEQA Guidelines, public agencies and persons should focus on the proposed finding that the Project will not have a significant effect on the environment. If a public agency or person believes that the proposed Project may have a significant effect, they should:

1. Identify the specific effect;
2. Explain why they believe the effect would occur; and
3. Explain why they believe the effect would be significant.

Finally, per Section 105204(c), reviewers should explain the basis for their comments, and should submit data or references offering facts, reasonable assumptions based on facts, or expert opinion supported by facts.

Comments on the IS/MND should be submitted in writing and received by the City of Calistoga prior to the end of the 30-day public review period on March 8, 2022. Written comments should be submitted to:

Samantha Thomas
City of Calistoga
Planning & Building Department
1232 Washington Street
Calistoga, CA. 94515

Phone: 707.942.2763
Email: sthomas@ci.calistoga.ca.us

2. PROJECT DESCRIPTION

2.1. PROJECT SETTING

Calistoga is located in northwestern Napa County at the northern portion of the Napa Valley along California State Routes 128 and 29, approximately 12 miles northeast of Santa Rosa and 22 miles northwest of Napa. Calistoga is situated south of Mount St. Helena near the headwaters of the Napa River. The City originated along the banks of the Napa River and attracted development for the natural hot springs in the area, as well as mining and agriculture. The Project's location within the City of Calistoga and region is shown in **Figure 1: Regional Location**.

The Project site is located at the terminus of Redwood Avenue, just off of Grant Street. The site is surrounded by single-family residential development to the west and east; a church to the south; and a vacant lot to the north (**Figure 2: Vicinity Map**). Land use designations adjacent to the Project site include Medium Density Residential to the east and west, and Low Density Residential to the north. The surrounding zoning consists of R-1 to the west and east; One Family Residential Planned Development (R-1-10 PD) to the north; and Public/Quasi-Public (P) to the south. Grant Street contains existing facilities that includes storm drain, sanitary sewer, domestic water, recycled water, and natural gas infrastructure. Overhead utility lines are located on both sides of Grant Street and on the west side of Redwood Avenue.

The existing conditions of the property at 2008 Grant Street feature a small residential structure, a three-sided wooden garage and a large, fire-damaged shed that are located near the center-west of the property. An existing stone culvert provides a bridge over the drainage feature to provide access to the property, residence, and sheds from Redwood Avenue. The property consists of maintained grassland and approximately 151 trees. Trees onsite include black walnut, coast live oak, coast redwood, English walnut, Oregon ash, pecan, and valley oak. Vegetation onsite consists of wild oat, vetch, prickly lettuce, cultivate radish, ripgut brome, and soft chess. In general, the existing site is relatively flat, with an elevation of approximately 372 feet at the western portion of the property to approximately 378 feet at the eastern portion over a distance of approximately 866 feet. An existing drainage ditch is located on the western portion of the site: it generally follows the western property line, beginning at the northwest corner and extends diagonally towards the southern portion of the property. Existing outfalls from adjacent properties are located along the drainage feature. Under the proposed Project, the drainage feature would be preserved onsite. An existing well is located at the north western portion of the site and would be abandoned under the proposed Project. The site has been used for residential purposes between 1950 and present day. The property may have been used formerly as an orchard, although aerial photography does not show any orchard use between 1952 and the present.

2.2. GENERAL PLAN AND ZONING

The City of Calistoga General Plan identifies the City's vision for the future and provides a framework that guides decisions on growth, development, and conservation of its resources in a manner consistent with the quality of life desired by the City's residents, visitors, and future generations.

The site is under the Medium Density Residential General Plan land use designation (**Figure 3: Land Use Map**). The Medium Density Residential designation is intended for single-family residential development at 4-10 dwelling units per acre.

The City of Calistoga Zoning Code implements the goals, objectives, policies, and actions of the General Plan. Several different districts are identified in the Zoning Code that are intended to, among other things, provide for a wide range of uses and implement the City's vision to maintain its unique and walkable small-town character.

The Project site is zoned One-Family Residential (R-1) (**Figure 4: Zoning Map**). The R-1 zoning district provides for the development of single-family residences as a permitted use.

2.3. PROJECT DESCRIPTION

The Project proposes development on a 5.84-acre site at 2008 Grant Street (APN 011-010-033) that would be subdivided into 15 residential lots and 6 parcels (Parcels A-F inclusive of a private street and common areas). The developable area is 4.83 acres comprised of: 1) the 15 residential lots, bio-retention, and landscaped open space on 3.82 acres of the site; 2) and the 1.01-acre Parcel A, which would accommodate a private street as an extension of Redwood Avenue. Parcels B, C and F accommodate the existing drainage channel and would remain as undeveloped open space totaling 1.02 acres. Parcel D would be a landscaped entry and Parcel E contains the privately maintained landscaped bio-retention area.

As proposed, thirteen of the residential lots range in size from approximately 9,036 to 9,788 square feet, and two larger residential parcels are designed to be approximately 11,722 and 14,169 square feet. Eleven of the fifteen residential lots have widths of approximately 84 to 85 feet and depths of approximately 129 to 131 feet. Residential lots at the end of the proposed cul-de-sac have approximate widths up to 85 feet and depths up to 154 feet. At the southern portion of the site, the lot south of the existing drainage feature has an approximate width up to 135 feet and depth up to 101 feet, and the lot north of the drainage feature has an approximate width up to 84 feet and depth up to 131 feet (**Figure 5: Site Plan**).

Architectural Design

The Project proposes one and two-story single-family residences with variations on several architectural styles and configurations. Architectural styles include Farmhouse, Spanish, Craftsman, and Italianate. Finish materials include ledgestone, brick, board-and-batten vertical siding, shingle-siding, and shutters. The residences feature hipped and gabled roof designs, with heights as defined by the Calistoga Zoning Code, of approximately 16 feet for one-story and 23 feet for two story designs. Three basic floor plans (Plan 1, Plan 2, and Plan 3) are proposed consisting of a one-story design (Plan 1) and two, two-story designs (Plans 2 and 3), ranging from approximately 2,320 to 3,518 square feet, with four to five bedrooms. The floor plans provide for some variations that may be applied within the building envelopes, such as a bedroom that can alternatively be a loft, a den that can alternatively be a bedroom, and a livable space that may be a workshop. Plan 3 provides for an optional accessory dwelling unit within the floor plan; up to five residences are proposed to apply for the Plan 3 floor plans.[1] Each unit is served by a driveway and a two-car garage.

Landscaping + Fencing

The proposed Project includes landscaping along the private road (extension of Redwood Avenue), within residential front yards, and around the proposed bioretention area. The project site contains a total of 151 trees that were inventoried as part of the Arborist Report including 102 protected trees and 49 non-protected trees.[2] As proposed, a majority of the existing trees onsite would be removed to accommodate the proposed development, with approximately 46 existing trees to be preserved. Under the proposed project, 105 trees would be removed, including 3 non-protected trees and 102 trees with a protected status under the Calistoga Municipal Code due to size and species. Onsite tree replacement is proposed as part of the landscaping plan

[1] Pursuant to state (SB 9 and 10) and local regulations all residential lots may include one or more accessory dwelling unit. https://www.ci.calistoga.ca.us/city-hall/departments-services/planning-building-department/accessory-dwelling-units https://www.hcd.ca.gov/policy-research/accessorydwellingunits.shtml

[2] Updated Arborist Report, Prepared by Michael Baefsky, Consulting Arborist, Trees, Bugs, Dirt, February 2, 2022.

and is comprised of replanting 112 native species along the drainage feature[3] and replanting 198 trees throughout the project site, including native and ornamental species.[4]

The landscaping planting strips between the new private street and sidewalk are proposed to be planted with Chinese Pistache street trees. Crape Myrtle or Purple Plum trees would be planted as accent trees in the front yard of each residential lot. Larger specimen trees consisting of Coast Live Oak or Valley Oak would be planted on some residential parcels and generally around the perimeter of Parcel E (bioretention).

The perimeter of the 2008 Grant Street parcel would have separation between the Project and adjacent properties with a 6-foot-tall wooden fence. At the side of Lot 5 and the rear of Lots 6 to 13, the fences would be installed on top of retaining walls. Additional fencing separate from the property's perimeter fencing is proposed in certain lots adjacent to the drainage feature. For Lots 1 to 5 and Lot 15, the additional rear yard fencing would be a solid-and-mesh fence, consisting of a four-foot solid fence with two feet of wire mesh above. It would be located at the top of the slope and have a gate to allow for maintenance of the slope and rear of the lot. This solid-and-mesh fencing is proposed along a portion of the side property lines of Lots 1 and 14.

Site Access

The Project would be served by a proposed new private road extending from Redwood Avenue. The new private road features a 48-foot-wide right-of-way consisting of two 10-foot travel lanes, eight-foot-wide parking lanes on either side of the street, and 6-foot-wide landscaping strips and driveway entries on each side. The private road ends in a cul-de-sac meeting fire department turn-around requirement. The new road features a single span bridge that would cross over the existing drainage feature, in the same general location as the existing stone culvert to connect the interior of the property to Redwood Avenue. An emergency vehicle access easement, private sanitary sewer easement and public utility easement (PUE) would be recorded over the private street. The PUE within the right-of-way would allow for the installation and maintenance of underground utilities within the street, including streetlights, electricity transformers and fire hydrants which would be located at back-of-curb. The Project includes 6-foot-wide public utility/public access easements (PUE/PAE) adjacent to and on either side of the street right-of-way to accommodate sidewalks and underground utilities.

The Project includes improvements to Redwood Avenue consisting of a grind and overlay, and installation sidewalks on the northside of the roadway with curb cut for the existing driveway. The existing median within Redwood Avenue would be maintained.

Water Supply

The proposed 15 single-family homes are expected to result in a need of approximately 8.10-acre feet of water per year, or 2,638,950 gallons. The Project would be served by connections to existing water lines on Grant Street and Amber Way. Off-site improvements would be made to replace the existing water main on Redwood Avenue. The new main would extend water connection from existing facilities on Grant Street, up Redwood Avenue and to the end of the new private road, with a connection to the existing water line in Amber Way to provide a looped system. A public water line easement is proposed within the property to accommodate the loop portion of the water line.

Wastewater

[3] Riparian Corridor Tree Removal and Mitigation Plan for 2008 Grant Street, prepared by Michael Baefsky, Consulting Arborist, Trees, Bugs, Dirt Landscape Consulting & Training, December 16, 2021.
[4] Conceptual Landscape Plan, prepared by VanderToolen Associates, January 27, 2022.

The proposed 15 single-family homes are expected to result in generation of approximately 4.785 acre-feet of wastewater per year, or 1,560,375 gallons. The Project would connect to the existing sanitary sewer line on Grant Street. The 8-inch sanitary sewer pipeline in Grant Avenue would be extended via Redwood Avenue, as an off-site improvement, and through the new private road to serve to the Project site. The sanitary sewer line in the private street, along with a sewer force main and pump, would be maintained by the homeowners' association. Additional off-site improvements include replacing an approximately 600-foot section of an older 8-inch sanitary sewer line in Grant Street with an 8-inch PVC sewer line and installing a new 8-inch PVC sewer line approximately 900 feet long in North Oak Street from its intersection with Grant Street to just south of Fair Way.

Stormwater and Drainage

The Preliminary Stormwater Management Plan identified 5 drainage management areas onsite and proposes both bio-retention and self-treating areas. The Project is designed to drain towards the private street, allowing stormwater run-off collection in gutters and discharge to the bio-retention basin, which provides a treatment area of 8,600 square feet with a ponding depth of 1.6 feet. The homeowners' association would maintain the bio-retention areas. An existing 42-inch storm drain with an outfall into the drainage ditch at the northwest corner of the site conveys stormwater runoff from public streets and other subdivisions to the west. Other existing 12- and 8-inch diameter storm drains extending from Amber Way and a parcel to the south discharges stormwater runoff via existing outfalls to the drainage ditch and would continue to drain in this manner under the proposed Project. The Project proposes to install a 42-inch storm drain within a 15-foot public utility easement along the northern site boundary (in Lot 5) to convey existing stormwater discharge from offsite properties within a public pipeline beneath the new private street. As an off-site improvement, the 42-inch storm drain would be extended through Redwood Avenue and connect to the existing 54-inch storm drain located within Grant Street. The existing drainage channel would remain in place and is accommodated in the rear of Lots 1-5 and common-area parcels B, C and F. The homeowners' association would maintain the drainage channel, keeping it clear of debris.

Construction

Development of the site would require demolition of existing structures, removal of 105 trees, grubbing, excavation, grading, construction of infrastructure and buildings, and installation of landscaping, and ancillary improvements. Construction is estimated to occur over an 18-month period starting in 2022. Site preparation would initiate with demolition of the existing structures, removal of trees and vegetation, and grading. The site elevation is proposed to be raised through the grading process to achieve gravity flow of storm water and sewer utilities. The raising of the site requires retaining walls along a portion of the western and southern site perimeter. Grading onsite would result in 25,400 cubic yards of fill, which requires import of soil in order to achieve proposed elevations. Utilities, storm drains and bioretention basins would be installed. The proposed private access street would be constructed. Sidewalks, curbs and gutters, lighting, and landscaping would be installed. Concentrated trucking activity would occur during the grading and import operation at the onset of the Project. Construction activities and materials delivery would be limited to Monday through Saturday between 7:00am and 7:00pm. Routine trucking would cease post-grading; however occasional material deliveries would occur throughout construction activities.

Equipment used in construction would include concrete/industrial saws, graders, tractors, loaders, and backhoes during demolition and grading, pavers and rollers during paving, cranes, forklifts, generator sets, tractors, loaders, backhoes, and welders during building construction, and air compressors during architectural coating. All construction material and equipment would be staged on-site or, through issuance of an encroachment permit, on abutting rights-of-way. For erosion control, the Project proposes silt fences around the perimeter of the property, fiber rolls adjacent to the drainage feature, inlet protection around storm drains, and a construction entry at the Redwood Avenue access to the site.

Required Discretionary Actions

The Project is subject to the following discretionary entitlements from the City of Calistoga:

- Design Review
- Tentative Subdivision Map
- Tree Removal Permit

Other Public Agency Review

The Project may require approvals from the following public agencies:

- California Department of Fish and Wildlife – Streambed Alteration Agreement
- San Francisco Bay Regional Water Quality Control Board – Section 401 Water Quality Certification
- San Francisco Bay Regional Water Quality Control Board – Notice of Intent Construction General Permit

California Native American Tribal Consultation

In accordance with PRC Section 21080.3.1(b)(1), the Mishewal Wappo Tribe of Alexander Valley, in a letter dated June 26, 2015, stated that its tribe was traditionally and culturally affiliated with a geographic area within the City of Calistoga geographic area of jurisdiction, and requested formal notice of and information on Projects for which the City of Calistoga serves as a lead agency under CEQA.

In accordance with PRC Section 21080.3.1(d), the City of Calistoga provided written formal notification to the Mishewal Wappo Tribe of Alexander Valley on June 28, 2021, which included a brief description of the proposed Project and its location, relevant Project information, the City of Calistoga contact information, and a notification that the Mishewal Wappo Tribe of Alexander Valley has 30 days to request consultation pursuant to this section. The Mishewal Wappo Tribe of Alexander Valley did not request formal consultation within 30 days of notification and no response has been received as of January 2022.

Tiering – Calistoga 2003 General Plan EIR

CEQA discourages "repetitive discussions of the same issues" (CEQA Guidelines §15152(b)) and allows limiting discussion of a later Project that is consistent with a prior plan to impacts which were not examined as significant effects in a prior EIR or to significant effects which could be reduced by revisions in the later Project (CEQA Guidelines §15152(d)). No additional benefit to the environment or public purpose would be served by preparing an EIR merely to restate the analysis and the significant and unavoidable effects found to remain after adoption of all General Plan policies/mitigation measures. All General Plan policies adopted as mitigation apply to the Project analyzed herein.

The General Plan EIR reviewed potentially-significant environmental effects resulting from implementation of the General Plan and developed measures and policies to mitigate impacts. Nonetheless, significant and unavoidable impacts were identified under future conditions that would cause roadway segments or intersections in Calistoga, particularly in the downtown, to fall below LOS D. Therefore, the City adopted a statement of overriding considerations, which balanced the merits of approving the General Plan despite the potentially significant and unavoidable environmental effects.

Because CEQA discourages "repetitive discussions of the same issues," this environmental document tiers off the 2003 General Plan EIR (SCH No. 2003012009), which was certified on October 21, 2003, to examine site-specific impacts of the proposed Project, as described below. A copy of the City of Calistoga General Plan and EIR are available at City of Calistoga, Planning & Building Department, 1232 Washington Street, Calistoga, CA 94515.

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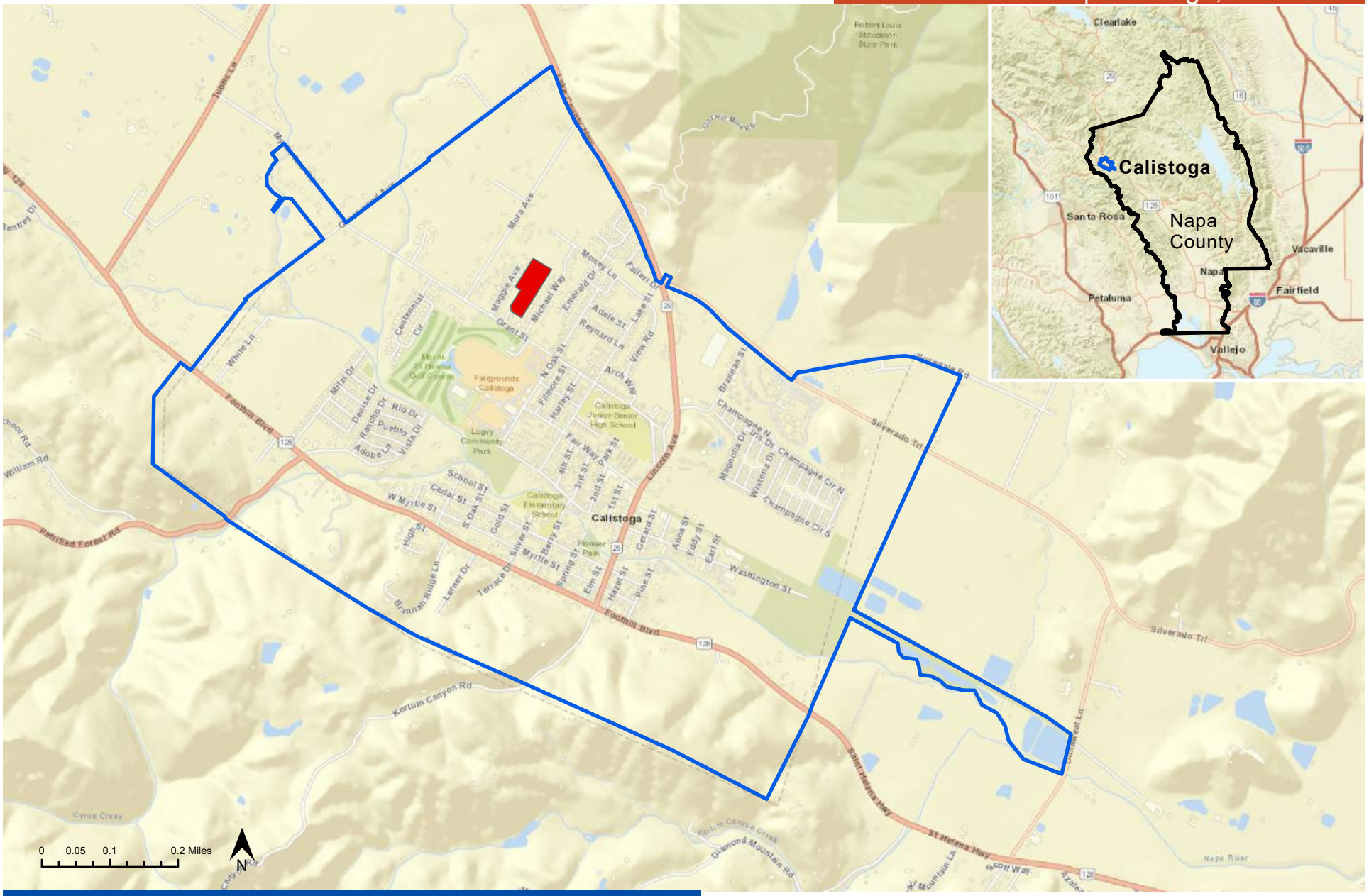

Figure 1 : Regional Location

2008 Grant Street (Project Site)

Calistoga City Limits

Napa County

Data source: City of Calistoga; ESRI Basemap

Figure 2 : Project Vicinity

Project Site

Data source: City of Calistoga; San Francisco Estuary Institute (SFEI). 2017. "California Aquatic Resource Inventory (CARI) version 0.3."; ESRI Basemap

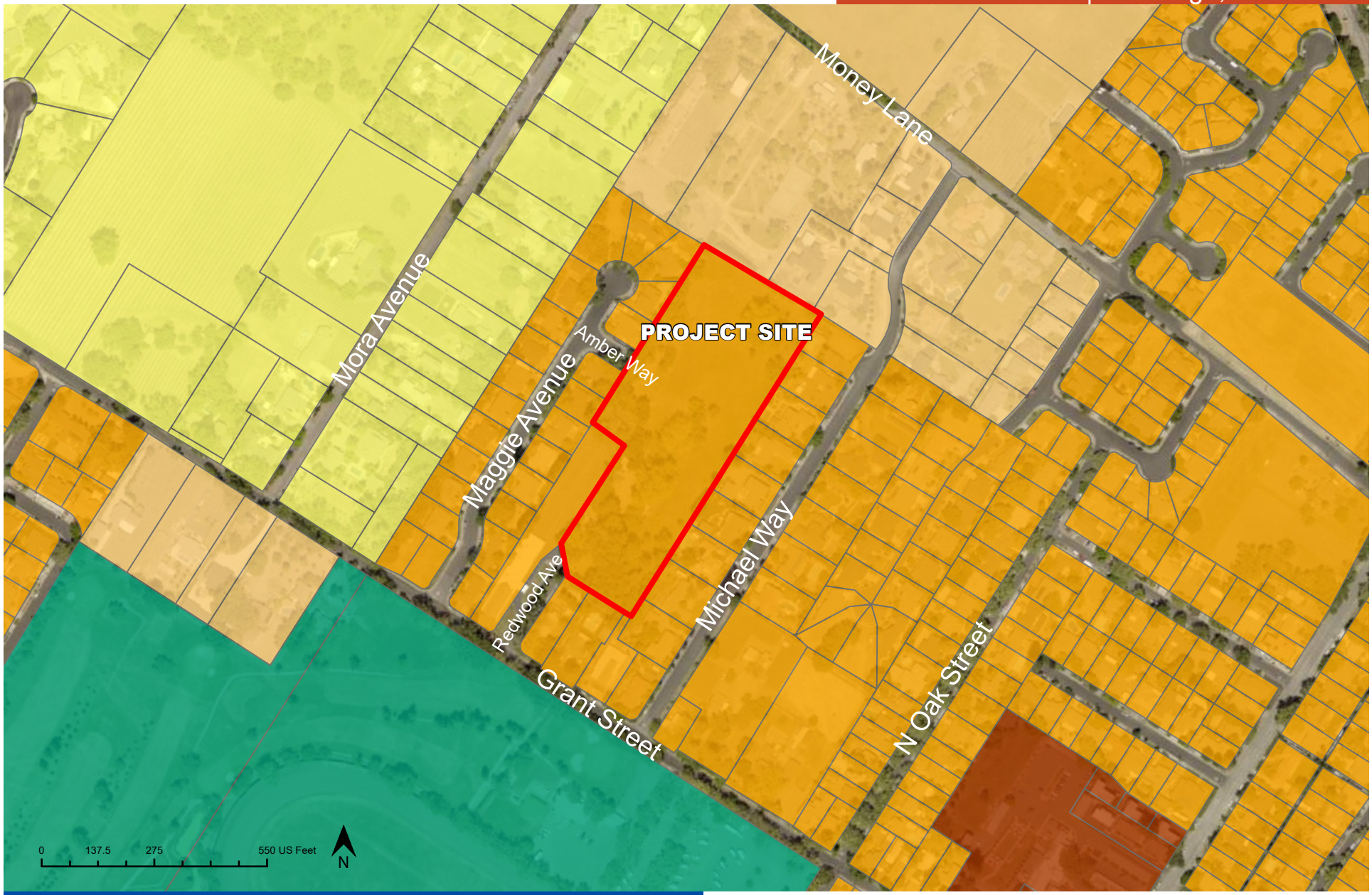

Figure 3 : General Plan Land Use

Project Site

General Plan Land Use Designation

- Rural Residential
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Public/Quasi-Public

Data source: City of Calistoga; ESRI Basemap

2008 Grant Street | Calistoga, California

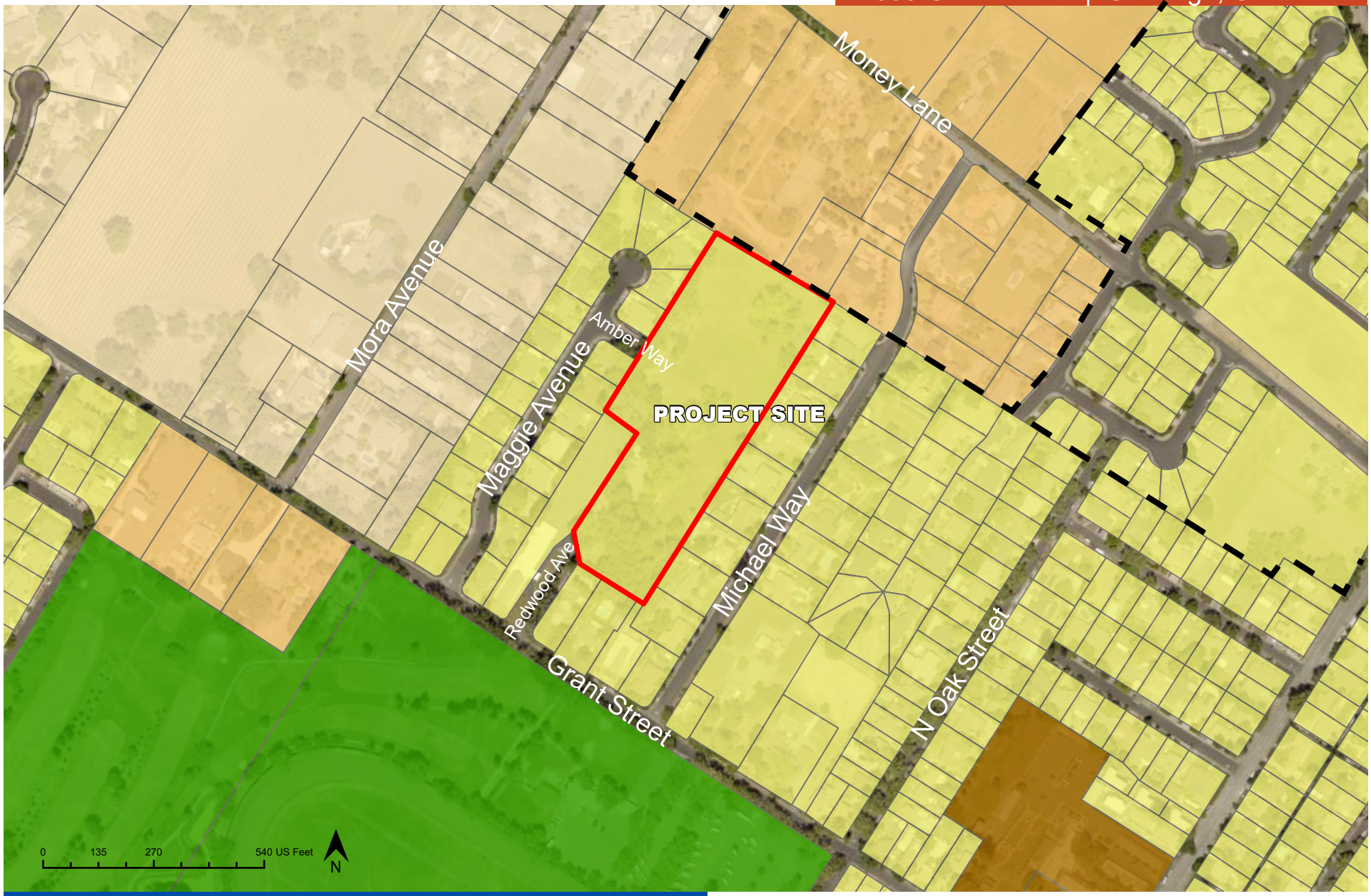

Figure 4 : Zoning

Project Site

Zoning Designation

RR: Rural Residential

R-1: One Family Residential

R-1-PD: One Family Residential Planned Development

R-1-10: One Family Residential

R-1-10-PD: One Family Residential Planned Development

R-3-VA: MultiFamily Residential/ Office

P: Public/Quasi-Public

Data source: City of Calistoga; ESRI Basemap

Figure 5 : Site Plan

Data source: Plan set, prepared by vanderToolen Associates, dated 7.7.2021

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3. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a "Potentially Significant Impact Unless Mitigation is Incorporated" as indicated by the checklist on the following pages.

Aesthetics	X	Hazards & Hazardous Materials	X	Recreation	
Agricultural & Forestry				Transportation / Traffic	
Air Quality	X	Hydrology / Water Quality	X	Tribal Cultural Resources	X
Biological Resources	X	Land Use / Planning		Utilities / Service Systems	
Cultural Resources	X	Mineral Resources		Wildfires	
Energy		Noise	X	Mandatory Findings of Significance	
Geology / Soils	X	Population / Housing			
Greenhouse Gases		Public Services			

4. DETERMINATION (TO BE COMPLETED BY LEAD AGENCY)

The CEQA Initial Study (IS) Checklist and written explanations are provided in Section 5 below. The Initial Study Checklist and narrative indicate the level of significance of the potential environmental effects of the proposed Project upon each of the noted environmental resources. On the basis of this initial evaluation:

I find that the proposed Project **COULD NOT** have a significant effect on the environment. A **NEGATIVE DECLARATION** will be prepared.	
I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Project have been made by or agreed to by the Project proponent. **A MITIGATED NEGATIVE DECLARATION** will be prepared.	**X**
I find that the proposed Project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.	
I find that the proposed Project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.	
I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier **EIR** or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **EIR** or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.	

Samantha Thomas, Associate Planner — Date: 2.2.22

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5. EVALUATION OF ENVIRONMENTAL IMPACTS

The following discussion addresses the level of impact relating to each aspect of the environment.

5.1. AESTHETICS

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?	☐	☒	☐	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☒	☐	☐

Sources: Calistoga General Plan; California Scenic Highway Mapping System, Scenic Highway System Lists, accessed November 18, 2021; Architecture Plan Set, prepared by OAG Architects, dated April 5, 2021.

Aesthetics Setting

The City of Calistoga is situated in the northern most portion of the Napa Valley. The relatively flat topography is interspersed with hills including Mount Washington and Mount Lincoln and mountains at the valley margins. The western city limit extends into the foothills of the Mayacamas Mountains, which rise to a height of approximately 4,700 feet. The eastern city limit abuts the Palisades, a mountain range rising to a height of approximately 2,500 feet and located within the Robert Louis Stevenson State Park. The Napa River flows southward through the central part of the City, from Greenwood Avenue to Dunaweal Lane, and terminates in the San Pablo Bay approximately 50 miles to the south. There are a number of creeks within the City, some of which flow to the Napa River, including Blossom Creek, Garnett Creek, Simmons Creek, and Cyrus Creek.

Calistoga has a small historic walkable downtown with pedestrian-oriented services along Lincoln Avenue. Important visual features include the tree-lined streets found throughout the City, the Napa River, and several historic homes and commercial buildings that are listed on the National Register of Historic Places. Through downtown, the buildings range in height from one to two stories and limited three-story structures. Views from downtown Calistoga along Lincoln Avenue highlight the Palisades Mountains to the north and the Mayacamas Mountains to the south. The hilly areas surrounding the city limits are heavily forested,

contrasting with the landscape in and around Calistoga, which contains large expanses of vineyards, orchards, open space, houses, buildings, and infrastructure.

There are no designated State Scenic Highways within the City of Calistoga. Through Calistoga, Lincoln Avenue is coterminous with State Route (SR) 29 which is considered eligible to be officially designated by the state according to California Scenic Highway Mapping System. The Project site is not located on Lincoln Avenue/SR 29.

According to Calistoga's Zoning Ordinance Chapter 17.16, the R-1 district allows for single-family residential uses, requires 20-foot front and rear setbacks, provides for side setbacks of at least 5 feet, and establishes a maximum height of 25 feet.

The Open Space and Conservation Element of the Calistoga General Plan identifies a number of scenic resources and scenic corridors within Calistoga's Planning Area. Scenic resources in the Planning Area include the following:

- Views of the Palisade and Western Ranch from downstream
- Open space associated with the Gliderport
- Rural lands along Silverado Trail, including views of Mt. Washington
- Views of Mount Lincoln from upper Lincoln Street
- Mora Avenue, Greenwood Avenue and upper Grant Street corridors
- Corridor through Pioneer Cemetery to the open space of the Herrero property across Highway 128
- Corridor alongside the Bounsall property and adjacent agricultural parcels
- Canopy of trees along Cedar Street
- Highway 128 North of Petrified Forest Road

General Plan Open Space Element Action A5.4-1 requires that new development minimize contributions to glare, light trespass (spilling of light from beyond the property where the light is located), and sky glow (lighting that obscures views of the night sky), while continuing to provide adequate safety lighting.

Existing sources of light and glare in the City of Calistoga include streetlamps, pole mounted lights for parking areas, outdoor lights on buildings, and automobile headlights. The Project site is located around current sources of light and glare including single-family residences to the east and west, which contribute to the ambient light conditions.

Objective OSC-1.3 identifies native trees and vegetation as important biological and aesthetic resources in the Planning Area. Policy P1.3-1 provides for implementation of the City's Tree Preservation Ordinance[5] particularly in regard to native trees of significant size. The Project proposes the retention of 46 existing trees onsite, and the removal of 105 trees onsite to accommodate the Project, consisting of 11 are protected trees located within the 25-foot riparian buffer subject to California Department of Fish and Wildlife recommended replacement ratios and 91 are protected trees subject to City tree replacement requirements provided under the City's Tree Ordinance. The remaining three trees to be removed are not considered to have protected status.

Aesthetics Impact Discussion

5.1(a, c) (Effect a Scenic Vista, Degrade Scenic Quality) Less Than Significant Impact with Mitigation: Development of the proposed Project would change the visual character of the area by removing existing structures, buildings, vegetation, and trees, and introducing 15 single-family residential buildings, a new roadway extension, landscaping, and frontage improvements. The proposed change would be compatible

[5] Calistoga Municipal Code Chapter 19.01: Trees, 2002, Code Publishing, Inc.

with the character of the surrounding area as a single-family residential subdivision among existing single-family residences.

The General Plan identified scenic vistas and resources, and the Project would not have an impact on these features due to its location. Most scenic vistas and corridors, such as the Napa River corridor, views of the rural and undeveloped lands surrounding the city, and Calistoga's hillside areas, are associated with open space and natural resource areas. City-recognized scenic resources include views of the Palisade and Western Ranch from downstream; open space associated with the Gliderport; rural lands along Silverado Trail, including views of Mt. Washington; views of Mount Lincoln from upper Lincoln Street; Mora Avenue, Greenwood Avenue, and upper Grant Street corridors; and the corridor through Pioneer Cemetery to the open space of the Herrero property across Highway 128. The Project site is not located in these locations nor does it create a substantive impact on views of these resources. As the Project is located within a largely developed setting zoned for residential development, impacts to scenic vistas and scenic quality are less than significant.

The Project involves removing the majority of trees onsite, which could conflict with the City's regulations governing scenic quality if not properly mitigated. Trees are located throughout the site, spread along the perimeter, along the drainage feature, and in clusters. The Project involves the removal of 105 trees, of which 11 are located within the 25-foot riparian buffer area around the site's drainage feature and 91 are considered protected trees under the City's Municipal Code located outside of this buffer. As further described below under Section 5.4 Biological Resources, protected trees to be removed would be replaced in accordance with recommendations from the California Department of Fish and Wildlife and pursuant to the City's Tree Ordinance, as imposed through Mitigation Measure BIO-6. Removal of existing trees onsite would result in a less than significant impact on the degradation of scenic quality as the Project would install new replacement trees planted throughout the site, as required by **Mitigation Measure AES-1**, which references Mitigation Measures BIO-7 and BIO-8 set forth in the Biological Resources section. The conceptual landscaping plan and the Arborist Report, identify a total of 310 replacement trees to be replanted onsite including 112 trees within the riparian buffer of the drainage feature and 198 tree throughout the project site. The proposed 112 new replacement trees to be planted in the riparian buffer meets the replacement ratio required by the CDFW for removal of riparian trees and exceeds the City's 3:1 replacement ratio requirement for protected trees. Further, the Project preserves existing trees onsite, proposes replacement tree planting as part of the conceptual landscaping plan, and would contribute a monetary reimbursement equal to the cost of planting trees off-site to meet City tree replacement ratios where additional planting is not feasible onsite. Thus, the proposed Project will not significantly degrade the scenic quality due to the proposed removal of trees and impacts will be reduced to less than significant levels with mitigation.

To ensure that potential impacts to the visual character are avoided, the Project is subject to the City's design review process. The proposed architectural style, massing, color and materials, and other design elements are compatible with the existing character and applicable General Plan policies regarding scenic quality and exhibit high quality materials. The Project consists of 15 one- and two-story single-family residences in Farmhouse, Spanish, Craftsman, and Italianate architectural styles, with stucco siding, concrete tile roofs, and unique accents, veneer, shutters, or specific details for each style. The proposed designs exhibit variation in massing, roof forms, and wall planes and architectural elements that add visual interest, as well as other features called for under the City's Residential Design Guidelines. The Project is consistent with the height limits and setbacks under the City's Zoning Code. As a residential subdivision, the Project is compatible with the surrounding single-family uses. Therefore, potential impacts to scenic vistas, scenic corridor, and the scenic quality and visual character would be less than significant.

5.1(b) (Scenic Resources from Designated Scenic Highway) No Impact: The proposed Project would not damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings

viewable from a designated State scenic highway. There are no officially designated state scenic highways within the City of Calistoga. Foothill Boulevard/State Route 128 and Lincoln Avenue/State Route 29 are considered eligible to be officially designated by the State according to California Scenic Highway Mapping System. The site is located at least 1,400 feet from Lincoln Avenue and separated by existing development. As such, it is not located in proximity to an official designated state scenic highway or a route eligible for a designation. Therefore, the Project will have no impacts on scenic resources viewed from an eligible State scenic highway (CA SR 29).

5.1(d) (Light and Glare) Less Than Significant Impact with Mitigation: The proposed Project would result in an increase in nighttime lighting relative to existing conditions with the introduction of 15 single-family residential buildings on the site and associated infrastructure. The Project is required to minimize light levels while providing sufficient lighting for safety to meet the objectives of General Plan Open Space Element Policy P5.4-1 and Action A5.4-1. In order to ensure that lighting introduced onsite does not intrude onto adjacent properties or substantially increase the ambient light levels in the vicinity, the City has established standards for new lighting under Chapter 17.36. In accordance with City standards, all exterior lighting would be the minimum necessary for operational and security needs. In addition, conformance with City regulations require light fixtures to be kept as low to the ground as possible and include shields to deflect the light downward and avoid highly reflective surfaces. Nonetheless, there could still be potential impacts due to the adjacent riparian corridor and surrounding uses. To ensure that new lighting introduced onsite does not significantly affect light and glare in the vicinity, the Project is required to implement **Mitigation Measure AES-2**. The mitigation measure requires that all exterior lighting is directed onto the Project site and access ways and is shielded to prevent glare and intrusion on adjacent properties and spill over into the riparian buffer. Therefore, impacts from light or glare would be at less than significant levels with mitigation measures incorporated.

Mitigation Measure(s):

AES-1: To prevent a potential conflict with the City's tree ordinance and minimize changes to the site's scenic quality due to tree removal, Mitigation Measures BIO-7 and BIO-8, set forth below shall be implemented.

AES-2: Prior to issuance of a building permit, the Project applicant shall prepare, and the City shall review and approve a Code compliant lighting plan. The lighting plan shall demonstrate that new lighting fixtures are shielded and/or recessed to avoid light overspill, and that each light fixture is directed downward and away from adjoining properties and is consistent with the International Dark Sky Association model ordinance objectives by providing the minimum lighting level necessary for night-time safety, utility, security, productivity, enjoyment, and commerce and minimizing sky glow, light overspill and obtrusive lighting levels.

5.2. AGRICULTURAL AND FORESTRY RESOURCES

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☒	☐
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☒	☐

Sources: City of Calistoga General Plan, as amended; 2003 General Plan EIR; and California Department of Conservation Farmland Mapping and Monitoring Program 2016.

Agricultural and Forestry Resources Setting

Pursuant to the 2003 General Plan, intensive agriculture and vacant and low-intensity agriculture comprise approximately 40 percent of the land within City limits. Agriculture lands include vineyards, orchards, and single-family residences. Areas identified as agriculture typically have larger lot sizes and are located at the city's periphery within the rural residential land use designation.

According to the California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP), in 2016 the City of Calistoga contained approximately 870 acres of "Urban and Built-up Land[6]," 457

[6] FMMP Urban and Build-up Land Definition: Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.

acres of "Other Land[7]," 215 acres of "Prime Farmland[8]," 104 acres of "Farmland of Local Importance[9]," and 3 acres of "Grazing Land[10]." The Project site is designated as "Urban and Built-up Land" and "Other Land". No portion of the Project site is under a Williamson Act contract.

In accordance with the definition provided in California Public Resources Code Section 12220(g), "forest land" is land that can support, under natural conditions, 10 percent native tree cover of any species, including hardwoods, and that allows for the management of forest-related resources such as timber, aesthetic value, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. The Project site is a partially developed, previously disturbed property and contains a combination of ruderal and mixed oak woodland areas. The site is identified in the General Plan and Zoning Code as a residential site. None of the land within the Project site is zoned as forest land or timberland zoned, Timberland Production Zone.

Agricultural and Forestry Resources Impact Discussion

5.2 (a-c) (Farmland Conversion, Williamson Act, Conflict with Zoning) No Impact: There are no important timberlands, forestlands, farmlands, agricultural resources, or agricultural preserves located within the Project site. From the California Department of Conservation Farmland Mapping and Monitoring Program, the site is identified as Urban and Built-Up Land and is not classified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The site is not under a Williamson Act contract. There is no agricultural or timberland zoning onsite.

The site is zoned One-Family Residential (R-1), which provides for single-family residential development. There are no forestlands, important farmlands, agricultural resources, or agricultural preserves located within the Project site. As such, the proposed Project would not result in the conversion of agricultural resources to non-agricultural uses. Therefore, the Project would have no impacts to agricultural or forestland resources.

5.2 (d-e) (Other Conversions of Farmland or Forest Land) Less Than Significant: The Project site and surrounding land is designated as "Urban and Built-Up" and "Other Land." The Project site does not involve loss of forest land or conversion to non-forest uses. Under California Public Resources Code Section 12220(g), "forest land" is defined as "land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits." The Project site is largely surrounded by residential development, has been previously disturbed, and lacks characteristics of a use intended for management of forest-related resources.

The site consists of largely ruderal areas with non-native plants and scattered trees. Dominant vegetation includes wild oat, vetch, prickly lettuce, cultivated radish, ripgut brome, and soft chess, with isolated California walnut, valley oak, and coast live oak occurring primarily along the margins of the ruderal environment and near the center of the site. Per the Assessment, the remnant mature walnut trees do not constitute a woodland due to the lack of a closed canopy. Areas around the drainage feature were classified as mixed oak woodland, as there are many non-native ornamental plants it does not fit within one classification type. Trees

[7] FMMP Other Land Definition: Land not included in any other FMMP category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than forty acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

[8] FMMP Prime Farmland Definition: Farmland with the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

[9] FMMP Farmland of Local Important Definition: Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.

[10] FMMP Grazing Land Definition: Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities.

include valley oak, Oregon ash, and fig. The understory includes vetch, blur clover, canary grass, wild oat, periwinkle, privet, olive, plum, and other species. The site features a combination of ruderal and mixed oak woodlands on a disturbed property that is not characterized as natural forest environment and is not intended for management of forest resources. Therefore, the Project would have less than significant impacts to forest lands and conversion of farmland.

Mitigation Measures*:* None Required.

5.3. AIR QUALITY

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☒	☐	☐
c) Exposure of sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?	☐	☐	☒	☐

Sources: City of Calistoga General Plan, as amended; 2003 General Plan EIR; BAAQMD 2017 Bay Area Clean Air Plan; BAAQMD CEQA Guidelines May 2017; and Air Quality and Greenhouse Gas Emissions Assessment for the 2008 Grant Street Project, prepared by Kimley-Horn, May 3, 2021.

Air Quality Setting

The City of Calistoga is located within the San Francisco Bay Area Air Basin (SFBAAB) regulated by the Bay Area Air Quality Management District (BAAQMD). Air quality within the Bay Area Air Basin is influenced by natural geographical and meteorological conditions as well as human activities such as construction and development, operation of vehicles, industry and manufacturing, and other anthropogenic emission sources. The Federal Clean Air Act and the California Clean Air Act establish national and state ambient air quality standards respectively.

The BAAQMD is responsible for planning, implementing, and enforcing air quality standards within the SFBAAB, including the City of Calistoga. The BAAQMD operates monitoring stations throughout the District and records pollutant concentration levels for carbon monoxide (CO), Nitrogen Dioxide (NO_2), Ozone (O_3), and Particulate Matter (PM). The BAAQMD Compliance and Enforcement Division routinely conducts inspections and audits of potential polluting sites to ensure compliance with applicable federal, state, and BAAQMD regulations.

The Bay Area Air Basin is designated as non-attainment for both the one-hour and eight-hour state ozone standards; 0.09 parts per million (ppm) and 0.070 ppm, respectively. The Bay Area Air Basin is also in non-attainment for the PM_{10} and $PM_{2.5}$ state standards, which require an annual arithmetic mean (AAM) of less than 20 $\mu g/m^3$ for PM_{10} and less than 12 $\mu g/m^3$ for fine particulate matter ($PM_{2.5}$). In addition, the Basin is designated as non-attainment for the state 24-hour PM_{10} standard of 50 $\mu g/m^3$. The Napa-Jefferson Avenue Monitoring Station and the Napa-Valley College Monitoring Station are the nearest BAAQMD air monitoring stations located in Napa County. From the available data, the Napa-Valley College Monitoring Station reported the annual level of $PM_{2.5}$ at 21.5 $\mu g/m^3$ in 2019, and the Napa-Jefferson Avenue Monitoring Station reported the annual level of $PM_{2.5}$ at 30.2 $\mu g/m^3$ in 2018, which were both below the 35 $\mu g/m^3$ national ambient air quality standard. In 2019, The Napa-Valley College Monitoring Station reported exceedance of State and

National ozone standards, with 0.095ppm in 1-hour ozone and 0.076ppm in 8-hour ozone, for one and two days respectively. All other national ambient air quality standards (NAAQS) within the Bay Area Air Basin are in attainment.

Air quality emissions of carbon monoxide (CO), ozone precursors (ROG and NOx) and particulate matter (PM_{10} and $PM_{2.5}$) from construction and operation are evaluated pursuant to the BAAQMD CEQA Air Quality Guidelines established in May 2010[11] and updated in May 2017. With release of the 2017 Bay Area Clean Air Plan (CAP) and the associated EIR, it is expected that updated thresholds and guidelines may be developed. In the absence of updated guidelines and thresholds, based upon its own judgment and analysis, the City of Calistoga recognizes that these thresholds represent the best available scientific data and has elected to rely on BAAQMD Guidelines dated May 2017 in determining screening levels and significance.[12] BAAQMD air quality thresholds are presented in **Table 1** below.

TABLE 1: AIR QUALITY SIGNIFICANCE THRESHOLDS

Criteria Air Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (lbs./day)	**Average Daily Emissions (lbs./day)**	**Annual Average Emissions (tons/year)**
ROG	54	54	10
NOx	54	54	10
PM_{10}	82 (Exhaust)	82	15
$PM_{2.5}$	54 (Exhaust)	54	10
CO	Not Applicable	9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)	
Fugitive Dust	Construction Dust Ordinance or other BMP	Not Applicable	
Health Risks and Hazards	**Single Sources Within 1,000-foot Zone of Influence**	**Combined Sources (Cumulative from all sources within 1,000-foot zone of influence)**	
Excess Cancer Risk	>10 per one million	>100 per one million	
Hazard Index	>1.0	>10.0	
Incremental annual $PM_{2.5}$	>0.3 µg/m^3	>0.8 µg/m^3	
Greenhouse Gas Emissions			
Land Use Projects – Direct and Indirect Emissions	Compliance with a Qualified GHG Reduction Strategy OR 1,100 metric tons annually or 4.6 metric tons per capita (for 2020)		

[11] Adopted by Board of Directors of the BAAQMD in June 2010 (Resolution No. 2010-6).

[12] In March 2012, the Alameda County Superior Court ordered BAAQMD to set aside use of the significance thresholds within the BAAQMD 2010 CEQA Guidelines and cease dissemination until they complete an assessment of the environmental effects of the thresholds in accordance with CEQA. The Court found that the thresholds, themselves, constitute a "Project" for which environmental review is required. In August 2013, the First District Court of Appeal reversed the Alameda County Superior Court's decision. The Court held that adoption of the thresholds was not a "Project" subject to CEQA because environmental changes that might result from their adoption were too speculative to be considered "reasonably foreseeable" under CEQA. In December 2015, the California Supreme Court reversed the Court of Appeal's decision and remanded the matter back to the appellate court to reconsider the case in light of the Supreme Court's opinion. The BAAQMD published a new version of the Guidelines dated May 2017, which includes revisions made to address the Supreme Court's opinion. The May 2017 Guidelines update does not address outdated references, links, analytical methodologies or other technical information that may be in the Guidelines or Thresholds Justification Report. The BAAQMD is currently working to update any outdated information in the Guidelines.

Source: BAAQMD's May 2017 CEQA Air Quality Guidelines

Note: BMP = Best Management Practices, ROG = reactive organic gases, NOx = nitrogen oxides, PM_{10} = course particulate matter or particulates with an aerodynamic diameter of 10 micrometers (µm) or less, $PM_{2.5}$ = fine particulate matter or particulates with an aerodynamic diameter of 2.5µm or less; and GHG = greenhouse gases.

*BAAQMD does not have a recommended post-2020 GHG Threshold.

In addition to the Guidelines, BAAQMD has established rules in order to ensure that Projects conform to air quality regulation. The proposed Project is subject to the Rules established by BAAQMD including Regulation 11, Rule 2 for the control and management of asbestos-containing materials (including potential uncovering from demolition). Management of asbestos-containing materials is discussed in the Hazards and Hazardous Materials section below.

The City of Calistoga's General Plan sets forth policies and actions to maintain and enhance air quality. Policies P6.1-1 through P6.1-5 provide guidance to minimize air quality emissions including reducing dependence on automobile transportation, supporting BAAQMD in implementing air quality regulations and controls on construction activities. Policies P7.1-1 through P7.1-5 involve conservation of non-renewable resources and encouraging the use of solar, decreasing reliance on motor vehicle travel, and minimizing energy consumption in new building construction.

An Air Quality and Greenhouse Gas (GHG) Emissions Assessment (**Appendix B)** was conducted by Kimley-Horn to evaluate the potential air quality impacts of the proposed Project. The following impact discussion incorporates results of the Assessment related to air quality and health risks.

Air Quality Impact Discussion

5.3(a) (Conflict With Applicable Air Quality Plan) Less Than Significant Impact with Mitigation: The BAAQMD adopted the 2017 Bay Area Clean Air Plan (CAP) on April 19, 2017, to comply with state air quality planning requirements set forth in the California Health & Safety Code. The 2017 CAP includes a wide range of control measures designed to decrease emissions of the air pollutants most harmful to Bay Area residents and which include particulate matter (PM), ozone (O_3), and toxic air contaminants (TACs). The CAP further endeavors to reduce emissions of methane and other "super-greenhouse gases (GHGs)" that are potent climate pollutants in the near-term and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

The proposed control strategy for the 2017 CAP consists of 85 distinct reduction measures targeting a variety of local, regional, and global pollutants. The CAP includes control measures for stationary sources, transportation, energy, buildings, and agriculture, natural and working lands, waste management, water, and super-GHG pollutants. Implementation of some of the control measures could involve retrofitting, replacing, or installing new air pollution control equipment, changes in product formulations, or construction of infrastructure that have the potential to create air quality impacts.

The BAAQMD CEQA Guidelines set forth criteria for determining consistency with the CAP. In general, a Project is consistent if a) the Project supports the primary goals of the CAP, b) includes control measures and c) does not interfere with implementation of the CAP measures.

The proposed Project would have a less than significant impact due to a conflict with the Clean Air Plan since the Project, a) supports the goals of the CAP in that it limits sprawl by creating infill residential units within the city; b) would comply with the latest in the most recent California Building Code for energy efficiency as a new residential development; and c) includes control measures to protect air quality during construction by implementing best management practices set forth by BAAQMD (**Measure AQ-1**). Therefore, with BMPs imposed as Measure AQ-1, the Project will have less than significant impacts due to a conflict with the regional

air quality plan.

5.3(b) (Violate Air Quality Emission Standards) Less Than Significant with Mitigation: Air quality emissions associated with the proposed Project would result from short-term construction activities and ongoing operation. The Air Quality and Greenhouse Gas Assessment (**Appendix B**) utilized BAAQMD recommended methodology and relies upon the California Emissions Estimator Model (CalEEMod), version 2016.3.2 to assess air quality emissions during construction and at operation.

Construction Activities

Construction includes the demolition of structures, removal of trees and vegetation, grading, and the development of the residences, a roadway extension including a span bridge, on-site improvements, and associated infrastructure. During construction activities, the Project would generate temporary emissions associated with demolition, site preparation, ground disturbance, the operation of heavy-duty construction equipment, workers traveling to and from the site, and the delivery and off-hauling of materials. These activities would create temporary emissions of fugitive dust from site grading, and the release of toxic air contaminants, particulate matter, and ozone precursors (ROG and NOx) from combustion of fuel and the operation of heavy-duty construction equipment.

Emission levels were estimated using CalEEMod and compared relative to BAAQMD significance thresholds to determine the Project's potential to impact air quality. CalEEMod presents annual air quality emissions estimates for construction based on Projected earthwork volumes, land use size, and land use type. A construction development scenario, including an equipment list and schedule, was provided by the applicant. Based on the proposed use, construction activities, and equipment usage, construction was estimated to be 385 days over an 18-month period. Average daily construction emissions (total construction emissions/construction workdays) of ROG, NOx, PM10, and PM2.5 are presented in **Table 2** below and show that air quality emissions generated during construction would not exceed BAAQMD significance thresholds.

TABLE 2: CONSTRUCTION PERIOD EMISSIONS

Scenario	ROG	NOx	PM10 Exhaust	PM2.5 Exhaust
Average Daily Emissions (lbs/day)*	10.12	33.13	1.61	1.48
BAAQMD Thresholds (lbs/day)	54	54	82	54
Exceeds Threshold?	NO	NO	NO	NO

Source: Air Quality & Greenhouse Gas Assessment for the 2008 Grant Street Project prepared by Kimley-Horn, May 2021.
*Assumes 385 construction workdays

Construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM10 and PM2.5. The BAAQMD CEQA Air Quality Guidelines consider contributions of fugitive dust to be less-than-significant if best management practices (BMPs) are implemented. As such, **Mitigation Measure AQ-1**, which provides for a variety of dust control measures during construction activities including watering the site, covering haul loads, limiting idling time, and temporarily halting construction when winds are greater than 15 miles per hour, is set forth below. With the implementation of Mitigation Measure AQ-1 (BAAQMD-recommended best management practices) and consistent with Calistoga General Plan policy P6.1-5, construction activities will have less than significant impacts to air quality.

Operation

The proposed Project would result in both stationary and mobile sources of emissions at operation. Although there would be no new stationary "point sources" (large emitters such as manufacturing plants), the Project

would result in area source emissions from typical residential uses, such as natural gas consumption, vehicle trips, and use of landscaping equipment and household products.

CalEEMod was used to predict emissions at full build-out, with an expected operational year of 2023. **Table 3** shows that criteria pollutants generated at operation of the proposed Project will be below BAAQMD thresholds and impacts to air quality as a result of the Project at operation will be less than significant.

TABLE 3: OPERATIONAL EMISSION ESTIMATES

Annual Emissions (tons/year)	**ROG**	**NOx**	**PM10**	**PM2.5**
Total Project Operational Emissions	0.18	0.2	0.01	0.01
BAAQMD Thresholds	*10*	*10*	*15*	*10*
Exceeds Threshold?	No	No	No	No
Average Daily Emissions (pounds/day)				
Average Daily Emissions	1.36	1.34	0.58	0.58
BAAQMD Thresholds	*54*	*54*	*82*	*54*
Exceeds Threshold?	No	No	No	No

Source: Table 6, Operational Emissions, Air Quality and GHG Assessment for the 2008 Grant Street Project prepared by Kimley-Horn, May 3, 2021.

None of the pollutant concentrations generated during operation of the proposed Project would result in emissions that exceed established thresholds for criteria pollutants. At operation, the Project would not violate air quality standards or cumulatively contribute to an existing violation. Therefore, operational impacts to air quality from the proposed Project would be less than significant.

5.3(c) (Sensitive Receptors) Less Than Significant with Mitigation: The BAAQMD defines sensitive receptors as "facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly and people with illnesses." Residential areas and schools are considered sensitive receptors because people are often at home/school for extended periods of time. Examples of sensitive receptors include places where people live, play, or convalesce and include schools, day care centers, hospitals, residential areas, and recreation facilities. Sensitive receptors, such as existing residents and the church located in proximity to the Project site, may be exposed to health risks from construction exhaust emissions generated by the Project during construction.

Construction Activities

Project construction would result in the temporary emission of fugitive dust and diesel particulate matter (DPM), which is a known Toxic Air Contaminant (TAC). Diesel particulate matter is contained in the exhaust expelled from on-road diesel-powered haul trucks traveling to and from the site for deliveries and construction equipment operating onsite. TACs pose a health risk to nearby sensitive receptors.

Health risks associated with diesel-exhaust emissions are primarily linked to long-term exposure. Project construction results in emissions on a temporary basis. The use of diesel-powered construction equipment would be used during construction and work would occur at different locations and at different times over the course of development. Construction activities are subject to California regulations that require limiting idling time to no more than 5 minutes and maintaining construction equipment per manufacturers specification, which would minimize emissions generated by the operation of construction equipment. Furthermore, the Project would be subject to BAAQMD CEQA Air Quality Guidelines that minimize the

generation of fugitive dust. Further, **Mitigation Measure AQ-1** shall be implemented during construction, which applies the BAAQMD best management practices to control fugitive dust and diesel particulate matter. Therefore, health risk impacts to sensitive receptors during construction activities would be less-than-significant.

Operation

At operation, the Project would not generate air quality emissions that affect sensitive receptors in the vicinity. Residential developments are not stationary sources of toxic air contaminants. The Project would result in an increase of carbon monoxide (CO) emissions through the vehicle trips associated with residential uses. The BAAQMD screening criteria provides that CO impacts may be determined to be less than significant if a Project is consistent with an applicable congestion management plan and would not increase average daily traffic volumes at local intersections to more than 44,000 vehicles per hour, or 24,000 vehicles per hour in heavily urban areas. Grant Street is designated in the General Plan as an Arterial Street, with connections to other local arterials including Mora Avenue to the west and Lincoln Avenue to the east. There are no intersections in Calistoga that experience more than 24,000 vehicle trips per hour. The Project is estimated to generate approximately 149 daily vehicle trips, which would be negligible contribution to roadway volumes. Therefore, potential impacts to sensitive receptors at operation of the Project will be less than significant, as residential Projects do not generate emissions that would result in health impacts.

5.3(d) (Other Emissions) Less Than Significant Impact: As a residential development, the Project does not involve activities that may generate substantial obnoxious odors. During construction, odors may be emitted from construction equipment, architectural coatings, and asphalt work, but activities would be temporary, and odors would rapidly disperse. Therefore, impacts from substantial odor concentrations would be less than significant.

Mitigation Measures:

AQ-1: During all construction activities including demolition and ground disturbance activities, on and offsite, the contractor shall implement the latest BAAQMD recommended Best Management Practices (BMPs) to control for fugitive dust and exhaust as follows:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material shall be covered.
3. All visible mud and dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as practicable. Building pads shall be laid as soon as practicable after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper working condition prior to operation.

8. A publicly-visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints shall be posted on the Project site prior to the initiation of construction activities. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

5.4. BIOLOGICAL RESOURCES

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Sources: City of Calistoga General Plan, as amended; 2003 General Plan EIR; Biological Resources Assessment, prepared by Lucy Macmillan, July 2018; Biological Resources Assessment, prepared by AES, August 2021; Biological Permitting Memorandum, prepared by AES, December 1, 2021; Riparian Tree Removal & Mitigation Plan, prepared by Trees, Bugs, Dirt Landscape Consulting & Training, December 16, 2021; and Arborist Report, prepared by Trees, Bugs, Dirt Landscape Consulting & Training, February 2, 2022; Tree Evaluation and Preliminary Construction Assessment, prepared by MacNair & Associates, August 8, 2017.

Biological Resources Setting

Biological resources are protected by state and federal statutes including the Federal Endangered Species Act (FESA), the California Endangered Species Act (CESA), the Clean Water Act (CWA), and the Migratory Bird Treaty Act (MBTA). These regulations provide the legal protection for plant and animal species of concern and their habitat at the state and federal level.

As reported in the General Plan, several plant and animal species with special status have been recorded from or are suspected to occur in northern Napa County and the Calistoga vicinity. Several of these species have been reported in the City's Planning Area, and most are associated with the specific habitat types including forest, oak woodland, and grassland along the fringe of the Planning Area. A few species have been reported from the floor of the valley, generally associated with the aquatic habitat of the Napa River and the freshwater marsh in geyser-fed swales. For the Project site and its vicinity, Figure 21 of the 2003 General Plan EIR, Biological Resources in the Planning Area, identifies no "very significant" or "moderately significant" resources. The General Plan EIR indicates that detailed surveys would be required to provide confirmation on presence or absence of species.

A focused Biological Resources Assessment was prepared for the Project to characterize site conditions and surroundings and evaluate potential impacts to sensitive biological resources (**Appendix D**). The Assessment presents findings from the review of databases, a reconnaissance survey, and a focused botanical survey. Biological surveys were conducted in April and May 2021 to determine whether special status species may be present onsite; no special status plant or wildlife species were observed during the survey. Results of the Assessment are incorporated into the resources setting and inform the biological impact discussion below.

As part of the CEQA review process, the City of Calistoga initiated consultation with the California Department of Fish and Wildlife (CDFW) and the San Francisco Bay Regional Water Quality Control Board (RWQCB) for input on the Project. In October 2021, the CDFW and RWQCB were provided with the site plan and the Biological Resources Assessment. The City received response letters from both agencies, which served to inform further investigations, refinements to the site plan, and strategies to minimize direct and indirect impacts to biological resources onsite and in the vicinity. Recommendations from the CDFW and RWQCB are described below and have been incorporated into mitigation measures.

Plant Species and Natural Communities

As part of the Biological Resources Assessment, database research from the California Natural Diversity Database (CNDDB), California Native Plant Society (CNPS), and US Fish and Wildlife Service (USFWS) found that 66 special status plant species have potential to occur in the region, of which 12 species have the potential to occur on the site based on specific habitats and conditions: Franciscan onion, Napa false indigo, bent-flowered fiddleneck, big-scale balsamroot, narrow-anthered brodiaea, pappose tarplant, congested-headed hayfield tarplant, woolly-headed lessingia, marsh microseris, baker's navarretia, two-fork clover, and saline clover. These species were specifically investigated during onsite reconnaissance surveys. During the focused botanical survey conducted by the Project botanist in May 202, a total of 87 plant species were identified and no rare plant species or were observed.

The Project site consists of a mixture of developed, ruderal, and mixed oak woodland areas. The developed portion of the site (0.35 acres), approximately 6 percent of the site area, located at the southern portion connecting to Redwood Avenue, is occupied by a residential building and accessory structures with an asphalt driveway that transitions to a gravel driveway. Ornamental vegetation and weedy non-native species are found in this heavily disturbed area. Ruderal habitat (4.2 acres) covers approximately 72 percent of the site and contains wild oat (*Avena fatua*), vetch (*Vicia villosa*), prickly lettuce (*Lactuca serriola*), cultivated radish (*Raphanus sativus*), ripgut brome (*Bromus diandrus*), and soft chess (*Bromus hordeaceus*). Isolated California walnut (*Juglans hindsii*), valley oak (*Quercus lobata*), and coast live oak (*Quercus agrifolia*) occurs on the margins

of the habitat area and as isolated trees in the center of the site. This habitat area is considered ruderal due to the preponderance of non-native plants. The remaining approximately 22 percent of the site that is generally located around the onsite drainage feature consists of mixed oak woodland (1.27 acres).

The Biological Resources Assessment describes the mixed oak woodland habitat as one that does not fit any one classification scheme due to the dominant presence of many non-native ornamentals. Trees within the oak woodland habitat consist of ornamental fig (*Ficus carica*), valley oak (Quercus latifolia) and Oregon ash (*Franxinus latifolia*). In the understory of the tree canopy, the dominant vegetation consists of vetch, bur clover (Medicago polymorpha), canary grass (*Phalaris* sp.), wild oat, and periwinkle (*Vinca major*). Other small nonnative vegetation present in the understory of the tree canopy include privet (*Lingustrum* sp.), olive (*Olea europaea*), plum (*Prunus* sp.), and some exotic species.

Wildlife Species

As part of the Biological Resources Assessment, database research found 21 species status wildlife species with potential to occur in the region and concluded that the site may contain suitable habitats for six special status wildlife species. These species include California giant salamander, Red-bellied newt, Pallid bat, Townsend's big-eared bat, Western bumble bee, and Western pond turtle. Although no species were observed during onsite surveys, there is a potential that special status species could move onto the site prior to construction. Standard preconstruction surveys are expected to be adequate to ensure that special status species that may move onto the site are not adversely affected by Project construction. The Assessment identifies mitigation measures to be imposed during construction to reduce potential impacts should there be occurrence of these species. As tree removal and demolition of structures are proposed in the Project, the Assessment also includes recommendations to reduce impacts to bats and nesting birds, should species be present on the Project site.

Drainage Feature

The site contains an existing drainage feature determined to be a remnant of a previous use onsite that extends from the northwest corner to the southeast corner of the site and generally follows the western property line. The Assessment indicated that the source hydrology has been impacted by upstream residential development. Several culverts connect to the feature, but the Assessment found that there did not appear to be enough flowing water in the drainage feature to meet diagnostic characteristics typically associated with jurisdictional features. A query of the National Wetlands Inventory (NWI) database did not document any wetlands or other waters of the US and State onsite.

Nonetheless, RWQCB indicated that the NWI is intended to provide reconnaissance level information using imagery data and that based on the information provided that the onsite drainage is a water of the State, subject to at least ephemeral flows. The RWQCB recommended that the Project should avoid and minimize impacts to the onsite drainage to the maximum extent practicable and provide compensatory mitigation for any unavoidable impacts. Per input from the RWQCB, the proposed development would likely require a Clean Water Act Section 401 Water Quality Certification to ensure that: (1) impacts to the onsite drainage are avoided/minimized; and (2) post-construction stormwater management meets State water quality standards (e.g., LID measures to address hydromodification and pollutants in stormwater runoff, and trash capture).

In response to input received from the RWQCB, the site plan was further refined to formalize a 25-foot setback from top of bank of the drainage feature and a Biological Permitting Memorandum was prepared by AES in December 2021. The Memo describes the proposed improvements to access the site over the drainage feature, provides an evaluation of the Project's impact to the drainage feature, and concludes that there will be no impacts to the Ordinary Highwater Mark (OHWM). The Memo indicates that the Project redesign removes the requirement for a 401 Water Quality Certification. However, given the input from the RWQCB that the drainage feature would be considered as waters of the state and that construction and ongoing

maintenance activities may include direct and indirect impacts to this feature, this analysis presumes that a 401 Water Quality Certification may be required by the RWQCB (see discussion 5.4c below).

Based on input received from the CDFW, replacement of the existing culvert would be subject to a Lake or Streambed Alteration Agreement (SAA). CDFW further commented that the onsite drainage feature appears to be designed with abutments located outside the banks of the channel and recommended that the bottom of the bridge structure be at least one foot above the 100-year storm water surface elevation of the drainage feature, as feasible. CDFW recommended that a Notification of Lake or SAA be submitted to the CDFW for review before authorizing any bridge work, so that the CDFW can determine if a Lake or SAA is required for the Project based on the ultimate design. CDFW also requested notification of proposed removal of riparian vegetation or canopy from the bed, bank, or channel of the stream and provided replacement ratios for the removal of native oaks.

In response to input received from the CDFW, the site plan was further refined to preclude removal of the existing culvert crossing, maintain the new free span bridge abutments outside of the top of bank, and minimize riparian tree removal. As presented in the Biological Permitting Memorandum, design refinements avoid impacts to the bed, bank, and channel. Further, a Riparian Tree Removal & Mitigation Plan was prepared for the 11 protected riparian trees to be removed and proposes 112 replacement trees to be planted onsite within the riparian buffer. The replacement trees are calculated using the CDFW recommended ratios including 4:1 for 5–10-inch diameter oaks, 5:1 for 10-15 inch diameter oaks, and 10:1 for oaks greater than 15 inches. Although the Memo indicates that Project redesign and compliance with replacement ratios precludes the requirement for a SAA, given input received to date from the CDFW, this analysis presumes that a SAA pursuant to California Fish and Game Code Section 1602 may be required by the CDFW (see discussion 5.4 a-c below).

Trees and Vegetation

The site contains 151 trees that were inventoried, including coast live oak (*Quercus agrifolia*), valley oak (*Quercus lobata*), coast redwood (*Sequoia sempervirens*), Oregon ash (Fraxinus latifolia), English walnut (*Juglans regia*), black walnut (*Juglans hindsii*), and pecan (*Carrya illinoinensis*). Existing trees were evaluated in an Arborist Report, prepared by Trees, Bugs, Dirt Landscape Consulting & Training, February 2, 2022 (**Appendix C**).

The Project design would preserve 46 existing trees onsite and remove 105 trees from the project site. Of the 105 onsite trees proposed for removal, 93 trees are located outside of the 25-foot setback from the drainage feature, including two (2) unprotected trees and 91 protected trees that are subject to the City's Tree Ordinance and replacement requirements. The other 12 trees proposed for removal are located within the 25-foot riparian buffer, including 1 unprotected tree and 11 protected trees that are subject to the CDFW recommended replacement ratios, which exceed the City's 3:1 replacement ratio. The Riparian Tree Removal and Mitigation Plan[13] identifies the replacement planting of 112 native trees species within the riparian buffer to offset tree removal.

The City of Calistoga's Tree Ordinance provides for the protection of mature trees and requires replacement for removal of protected trees. Calistoga Municipal Code 19.01.040 identifies the following trees as protected:

- Any tree with a diameter at breast height (DBH) greater than 12 inches.
- Any native oak with a DBH greater than six inches.
- Any valley oak, including seedlings and saplings.
- Any tree bearing an active nest of a fully protected bird.

[13] Riparian Tree Removal & Mitigation Plan, prepared by Trees, Bugs, Dirt Landscape Consulting & Training, December 16, 2021.

In addition to the Mitigation Plan for replanting in the riparian buffer, the conceptual landscaping plan identifies 198 onsite replacement trees to offset removal of the 91 protected trees located outside the riparian buffer setback. To meet the City's 3:1 replacement ratio, an additional 75 replacement trees or payment of a monetary reimbursement to the City is required. For the 46 trees to remain, the Arborist Report (**Appendix C**) provides recommendations for tree protection and preservation that include root care, irrigation, pruning, mulching, and tree protection zones.

The following analysis incorporates findings of the Arborist Report and Tree Evaluations and presents mitigation measures based on recommendations therein as well as input provided by the CDFW and the provisions of the City's Tree Ordinance.

Biological Resources Impact Discussion

5.4(a-b) (Adverse Effects to Sensitive Species and Habitats) Less Than Significant with Mitigation: The Project site contains developed, ruderal vegetation, and mixed oak woodland areas. Based on prior studies and the Project-specific Biological Resources Assessment, special status plant or wildlife species have not been observed onsite and there is no critical habitat that overlaps with the Project site.

Given the negative findings of the 2021 botanical survey conducted on May 13, 2021, and prior rare plant surveys as documented in the 2018 Biological Resources Assessment prepared by Macmillan[14], the Project site does not support rare plants. Therefore, development of the proposed Project would not impact rare plants.

Although no special status wildlife species or their signs were observed onsite during reconnaissance surveys, given the site's location and the possibility that special status wildlife species may move onto the site, there is a potential that the Project could affect special status wildlife (California giant salamander, Red-bellied newt, and western pond turtle) during construction activities. Presence of these species onsite would be associated with the drainage feature or ruderal habitat. The Project includes a 25-foot buffer from the drainage feature where no construction would occur. Nonetheless, in order to ensure that special status wildlife species are not impacted during construction, **Mitigation Measure BIO-1** shall be implemented, which requires preconstruction surveys, installation of exclusion fencing, and procedures to allow any special status species onsite to vacate the construction area or to be relocated prior to commencement of development activities. With implementation of Measure BIO-1, potential impacts to the California giant salamander, Red Bellied newt, and western pond turtle, if these species were present onsite, would be reduced to less than significant levels.

The Project site has the potential to support Western Bumble Bee within the onsite ruderal habitat, which supports flowering plants. Though this species is considered highly unlikely to occur onsite due the quality of suitable habitat, Project construction activities would remove ruderal habitat that may be used by the Western Bumble Bee, and Project activities may involve pest management strategies that include insecticides, which could directly and indirectly affect pollination and result in adverse impacts to this species. To reduce potential impacts to the Western Bumble Bee, should it be present onsite, during construction and at operation, pest management practices shall preclude spraying of insecticides and only approved pesticides shall be used, as set forth in **Mitigation Measure BIO-2**. Further, Measure BIO-2 requires that the final Project landscaping plans incorporate bee friendly flowering plants. With implementation of Measure BIO-2 potential adverse impacts to the Western Bumble Bee will be reduced to less than significant levels.

Two bat species of special concern, the Pallid Bat and the Townsend's big-eared bat, have the potential to occur onsite within existing structures and tree cavities. Although signs of bat presence have not been detected onsite during reconnaissance surveys, bats could move onto the site. If these bat species were to be

[14] Biological Resources Assessment, prepared by Lucy Macmillan, July 2018.

present onsite, construction activities including demolition and tree removal could result in impacts. To avoid or reduce potential impacts to special status bat species, if present onsite, **Mitigation Measure BIO-3** shall be implemented. BIO-3 requires preconstruction detection surveys for the Pallid Bat and the Townsend's big-eared bat, application of tree felling protocol for tree removal, seasonally timed demolition of onsite structures, and agency coordination in the event that maternity roosts are identified to establish eviction protocol. With implementation of measure BIO-3, potential adverse impacts to special status bat species, if present onsite, would be reduced to less than significant levels.

The Project site has the potential to support foraging and nesting habitat to special status bird species including Hawks, the northern harrier, white-tailed kite, prairie falcon, peregrine falcon, and purple martin. Construction of the proposed Project would result in the removal of 105 trees onsite and demolition of existing building and structures, which could provide nesting habitat for protected birds including raptors and passerines. Nesting raptors (birds of prey) and passerine (perching) birds are protected pursuant to California Fish and Game Code (Sections 3503, 3503.5, 3513), and the Federal Migratory Bird Treaty Act. Since most adult birds can fly out of harm's way, protected bird species are not expected to be harmed by development of the proposed Project. However, construction activities, including demolition of structure, removal of trees, and grading, have the potential result in impacts to nesting birds if present onsite. To provide protection to nesting birds, their eggs, and their young, **Mitigation Measure BIO-4** shall be implemented. Measure BIO-4 restricts construction activities to outside the bird nesting season or requires a pre-construction nesting bird survey and the establishment of appropriate avoidance buffers if nesting birds are identified. With implementation of Measure BIO-4, potential adverse impacts to nesting birds would be reduced to levels below significance.

Mitigation measures BIO-1 through BIO-4 provide for the protection of special status species if present onsite and with implementation ensure that potential impacts are reduced to less than significant levels.

5.4(c) (Adverse Effects to Jurisdictional Waters) Less Than Significant with Mitigation: The Project site contains a drainage feature that is considered jurisdictional by the Regional Water Quality Control Board (RWQCB) as a water of the state and that exhibits a bed, bank, and channel that meets the definition of a stream under the Fish and Game Code.

The Project design includes a 25-foot setback from the top of bank that precludes development within the riparian corridor. The drainage feature is currently improved with a culvert to accommodate site access. The Project proposes to retain the existing culvert in place and install a free span bridge with abutments placed above the ordinary high-water mark and outside the top of bank. Although the proposed free span bridge design may preclude the requirement for a 401 Water Quality Certification from the RWQCB pursuant to Section 401 of the Clean Water Act, temporary construction activities and ongoing maintenance have the potential to directly or indirectly impact the drainage feature onsite, which is considered a water of the state by the RWQCB.

Further, although the proposed free span bridge design may preclude the requirement for a Lake or Streambed Alteration Agreement (SAA) from the CDFW pursuant to Section 1602 of the Fish and Game Code, temporary construction activities, removal of eleven native oaks trees within the channel, and ongoing maintenance activities have the potential to directly or indirectly impact the drainage feature, which is considered riparian habitat and regulated by the CDFW. During preliminary consultation CDFW recommended that the span bridge be designed such that the bottom of the bridge is at least one foot above the 100-year storm water surface elevation and that notification of a SAA be submitted to the CDFW before authorizing any bridge work so that the CDFW can review the final design and determine if a SAA is required. Best management practices and notification requirements to the CDFW are imposed through mitigation as discussed below. Additionally, the CDFW requested to be notified prior to the removal of any riparian vegetation from the bed, bank, or channel as further discussed under 5.4.e below.

To ensure that potential temporary and permanent impacts are avoided or minimized, **Mitigation Measures BIO-5** and **BIO-6** shall be implemented. Measure BIO-5 requires best management practices for all activities proximate to the drainage channel and in particular the free span bridge crossing. Best management practices include staging equipment away from the drainage feature, installation of construction fencing and silt fencing, and use of wildlife friendly hay wattles, and gravel wattles. Further, **Mitigation Measure BIO-6** requires that if permanent impacts to the drainage feature cannot be avoided, or if removal of the existing culvert is necessary, then compensatory mitigation shall be secured through the 401 Water Quality Certification process and/or through compliance with a Lake or Streambed Alteration Agreement (SAA). With implementation of Measures BIO-5 and BIO-6, potential impacts to the onsite drainage feature, under the RWQCB's and the CDFW's jurisdiction, would be reduced to less than significant levels.

5.4(d) (Adverse Effect to Wildlife Movement) Less Than Significant Impact: The Project site is not part of an identified wildlife movement corridor, and the proposed development would not substantially interfere with the movement of any native resident or migratory fish or wildlife species. The site is located within a suburban area and largely surrounded by residential development, roadways, and fencing that impedes movement. The site does not serve as a valuable wildlife corridor due to its fragmentation from other potential wildlife corridors. Furthermore, the existing drainage feature onsite, would be retained and a 25-foot development setback established, which would allow for the continued movement of wildlife. Therefore, the Project would have a less than significant impact to wildlife corridors and species movements.

5.4(e) (Conflict with Local Ordinances) Less Than Significant with Mitigation: The Project proposes the removal of trees onsite and is subject to the City of Calistoga's Tree Ordinance (Chapter 19.01 of the Municipal Code) as well as the California Department of Fish and Wildlife (CDFW) requirements for removal of riparian trees under the Department's purview. The City's Tree Ordinance establishes regulations governing the removal of trees, defines protected trees that are subject to the ordinance, and the procedures for tree protection and tree removal. The CDFW recommended replacement ratios for removal of riparian trees were used to estimate the required tree replacement.

The Project proposes the removal of 105 trees from the Project site including 102 trees with protected status under the City's Tree Ordinance. Eleven (11) of the protected trees are native oak species (valley oak and coast live oaks) located within the 25-foot riparian buffer that are proposed for removal to accommodate the free span bridge and storm drain infrastructure and are subject to the CDFW's recommended replacement ratios. Ninety-one (91) protected trees are located across the Project site, outside the riparian buffer and require removal to accommodate the proposed residential subdivision and infrastructure.

To accommodate the proposed subdivision, removal of 102 protected trees is proposed, which is considered a potentially significant impact. To mitigate the removal of 102 protected trees from the Project site, replanting of trees onsite and the payment of a monetary reimbursement equal to the cost of replacement is required in accordance with the City's Tree Ordinance and the CDFW replacement ratio for removal of riparian trees. **Mitigation Measure BIO-7** specifies preparation of a Final Landscaping Plan and a Tree Permit Application for review and acceptance by the City and implementation by the Project Applicant, demonstrating compliance with Chapter 19.01 of City's Municipal Code including the City's 3:1 replacement ratio for all protected trees to be removed, as well as compliance with the CDFW's replacement ratios for trees removed within the Riparian buffer area. Measure BIO-7 further specifies the City's minimum performance standards for replacement of protected trees to be removed and provisions for offsite replacement or a monetary reimbursement equal to the cost of replacement for trees replacement requirements that cannot be accommodated onsite.

The Riparian Tree Removal and Mitigation Plan identifies the replacement of 112 native trees to offset the loss of the 11 protected trees to be removed within 25 feet of the drainage feature. Replanting of 112 native trees could be accommodated within the 25-foot setback of the drainage feature and meets

the CDFW's recommended replacement ratio for the removal of native riparian trees. The Plan provides recommendations for the sourcing of replacement trees including acquiring seedling or sapling from locally sourced nurseries that are indigenous to the watershed. Measure BIO-7 further requires that the Riparian Corridor Tree Removal & Mitigation Plan be reviewed and accepted by the City and the CDFW, as warranted and that the Tree Permit include appropriate provisions for sourcing acorns, planting procedures, and the successful establishment of replacement trees.

Outside of the riparian buffer, the Project proposes to remove 91 protected trees. The City's replacement ratio for protected trees is 3:1, which results in a total of 273 required replacement trees of an equivalent monetary reimbursement. The conceptual landscaping plan demonstrates that 198 replacement trees can be accommodated onsite as street trees, accent trees, and within front, rear and side yards of new lots and parcels, and 75 replacement trees would need to be planted offsite or an equivalent monetary fee paid to the City for offsite planting. Mitigation Measures BIO-7 requires preparation of a Final Landscape Plan and a Tree Permit Application for review and acceptance by the City and implementation by the Project Applicant including the City's 3:1 replacement ratio, payment of a tree mitigation deposit, and use of a minimum of 24-gallon containers, or as otherwise accepted through the City's Tree Permit Application review process. With implementation of Measure BIO-7, implementation of a tree replacement plan to be reviewed and accepted by the City for the 91 trees to be removed outside the 25-foot setback, potential impacts due to a conflict with the City's Tree Ordinance would be reduced to less than significant levels.

The Project proposes the preservation of 46 trees to be retained onsite within the 25-foot setback of the drainage feature, and along the eastern property line, in the rear of proposed residential lots and parcels. Construction activities in the vicinity of trees to remain have the potential to result in impacts to the tree trunk, root, or canopy if not properly protected. To mitigate potential impacts to existing protected tree onsite to be preserved, **Mitigation Measure BIO-8** shall be imposed on the Project, which requires review, acceptance, and implementation of a final Tree Protection Plan in accordance with the City's Municipal Code Section 19.01.040E. Tree preservation requirements include procedures for spading and root pruning, root care specifications, foliage washing, root crown clearance, pruning, and mulching standards, as well as protocol to establish tree protection zones.

With implementation of **Mitigation Measures BIO-7 and BIO-8**, potential impacts due to a conflict with the City's Tree Ordinance would be reduced to levels below significance.

5.4(f) (Conflicts with Habitat Conservation Plans) No Impact: There are no established habitat conservation plans, natural community conservation plans, or other local, regional, or state habitat conservation plans for the City of Calistoga. Therefore, the Project will not conflict with the provisions of an adopted Habitat Conservation Plan, or any other Natural Community Conservation Plan approved by a local, regional, or state body.

Mitigation Measures:

BIO-1: Prior to the start of construction activities, a preconstruction survey of the potentially suitable habitat for the Western pond turtle (WPT), Red-bellied newt, and the California giant salamander shall be conducted by a qualified biologist. If individuals are identified, the biologist shall establish avoidance buffers, as feasible, allow for species to vacate work zone, or prepare and execute a species relocation plan to be reviewed and accepted by the CDFW. Once the work area has been surveyed and deemed clear of special status species, and prior to start of construction activities and under the supervision of a qualified biologist, wildlife exclusion fencing shall be the installed along the onsite drainage feature, between the drainage feature and ground disturbing activities, to impede the migration of WPT, Red-bellied newt, and California giant salamander from entering the construction area, and

where determined necessary by the qualified biologist. Exclusion fencing shall be buried at least 6-inches deep and routinely inspected and maintained throughout construction activities. Upon completion of construction activities and as directed by the qualified biologist, all construction exclusion fencing shall be removed.

BIO-2: If use of pesticides are included as part of the construction activities or as part of the landscaping maintenance plan at operation, only approved pesticides shall be used. Spraying of insecticides shall be limited or refrained from use within the 25-foot setback area from the drainage feature. Improvement plan and construction drawing shall note the requirement for use of approved pesticides and preclusion of insecticides within 25-feet of the drainage feature. The CCR's recorded by the Home Owner's Association shall specify provisions for use of natural pesticides, compliance with application and quantifies for approved pesticide, and the preclusion of insecticides within the 25-foot riparian buffer. The Applicant shall submit CCR language regarding insecticide and pesticide use to the City for review and approved prior to recording. Additionally, the Final Landscaping Plan shall include bee friendly planting species, known to benefit native bees which may include coyote brush, sage, and lupines.

BIO-3: To avoid impacts to Pallid bat and Townsend's big-eared bat if present onsite, building removal shall only be conducted during seasonal periods of bat activity, between August 31 and October 15, when bats would be able to fly and feed independently, and between March 1 and April 1 to avoid hibernating bats, and prior to the formation of maternity colonies. A biologist, one with at least two years of experience surveying for bats, shall conduct a preconstruction survey (bat habitat assessment) of the manmade structures, including within rafters and attics, as well as trees that would be removed no more than 14 days prior to demolition or commencement of site improvement activities. If no special-status bats are found during the surveys, then the biologist shall provide a memo summarizing the results of the survey to the City, and construction activities may commence. If bat signs are observed, an emergence dusk survey shall be conducted. If bat roosts are found, then a plan shall be developed and implemented by the Project applicant for removal and exclusion, which plan shall be reviewed and accepted by the CDFW.

If building removal must occur outside the seasonal activity periods (i.e., between October 16 and the end of February, or between April 2 and August 30), then a qualified biologist, shall conduct preconstruction surveys within 14 days of building demolition, and determine if there are young present (i.e., the biologist will determine if there are maternal roosts). If a maternity site is found, impacts to the maternity site shall be avoided by establishment of a fenced, non-disturbance buffer until the young have reached independence (i.e., are flying and feeding on their own) as determined by a qualified biologist. The size of the buffer zone shall be determined by a qualified biologist at the time of the surveys. If the qualified biologist finds evidence of roosting bats but not a maternity site with young, then a plan shall be developed for removal and exclusion, for review and acceptance by the CDFW. The biologist shall provide the City with a report detailing the results of the survey and any recommendations, as warranted, required for establishment of protective buffers for bat roosts, if identified. Recommendations shall be reviewed and accepted by the City and CDFW and implemented by the project biologist.

Removal of trees with the potential to support special status bats shall be felled following a two-step process as recommended by the CDFW. Felled trees shall be left overnight prior to removal from the site or onsite shipping.

BIO-4: To avoid and minimize potential impacts to nesting birds including passerines and raptors, the following measures shall be implemented:

1. Grading or removal of potentially occupied habitat should be conducted outside the nesting season, which occurs between approximately February 1 through August 31.

2. If grading during the nesting season, generally February 1 through August 31 is infeasible and construction activities (e.g., demolition, tree removal, groundbreaking, or earthwork) must occur within the nesting season, a pre-construction nesting bird survey (migratory species, passerines and raptors) of the potentially occupied habitat (trees, structures, and ruderal habitat) within 500 feet of construction limits shall be performed by a qualified biologist no more than 7 days prior to the start of construction activities. If no nesting birds are observed, no further action is required, and grading shall occur within one week of the survey to prevent "take" of individual birds that could begin nesting after the survey.

3. If active bird nests (passerine and/or raptor) are observed during the pre-construction survey, a disturbance-free buffer zone shall be established around the occupied habitat until the young have fledged, as determined by a qualified biologist.

    a. The radius of the required buffer zone can vary depending on the species, (i.e., 75-100 feet for passerines and 200-500 feet for raptors), with the dimensions of any required buffer zones to be determined by a qualified biologist in consultation with the CDFW, as warranted.

    b. To delineate the buffer zone around the occupied habitat, appropriate construction fencing and exclusion signage shall be placed at the specified radius from the nest within which no machinery or workers shall intrude.

    c. Biological monitoring of active nests shall be conducted by a qualified biologist to ensure that nests are not disturbed and that buffers are appropriately adjusted by a qualified biologist as needed to avoid disturbance.

    d. No construction or earth-moving activity shall occur within any established nest protection buffer prior to September 1 unless it is determined by a qualified ornithologist/biologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid Project construction zones, or that the nesting cycle is otherwise completed.

    e. At the time the qualified biologist determines that the nesting cycle is complete, all buffer zone fencing shall be removed.

4. Should construction activities cease for 7 days or more during the breeding season, surveys shall be repeated by a qualified biologist to ensure birds have not establishes nests during inactivity.

BIO-5: During construction activities and specifically installation of the proposed free span bridge over the onsite drainage feature, direct and indirect impacts to the identified waters of the State shall be avoided through the bridge design (free span with abutments above the highwater mark and outside the top of bank and a minimum clearance of one-foot between the bottom of the bridge and the 100-year storm water surface elevation) and installation procedures (using properly maintained construction equipment, locating equipment as far as possible from the drainage feature, and conducted work during the dry season). Best management practices (BMPs) shall be installed prior to earth-work and installation of the bridge to protect the onsite drainage feature. Designated work areas shall be established by a qualified biologist to ensure that there are no inadvertent impacts to waters of the State, and to downstream receiving waters within the watershed. BMPs shall include use of properly maintained and inspected construction equipment, staging of equipment away from the

drainage feature, use of orange construction fencing, silt fencing, wildlife friendly hay wattles (that is, no monofilament netting), and gravel wattles, as well as other protective measures installed between Project construction activities and the drainage feature.

Orange construction fencing and other appropriate BMPs shall be installed along the eastern edge of the drainage feature, north of the proposed crossing and both east and west of the feature south of the crossing to protect the top of bank as well as the tree canopy of the drainage feature. Prior to the start of construction, a biological monitor shall inspect installation of BMPs to ensure that the drainage feature is adequately protected. BMPs shall thereafter be routinely inspected by the construction manager to ensure BMPs remain in place for the duration of the construction Project. Upon completion of Project construction all orange fencing shall be removed along with any temporary BMPs.

BIO-6: In the event that the bridge design requires abutments located within the top of bank and/or removal of the existing culvert, or at the discretion of the regulatory agencies (CDFW and RWQCB), then the Project shall satisfy compensatory mitigation requirements for all temporary and permanent impacts including compliance with Section 401 of the Clean Water Act, through acquisition of a 401 Water Quality Certification issued by the RWQCB and/or Section 1602 of the Fish and Game Code, through acquisition of a Lake or Streambed Alteration Agreement. The Applicant shall submit to the City proof that notification of the proposed construction action, tree removal and replacement planting plan, invasive species management plan, and ongoing maintenance plan for management of the drainage feature and the area within 25 feet of the top of bank, has been provided to the RWQCB and the CDFW, as required, and that compensatory mitigation, if required, has been reviewed and accepted by the regulatory agencies.

BIO-7: To mitigate for the proposed removal of 102 protected trees, including 11 protected trees within the riparian buffer and 91 trees throughout the balance of the project site, the applicant shall prepare a Final Landscape Plan and a Tree Permit Application for review and acceptance by the City demonstrating a minimum replacement of 112 native trees within the riparian buffer and 273 replacement trees on the balance of the site or a monetary reimbursement equal to the cost of tree replacement and in conformance with Chapter 19.01. The applicant shall include the planting of appropriately sized trees as part of the Project's Final Landscaping Plan, in conformance with the City's Tree Ordinance, and CDFW replacement ratios for removal of riparian trees to offset removal of protected trees. All requirements and restrictions contained in Chapter 19.01 of the City's Municipal Code shall be met, including the incorporation of replacement trees for trees slated for removal, protection of trees to remain onsite (see BIO-8), as well as any recommendations of the Project arborist including those set forth in the Tree Protection Plan. The following provisions shall be implemented:

a. The applicant shall prepare and submit a Tree Permit Application for review and acceptance by the City of Calistoga, at the discretion of the Director of Public Works. Tree replacement shall demonstrate the City's 3:1 replacement ratio and minimum container size of 24-gallons for replacement trees, unless otherwise accepted by the Director of Public Works. If onsite replacement planting is not feasible, the City, may accept a monetary reimbursement, at the Public Work Director's discretion equal to the cost of replacement (Tree Mitigation deposits shall be a minimum of $250.00 for each tree removed. Mitigation deposits on the protected Valley Oak shall be $750.00 for each tree removed). The monetary reimbursement shall be used by the City to fund replacement planting at other locations within the City such as at public parks, along City right-of-way, and/or at other appropriate locations.

b. Adherence to all recommendations identified in the Riparian Corridor Tree Removal & Mitigation Plan including meeting the CDFW recommended replanting ratios for removal of native oak trees (e.g., 4:1 for removal of oaks between 5- and 10-inches diameter breast height (DBH), 5:1 for removal of oaks between 10 and 15 inches DBH, and 10:1 for removal of oaks greater than 15 inches DBH). Refer the Riparian Corridor Tree Removal & Mitigation Plan to the CDFW for review and comment. The Applicant shall integrate all recommendations provided by the CDFW for riparian tree removal and replanting.

c. Native tree replacement shall be sourced from local nurseries using best management practices to avoid the spread of Phytophthora sp., and/or shall be sourced from acorns found at the Project site, or other appropriate local acorn collection site. Prior to planting acorns found at the Project site, or locally, a qualified arborist shall ensure that acorns will not inadvertently spread Phytophthora sp (e.g., Phytophthora ramorum), which causes Sudden Oak Death.

d. A minimum of 5 years of monitoring of all planted oak trees is required and replacement plantings shall achieve a minimum 80 percent survival by the end of the monitoring period. If planted oak trees are not achieving success criteria during any of the monitoring years, additional oaks shall be planted and monitored and maintained for 5 years to ensure they achieve the success criteria. Planted oaks shall be surrounded by cages if there is a potential for deer browse. Cages shall be removed once oak trees are large enough to withstand deer browse. Watering and weeding around oak trees may be necessary to ensure their survival. The applicant shall consult with the Napa County Resource Conservation District, or qualified arborist, regarding caring for planted oak trees.

BIO 8: Prior to issuance of a grading permit, the applicant shall incorporate the applicable recommended tree protection measures for trees that will be preserved onsite identified in the Project arborist report into a Tree Protection Plan prepared by a qualified arborist in accordance with Section 19.01.040E of the City's Municipal Code and submit the plan to the City for review and acceptance. The Protection Plan shall identify locations for the installation of temporary protective fencing surrounding protected trees to remain and specify restrictions for root cutting, tree trimming, trenching, irrigation, parking, staging of construction equipment, and other activities that might cause harm to protected trees. The Protection Plan including all recommendation of the Project Arborist shall be implemented by the applicant during all stages of construction.

5.5. CULTURAL RESOURCES

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Sources: City of Calistoga General Plan, as amended; 2003 General Plan EIR; Cultural Resources Constraints Analysis, prepared by SAS, October 28, 2020; and A Historic Resource Evaluation of the Property Located at 2008 Grant Street, prepared by Evans & De Shazo, November 23, 2021.

Cultural Resources Setting

Historically, the City of Calistoga and the greater Napa Valley supported one of the largest concentrations of Native Americans in the Bay Area. Early estimates by Europeans placed the native population at 3,000 to 6,000 individuals. The types of cultural resources that have been discovered in the Planning Area include remnants of Native American villages and campsites and other evidence of habitation such as large, small, and ashy middens, and lithic and obsidian scatter. Potential prehistoric resources include chert or obsidian flakes, Projectile points, mortars and pestles, and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Within the Planning Area, prehistoric archaeological sites are generally located along seasonal and/or perennial watercourses, at or near vegetation ecotones, and at the base of foothills.

Settlement of Calistoga began in 1857, when San Francisco entrepreneur Samuel Brannan purchased land within the Hot Springs Township at the north end of the Napa Valley with the intent of capitalizing on the area's mineral waters and natural hot springs by establishing a resort based around the area's natural geothermal resources. Sam Brannan's Hot Springs Resort opened in 1862 and featured guest cottages, bathing pools, landscaped parks, stables, a skating rink, a dance pavilion, and an observatory. To make it easier for guests to visit, Brannan encouraged, and partially funded, the extension of the Napa Valley Railroad north to Calistoga, which was completed in the spring of 1867. The extension of the railroad to Calistoga catalyzed growth and encouraged further settlement. In 1876 Calistoga was incorporated as a City within Napa County.

The City of Calistoga contains cultural resources that contribute to the understanding of the region's history and prehistory and influence the community's identity. Historic resources include historic structures, sites and areas that played important roles in local history. Older buildings may hold historic value because of design attributes that provide insight into architectural styles and values of the past. The City recognizes these historic and potential historic resources as worthy of preservation both for their aesthetic and cultural importance.

In 1978, a countywide inventory identified 115 properties in Calistoga with potential historic significance. Three potential historic districts were identified within the city limits: Foothill, Hot Springs, and Lake. A cultural resources inventory completed in May 2000 identified approximately 150 properties that were found to be potentially significant within the city limits. General Plan EIR Figures 14-16 show the location of the primary historical resources within the Planning Area. The Project site was not identified among the properties with potential historic significance.

Cultural Resources Constraints Analysis

Solano Archaeological Services (SAS) conducted a Cultural Resources Constraints Analysis for the Project site (**Appendix E**), which included a records search and review of information from the Northwest Information Center (NWIC). Further, the Analysis included review of historic USGS topographic quadrangle maps, General Land Office (GLO) plat maps, historic aerial photography, and GLO files detailing transfers of public (federal) lands to private individuals during the 19th and early 20th centuries. A request to the Native American Heritage Commission (NAHC) for a search of the Sacred Land File (SLF) database was also performed. The SLF search did not reveal the presence of Native American Cultural properties in or near the site. Conclusions of the Cultural Resources Constrains Analysis are summarized below:

- The NWIC record search did not identify any known cultural resources in the Project area.
- The NWIC Built Environment Resources Directory did not contain any information on historic period buildings or structures within the Project area.
- The map and aerial photography review indicted that no historic-period developments occurred within the Project area.
- The map review indicates that the Project area lies within close proximity to a seasonal waterway, a common setting for past Native American habitation.
- The NAHC SLF search results were negative.
- The Cultural Resources Sensitivity Assessment determined a low level of sensitivity for historic-era archaeological remains based on archival research.
- The Assessment determined a high-level of sensitivity for prehistoric archaeological remains due to the presence of nearby site and the Napa River.
- No early Native American cultural resources are known to be present within or near the Project site. However, four sites with documented prehistoric remains are in the general vicinity and the Napa River, located south of the site, was a focus of Native American habitation and activity.

Historic Resource Evaluation

Evans & De Shazo (EDS) conducted a historic resource evaluation of existing structures including the house onsite built circa 1950, barn built circa 1950, stone bridge built circa 1920, and associated landscape on the property (**Appendix F**). The existing buildings and structures onsite are not listed on the Office of Historic Preservation's (OHP) Built Environment Resources Directory (BERD), are not listed on the City of Calistoga Historic Resource Inventory, and do not appear to have been previously evaluated for listing on the California Register of Historical Resources (CRHR). The evaluation reviewed the built environment resources within the Property to determine if they may be eligible for listing on the CRHR based on the CRHR criterion. The findings from the evaluation, as provided below, indicate the features to be removed from the site are not eligible for listing as historic resources:

1. (Event): Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage? The ca. 1950 house, ca. 1950 barn, ca. 1920 stone bridge, and associated landscape within the Property were not found to be associated with any event that made a significant contribution to California's history or cultural heritage.

2. (Person): Is associated with the lives of persons important in our past? The ownership and occupancy history of the Property, including ca. 1950 house, ca. 1950 barn, ca. 1920 stone bridge, and associated landscape, was thoroughly researched and it does not appear to be associated with a person important in our past.

3. (Construction/Architecture): Embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values? The ca. 1950 house is associated with Vernacular architecture; however, it was not determined to be a representative example of this architectural style or form, and it is not the first to be designed within this style or form, nor is it the work of an important creative individual or possesses high artistic values. It is also not a known local design. As such, the ca. 1950 house is not a representative example of this Vernacular architecture. The ca. 1950 barn, ca. 1920 stone bridge, and associated landscape are not associated with any architectural style or landscape architecture design.

4. (Information potential): Has yielded, or may be likely to yield, information important in prehistory or history? The ca. 1950 house within the Property does not appear to have the ability to convey information about the history of Vernacular architecture, construction, or design; therefore, the Property's built environment is not eligible for listing in the CRHR under Criterion 4.

Cultural Resources Impact Discussion

5.5(a) (Historic Resources) Less Than Significant: The Calistoga General Plan identified 150 properties that may have potential significant historic resources; the Project site was not identified among the identified properties. Additionally, the property was evaluated to determine whether the existing house, barn, stone bridge, or landscaping onsite may be eligible for listing in the California Register of Historic Resources (CRHR) through a Historic Resource Evaluation (**Appendix F**). As discussed above, the evaluation determined that these built environment resources do not meet the CRHR criterion for listing. Therefore, removal of built environment resources onsite as proposed by the Project would result in less than significant impacts to historic resources.

5.5(b) (Archaeological Resources) Less Than Significant with Mitigation: A Cultural Resources Constraints Analysis was prepared to assess the potential for the site to contain archaeological resources. An archival record search of the Northwest Information Center (NWIC) of the California Historical Resources Information System at Sonoma State University indicated no previously documented cultural sites, features, or artifacts in the Project area. Four prehistoric resource sites were documented within a quarter mile. As such, the Cultural Resources Constraints Analysis determined that the Project site has a low level of sensitivity for historic era archaeological resources and a high level of sensitivity for prehistoric archaeological resources. In the event that archaeological resources are present onsite, ground-disturbing activities from Project development could result in potentially significant impacts to buried archeological resources.

To mitigate potential impacts to cultural resources, if present onsite, **Mitigation Measure CUL-1** is imposed on the Project, which requires the presence of an archeological monitor during ground-disturbing activities with the authority to temporarily halt work to inspect areas as needed. Measure CUL-1 further provides for the stoppage of all earth-disturbing work within 100-feet of a potential archeological resource that may be uncovered and for the archaeologist to evaluate the significance and identify further actions based on the content of the find. With implementation of mitigation measure CUL-1, potential impacts to cultural resources in the event of discovery, would be reduced to less than significant levels.

5.5(c) (Discovery of Human Remains) Less Than Significant with Mitigation: No evidence suggests that human remains have been interred within the boundaries of the Project site. However, as stated in the General Plan EIR, it is likely that the Planning Area contains still-undiscovered human burial sites. In order to

ensure that potential impacts from accidental discovery of remains are reduced to less than significant levels, the Project shall comply with California Health and Safety Code Section 7050.5, which mandates the immediate cessation of ground-disturbing activities near or in any area potentially overlying adjacent human remains and contacting the Napa County Coroner. **Mitigation Measure CUL-2** identifies procedures to follow in the event that human remains are discovered onsite. Potential impacts due to the discovery of human remains, if present, will be reduced to a less than significant level with implementation of mitigation measure CUL-2.

Mitigation Measures:

CUL-1: A professional archaeologist shall be onsite during initial ground disturbing activities to monitor potential uncovering of undiscovered archeological and tribal resources. The archaeologist shall have the authority to temporarily halt work upon discovery of potentially significant resources and earthwork within 100 feet of the discovery shall be immediately stopped until the archeologist inspects the resource, assess significance, consults with tribes and related parties, and provides recommendations on treatment of the discovery. The City shall be notified of any such discoveries and the Project applicant shall implement the recommendations of the archaeologist.

CUL-2: In the event that human remains are encountered within the Project Area during Project-related, ground-disturbing activities, all work must stop, and the County Coroner shall be immediately notified of the discovery. If the County coroner determines that remains are, or are believed to be Native American, then the Native American Heritage Commission must be contacted by the Coroner so that a "Most Likely Descendant" (MLD) can be designated to provide further recommendations regarding treatment of the remains. A Secretary of Interior-qualified Archaeologist shall evaluate the historical significance of the discovery, the potential for additional human remains to be present, and to provide further recommendations for treatment of the resource in accordance with the MLD recommendations and the Project applicant shall implement the recommendations of the archaeologist. Federal regulations require that Native American human remains, funerary objects, and object of cultural patrimony are handled consistent with the requirement of the Native American Graves Protection and Repatriation Act.

5.6. Energy

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less than Significant Impact	No Impact
a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during Project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Sources: City Calistoga General Plan, as amended; City of Calistoga General Plan EIR; California Building Code; and California Energy Commission.

Energy Setting

Energy resources include electricity, natural gas, and other fuels. The production of electricity requires the consumption or conversion of energy resources, including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources, into energy. Energy production and energy use both result in the depletion of nonrenewable resources (e.g., oil, natural gas, coal, etc.) and emission of pollutants.

California Energy Consumption

According to the California Energy Commission (CEC), total system electric generation for California in 2020 was 272,576 gigawatt-hours (GWh)[15]. California's non-CO2 emitting electric generation categories (nuclear, large hydroelectric, and renewable generation) accounted for approximately 52 percent of total in-state generation for 2020. In-state electric generation contributed was 190,193 GWh, or approximately 70 percent, to the state's total system energy.

According to the CEC, approximately 45 percent of the natural gas burned in California was used for electricity generation, totaling 90,691 GWh or 3.09 billion therms. The remainder of natural gas consumed was in the residential (21 percent), industrial (25 percent), and commercial (9 percent) sectors. Natural gas is used to generate electricity for cooking and heating, as well as an alternative transportation fuel.[16]

The California Energy Commission (CEC) has developed an energy efficiency action plan to be updated every three years. The latest plan, the 2019 California Energy Efficiency Action Plan, contains three goals for driving energy efficiency: doubling energy efficiency savings by 2030, removing and reducing barriers to energy efficiency in low-income and disadvantaged communities, and reducing greenhouse gas emissions from the building sector. Per the Plan, the state contains approximately nine million single-family residences, of which nearly half were constructed before 1970 and about 80 percent before 1990.[17] As more than half of homes were built before California approved energy standards, there are opportunities to increase energy efficiency through building envelope and other weatherization measures in existing buildings but also challenges to implement retrofits.

[15] California Energy Commission, Total System Electric Generation (2020) https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2020-total-system-electric-generation, accessed November 24, 2021.

[16] California Energy Commission, Supply and Demand of Natural Gas in California, https://www.energy.ca.gov/data-reports/energy-almanac/californias-natural-gas-market/supply-and-demand-natural-gas-california, accessed November 24, 2021.

[17] California Energy Commission, 2019 California Energy Efficiency Action Plan. https://www.energy.ca.gov/programs-and-topics/programs/energy-efficiency-existing-buildings

Energy consumption in new development is regulated through the California's Energy Code (CEC), Title 24, Part 6 and 11 of the California Code of Regulations. The CEC updates Building Energy Efficiency Standards every three years. The 2019 Building Energy Efficiency Standards became effective as of January 1, 2020. On August 11, 2021, the CEC adopted the 2022 Energy Code. If approved for inclusion in the California Building Standards Code, the 2022 Energy Code will go into effect on January 1, 2023. New construction is required to comply with energy efficiency standards in effect through the current building code.

City of Calistoga Energy Sources

Households, businesses, industry, public service systems, and other operators within the City of Calistoga rely on a variety of energy resources (fuels, photovoltaic, natural gas, oil, coal, etc.) to provide energy for lighting, cooking, heating, and cooling, and to operate vehicles.

The City's energy resources are produced and conveyed by Pacific Gas and Electric (PG&E). Marin Clean Energy (MCE) also serves the City of Calistoga and offers customers the choice of having 50 percent to 100 percent of electricity supplied from renewable sources, such as wind, bioenergy, and hydroelectric. While MCE provides electric generation, PG&E continues to deliver the electricity through its facilities, and handle maintenance, repair, and billing services.

Energy Impact Discussion

5.6 (a) (Wasteful, Inefficient, Unnecessary Consumption of Energy) Less than Significant Impact: Development of the proposed Project would involve the use of energy during construction and at operation. Site preparation, grading, paving, and building construction would consume energy in the form of gasoline and diesel fuel through the operation of heavy off-road equipment, trucks, and worker vehicles. However, consumption of fuels would be temporary and would cease upon the completion of construction. As stated in Section 5.3 Air Quality, the City of Calistoga will impose BAAQMD best management practices, **Mitigation Measure AQ-1**, which would minimize the energy use during construction. by limiting idling times and requiring that all construction equipment be maintained and properly tuned in accordance with manufacturer's specifications. As construction activities would be limited in scale and duration the project would not result in inefficient, wasteful, and unnecessary consumption of energy during construction. Therefore, construction-related energy impacts related to wasteful, inefficient, and unnecessary energy consumption would be less than significant.

Operational energy use for the residential development consists of energy consumption for lighting, electronics, heating, air conditioning, cooking, refrigeration, as well as energy consumption related to water usage (water and wastewater conveyance and treatment) and fuel consumption by vehicles associated with the residential uses. The new development will be subject to the California Building Standards Code. The City adopted the 2019 California Building Standards Code, which includes 2019 Building Energy Efficiency Standards and California Green Building Standards (Title 24, Parts 6 and 11 of the CCR). The Project will be required to comply with the latest Building Code in effect at the time that building permits are issued.

Energy efficiency is also achieved through landscape design that will comply with the State Water Efficient Landscape Ordinance requirements. The landscaping plan will adhere to California's model water efficient landscape regulation that includes drought-resistant, low water usage species, and irrigation system requirements. Water conservation efforts achieve energy efficiency by minimizing water use and the corresponding energy demand required for water treatment and conveyance.

While the Project would result in increased energy consumption compared to existing conditions, the Project will incorporate energy efficiency standards in compliance with Title 24 energy and green building standards

to minimize energy consumption. Therefore, operation of the Project would not result in the wasteful, inefficient, and unnecessary consumption of energy and impacts would be less than significant.

5.6 (b) (Conflict with State or Local Plan) Less than Significant Impact: The Project would be required to implement the latest state plans and requirements for energy efficiency in new construction. The single-family residences proposed by the Project would install energy conservation features as mentioned above and required by California Building Code, including the Green Building Standards Code and Energy Efficiency Code. As such, the Project would not conflict with or obstruct implementation of state or local plan for renewable energy or energy efficiency, including the State Alternative Fuels Plan. Therefore, impacts would be less than significant.

Mitigation Measures*:* None Required.

5.7. GEOLOGY AND SOILS

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Publication 42.	☐	☐	☐	☒
ii. Strong seismic ground shaking?	☐	☒	☐	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☒	☐	☐
iv. Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☒	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☒	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Sources: City of Calistoga General Plan, as amended; 2003 General Plan EIR; Geotechnical Study Report, prepared by RGH Consultants, December 22, 2021; and University of California Museum of Paleontology, accessed on November 22, 2021.

Geology and Soils Setting

The Napa Valley, in which Calistoga is located, lies within the east-central portion of the Coast Ranges geomorphic province, a region characterized by northwest-trending valleys and mountain ranges. This alignment of valleys and ridges has developed in response to folding and faulting along the San Andreas fault system, which includes several faults east and west of Calistoga. The Calistoga Planning Area, including the Project site is located near the center of the broad alluvial plain that occupies the floor of the Napa Valley.

Bedrock in the Calistoga area consists of Sonoma Volcanics, dating from the Pliocene era of two to seven million years ago. These rocks are mainly interbedded sediment, tuff, and rhyolite. Alluvial deposits ranging from two million years old to less than 11,000 years old blanket the Napa Valley floor. These unconsolidated sediments consist of interbedded sand, silt, clay, and gravel deposited by the Napa River and its tributaries.

The San Andreas fault system is 44 miles wide and extends throughout much of the North Bay Area. The active faults nearest to Calistoga are: Maacama (5 miles west), Rodgers Creek (9 miles west), Healdsburg (11 miles west), Collayayomi (12 miles north), Hunting Creek – Berryessa (13 miles east), West Napa (7 miles south), San Andreas (30 miles west), and Green Valley (18 miles southeast). The nearest Alquist-Priolo fault zone in the Project vicinity is the Maacama Alquist-Priolo fault zone located 5.5 miles to the west. No active faults or Alquist-Priolo fault zones directly traverse the City including the Project site.

Unlike many nearby communities, Calistoga has experienced only minor effects from recent major earthquakes, most notably in 1989 with the 7.1 magnitude Loma Prieta earthquake, in 2000 with a 5.2 magnitude earthquake centered nearby in Yountville, and in 2014 with the 6.0 magnitude South Napa earthquake along the West Napa Fault.

Geotechnical Study Report

A Geotechnical Study was prepared by RGH Consultants analyzing the Project site conditions (**Appendix G**). The Project site is underlain by undifferentiated alluvial deposits, which are shown to consist of poorly to moderately sorted sand, silt, and gravel. The ground surface condition consists of weak, porous surface soil. Subsurface borings and laboratory tests found at least a portion of the site is blanketed by about two feet of weak, porous, compressible, clayey soil, which becomes weaker and compressible through higher moisture saturation, and exhibits high plasticity and moderate expansion potential. Clay and varying amounts of sand underlays these materials. Primary concerns identified in the Study include: 1) presence of two feet of weak, porous, compressible, moderately expansive clayey surface soil and potential presence of heterogeneous fill; 2) presence of soils susceptible to liquefaction and densification; 3) detrimental effects of uncontrolled surface runoff and groundwater seepage; and 4) strong ground shaking predicted to impact the site. The Geotechnical Study considered the site conditions and provided recommendations in seismic design, grading, foundation support, retaining walls, slabs on grade, utility trenches, paving, geotechnical drainage, and maintenance. The Study determined that the proposed improvements on the site can be built, provided the recommendations are incorporated into the design and construction.

Paleontological Resources

A paleontological resources search performed using the University of California Museum of Paleontology's (UCMP) database indicated no previous finds of paleontological resources on or in the immediate vicinity of the Project site.[18]

Geology and Soils Impact Discussion

5.7(a.i) (Fault Zones) No Impact: No evidence of active faults is found on the Project site. The City is not

[18] University of California Museum of Paleontology Database, https://ucmpdb.berkeley.edu/, accessed November 22, 2021.

located in an Alquist-Priolo Fault Earthquake Zone and therefore would not be at risk of surface fault rupture. Additionally, the Geotechnical Study indicated there were not observed landforms that suggest the presence of active faults. Given that the site is not within an Alquist-Priolo Earthquake Fault Zone, and no faults were observed onsite, there would be no impact due to fault rupture.

5.7(a. ii) (Ground-Shaking) Less Than Significant Impact with Mitigation: The Project site, as with the City as a whole, is located in the seismically active Bay Area region. The proximity of the City to the active faults in the region results in potential to expose people or structures to ground-shaking associated with earthquakes. The Geotechnical Study provides recommendations to minimize impacts from seismic hazards, including ground-shaking. Conformance with recommendations under the Geotechnical Study, incorporated under **Mitigation Measure GEO-1**, and building code regulations addressing seismic hazards will ensure that potential impacts from seismic shaking are less than significant. Therefore, potential impacts from ground shaking would be reduced to less than significant levels with mitigation.

5.7 (a. iii) (Seismic-Related Ground Failure/Liquefaction) Less Than Significant with Mitigation: Liquefaction is a phenomenon involving the rapid loss of shear strength as loosely-packed granular soils become saturated due to an increase in pore water pressure during strong ground shaking from an earthquake. Many factors lead to this occurrence, including the intensity and duration of ground shaking, particle size distribution, and soil density, and location of granular soil beneath the groundwater table. The Geotechnical Study encountered granular soil below the groundwater table and determined a potential for liquefaction.

Potential consequences of liquefaction include bearing capacity failure (sudden and extreme settlement of the foundation), lateral spreading (liquefiable soil extending to a free face), and settlement. The Geotechnical Study determined that bearing capacity failure is low due to the liquefiable layer's location eight feet below the ground surface, whereas the failure typically occurs when the liquefiable layer is relatively close to the bottom of the foundation. Lateral spreading impacts were judged to be low as the study found no significant free faces in the vicinity of the site. Settlement associated with a liquefaction event was estimated to range from ¼ to 3 ¼ inches.

To address liquefaction-related settlement and expansive soils, the structures are recommended to be supported on a rigid foundation system consisting of either a post-tension (PT) slab, mat slab, or gridded spread foundation. Slab-on-grade recommendations include treatment and work on the subgrade to reduce expansion potential. Site fill would be designed with low expansion potential, which may include imported fill and/or lime stabilization of expansive site soil. Procedures for application of fill are provided in the Geotechnical Study. Proposed structures would be required to incorporate seismic design parameters of the California Building Code.

Mitigation Measure GEO-1 requires that recommendations in the Geotechnical Study be incorporated into the Project design and implemented during construction or as otherwise approved by the City Engineer. Additionally, the foundation and structural design for the proposed buildings and improvements will be required to meet the latest building code regulations containing seismic safety standards. As such, potential impacts including the risk of loss, injury, or death involving seismic-related ground failure and liquefaction would be reduced to less than significant levels with mitigation.

5.7(a. iv) (Landslide) No Impact: The Project site is not located in an area with a risk of landslide. The site does not contain a steepness of slope that would lead to a landslide risk from seismic activity. Existing site elevation ranges from approximately 371 feet to 378 feet above sea level across the site. Additionally, the Geotechnical Study did not find large-scale slope instability at the site from published landslide maps (Dwyer, 1976) and did not observe active landslides. Therefore, there would be no impacts due to landslides occurring on the Project site.

5.7(b) (Soil Erosion) Less Than Significant Impact with Mitigation: Construction of the Project involves demolition, tree removal, and grading, which have potential to result in soil erosion or the loss of topsoil if not properly controlled. Soil erosion would be controlled through best management practices (BMPs) and adherence to an erosion and sedimental control plan, as required under Calistoga Municipal Code Chapter 19.05. Per the Code, erosion control BMPs may include, but are not limited to, scheduling and timing of grading activities, timely revegetation of graded areas, the use of hydroseed and hydraulic mulches, and installation of erosion control blankets. Sediment control may include properly sized detention basins, dams, or filters to reduce entry of suspended sediment into the storm drain system and watercourses, and installation of construction entrances to prevent tracking of sediment onto adjacent streets. **Mitigation Measure GEO-2** requires the Applicant to submit an erosion control plan that will be implemented during construction activities and demonstrate compliance with the City's stormwater runoff pollution control requirements. Potentially significant impacts from erosion and loss of topsoil will be reduced to less than significant levels with implementation of measure GEO-2.

5.7(c) (Unstable Geologic Unit) Less Than Significant with Mitigation: The Geotechnical Study identified several primary geotechnical concerns for development, which can be addressed through implementation of recommendations provided in the report. Lateral spreading and landslides are not found to be issues on the site. The existing soil conditions were identified as a concern, as the composition may be susceptible to liquefaction and densification under current conditions. With implementation of the recommended design and treatment of soils for fill and the specifications for foundations, the Geotechnical Study determined the Project as proposed would not be adversely affected due to unstable geologic conditions. Adherence to the recommendations identified in the Geotechnical Study are imposed through **Mitigation Measure GEO-1**. Therefore, potential impacts related to unstable geologic units or soils will be reduced to less than significant with mitigation.

5.7(d) (Expansive Soils) Less than Significant Impact with Mitigation: The Geotechnical Study considered expansive soils on the Project site, which shrinks and swells with variations in moisture level. Changes in soil moisture can compromise the integrity of foundations, retaining walls and slab-on-grade improvements from differential movements. The Study recommended a foundation support obtained from a rigid foundation system due to the potential for liquefaction in conjunction with the effects of expansive soil. Additionally, the Study provided recommendations for the treatment of fill to minimize the impacts of differential settlement due to expansive soil conditions. The Project would be required to implement the recommendations of the Geotechnical Study Report, as imposed by **Mitigation Measure GEO-1**, which would minimize the potential impacts of expansive soils through design and soil treatment procedures. Therefore, potential impacts from expansive soils onsite would be less than significant with implementation of mitigation measure GEO-1.

5.7(e) (Septic Tanks) No Impact: The Project does not propose onsite septic tanks or alternative wastewater treatment facilities. Proposed wastewater lines in the development would connect the City's municipal sanitary sewer system. Therefore, there would be no impacts due to septic tanks or alternative wastewater treatment facilities.

5.7(f) (Paleontological Resource): Less than Significant Impact with Mitigation: The Calistoga General Plan did not identify the presence of any paleontological or unique geological resources within the boundaries of the City Limits. Additionally, a search performed using the University of California Museum of Paleontology's (UCMP) database indicated no previous finds of paleontological resources on or in the immediate vicinity of the Project site. Nevertheless, there remains a potential for inadvertent discovery of paleontological or unique geological resources. As such, the Project shall be subject to **Mitigation Measure GEO-3**, which sets procedures to be followed in the event of a paleontological discovery. Therefore, potential impacts to paleontological resources, if encountered onsite, would be reduced to less than significant levels with the implementation of mitigation measure GEO-3.

Mitigation Measures:

GEO-1: The Project applicant shall implement and comply with all applicable recommendations in the Geotechnical Study Report (RGH Consultants) prepared for the subject property, including seismic design for structures foundation support, retaining walls, slab-on-grade, utility trenches, pavement, geotechnical drainage, and maintenance. Final grading plan, construction plans, and building plans shall demonstrate that recommendations set forth in the geotechnical report have been incorporated into the design of the Project and to the satisfaction of the City of Calistoga's Civil Engineer.

GEO-2: Prior to issuance of a grading permit, an erosion control plan along with grading and drainage plans shall be submitted to the City's Planning and Building Department. All earthwork, grading, trenching, backfilling, and compaction operations shall be conducted in accordance with the City of Calistoga's Stormwater Runoff Pollution Control Ordinance, Chapter 19.05 of the City's Municipal Code. The erosion control plan shall detail erosion control measures such as site watering, sediment capture, equipment staging and laydown pad, and other erosion control measures to be implemented during construction activity on the project site.

GEO-3: In the event that paleontological resources, including individual fossils or assemblages of fossils, are encountered during construction activities all ground disturbing activities shall halt and a qualified paleontologist shall be procured to evaluate the discovery and make treatment recommendations. The Project applicant shall implement and comply with the recommendations of the paleontologist.

5.8. GREENHOUSE GAS EMISSIONS

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Sources: City of Calistoga General Plan, as amended; 2003 General Plan EIR; BAAQMD 2017 Bay Area Clean Air Plan; BAAQMD CEQA Guidelines 2017; Calistoga Climate Action Plan, adopted by City Council on April 1, 2014; and Air Quality and Greenhouse Gas Analysis, prepared by Kimley-Horn, May 2021.

Greenhouse Gas Setting

Greenhouse gases (GHGs) are generated from natural geological and biological processes and through human activities including the combustion of fossil fuels and industrial and agricultural processes. GHGs include carbon dioxide (CO_2), nitrous oxide (N_2O), methane (CH_3), chlorofluorocarbons, hydrofluorocarbons, and perfluorocarbons.

While GHGs are emitted locally, they have global implications. GHGs trap heat in the atmosphere, which warms up the surface of the Earth. This concept is known as global warming and is contributing to climate change. Changing climatic conditions pose several potential adverse impacts including sea level rise, increased risk of wildfires, degraded ecological systems, deteriorated public health, and decreased water supplies.

To address GHGs at the State level, the California legislature passed the California Global Warming Solutions Act in 2006 (Assembly Bill 32), which requires that statewide GHG emissions be reduced to 1990 levels by 2020. Executive Order S-3-05 provides the California Environmental Protection Agency with the regulatory authority to coordinate the State's effort to achieve GHG reduction targets and calls for an 80 percent reduction below 1990 levels by 2050. SB 32 and Executive Order B-30-15 extended the goals of AB 32, setting GHG reduction target at 40 percent of 1990 levels by 2030. Senate Bill 375 has also been adopted, which seeks to curb GHGs by reducing urban sprawl and vehicle miles traveled.

The BAAQMD CEQA Air Quality Guidelines, established in May 2010[19] and updated in May 2017, include thresholds of significance for greenhouse gas emission. The City of Calistoga recognizes these thresholds represent the best available scientific data and has elected to rely on BAAQMD Guidelines in determining screening levels and significance. Based on the BAAQMD Guidelines, a Project is considered to have a less than significant impact due to GHG emissions if it:

1. Complies with an adopted Qualified GHG Reduction Strategy;
2. Emits less than 1,100 metric tons (MT) CO2e per year; or
3. Emits less than 4.6 MT CO2e per service population per year (residents and employees).

[19] Adopted by Board of Directors of the BAAQMD in June 2010 (Resolution No. 2010-6).

The City of Calistoga Climate Action Plan (CAP) was adopted by City Council in April 2014. Community-wide GHG emissions from 2010 are identified in the City's CAP. The analysis includes an evaluation of four major sectors: transportation, built environment, solid waste, and water/wastewater. The total GHG emissions in 2010 were 33,579 metric tons of carbon dioxide equivalence (CO2e). Transportation was the largest contributor of emissions (54.5%), followed by residential uses (22.6%), and commercial/industrial uses (19.7%).[20] The City's CAP seeks to reduce GHG emission through various means and presents goals, objectives and measures targeting transportation, energy efficiency and renewable energy, carbon sequestration, and community engagement and advocacy. The City's CAP is not considered a qualified GHG Reduction Strategy pursuant to the BAAQMD Guidelines, as such emission metric thresholds set forth in the BAAQMD Guidelines are used to assess significance.

Greenhouse gas emissions generated by the proposed Project were evaluated in the Air Quality & Greenhouse Gas Analysis prepared by Kimley-Horn (**Appendix B)**. Analysis of greenhouse gases generated by the Project determined that emissions are well below BAAQMD thresholds of 1,100 metric tons or 4.6 metric tons per capita as further described below.

Greenhouse Gas Emissions Impacts Discussion

5.8(a-b) (Significant GHG Emissions and Conflict with GHG Plan) Less Than Significant Impact: The Project would result in the generation and emission of greenhouse gas (GHG) emissions during construction and at operation, however the GHGs generated by the Project are estimated to be below levels that would have potentially significant impacts.

Construction would result in GHG emissions from heavy-duty construction equipment, worker trips, and material delivery and hauling. GHG emissions generated during construction activities are short-term and would cease once construction is complete. The BAAQMD has not established thresholds of significance for GHG emissions resulting from construction activities. Rather, BAAQMD encourages the incorporation of best management practices (BMP) to minimize air pollutant emissions and reduce GHG emissions during construction. Implementation of BAAQMD BMPs would be required, as provided under mitigation measure AQ-1, which would minimize GHG emission during construction. Since the project would generate emissions below GHG thresholds, impacts from construction activities will be less than significant.

The California Emissions Estimator Model (CalEEMod) Version 2016.3.2 was used to predict GHG emissions from construction and at full operation of the proposed Project. CalEEMod provides GHG emission Projections for transportation, area sources, electricity consumption, natural gas combustion, electricity usage associated with water use and wastewater discharge, and solid waste disposal. As shown in Table 4 below, the calculated amortized construction and operational GHG emissions are Projected to result in 194 MT CO2e per year, which is well below the threshold.

TABLE 4: GHG EMISSIONS
(CO_2E IN METRIC TONS PER YEAR)

Source	$MTCO_2e$ per Year
Operational Emissions	
Area Source	2
Energy	32
Mobile	131

[20] Calistoga Climate Action Plan, April 2014, Page 18.

Waste	9
Water and Wastewater	2
Operations Subtotal	176
Construction Emissions	
Construction Amortized Over 30 Years	18
Construction Subtotal	18
Total	**194**
Threshold	1,100
Exceeds Threshold?	**No**

Source: Air Quality & GHG Assessment, prepared by Kimley-Horn, May 2021.

The Project is consistent with the Projected development and policies that would minimize greenhouse gas emissions. The proposed infill residential Project is consistent with the General Plan policy to focus development in existing areas rather than at the City's periphery, which can reduce vehicle miles traveled and places the Project in closer proximity to existing goods and services. The Project is consistent with the following policies set forth in the City's Climate Action Plan including: 1) maximizing energy and water conservation (Objective EE-1) through compliance with latest building code and water efficiency landscaping requirements; 2) conserving water to minimize the energy needed for water treatment and transmission (Objective EE-2); 3) installing replacement native tree plantings to offset the removal of trees (Measure CS-1 B); 4) installing street trees along the new private drive (Measure CS-1 C); and 5) maintaining a 25-foot development preclusion buffer from the drainage feature onsite (Measure CS-1 B). As a new development, the Project would be constructed with the latest energy efficiency standards and green building requirements under the California Building Code and would implement energy efficient features that would contribute to GHG reduction goals.

As the Project would be well below GHG emissions thresholds and is compatible with policies of the General Plan and Climate Action Plan, the Project would result in less than significant impacts.

Mitigation Measures: None Required.

5.9. HAZARDS/HAZARDOUS MATERIALS

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the Project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

Sources: City of Calistoga General Plan, as amended; 2003 General Plan EIR; EnviroStor and GeoTracker Databases, accessed November 22, 2021; Phase I Environmental Site Assessment, prepared by AdvancedGeo, September 25, 2020.

Hazardous Material Setting

The California Department of Toxic Substances Control (DTSC) defines a hazardous material as: "a substance or combination of substances that, because of its quantity, concentration or physical, chemical, or infectious characteristics, may either: 1) cause, or significantly contribute to an increase in mortality or an increase in serious, irreversible, or incapacitating illness; or 2) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise

managed." Regulations governing the use, management, handling, transportation and disposal of hazardous waste and materials are administered by Federal, State, and local governmental agencies. Pursuant to the Planning and Zoning Law, DTSC maintains a hazardous waste and substances site list, also known as the "Cortese List."

Title 22 of the California Code of Regulations (CCR), Division 4.5 Environmental Health Standards for the Management of Hazardous Waste, defines hazardous and special waste, identifies federal and state hazardous waste criteria, and regulates the storage, transportation, and disposal of waste. Title 22 was created to regulate the hazardous wastes generated by factories or similar sources, but soil excavated during construction may also be regulated.

Title 23 of the CCR, Division 3 State Water Resources Control Board (SWRCB) and Regional Water Quality Control Board (RWQCB), Chapter 16 California Underground Storage Tank Regulations, contains design, construction, and monitoring requirements for new underground storage tanks.

Hazardous waste management in Calistoga is administered by the Napa County Department of Environmental Management (DEM) through the Certified Uniform Program Agency (CUPA). The CUPA program oversees five hazardous materials programs: Hazardous Materials Management Plans (HMMP) program, California Accidental Release Prevention (CalARP) program, underground storage tank (UST) programs, aboveground storage tank (AST) programs, and hazardous waste generation and disposal.

The California Department of Industrial Relations, Division of Occupational Safety and Health (DOSH) (formerly known as Cal/OSHA), is charged with enforcement of state regulation and the supervision of workplaces in California that are not under direct federal jurisdiction. State worker health and safety regulation applicable to construction workers include training requirements for hazardous waste operation and emergency response.

A Phase I Environmental Site Assessment (ESA) was conducted for the Project site in September 2020, in accordance with the American Society for Testing and Materials (ASTM) Standard Practice E1527-13 (**Appendix H**). The Phase I ESA discusses the Business Environmental Risks, Recognized Environmental Conditions (RECs), Controlled Recognized Environmental Conditions (CRECs), Historical Recognized Environmental Conditions (HRECs), and environmental issues that may pertain to the Project site. The Phase I ESA did not identify RECs, CRECs, or HRECs during the course of the assessment. For Business Environmental Risks, there is a potential that asbestos-containing materials (ACM) and/or lead based paint (LBP) are present within existing buildings onsite. The ESA recommends full asbestos and lead paint surveys be performed by a licensed contractor prior to demolition.

The California Department of Forestry and Fire Protection (CAL FIRE) is required by law to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. CAL FIRE's Statewide and County maps (adopted November 2007) depict Fire Hazard Severity Zones (FHSZs)[21] that are within the State Responsibility Area (SRA). The SRA is the area of the state where the State of California is financially responsible for the prevention and suppression of wildfires. The SRA does not include lands within city boundaries or in federal ownership. The FHSZs in the SRA are further classified as being Moderate, High, or Very High.

In addition, CAL FIRE has prepared and transmitted recommendations for Very High FHSZs in those areas where local governments have financial responsibility for wildland fire protection, known as Local

[21] The FHSZs identify fire hazard, not fire risk. "Hazard" is based on the physical conditions that give a likelihood that an area would burn over a 30 to 50-year period without considering modifications such as fuel reduction efforts. "Risk" is the potential damage a fire can cause to the area under existing conditions, including any modifications such as defensible space, irrigation and sprinklers, and ignition resistant building construction which can reduce fire risk.

Responsibility Areas (LRA). Only lands zoned as Very High FHSZ are identified within the LRA. Most of the City of Calistoga, including the Project site, is categorized as Non-VHFHZ.[22] With the exception of a few parcels, the entire area south of Foothill Boulevard within the City limits is categorized as a "Very High Fire Hazard Severity Zone" by CAL FIRE.

Hazards/Hazardous Materials Impact Discussion

5.9(a, b) (Routine Transport, Upset and Accidental Release) Less Than Significant Impact with Mitigation: Site preparation and construction activities would result in the temporary presence of potentially-hazardous materials including, but not limited to fuels and lubricants, paints, solvents, insulation, electrical wiring, and other construction-related materials. Although these potentially-hazardous materials may be present onsite during construction, the applicant/contractor is required to comply with all existing federal, state, and local safety regulations governing the transportation, use, handling, storage, and disposal of potentially hazardous materials. Additionally, prior to the commencement of site preparation, a Storm Water Pollution Prevention Plan (SWPPP) that identifies Best Management Practices (BMPs) will be prepared and implemented during all construction activities in accordance with the City's Municipal Code Chapter 19.05 Stormwater and Runoff Pollution Control requirements (Hydrology/Water Quality discussion below). BMPs include measures to prevent spills and require onsite materials for cleanup. The applicant/contractor is required to comply with all federal and state regulations as overseen by Napa County's CUPA. Therefore, the impact of hazards to the public or the environment through the routine transport, use, or disposal of hazardous materials from the proposed Project would be less than significant.

As described in the Phase I ESA, asbestos-containing materials (ACMs) and lead-based paints (LBPs) may be present in existing structures onsite. Disturbance to ACMs or LBP during demolition activities has the potential to result in impacts to construction workers or the environment if not properly treated and removed. The ESA recommends full asbestos and lead paint surveys prior to demolition, which has been imposed as **Mitigation Measure HAZ-1** to confirm that asbestos and lead based paints are not present. Where such materials may be present, work on and disposal of such material shall be conducted in compliance with all federal, state, and local requirements. Site preparation and demolition activities involve removal of debris and material presently onsite. Hauling and disposal would be conducted in a manner consistent with waste disposal requirements including proper disposal for all contaminated materials including materials impacted by asbestos and lead-based paint. Therefore, potential impacts during construction would be reduced to less than significant levels with implementation of Measure HAZ-1.

At operation, the Project may include the storage and use of certain chemicals typical of household uses. These may include cleaning solvents for household maintenance, fuels and chemicals for automobile maintenance, and pesticides for landscaping purposes. These household chemicals are routinely used by single-family residential properties and would not present a significant hazard. Therefore, use of household products at operation would result in less than significant impacts.

5.8(c) (Emit or Handle Hazardous Materials Within ¼ Mile of School) Less Than Significant Impact: The Project would not result in the emission of hazardous materials within a quarter mile of a school. The site is located approximately 1,600 feet (more than ¼ mile) west of the Calistoga Junior-Senior High Scholl. Sattui Preschool is located approximately 1,300 feet from the Project site (less than ¼ mile), and is separated from the site by Grant Street, Mount Saint Helena Golf Course, and the Calistoga Fairgrounds. The proposed development consists of single-family residential uses, which are not associated with production, storage, and handlining of hazardous materials and waste in their operations. During construction, hazardous materials such as paints, fuels, solvents, and other construction materials may be present on the construction site. The

[22] CAL FIRE Very High Fire Hazard Severity Zones Map in LRA for Calistoga, Adopted September 23, 2008, http://www.fire.ca.gov/fire_prevention/fhsz_maps/FHSZ/napa/Calistoga.pdf, accessed January 24, 2018.

Project is required to comply with all existing federal, state, and local safety regulations governing the transportation, use, handling, storage, and disposal of potentially hazardous materials. Any such materials would be removed from the site after completion of construction activities. There are no activities associated with the proposed Project that would pose a threat to schools from the release or handling of hazardous materials.

Adherence to existing federal, state, and local regulations would ensure that all potentially-hazardous materials onsite during construction and at operation are properly labeled, transported, and stored. Established policies and programs set forth by the EPA, DTSC, CAL/OSHA and other regulatory agencies provide that the presence of potential hazardous materials occur in the safest possible manner by reducing the opportunity for accidental release or spills and ensuring that a response plan is in place. As the Certified Unified Program Agency (CUPA), the Napa County DEM regulates hazardous materials including fuel storage. The proposed Project is required to adhere to local, state, and federal regulations regarding the storage and use of hazardous materials. Therefore, impacts related to the emission or handling of hazardous materials within a quarter mile of a school would be less than significant.

5.9(d) (Existing Hazardous Material Sites) Less Than Significant Impact: The California Environmental Protection Agency (CAL-EPA) annually updates the California Hazardous Waste and Substances Site List (also known as the "Cortese List"). A search of EnviroStor[23], performed on November 22, 2021, showed no active cleanup sites at the Project site or in its immediate vicinity. A search of Geotracker[24], performed on November 22, 2021, showed no open "Leaking Underground Storage Tank (LUST) Cleanup Sites" and no open "Cleanup Program Sites" at the Project site or in its immediate vicinity.

The Phase I Environmental Site Assessment for the property found no evidence of Historically Recognized Environmental/Conditions (HRECs), Controlled Recognized Environmental Conditions (CRECs), and Recognized Environmental Conditions (RECs). Therefore, construction of the Project would result in less than significant impacts since the Project site is not considered an existing hazardous materials site.

5.9(e) (Airport Land Use Plans) No Impact: The site is not located within the boundaries of an airport land use plan or in close proximity to a private airstrip. The nearest airport is the Angwin Airport, Virgil O. Parrett Field, located approximately eight miles east of the Project site. Therefore, the Project would have no impacts associated with airport-related hazards.

5.9(f) (Impair Emergency Response Plan) No Impact: The Project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. California has developed an emergency response plan to coordinate emergency services by federal, state, and local government, including responding to hazardous materials incidents. The State Office of Emergency Services employs a Hazardous Materials Division, which enforces multiple programs that address hazardous materials. Napa County has prepared the Concept of Operations Base Plan (CONPLAN), which establishes the Napa County Health and Human Services Agency emergency organization and provides for coordination of planning efforts using emergency and incident management systems. CONPLAN establishes the policies and procedures for coordinating medical, communication, and recovery operations during events that may overwhelm the day-to-day agency resources, including major natural hazard events and hazardous materials releases. There are no aspects of the proposed Project that would interfere with an adopted emergency or evacuation plan. Therefore, the Project will have no impact due to a conflict with emergency response.

[23] The Department of Toxic Substances Control's data management system for tracking its cleanup, permitting, enforcement and investigation efforts at hazardous waste facilities and sites with known contamination or sites where there may be reasons to investigate further. https://www.envirostor.dtsc.ca.gov/public/, accessed November 22, 2021.

[24] The State Water Resources Control Board's data management system for sites that impact, or have the potential to impact, water quality in California. https://geotracker.waterboards.ca.gov/, accessed November 22, 2021.

5.9(g) (Wildland Fire Hazards) Less Than Significant Impact: Wildland fires are of concern particularly in expansive areas of native vegetation of brush, woodland, and grassland areas. The Project site is largely surrounded by established residential development and roadways and is not adjacent to a wildland urban interface area. The Project site is characterized as a Non-VHFHZ by CAL FIRE, surrounded by land designated as Non-VHFHZ on all sides, and is and not located in a Very High Fire Hazard Severity Zone. Based on the site's location outside of a designated fire hazard zone and the proximity of the site to existing fire stations, impacts related to the exposure of people or structures to a significant risk of loss, injury, or death involving wildland fires is considered less than significant.

The City of Calistoga Fire Department is responsible for protecting life, property, and the environment from fire. The Fire Department responds to calls including structural, wildland, and other fires. The City operates one fire station, located approximately 500 feet from the Project site, which provides timely response. The Project would not increase risk of exposure due to wildland fire hazards. Therefore, impacts related to the exposure of people or structures to a significant risk of loss, injury or death involving wildland fires will be less than significant.

Mitigation Measures:

HAZ-1: Prior to any activities involving the demolition of the existing buildings onsite, an asbestos survey adhering to sampling protocols outlined by the Asbestos Hazard Emergency Response Act (AHERA) and material sampling to determine lead-based paint presence shall be performed. Construction activities that disturb materials or paints containing any amount of lead and/or friable asbestos shall be subject to requirements of the Occupational Safety and Health Administration (OSHA) lead standard contained in 29 CFR 1910.1025 and 1926.62, AHERA requirements, and any other local, state, or federal regulations. In the event that such substances are found, the applicant will adhere to all requirements put forth by OSHA and other agencies regarding the treatment, handling, and disposal of these materials. The Project shall comply with all federal, state, and local regulations when conducting work on buildings and structures involving asbestos and lead paints. The applicant shall submit results of the surveys and/or evidence of proper disposal to the Calistoga Planning and Building Department.

5.10. HYDROLOGY AND WATER QUALITY

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☒	☐	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the Project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern on the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would:				
i. Result in substantial erosion or siltation on- or off-site;	☐	☒	☐	☐
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☒	☐	☐
iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv. impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Sources: City of Calistoga General Plan, as amended; 2003 General Plan EIR; Storm Water Control Plan for a Regulated Project 2008 Grant Street, prepared by Carlson, Barbee & Gibson, Inc, April 2021; and California Dam Breach Inundation Maps, Department of Water Resources (DWR), accessed November 16, 2021.

Hydrology and Water Quality Setting

The Project site is located within the Napa River watershed, which encompasses an area of approximately 426 square miles. The Napa River watershed is contained by Mt. St. Helena to the north, the Mayacamas Mountains to the west, Howell Mountain, Atlas Peak, and Mt. George to the east, and the Napa-Sonoma Marsh

to the south. The Napa River travels through the center of the watershed on the valley floor, draining numerous tributaries along 55 miles from the headwaters of the Napa River near Mt. St. Helena to the San Pablo Bay.

Flooding

The Napa County Flood Control and Water District (District) manages flood control facilities throughout the County. The District is responsible for structural repairs to culverts and spillways, grading and reshaping channels, and debris removal to maintain hydraulic capacity of all waterways. The City of Calistoga Planning and Building Director regulates flooding under Title 18 (Floodplain Management) of the City's Municipal Code.

The Federal Emergency Management Agency's (FEMA's) National Flood Insurance Program is intended to encourage State and local governments to adopt responsible floodplain management programs and flood measures. As part of the program, FEMA defines floodplain and floodway boundaries that are shown on the Flood Insurance Rate Maps (FIRMs). The Project site is located in FEMA Zone X, Other Areas, as delineated on map numbered 06055C0229E.[25] This area is considered to be outside the 100- and 500-year floodplain with a minimal flood hazard risk.

Water Quality

Surface water quality is regulated by the San Francisco Bay RWQCB (Region 2) via the Water Quality Control Plan for the San Francisco Bay Region (Basin Plan). The RWQCB is responsible for implementing Section 401 of the Clean Water Act through the issuance of a 401 Water Quality Certification when development includes potential impacts to jurisdictional areas such as creeks, wetlands, or other Waters of the State.

Dischargers whose Projects disturb one or more acres of soil, or whose Projects disturb less than one acre, but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity Construction General Permit Order 2009-0009-DWQ from the State Water Resources Control Board.[26] Construction activities subject to this permit includes clearing, grading and disturbances to the ground such as stockpiling, or excavation. The Construction General Permit requires the development of a Storm Water Pollution Prevention Plan (SWPPP).

The proposed Project will be subject to the National Pollution Discharge Elimination System (NPDES) General Permit No. CAS000002 for Discharges of Storm Water Runoff Associated with Construction Activity (General Permit). Construction activities on more than one acre are subject to NPDES permitting requirements including the preparation of a SWPPP. The SWPPP includes specifications for Best Management Practices (BMPs) to be implemented during construction activities to control potential discharge of pollutants from the construction area. Additionally, the SWPPP would describe measures to prevent pollutants in runoff after construction is complete and develops a plan for inspection and maintenance of the Project facilities.

Preliminary input received from the RWQCB indicates that the onsite drainage would be considered a water of the State that is subject to at least ephemeral flows. The RWQCB commented during early consultation that property development would likely require a Clean Water Act Section 401 Water Quality Certification to ensure that: (1) impacts to the onsite drainage are avoided/minimized and (2) post-construction stormwater management meets State water quality standards (e.g., LID measures to address hydromodification and pollutants in stormwater runoff, and trash capture).

[25] Flood Maps. FEMA. Accessed November 16, 2021. https://www.fema.gov/flood-maps

[26] State Water Resources Control Board, Construction General Permit Order 2009-0009-DWQ, as amended by Order 2010-0014-DWQ, and order 2012-00060DWQ NPDES General Permit No. CAS000002. http://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.shtml, Accessed February 10, 2020.

Groundwater

Calistoga is situated above the Napa Valley Subbasin as identified by the California Department of Water Resources Bulletin 118 Groundwater Basins published in 2018. The State of California adopted the Sustainable Groundwater Management Act (SGMA) in 2014 that called for the creation of local Groundwater Sustainability Agencies to develop and implement Groundwater Sustainability Plans for the long-term management of a healthy and functioning groundwater resource. In 2019, the Napa County Groundwater Sustainability Agency was formed from representative government agencies to begin assessing baseline conditions, defining sustainability for the basin, and developing a groundwater sustainability plan. The Napa County GSA has been in the process of preparing a Groundwater Sustainability Plan (GSP) for the Napa Valley Subbasin, with a targeted submittal to the Department of Water Resources by January 31, 2022. Development of the Groundwater Sustainability Plan is an iterative process. Draft GSP Sections are available for review on the County of Napa's Groundwater Agency webpage. Groundwater sustainability issues and draft GSP sections are periodically presented to the Groundwater Sustainability Plan Advisory Committee and the public for discussion and refinement.[27]

Stormwater Runoff

The City's Stormwater Runoff Pollution Control Ordinance (Chapter 19.05 of the City's Municipal Code) regulates stormwater runoff. Sections 19.05.090 (C) through (E) of the City's Municipal Code address development and redevelopment activities, stormwater control plan requirements, and ground disturbing activities. Low Impact Development (LID) requirements establish limitations on the stormwater runoff generated from development sites. New development is required to mimic pre-developed conditions, protect water quality, and retain runoff from impervious surfaces onsite and discharge in a manner consistent with historic flow rates.

A Preliminary Storm Water Control Plan for the Project was prepared by Carlson, Barbee & Gibson, Inc (**Appendix I**). The Project's stormwater infrastructure is designed to accommodate Low Impact Development (LID) treatment measures and incorporate the Bay Area Stormwater Management Agencies Association (BASMAA) stormwater regulations and design guidelines. The post-construction flowrate of stormwater would not exceed the pre-construction flowrate.

Hydrology and Water Quality Impact Discussion

5.10(a) (Violations of Water Quality Standards) Less Than Significant with Mitigation: Construction activities associated with site development have the potential to result in runoff that contains sediment and other pollutants that could degrade water quality if not properly controlled. Sources of potential pollution associated with construction include fuel, grease, oil, and other fluids, concrete material, sediment, and litter. The Project is required to adhere to NPDES requirements to control runoff, including the preparation and implementation of a SWPPP and compliance with the RWQCB Waste Discharge Requirements. Erosion control requirements are stipulated in the NPDES Permit issued by the Water Resources Control Board. These requirements include the preparation and implementation of a SWPPP that contains BMPs. The purpose of the SWPPP is to identify potential sediment sources and other pollutants and prescribe BMPs to ensure that potential adverse erosion, siltation, and contamination impacts would not occur during construction activities. BMPs at construction may include but are not limited to fiber roll protection at all drains, gravel at access driveways, designated washout areas, and hazardous spill prevention plans. Compliance with NPDES requirements is a standard condition imposed on development activities, including the subject Project. To ensure compliance with NPDES, **Mitigation Measure HYDRO-1** set forth below requires the preparation and implementation of a SWPPP during all construction activities.

[27] https://www.countyofnapa.org/3218/Draft-GSP-Sections-Surveys

Groundwater may be encountered during construction and require dewatering and discharge. The discharge of construction dewatering could result in increased sediment loads to the storm drain system if uncontrolled. **Mitigation Measure HYDRO-2** requires the Project to comply with waste discharge requirements specified by the RWQCB, including the reuse of dewaters onsite, allowing settlement of sediment to occur prior to release, and other BMPs.

The RWQCB has adopted water quality objectives in its Stormwater Quality Management Plan, which is designed to ensure that stormwater achieves compliance with receiving water limitations. The City has adopted a Stormwater Runoff Pollution Control Ordinance (Chapter 19.05 of the City's Municipal Code) to ensure new developments comply with the Stormwater Quality Management Plan. Consistent with the City's Municipal Code, the Project is subject to implementation of an Erosion and Sediment Control Plan. Erosion Control, a SWPPP, and design in accordance with BASMAA standards prevent sedimentation and discharges of construction-related pollutants to the storm drain system and the Napa River and post-construction stormwater impacts.

As a residential subdivision within the City of Calistoga, the Project would contribute typical, urban, nonpoint-source pollutants to stormwater runoff at operation. The Project has prepared a preliminary stormwater control plan that identifies low impact development, drainage management areas, source control measures, and stormwater facility maintenance for treatment of stormwater runoff from impervious surfaces introduced by the Project. To ensure that post construction stormwater impacts are avoided, **Mitigation Measure HYDRO-3** shall be implemented, which requires the preparation of a final stormwater control plan to be accepted by the City, implementation of all provisions therein, and ongoing maintenance for the life of the Project to all stormwater treatment and flow-control facilities.

Adherence to an approved Storm Water Control Plan, implementation of a SWPPP and erosion control plan during construction activities and following protocol for groundwater dewatering if encountered during construction, would ensure that water quality standards and waste discharge requirements are met. Therefore, with implementation of mitigation measures HYDRO-1 through HYDRO-3, the Project would not violate any water quality standards or waste discharge requirements and impacts would be reduced to less than significant levels.

5.10(b) (Groundwater Supply and Recharge) Less Than Significant Impact: The Project would be served by the City's potable water system. The system does not use groundwater as a source. The Project does not involve the extraction or use of groundwater. An existing well is located on the site, which would be abandoned as part of the Project. Groundwater reserves would not be depleted by the Project as groundwater extraction is not proposed as part of the use. The Project involves new impervious surfaces from paving and structures; however, the site contains landscaping, bio-retention, and open space areas across the site and retains a 25-foot buffer area from the drainage ditch, which would continue to support surface water flows and allow for percolation. As such, the Project would not substantially alter potential recharge of groundwater onsite or other affect groundwater reserve. Therefore, the Project will have less than significant impacts to groundwater supplies and recharge.

5.10(ci-ii) (Alter Drainage Pattern and Exceed Runoff Rate) Less Than Significant Impact with Mitigation: The proposed Project would not substantially alter the drainage pattern onsite. Current runoff characteristics on the site feature some changes as a result of the proposed grading, impervious surfaces, bioretention, landscaping areas, and infrastructure. The existing drainage feature onsite would be retained and a 25-foot setback from the top of bank established, which precludes development including the introduction of impervious surfaces. Existing outfalls from adjacent properties to the drainage feature would largely be retained. Stormwater runoff from impervious surfaces introduced by the Project including, new hardscape surfaces, buildings, and roads, would be collected conveyed to bioretention area for pretreatment prior to discharging to new storm drain infrastructures installed on the Project site. New storm drains onsite

would convey runoff to existing storm drain facilities in the Project site vicinity. Stormwater management has been considered in the Project's preliminary stormwater control plan, which provides recommendations for Best Management Practices based on BASMAA Post-Construction Manual – Design Guidance for Stormwater Treatment and Control.

The Project would not increase the rate or amount of run-off in a manner that would result in on- or off-site flooding, and it does not impede or redirect flows in a manner that would create a significant impact. While the Project introduces new impervious surfaces onsite, the site has been designed based on current standards that direct runoff to bio-retention facilities, self-treating landscaping areas, and stormwater drainage infrastructure onsite to focus runoff away from adjacent properties and direct flows towards facilities capable of receiving and conveying runoff.

The Project introduces a 42-inch storm drain line extending from the northwest corner of the site, down Redwood Avenue, and connecting to the existing 54-inch storm drain along Grant Street; 6-inch and 24-inch storm drain lines tie in from bioretention and landscaping areas to the 42-inch storm drain line along Redwood Avenue. A Final Stormwater Control Plan, required through **Mitigation Measure HYDRO-3**, would ensure that the proposed Project would not substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site. Therefore, with implementation of measure HYDRO-3 potential impacts to the drainage pattern and runoff volumes would be reduced to less than significant levels.

5.10(ciii-iv) (Storm Drain Capacity and Flood Flows) Less Than Significant Impact: The City is served by an existing storm drain system, and the City Engineering Division confirms infrastructure capacity for new developments. Recent improvements have been made to the drainage system in the Grant Street drainage Project between Maggie Street and Michael Way to address long-standing flooding issues, per the 2020 Infrastructure Element. Drainage improvements in 2018 included replacement of a 36-inch drain pipe bottleneck under the fairgrounds race track with a dual 48-inch drain pipe (equivalent to a single 60-inch diameter pipe). As new development has the potential to incrementally increase the use of storm drains, the City has established development impact fees for new developments to contribute to any needed new or expanded infrastructure. Payment of development impact fees, as well as review of final drainage plans, is a requirement in the building permit process. Development impacts fees are used to maintain and expand the City storm drain system as warranted. The Project is consistent with the development potential analyzed in the General Plan, includes storm drain infrastructure onsite with connections to the existing storm drain system, and is subject to impact fees. Furthermore, the Project's Preliminary Stormwater Management demonstrates compliance with application regulations and would be subject to review and acceptance by the City Engineer prior to issuance of a grading permit. Therefore, impacts to the storm drain system and runoff as a result of the proposed Project would be less than significant.

5.9(d) (Flood Hazard, Seiche, Tsunami, Mudflow) No Impact: The Project site is located in Zone X, based on FEMA's FIRM Panel 06055C0229E, which indicates minimal flood hazard. The site is located approximately 2,000 feet from the Napa River and outside of any immediate flood hazard zone resulting from overbank flooding from the river. As the Project would not place housing within a 100-year flood hazard area or create significant risk of flooding, the Project would have no impacts related to flood hazards.

The site is not located within an area that could be affected by seiche, tsunami, or mudflow. There are no large bodies of water in the immediate vicinity that may result in seiches. The City is not located within a tsunami inundation map area, according to the Department of Conservation. The Project and its surroundings are located in a developed context absent of steep slopes, as a result there is no impact from mudflows. The failure of Kimball Creek dam may have risks of temporary inundation flooding to the City of Calistoga. However, based on Dam Inundation Maps from the California Division of Safety of Dams, the Project is outside

the boundary of the Kimball Creek Dam Failure Inundation Scenario.[28] The site is located approximately 1,800 feet away from an area that may be affected by dam failure inundation. Other nearby reservoirs (Araujo Reservoir 1 and 2) have dam inundation areas that are outside of City limits. Therefore, there will be no impacts from flood hazards and inundation related to seiche, tsunami, or mudflow.

5.10(e) (Conflict with Water Quality or Groundwater Plan) Less Than Significant Impact: The Project would not conflict with a water quality control plan or a sustainable groundwater management plan. During construction, implementation of the Project's SWPPP and erosion control plan would prevent water quality impacts. During operation, the Project's SWCP including bio-retention basins and LID strategies would minimize runoff, reduce sedimentation, and protect water quality. Therefore, the Project would have less than significant impacts regarding conflicts with a water quality plan.

The Project does not involve the extraction of groundwater, nor does it interfere with groundwater recharge. Therefore, potential impacts due to a conflict with a Groundwater Plan would be less than significant.

Mitigation Measures:

HYDRO-1: In accordance with the National Pollution Discharge Elimination System regulation, the applicant shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) prior to construction. The SWPPP shall address erosion and sediment controls, proper storage of fuels, temporary erosion control including fiber rolls, staked straw bales, geofabric, and sandbags, and identification for use and cleanup of hazardous materials. Sediment shall be retained onsite by a system of sediment basins, traps, or other appropriate measures. A Notice of Intent, fees, and other documentation shall be filed with the Regional Water Quality Control Board.

HYDRO-2: Should construction dewatering be required, the applicant shall either reuse the water onsite for dust control, compaction, or irrigation, retain the water onsite in a grassy or porous area to allow infiltration/evaporation, or obtain a permit to discharge construction water to a sanitary sewer or storm drain. Discharges to the sanitary sewer system shall require a one-time discharge permit from the City of Calistoga. Measures may include characterizing the discharge and ensuring filtering methods and monitoring to verify that the discharge is compliant with the City's local wastewater discharge requirements. Discharges to a storm drain shall be conducted in a manner that complies with the Regional Water Quality Control Board Waste Discharge Requirements for Low Threat Discharges to Surface Waters. In the event that groundwater is discharged to the storm drain system, the Applicant shall submit permit registration documents and develop a Best Management Practices/Pollution Prevention Plan to characterize the discharge and to identify specific BMPs, such as sediment and flow controls sufficient to prevent erosion and flooding downstream.

HYDRO-3: A final stormwater control plan shall be prepared by the applicant for review and approval by the City prior to issuance of a grading permit. The permanent and operational runoff pollutant source control BMPs included in the Project's final stormwater control plan shall be incorporated into construction plans and documents and implemented during construction and post construction. The Project's stormwater treatment and flow-control facilities shall be maintained in perpetuity.

[28] California Dam Breach Inundation Maps. Department of Water Resources (DWR), Division of Safety of Dams (DSOD). https://fmds.water.ca.gov/maps/damim/, accessed November 16, 2021.

5.11. LAND USE AND PLANNING

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☒	☐
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

Sources: City of Calistoga General Plan, as amended; 2003 General Plan EIR; 2014 Calistoga Active Transportation Plan; 2014 Climate Action Plan; and City of Calistoga Climate Action Plan, 2014.

Land Use and Planning Setting

The City of Calistoga covers a total of approximately 2.6 square miles. Approximately one fifth of the land within the city limits is covered by intensive agriculture and grazing land. Parks and public space are also established and identified uses within the city limits. More than half of the land within the city is developed and includes residential, commercial, industrial, and institutional uses.

The Project site is located within the central portion of the City of Calistoga and is regulated by the City of Calistoga General Plan and Zoning Ordinance. The site has a General Plan Land Use Designation of Medium Density Residential (**Figure 3: General Plan Land Use**) and a zoning designation of One Family Residential (**Figure 5: Zoning**).

The Project is subject to land use policies outlined in the Calistoga General Plan that have been adopted for the purpose of ensuring land use compatibility and avoiding or mitigating an environmental effect. The following goals, objective, and policies from the General Plan Elements (Community Identity, Land Use, and Open Space and Conservation) are particularly applicable to the Project:

2012 Community Identity Element

P1.1-1 New development should be sensitive to surrounding architecture, landscaping, character and scale of existing buildings.

P1.1-2 New development should use exterior materials that have traditionally been used in Calistoga.

P.1.3-1 All residential development shall protect the character of established neighborhoods in which the development is located.

P.1.3-3 All new development in residential areas shall be subject to design review.

Land Use Element 2015

P2.1-1 All new development in the city shall comply with the policies of the individual land use designations in Section C of this Land Use Element.

P3.1-1 New development shall be focused within the existing developed areas, and not at the city's periphery.

P3.1-3 The approval of all development Projects shall be coordinated with the provision of infrastructure and public services required to meet the needs of the development.

Open Space and Conservation

P1.1-1 When reviewing development proposals the City should include assessment of impacts on both individual species and overall biodiversity within the Planning Area.

P1.2-3 Prior to approving specific development plans on undeveloped parcels, biological and wetland assessments to determine the presence or absence of populations of special-status species, sensitive natural communities, and wetland resources shall be conducted. Assessments shall:

- Be conducted by qualified specialists in botany, wildlife biology and wetland ecology.
- Include, as necessary, detailed field surveys conducted during the appropriate time of the year to permit detection of sensitive resources.
- Produce mitigation plans for impacts to biological resources, as necessary. These mitigation plans should include wildlife preservation management plans, where necessary, including adequate mitigation for loss of wildlife habitat components that are critical to maintenance of special-status and other important species.

P2.1-3 All waterways shall be buffered to prevent development in riparian setback area and preserve the open space associated with rivers and streams in Calistoga.

Calistoga Active Transportation Plan

The Calistoga Active Transportation Plan, adopted on October 21, 2014, through Resolution No. 2014-089 is intended to identify local improvements and implementation strategies that would encourage more people to walk and bicycle in Calistoga's Planning Area. The Active Transportation Plan identifies improvements to support bicycling and walking, serves as resource for coordinating local actions and regional Projects, and creates a Geographic Information System (GIS) maps and a database of existing and proposed facilities within Calistoga and throughout the Planning Area.

According to the Active Transportation Plan, in the vicinity of the Project site, proposed pedestrian improvements to enhance pedestrian circulation and close gaps in the pedestrian network would include proposed sidewalks along Grant Street and Redwood Avenue.

Calistoga Climate Action Plan

The City of Calistoga Climate Action Plan (CAP), adopted by the City Council on April 1, 2014, seeks to mitigate greenhouse gas (GHG) emissions through actions implementable at the local level. The CAP identifies various mitigation measures within four different topic areas: transportation; energy efficiency and renewable energy; carbon sequestration; and community engagement and advocacy. Measures set forth in the CAP that are applicable to the proposed Project include:

Measure T-8 A: Prevent greenfield development.

Measure EE-2 A: Enforce the State's water-efficient landscape standards for new and rehabilitated landscaping.

Measure CS-1 B: Require the replacement of trees that are removed by development Projects.

Measure CS-1 C: Require the planting of street trees as part of development Projects, and plant and replace removed trees along streets.

Land Use and Planning Impact Discussion

5.10(a) (Divide An Established Community) Less Than Significant Impact: Division of an established community typically occurs when a new physical feature, in the form of an interstate or railroad, physically transects an area, thereby removing mobility and access within an established community. The division of an established community can also occur through the removal of an existing road or pathway, which would reduce or remove access between a community and outlying areas.

The Project proposes infill development of a parcel within the central portion of the City on an underutilized site surrounded by existing residential development. The Project is consistent with the land use designation of the site and involves development on a privately-owned parcel. The Project includes an extension of Redwood Wood Avenue to connect the development to the existing roadway network in the City and includes sidewalks on both sides of the new private roadway. There are no elements of the Project that would physically divide an established community or otherwise remove mobility access. Therefore, the Project would have less than significant impact due to dividing an established community.

5.10(b) (Land Use Plan, Policy, Regulation Conflict) Less Than Significant Impact: The Project is required to comply with the Calistoga General Plan, Zoning Ordinance, Active Transportation Plan, Climate Action Plan, and other applicable planning documents. The proposed Project does not involve any amendments to land use designations or zoning. The Project site is within City limits and the proposed use is consistent with the land use for the site as provided under the General Plan. The proposed single-family residential use is permitted under the Calistoga Municipal Code.

The Project is consistent with the policies set forth in the Community Identity Element, including policies P1.1-1, P1.2-1, and P1.2-3. Proposed development consists of single-family residences consistent with single-family homes in the surrounding area. The development consists of one- and two-story single-family residences with colors and materials typical of single-family homes in the City.

The Project is also consistent with the policies set forth in the Land Use Element including policies P2.1-2, P3.1-1, and P3.1-3. The site would accommodate development of single-family homes at 4 to 10 dwelling units per acre consistent with the Medium Density Residential land use designation of the site. The Project is located in an area of the City that is surrounded by established residential uses and away from the periphery. Development would be served by infrastructure to be provided onsite, including utility services and a new private road extension.

The Project is consistent with the policies set forth in the Open Space Element. As described in the Biological Resources section, biological studies have been conducted for the Project site, consistent with OSE policies P.1.1-1, P1.1-2, P1.2-3, and P2.1-3.

Therefore, the Project is generally consistent with the City's General Plan and zoning regulations and there would be no impacts due to a land use conflict.

The Project is consistent with the Calistoga Active Transportation Plan. The Project proposes sidewalks along the Redwood Avenue extension of the subdivision, which would be compatible with the planned improvements to the pedestrian network in the Project site vicinity. Therefore, the Project complies with the Calistoga Active Transportation Plan and there would be no conflicts from the Project.

The Project implements identified measures of the Calistoga Climate Action Plan. The Project is an infill development on a site that had been previously disturbed. The Project does not convert open, greenfield land on the periphery of the City. The development would be subject to energy efficiency standards and water efficient landscaping requirements as new construction. As discussed in Section 5.4 Biological Resources, the

Project would replant trees to offset removal of protected trees onsite per California Department of Fish and Wildlife and City replacement ratios.

Overall, the proposed Project is generally consistent with the policies, goals and objectives of the City as presented in various planning documents. Therefore, the potential impacts due to a conflict with City of Calistoga regulations adopted for the purpose of avoiding or mitigating an environmental effect is considered to be less than significant.

Mitigation Measures: None Required.

5.12. MINERAL RESOURCES

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Sources: City of Calistoga General Plan, as amended; 2003 General Plan EIR; and Mineral Lands Classification map, Division of Mine Reclamation, California Department of Conservation, accessed December 16, 2021.

Mineral Resources Setting

The California Surface Mining and Reclamation Act of 1975 (SMARA) identifies mineral resources within California and requires the classification of mineral resources based on their relative value for extraction. According to the Mineral Lands Classification map by the Division of Mine Reclamation, California Department of Conservation there are no mineral resources in or around the Project site.

Mineral Resources Impact Discussion

5.12(a-b) (Mineral Resources or Resource Plans) No Impact: The site and vicinity have not been delineated as a locally-important mineral resource recovery site on an adopted plan. Additionally, the Project does not propose the extraction or use of mineral resources. Therefore, the Project would have no impact on mineral resources.

Mitigation Measures: No Impact.

5.13. NOISE

Would the Project result in:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☒	☐	☐
c) For a Project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?	☐	☐	☐	☒

Sources: City of Calistoga General Plan, as amended; 2003 General Plan EIR; and Construction Noise Assessment, prepared by Bollard Acoustical Consultants, Inc., January 6, 2022.

Noise Setting

Noise is generally defined as unwanted sound. It is characterized by various parameters that include the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). The sound pressure level is the most common descriptor used to characterize the loudness of an ambient (existing) sound level. The decibel (dB) scale is used to quantify sound intensity but given that the human ear is not equally sensitive to all frequencies in the entire spectrum, noise measurements are weighted more heavily for frequencies to which humans are sensitive in a process called "A-weighting," written as "dBA" and referred to as "A-weighted decibels". In general, human sound perception is such that a change in sound level of 1 dB cannot typically be perceived by the human ear, a change of 3 dB is just noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling the sound level.

The primary source of community noise in Calistoga is vehicular traffic on the roadway network. Traffic noise exists in varying degrees throughout the community. Other localized sources of noise include light industry, agricultural operations, agricultural wind turbines, and events at the Napa County Fairgrounds. Noise from intermittent localized sources such as lawnmowers and leaf blowers has also been expressed as a concern. In Calistoga, the ambient noise environment is particularly important given the interest in retaining the small-town character of the community, and because of the community's reputation as a destination for rest and relaxation. The City of Calistoga regulates noise from operation of uses under Calistoga Municipal Code Section 8.20.020 to ensure no persons shall cause any loud, unnecessary, or unusual noise which disturbs the peace and quiet of any neighborhood or causes discomfort.

The City of Calistoga Municipal Code Section 8.20.025 limits professional construction activities within the city limits to between the hours of 7:00 a.m. to 7:00 p.m. Monday through Saturday. Operational noise levels are addressed by the General Plan's 2003 Noise Element for sensitive land uses. For example, as presented in Figure N-4 Land Use Compatibility Guidelines for Noise Exposure, residential land uses are considered normally acceptable with exterior noise exposures of up to 60 dBA and conditionally acceptable in noise exposure areas of up to 75 dBA. Residential land uses are considered unacceptable in areas with exterior noise level above 75 dBA.

Noise Impact Discussion

5.13(a) (Noise Standards, Temporary or Periodic Noise Increase) Less Than Significant Impact with Mitigation:

Construction-Related Noise Impacts

Project construction would result in temporary and intermittent noise from activities such as site preparation and grading, excavation, material hauling, deliveries, and foundation work, as well as framing and finishes to a lesser extent. Demolition, ground-clearing, excavation, paving and foundation work 30-50 feet from adjacent residences have the potential to exceed existing daytime noise levels periodically over the course of the approximately 18-month construction period. No pile driving, blasting, or other extraordinary noise-generating activities are expected to occur from the proposed development. Construction noise occurs on a temporary basis during active construction activities and would cease once construction is complete.

A Construction Noise and Vibration Assessment (**Appendix J**) analyzed construction noise generated by the Project and provided recommendations to minimize noise impacts. Construction associated with the Project has the potential to result in temporary and occasional noise that may impact the surroundings. To ensure noise levels are minimized over the course of construction and would not exceed City of Calistoga noise standards, the Assessment identified effective noise abatement measures that include maintenance of equipment, idling prohibitions, location of noise-generating equipment as far as practical away from residences, acoustically shielding equipment, selection of quieter electric equipment where possible, staging mobile equipment and stockpiles as far from residences as practicable, establishing vehicle speed limits onsite, notifying nearby residents of construction schedules, designating a noise disturbance coordinator who will respond to any potential noise complaints, and prohibiting construction on Sundays and in evening hours between 7:00pm and 7:00am in compliance with Calistoga Municipal Code Section 8.20.025. **Mitigation Measure NOI-1** imposes these noise construction abatement strategies on the Project. With implementation of the Measure NOI-1, temporary construction noise impacts would be to less than significant levels.

Operational Noise Impacts

At operation, the Project, as a single-family residential subdivision, would generate noise typical of residential uses and would be compatible with existing single-family residential developments in the surrounding area. Noises related to residential uses include outdoor activities, HVAC and mechanical equipment, landscaping maintenance equipment, and vehicle traffic. The Project proposes development of 15 single-family residential homes, which is consistent with the density range of the site anticipated by the General Plan. The resulting operational noise would not present a significant noise impact due to the residential use, the density of development, and consistency with expected development under the General Plan. Furthermore, homeowners are required to comply with the City's noise regulations for ongoing operations under Calistoga Municipal Code Section 8.20.020 and would be subject to enforcement for any violations, Therefore, the Project's operations would result in less than significant impacts to noise level.

5.13(b) (Groundborne Vibration and Noise) Less Than Significant Impact with Mitigation: During construction, heavy equipment used for grading, excavation, paving, and building construction would create

temporary, localized vibrations in the immediate vicinity of the area of work. The Construction Noise and Vibration Assessment (**Appendix J**) calculated vibration impacts that may result from the proposed Project. As the City of Calistoga does not have specific adopted standards for groundborne vibrations, thresholds for vibration damage and vibration annoyance, with consideration of transient and continuous sources, were used based on criteria developed by Caltrans for vibrations associated with construction activities.

At the nearest existing residence located approximately 30 feet away from on-site construction activities, vibration levels are Projected to be below the 0.30 in/sec PPV threshold for damage to older residential structures. Construction equipment with the highest calculated vibration impact, a roller, is Projected to generate 0.16 in/sec PPV at 30 feet away. Additionally, the Projected vibration levels are Projected to be well below 2.00 in/sec PPV and 0.50 in/sec PPV, the ranges of severe human responses for transit sources and continuous/frequent intermittent sources, respectively. Although groundborne vibration generated by the Project during construction is not calculated to exceed established threshold, groundborne vibration associated with construction activities would occasional be perceptible at nearby existing residences. To minimize human annoyance, **Mitigation Measure NOI-2** will be imposed, which includes avoiding the use heavy vibration-generating equipment such as large rollers and dropping heavy equipment within 30 feet of existing residences, as well as applying lower impact vibration-generating alternatives where possible, such as smaller sized equipment. Compliance with the City's Municipal Code regulating noise as well as Measures NOI-1 and NOI-2 will ensure that potential impacts due to groundborne vibration are minimized. Therefore, construction related groundborne vibration impacts would be less than significant.

At operation, there are no activities proposed by the Project that are expected to generate perceptible groundborne vibration or noise. Therefore, at operation, groundborne vibration would result in less than significant impacts.

5.13(c) (Airport Noise) No Impact: The proposed Project is not located within two miles of a public airport, nor is it located near a private airstrip. The nearest airport is the Angwin Airport, Virgil O. Parrett Field, located approximately eight miles east of the Project site. Residents would not be exposed to excessive noise levels generated by nearby airport uses as there are no such uses in the site vicinity. Therefore, the Project would have no impacts associated with airport noise and no impacts due to excessive noise exposure would occur.

Mitigation Measures:

NOI-1: The Project applicant shall implement the following Best Construction Management to reduce construction noise levels emanating from the site, limit construction hours, and minimize disruption and annoyance:

1. Construction Hours/Scheduling:

    a. Pursuant to Calistoga Municipal Code Section 8.20.025(A), construction activities for all phases of construction, including servicing of construction equipment, shall not occur on Sundays or between 7:00 p.m. and 7:00 a.m., any time during the week.

    b. Delivery of materials or equipment to the site and truck traffic coming to and from the site should not occur during the restricted hours specified above in 1A.

2. Construction Equipment Mufflers and Maintenance: All construction equipment powered by internal combustion engines shall be properly muffled and maintained.

3. Idling Prohibitions: All equipment and vehicles shall be turned off when not in use. Unnecessary idling of internal combustion engines shall be prohibited.

4. Equipment Location and Shielding: All stationary noise-generating construction equipment, such as air compressors, shall be located as far as practical from the adjacent residences. Such equipment shall be acoustically shielded when it must be located within 30 feet of adjacent residences.

5. Quiet Equipment Selection: Select quiet equipment, particularly air compressors, whenever possible. All noise-producing Project equipment and vehicles using internal combustion engines shall be equipped with manufacturer-recommended mufflers and be maintained in good working condition. Electrically powered equipment shall be used instead of pneumatic or internal-combustion-powered equipment, where feasible.

6. Staging and Equipment Storage: Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive receptors.

7. Equipment and Vehicle Movements: Project area and site access road speed limits shall be established by the contractor and verified by the site inspector and enforced during the construction period.

8. Schedule Notification: Nearby residences shall be notified of construction schedules so that arrangements can be made, if desired, to limit their exposure to short-term increases in ambient noise levels.

9. Noise Disturbance Coordinator: The Project developer shall designate a "noise disturbance coordinator" who will be responsible for responding to any local complaints about construction noise. This individual would most likely be the contractor or a contractor's representative. The disturbance coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and would require that reasonable measures warranted to correct the problem be implemented. The telephone number for the disturbance coordinator shall be conspicuously posted at the construction site.

NOI-2: The Project applicant shall implement the construction vibration control measures, as provided under the Construction Noise & Vibration Assessment, prepared by Bollard Acoustical Consultants, Inc, listed below:

1. Vibration-Generating Equipment: Use of heavy vibration-generating construction equipment, such as large vibratory rollers, shall not be used within 30 feet of the nearest residences. The Project contractor shall use smaller vibratory rollers when compacting materials within the 30-foot setback distance.

2. Dropping of Equipment: Within 30 feet of existing residences, Project construction activities shall utilize alternative methods for breaking up existing pavement, such as a pavement grinder, instead of dropping heavy objects within these setback distances.

3. Heavy Equipment Operators: The contractor shall alert heavy equipment operators to sensitive adjacent structures (i.e., residences within 30 feet) so they can exercise caution.

5.14. POPULATION AND HOUSING

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Induce substantial unplanned growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Sources: City of Calistoga General Plan, as amended; 2003 General Plan EIR; and City of Calistoga 2014 Housing Element Update; US Census 2020 Decennial Census, Table H1, P1.

Population and Housing Setting

According to the U.S. Census Bureau 2020 Decennial Census, the City of Calistoga has a total of 2,392 housing units and is home to 5,228 people. The 2014 Calistoga Housing Element identifies a need of 27 additional residential units to meet the City's Regional Housing Needs Allocation (RHNA) by 2022. The City's Housing Element Development Site Inventory identifies opportunity sites within the City with a total development potential of 426 units. The RHNA for the current 5th Cycle Housing Element was 27 housing unit comprised of 6 very low, 2 low level, 4 moderate, and 15 above moderate-income units. Through 2020, the City met and exceeded the RHNA based on built and entitled housing Projects. The 2014 Housing Element identified the subject Project site as Site Number 13, with a development capacity of up to 41 units to the acre. The subject Project proposes 15 single-family lots, which is at the lowest range of the allowable density.

The City of Calistoga is currently in the process of preparing the 6th Cycle Housing Element and must demonstrate the ability to accommodate 119 additional housing unit to fulfil its 2023-2031 RHNA requirements, comprised of 31 very low, 19 low level, 19 moderate, and 50 above moderate-income units. The subject Project proposes 15 above moderate-income housing units, which would contribute housing stock and assist the City in reaching the above moderate unit requirements as part of the 6th cycle Housing Element.

Population and Housing Impact Discussion

5.14(a) (Substantial Growth) Less Than Significant: The proposed Project would construct 15 single-family residences. The Project is within the Projected density of development anticipated by the General Plan for the site's land use designation of Medium Density Residential (4-10 units per acre). The proposed Project would not substantially induce population growth beyond what has been planned for under the City's General Plan, Housing Element, and other planning documents. Therefore, potential impacts due to substantial unplanned growth from the Project would be less than significant.

5.14(b) (Substantial Housing or Person Displacement) No Impact: The Project site contains an existing single-family residential building that would be demolished. The proposed Project involves the construction of 15 single-family residences and would not displace a substantial number of housing and residents that

would require the construction of replacement housing elsewhere. Therefore, no impacts would occur due to the displacement of housing or people from the proposed Project.

Mitigation Measures: None Required.

5.15. PUBLIC SERVICES

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a) Fire protection?	☐	☐	☒	☐
b) Police protection?	☐	☐	☒	☐
c) Schools?	☐	☐	☒	☐
d) Parks?	☐	☐	☒	☐
e) Other public facilities?	☐	☐	☒	☐

Sources: City of Calistoga General Plan, as amended; and 2003 General Plan EIR; City of Calistoga Fire Department Website; and Calistoga Joint Unified School District website.

Public Services Setting

The City of Calistoga is well served by established public services including fire and police protection, schools, and recreation.

The Calistoga Fire and Police Departments are located just less than one mile from the Project site. The Calistoga Fire Department responds to approximately 1,000 emergencies annually in a 96 square mile area encompassing City limits, Napa County, and Sonoma County.[29] The Calistoga Police Division maintains response times within the City of approximately two minutes, and the Calistoga Fire departments maintains response times between approximately one and three minutes.

The Calistoga Joint Unified School District serves approximately 860 students from Calistoga and the surrounding area.[30] The three schools that make up the school district include: Calistoga Elementary School, Calistoga Junior/Senior High, and Palisades High School.

The City's Recreation Services Department operates, manages, and maintains a number of indoor and outdoor recreational facilities. City-owned recreational facilities include: Fireman's Park, Heather Oak Park, Little League Field, Pioneer Park, Logvy Community Park, Monhoff Center, and Myrtle Street pocket park.

[29] Calistoga Fire Department, http://www.ci.calistoga.ca.us/city-hall/departments-services/fire-department, Accessed December 20, 2021.

[30] Calistoga Joint Unified School District, https://www.calistogaschools.org/about_us/about_the_district, Accessed December 20, 2021.

Other recreational facilities include Napa County Fairgrounds, Calistoga Elementary School, and Calistoga High School.

In order to offset the cost of improving or expanding City services to accommodate the demand generated by new development, the City charges one-time impact fees on new development. The impact fees finance public service improvements and pay for new development's fair share of the costs necessary to maintain acceptable services. New development is also required to pay school impact fees upon building permit issuance to the local school district to assist with ongoing maintenance and expansion of facilities.

Public Services Impact Discussion

5.15(a-b) (Fire & Police Protection) Less Than Significant Impact: Fire and police protection are provided by the City's Fire and Police Departments. The Projected development intensity of the Project site is within the anticipated levels under the Calistoga General Plan. As such, the Project would not significantly increase demand for services.

Fire protection measures are required to be integrated into the Project design pursuant to Chapter 15.36 of the Calistoga Municipal Code. Furthermore, the new buildings would be constructed in accordance with latest building and fire code standards. The proposed subdivision is designed such that firefighting, emergency equipment and personnel access is not obstructed, as required by the Fire Code. Standard conditions of approval require that the applicant pay one-time public safety impact fees to maintain acceptable levels of service related to fire suppression and law enforcement facilities. The funds generated by the impact fees would ensure sufficient fire and police services are maintained. Therefore, potential impacts to fire and police services would remain at levels that are less than significant.

5.15(c-d) (Schools & Parks) Less Than Significant Impact: The proposed residential development would generate a negligible change in demand for school and park facilities. As a residential Project, consistent with the land use and density provision, increased demands on schools and park facilities have been anticipated by the General Plan. The applicant would be required to pay school impact fees and cultural/recreational development impact fees prior to the issuance of a building permit. Payment of impact fees is sufficient to offset the negligible change use and service that Project may have on local schools and parks. Therefore, potential impacts to parks and school would be less than significant.

5.15(e) (Other Public Facilities) Less Than Significant Impact: The Project would not generate a substantial increase in demands that warrant the expansion or construction of other new public facilities. The Project would not induce a demand requiring the expansion of other public services. Furthermore, the Project is subject to the payment of impact fees to offset the potential increase in demand for use of City services. Therefore, impacts would be less than significant.

Mitigation Measures*:* None Required.

5.16. RECREATION

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐

Sources: City of Calistoga General Plan, as amended; and 2003 General Plan EIR.

Recreation Setting

Calistoga provides approximately fourteen acres of city-owned land dedicated to recreational activities at seven locations within the city limits, including Fireman's Park, Heather Oak Park, Little League Field, Logvy Community Park, Monhoff Center, Myrtle Street pocket park, and Pioneer Park. Approximately seventy-six acres of recreational facilities which are owned by other public agencies are also available within the city limits, including the Napa County Fairgrounds, Calistoga Elementary School, and Calistoga High School. The nearest existing parks to the Project site include Heather Oaks Parks, located approximately 2/3 mile to the southwest and Logvy Community Park, located about 2/3 mile to the southeast. The Monhoff Center is located approximately 2/3 mile east of the site.

Recreation Impact Discussion

5.16(a-b) (Deterioration of Parks and New or Expanded Facilities) Less Than Significant Impact: The Project proposes 15 single-family residences that would be occupied by new residents, which would result in a negligible change in the use of parks and recreational facilities. The proposed subdivision does not include public recreational facilities onsite, however each single-family lot has its own front yard and backyard space for private use. Furthermore, the new private street would be improved with sidewalks on both sides and would be available to residents and the public. The Project is within the development density anticipated by the General Plan and would not exceed the Projected use of parks and recreational use facilities. Additionally, as stated in Section 5.15 Public Services, the Project would be required to pay a public services and recreational development impact fees prior to the issuance of a building permit. Impact fees are used to offset costs for maintenance and expansion of recreational facilities. Therefore, the proposed Project would have less than significant impacts on parks and recreational facilities.

Mitigation Measures*:* None Required.

5.17. TRANSPORTATION AND CIRCULATION

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b) Would the Project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

Sources: City of Calistoga General Plan, as amended; 2003 General Plan EIR; Calistoga Active Transportation Plan, October 2014; Napa Countywide Transportation Plan – Vision 2040 Moving Napa Forward, Napa County Transportation & Planning Agency, September 2015; Napa Countywide Bicycle Plan, prepared by Napa Valley Transportation Authority, September 2019; and Focused Traffic Impact Study for the 2008 Grant Street Residential Project, prepared by W-Trans, August 26, 2021.

Transportation and Circulation Setting

Calistoga's General Plan Circulation Element regulates the city's transportation system with the goal of creating and maintaining "a transportation network that provides safe, comfortable and convenient travel, serving all types of users, including pedestrians, bicyclists, persons with disabilities, seniors, children, users and operators of public transportation, motorists, and movers of commercial goods."

Napa County Transportation Authority (NVTA)

NVTA identifies long-range countywide transportation priorities through a planning process to develop the Countywide Transportation Plan (CTS), which provides direction for a four-to-five-year plan taking into consideration land use, environmental population, and financial Projects over a 25-year planning horizon. The most recent CTP, Advancing Mobility 2045, was adopted by the NVTA Board of Directors on May 19, 2021.[31] The CTP identifies Project Number 26 as a complete street enhancement and multi-use path on Grant from City limit to Centennial Court. This identified County Project, along with the City identified standard specifications set forth in the City's municipal code and funded through development impact fees would result in complete street facilities along the entire length of Grant Street.

Calistoga Active Transportation Plan

The Calistoga Active Transportation Plan, adopted on October 21, 2014, through Resolution No. 2014-089, is intended to identify local improvements and implementation strategies that would encourage more people to walk and bicycle in Calistoga's Planning Area. The Active Transportation Plan identifies improvements to

[31] https://www.nvta.ca.gov/sites/default/files/NVTA%20Agenda%20Packet%205%2019%2021_0.pdf

support bicycling and walking, serves as resource for coordinating local actions and regional Projects, and creates a Geographic Information System (GIS) maps and a database of existing and proposed facilities within Calistoga and throughout the Planning Area.

According to the Active Transportation Plan, in the vicinity of the Project site, an existing Class II bikeway is located along Grant Street from N. Oak Street to Mora Avenue and a Class III bikeways extends from Mora Avenue to City limits. A Class III bikeway is proposed along Grant Street from Wappo Avenue to N. Oak Street (Project #15). A proposed pedestrian facility is identified as a high priority on Grant Street from Wappo to Mora Avenue (Project #25) and from Mora Avenue to Greenwood Avenue (Project #4).[32]

Level of Service to Vehicle Miles Traveled

Level of service (LOS) has historically been used as a standard measure of traffic service. The City establishes a goal of maintaining a LOS 'D' or better at all intersection (Policy P1.2-2) and LOS 'C' or better for state highways, with the exception of the downtown area where LOS 'D' is acceptable (Policy P1.2-1). Pursuant to SB 743,[33] the Office of Planning and Research (OPR) was charged with identifying an alternative metric to LOS for evaluating environmental impacts from transportation. In December 2018 OPR released the Technical Advisory on Evaluating Transportation Impacts in CEQA,[34] which provides technical recommendation regarding assessment of vehicle miles traveled (VMT), as an alternate to LOS, thresholds of significance for VMTs, and mitigation measures. To date, neither the City of Calistoga nor the Napa Valley Transportation Authority (NVTA) have adopted VMT thresholds.

CEQA Guidelines section 15064.3 subdivision (b) describes specific considerations for evaluating a Project's transportation impact using a vehicle mile traveled (VMT) metric. This metric refers to the amount and distance of automobile travel attributable to a Project. The Project is evaluated using a VMT metric and relying upon guidance from OPR's technical advisory.

Vehicle Miles Traveled (VMT) Screening Analysis

In accordance with SB 743, a Focused Traffic Study containing a VMT screening analysis was completed for the Project (**Appendix K**). The Napa Valley Transportation Authority (NVTA) is in the process of conducting an extensive countywide VMT baseline analysis and has prepared screening maps that show geographic areas where VMT is anticipated to be 15 percent below regional average threshold. Projects located within these screening areas can be presumed to have less than significant VMT impacts per OPR guidance. Through coordination with NVTA, the VMT screening analysis was able to reference screening maps. The Project site is located within a screened area based on the per capita VMT that is 50 to 85 percent of the Countywide average of 17.30 vehicle miles per day per capita. Pursuant to OPR's Technical Advisory, the Project is not subject to a more extensive VMT analysis since it is a residential Project located within a low VMT area that would be expected to have less than significant impacts.

Napa Valley Vine Trail & Bay Ridge Trail

The Napa Valley Vine Trail Coalition has been working to develop a 47-mile continuous, Class 1 trail from Vallejo to Calistoga. In the City of Calistoga, the proposed Napa Valley Vine Trail's northern terminus is at the Silverado Trail and Lincoln Avenue, continuing south through the city along Fair Way Extension, the existing Napa Valley Vine Trail east of Washington Street, Dunaweal Lane, SR 29, and connecting to the regional route to Vallejo. A 12.5-mile-long contiguous stretch of the Vine Trail has been completed between Kennedy Park in the City of Napa to Yountville.

[32] https://www.ci.calistoga.ca.us/home/showpublisheddocument/18953/635914052255500000
[33] http://opr.ca.gov/ceqa/updates/sb-743/
[34] http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf

The Bay Area Ridge Trail planned route encircles the San Francisco Bay following the region's ridgelines. Near Calistoga there are existing Ridge Trail routes at the Robert Louis Stevenson State Park to the north and Bothe-Napa Valley State Park to the south.[35]

Bike and Pedestrian Facilities

The Calistoga Active Transportation Plan identifies local improvements and implementation strategies that would encourage people to walk and bicycle in Calistoga. According to the Active Transportation Plan, Grant Avenue between Mora Avenue and N. Oak Street and Redwood Avenue area are locations where sidewalks are proposed as part of the pedestrian network. A Safe Routes to School route is identified on Grant Street.

In general, the Project site is primarily served by vehicular access from Grant Street via Redwood Avenue. The existing Redwood Avenue roadway consists of two travel lanes separated by a median. Redwood Avenue does not contain existing sidewalks or bicycle facilities but is improved with curbs and gutters. Sidewalks are not present one either side of Grant Street or Redwood Avenue. One Class II Bike Lane is located along the southern side of Grant Street.

Public Transit

Napa Valley Transit provides transit service Monday through Saturday in the City of Calistoga. Napa Valley Transit follows a fixed route along SR 29 with transit stops in Downtown Calistoga and Brannan Street. Transit service is not provided north of Brannan Street. Transit service is provided approximately from 6:00 am to 8:00 pm with about one-hour headways.

Public transit service is available throughout Napa County. The primary transit service in Napa County is provided by VINE, a fixed-route bus service providing service to Calistoga, St. Helena, Napa, American Canyon, Yountville, and parts of unincorporated Napa County. Currently, Calistoga is served by Route 10, which operates generally along SR 29 and Lincoln Avenue, with a loop around Silverado Trail and Brannan Street. The route extends from Calistoga to the City of Napa, with connections to cities in between. As of December 2021, the Route operates 5:25am to 9:20pm on weekdays and 6:00am to 8:36pm on weekends.

Lake Transit provides regional service throughout Lake County and stops in Calistoga at the Trail Depot. Lake Transit Route 3 provides loop service to destinations throughout the Clearlake area and operates daily with stops four times between 7:30 a.m. and 6:00 p.m.

Transportation and Circulation Impact Discussion

5.17(a) (Conflicts with Plans, Policies, Ordinances) Less Than Significant Impact: The Project does not conflict with programs, plans, ordinances, or policies addressing the circulation system. As detailed in the Focused Traffic Study (**Appendix K**), the anticipated trip generation for the proposed Project was estimated using standard rates published by the Institute of Transportation Engineers (ITE) in Trip Generation Manual, 10th Edition for Single-family Detached Housing (ITE Land Use #210). Project trips are summarized in **Table 5**. The proposed Project is expected to generate an average of 142 new trips per day, including 11 trips during the a.m. peak hour and 15 trips during the p.m. peak hour. The Project would not result in a population increase that would lead to a substantial impact on the City's transportation network.

[35] https://ridgetrail.org/

TABLE 5: TRIP GENERATION SUMMARY

Land Use		Daily		AM Peak Hour				PM Peak Hour			
	Units	Rate	Trips	Rate	Trips	In	Out	Rate	Trips	In	Out
Single-family Detached Housing	15 du	9.44	142	0.74	11	3	8	0.99	15	9	6

Source: Focused Traffic Study, prepared by W-Trans, August 26, 2021.

Notes: du = dwelling unit

The Project is with consistent with applicable General Plan Circulation Element objectives, policies, and actions. As a new development, the Project would be subject to the payment of development impact fees to pay for city transportation improvements (Action A1.1-1). The Project provides new sidewalks onsite along the new private roadway (Policy P1.3-2, P3.2-2).

The Project proposes improvements to Redwood Avenue and the construction of a new private street to serve new residents. The Project provides a total of 30 garage parking spaces and 22 on-street parking spaces, in compliance with the City's parking requirement based on Chapter 17.36 of the City's Municipal Code. The minimum required parking under the code is two off-street parking spaces per single-family dwelling. The code does not establish a minimum number of required on-street parking spaces per single-family dwelling.

The Project does not interfere with existing or proposed pedestrian and bicycle facilities in the surroundings or conflict with transit facilities. The Project proposes installation of a sidewalk along the west side of Redwood Avenue from Grant Street and tying into the proposed new sidewalk to be installed along both sides of the new private street. The provision of new sidewalks would contribute to the pedestrian circulation network shown in the Calistoga Active Transportation Plan, which identifies Redwood Avenue as an area for proposed sidewalks. An existing bicycle lane is located on Grant Street and public improvements planned by the City in conjunction with the NVTA include installation of a sidewalk along Grant Street. The Project site is located less than a mile from bus stops along Lincoln Avenue. Development proposed by the Project would not interfere with transit stops and operations. Therefore, impacts due to a conflict with a program, plan, ordinance, or policy addressing the circulation system would be less than significant level.

5.17(b) (Conflict with 15064.3(b) VMT) Less Than Significant Impact: Although, the City of Calistoga has not adopted local VMT thresholds, draft Countywide screening maps indicate that new residential uses within City limits would screen out from VMT analysis. Until local VMT guidelines are adopted, the City is following the guidance offered by OPR in the Technical Advisory on Evaluating Transportation Impacts. A Focused Traffic Study has been prepared analyzing the VMT associated with the proposed residential development, following the guidance under OPR. The study obtained screening map information prepared by NVTA showing VMT per capita of locations within the County in comparison to the County average VMT. The Project site is located within a screening area where per capita VMT is 50 to 85 percent of the Countywide average vehicle miles per day per capita. Following OPR's Technical Advisory, the residential Project would be expected to have a less than significant impact as it is located in a screening area where average daily per capita VMT is at least 15 percent below the Countywide average. Therefore, the Project would have less than significant impacts related to conflicts with CEQA Guidelines section 15064.3(b).

5.17(c) (Geometric Design Feature Hazard) Less Than Significant Impact: The Project would not result in increased hazards due to a geometric design feature (such as sharp curves or dangerous intersections) or incompatible use. The proposed improvement to Redwood Avenue and the new private street are designed in accordance with City street standards and specification and final design would be subject to review and approval by the City Engineer.

Sight distances at the intersection of Redwood Avenue and Grant Street were evaluated in the Focused Traffic Study using sight distance criteria in the Highway Design Manual published by Caltrans. Based on the criteria, the minimum corner sight distance from Redwood Avenue, as a minor street approach is 275 feet. Sight lines measured more than 300 feet in both directions on Grant Street, as viewed from Redwood Avenue. Adequate stopping sight distances allow a following driver sufficient time to react to a leading vehicle slowing to turn right or stopped to turn left from Grant Street onto Redwood Avenue. As the Project does not change the geometry of the existing intersection and sight distances were found to be sufficient, potential geometric design feature impacts from the Project would be less than significant.

5.17(d) (Emergency Access) Less Than Significant Impact: The Project would not result in inadequate emergency access at operation or during construction. The proposed site plan has been reviewed by the Calistoga Public Works Department and Fire Department, which found no deficiencies in providing for emergency access. Prior to any work within a right-of-way as part of construction, including any temporary lane closures, review of the proposed scope of work and approval of an encroachment permit by the Calistoga Public Works Department is required. Therefore, emergency vehicle access under the proposed Project would be adequate and potential impacts would be less than significant.

Mitigation Measures*:* None Required.

5.18. TRIBAL CULTURAL RESOURCES

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☒	☐	☐
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

Sources: City of Calistoga General Plan, as amended; 2003 General Plan EIR; Cultural Resources Constraints Analysis, prepared by SAS, October 28, 2020; and A Historic Resource Evaluation of the Property Located at 2008 Grant Street, prepared by Evans & De Shazo, November 23, 2021

Tribal Cultural Resources Setting

Public Resources Code (PRC) Section 21074, identifies tribal cultural resources as:

1. Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
   a. Included or determined to be eligible for inclusion in the California Register of Historical Resources; or
   b. Included in a local register of historical resources as defined in PRC Section 5020.1(k).
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in PRC Section 5024.1(c). In applying the criteria set

forth in PRC Section 5024.1(c), the lead agency shall consider the significance of the resource to a California Native American tribe.

3. A cultural landscape that meets the criteria of PRC Section 21074(a) to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

4. A historical resource described in PRC Section 21084.1, a unique archaeological resource as defined in PRC Section 21083.2(g), or a "non-unique archaeological resource" as defined in PRC Section 21083.2(h), if it conforms with the criteria of PRC Section 21074(a).

In accordance with Public Resources Code (PRC) Section 21084.2, lead agencies are required to consider Tribal Cultural Resources (TCR) including a site feature, place, cultural landscape, sacred place or object, of cultural value to the tribe and is listed on the California Register of Historic Resources (CRHR) or a local register, or the Lead agency, at its discretion, chooses to treat resources as such. In accordance with PRC Section 21080.3.1(b)(1), the Mishewal Wappo Tribe of Alexander Valley, in a letter dated June 26, 2015, stated that its tribe was traditionally and culturally affiliated with a geographic area within the City of Calistoga's area of jurisdiction, and requested formal notice of and information on Projects for which the City of Calistoga serves as a lead agency under CEQA.

In accordance with PRC Section 21080.3.1(d), the City of Calistoga provided written formal notification to the Mishewal Wappo Tribe of Alexander Valley on June 28, 2021, which included a brief description of the proposed Project and its location, relevant Project information, the City of Calistoga contact information, and a notification that the Mishewal Wappo Tribe of Alexander Valley has 30 days to request consultation. No response from the Tribe was received.

Tribal Cultural Resources Impact Discussion

5.18(a.i-a.ii) (Listed or Eligible for Listing and Significant Resource) Less Than Significant Impact with Mitigation: According to the Project's Cultural Resources Analysis, and as discussed above under Section 5.5, historical and prehistorical resources are known to occur in the general vicinity of the Project site. The Cultural Resources Sensitivity Assessment determined a low level of sensitivity for historic-era archaeological remains and a high-level of sensitivity for prehistoric archaeological remains. Given that the Project site has a high level of sensitivity for buried cultural resources associated with prehistoric human occupation, and that the proposed Project could potentially impact buried resources, including tribal cultural resources, if present, **Mitigation Measure TCUL-1** shall be implemented. As described above in 5.5 Cultural Resources, measure TCUL-1 requires that initial ground disturbing activities be monitored by a professional archaeologist to observe earthwork and halt activities should further assessment be necessary in the event that a potential cultural or tribal cultural resource in unearthed. Therefore, with mitigation, the Project's potential to impact tribal cultural resources would be reduced to less than significant levels.

Mitigation Measures:

TCUL-1: To protect buried Tribal Cultural Resources that may be encountered during construction activities, the Project applicant shall implement Mitigation Measure CUL-1 above.

5.19. UTILITIES AND SERVICE SYSTEMS

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, or wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) 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?	☐	☐	☒	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

Sources: City of Calistoga General Plan, as amended; 2003 General Plan EIR; Preliminary Utility Plan, prepared by cbg civil engineer, December 2, 2021; Preliminary Wastewater Generation Report, prepared by cbg civil engineer, March 15, 2021; Preliminary Water Use and Wastewater Generation Report, prepared by cbg civil engineer, December 23, 2020; Preliminary Storm Water Control Plan for a Regulated Project 2008 Grant Street, prepared by Carlson, Barbee & Gibson, Inc, April 2021; and City of Calistoga Recycled Water Distribution System, prepared by Larry Walker Associates, 2003, accessed February 13, 2020.

Utilities and Service Systems Setting

The proposed Project is located within the City of Calistoga on a partially developed property where utility infrastructure extends to the Project site. The Project site and vicinity are served by the following service providers:

- Water supply and distribution: City of Calistoga
- Wastewater collection and treatment: City of Calistoga
- Recycled water treatment and distribution: City of Calistoga
- Storm drainage: City of Calistoga

- Solid waste service: Upper Valley Disposal and Recycling
- Electrical and natural gas power: Pacific Gas and Electric and/or Marin Clean Energy

Potable Water Supplies

The City of Calistoga provides domestic water service to 1,594 accounts, including to the Project site. The City acquires potable water supplies from two main sources: 1) Kimball Reservoir; and 2) the State Water Project through the North Bay Aqueduct connection pipeline via the City of Napa. The City's water system includes storage tanks with a capacity of 2.5 million gallons, 40 miles of water mains, and two pump stations. According to the General Plan Infrastructure Element (2020), the City's remaining estimated municipal water availability ranges between 465 to 504 acre feet per year. There is sufficient water supply to accommodate current and planned demand through 2035.

Wastewater and Recycled Water

Wastewater generated in the City of Calistoga, including at the Project site, is conveyed for processing at the City of Calistoga's Dunaweal Wastewater Treatment Plant (WWTP), a 0.84 million gallon per day (mgd) average dry weather flow activated sludge tertiary treatment plant. Some tertiary treated effluent may be discharged to the Napa River from October 1st through May 15th (per NPDES Permit No. CA0037966, Order 00-1312). During the remainder of the year, effluent is distributed for recycled water use or stored for future use in effluent storage ponds. According to the General Plan Infrastructure Element (2020), the City's remaining treatment capacity in 2019 was approximately 232 afy and is Projected to be 140 afy in 2035. There is sufficient wastewater treatment capacity to accommodate current and Projected demand through 2035.

Storm Drainage

Within the City of Calistoga, storm drains convey runoff from impervious surfaces such as streets, sidewalks, and buildings to gutters that drain to creeks, the Napa River, and ultimately to the San Pablo Bay. This water is untreated and carries with it any contaminants picked up along the way such as solvents, oils, fuels, and sediment. As described in 5.10 Hydrology, the City's Stormwater Ordinance establishes the standard requirements and controls on the storm drain system to which all existing and proposed development must comply. Currently stormwater onsite follows the natural gradient and flows towards the southeast.

Solid Waste

Solid waste (debris, construction waste, recyclable materials, and green waste/compost) generated in the City of Calistoga is collected by Upper Valley Disposal and Recycling and delivered to the Clover Flat Landfill for disposal. The landfill is permitted to receive 600 tons per day and as of September 2012 had 2,620,000 cubic yards of capacity remaining.[36]

Utilities and Service Systems Impact Discussion

5.19(a) (Relocation/Expansion of Utilities) Less Than Significant Impact: Water, wastewater, electricity, natural gas, and telecommunication facilities extend to the Project site within and along the Grant Street right-of-way. The Project would increase utility demands at a level anticipated by the General Plan, since the development density is within the allowed range pursuant to the Land Use designation and zoning. Demand for utilities generated by the 15 new residences introduced by the Project, is within the available capacity of existing services. The Project would connect to existing utility lines in Grant Street, via extensions installed

[36] CalRecycle Clover Flat Resource Recovery Park, https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2681?siteID=2015, Accessed January 2022.

along Redwood Avenue and the new private drive. New utility pipelines, connections, laterals, and associated equipment onsite and offsite including potable water pipelines, sanitary sewer and storm drain infrastructure would be installed. New electric power, natural gas, and telecommunication lines would be connected to the existing facilities onsite and in the immediate site vicinity.

The Projected wastewater generation of the Project falls within the capacity of the City's wastewater treatment plant. The increase in wastewater generated by the proposed uses, 6.4 percent capacity increase, as estimated in the Preliminary Water Use and Wastewater Generation Report, have been considered for operating capacity of the water treatment plant. As such, the proposed Project would not cause or exceed wastewater treatment requirements set forth by the Regional Water Quality Control Board, nor is the Project expected to necessitate the expansion or construction of water or wastewater treatment facilities.

The existing water supplies, facilities, and infrastructure are sufficient to meet the demands of the Project without the need for expansion or new construction of water supply facilities. Water demand of the Project would be limited through efficient irrigation of landscaping, compliance with California's Model Water Efficient landscape regulation, and water-efficient fixtures and appliances indoors, consistent with requirements established by the CalGreen Building Code. Landscaping introduced by the Project would be irrigated using Calistoga's tertiary treated water. The proposed Project's water demands are estimated in the Preliminary Water Use and Wastewater Generation Report, 8.1 acre-feet per year, and are within the available capacity of the City's water system. Therefore, the Project will have less than significant impacts related to the adequacy or capacity of water supply facilities and wastewater treatment facilities.

New storm drainage infrastructure would be installed to accommodate the increase in impervious surfaces that would result from the Project. Onsite improvements would capture storm water runoff via new storm drains within the site, convey within new storm drain lines, and connect to existing storm drain pipelines to regional storm drain facilities. Although the proposed development would result in an increase in impervious surfaces relative to existing conditions, the Project has been designed in accordance with City standards.

The Preliminary Storm Water Control Plan identifies proposed storm drain facilities onsite and in the Project vicinity and demonstrates sufficient capacity to accommodate increased surface flows generated by the Project. With the installation of the proposed bioretention areas and onsite storm drain infrastructure, there would be no net-increase in flows emanating from the Project site. The Project is well served by existing infrastructure and all utilities including electricity, natural gas, and telecommunication facilities. Therefore, impacts related to the relocation, construction, or expansion of utilities would be less than significant.

5.19(b) (Sufficient Water Supplies) Less Than Significant Impact: During construction, water would be required primarily for dust suppression and would also be used for soil compaction. Construction water volumes would be minimal and would not require new or expanded water supplies or entitlements.

In accordance with General Plan Policy 1.3-1, the capacity of the City's existing water storage, supply, and/or distribution system has been reviewed and considered relative to the calculated water demand generated by the Project, which was estimated to be approximately 8.1 acre-feet per year (afy). During normal year conditions the City's water supply ranges from approximately 399-438 afy in 2020 and is Projected to range from 296-335 afy in 2035. Under below normal year (90 percent) conditions the City's water supply ranges from approximately 399-438 afy in 2020 and is Projected to range from 362 to 401 in 2035. As of 2019, the City of Calistoga's annual water demand was 656 afy with a firm yield supply of 1,249-1,288 afy. Accordingly, the City of Calistoga has not yet reached 95 percent of the existing water storage, supply, and/or distribution system capacity. Water demand resulting from the proposed Project is in line with what is anticipated in the General Plan and there is sufficient water supply capacity to meet demands.

The Project would utilize water obtained from the municipal water system to meet onsite water demands. The City of Calistoga provides municipal water supplies to the Project site. Water is conveyed the Project site

via the existing municipal water system through an existing 12-inch diameter potable water main within the Grant Street right-of-way and an existing 6-inch diameter potable water main within Redwood Avenue. The Project would replace the water main in Redwood Avenue and install a new 8-inch diameter water main pipeline within the new private roadway to provide potable water services.

At operation the Project would generate water demand for indoor and outdoor uses and would rely on potable water supplies and recycled water supplies, as available, to meet demands. The proposed landscaping would adhere to California's model water efficient landscape regulation that includes drought resistant and low water usage species. The Project's estimated potable water demand according to the Water Use Report, is approximately 8.1 acre-feet per year. All improvements onsite would meet latest plumbing code requirement for water efficiency. The Project's water demand is consistent with the City's overall water demand that is anticipated by the General Plan. As such, the City's current and Projected water supplies are adequate to accommodate the Project's water demand while meeting existing water demands during normal, dry, and multiple dry years. The Project would incorporate water-conserving fixtures, appliances, and landscaping. Therefore, impacts to water supplies as a result of the Project would be less than significant.

5.19(c) (Sufficient Wastewater Treatment) Less Than Significant Impact: The City provides sanitary sewer service to the Project site via an existing service line located within the Grant Street right-of-way. The Project includes installation of an 8-inch diameter service pipeline within Redwood Avenue and the new private roadway to provide wastewater services to the Project site. Wastewater generated by the Project would be conveyed to the City's Dunaweal Waste Water Treatment Plant (WWTP), which has sufficient operating capacity to process effluent generated by the Project. Discharge of effluent from the proposed Project uses would not exceed wastewater treatment requirements set forth by the Regional Water Quality Control Board.

The increase in wastewater generated by the Project is within the flow capacity analyzed as part of the 2003 FEIR and reflected in the 2020 Infrastructure Element. Furthermore, the Project is subject to Development Impact Fees, including a wastewater fee, which is used to fund maintenance and expansion of wastewater conveyance systems and treatment facilities. In accordance with General Plan Objective I-3.1 and policies P3.1-3 and -5, the capacity of the City's wastewater treatment plant is monitored and the demand for wastewater facilities generated by the Project has been considered through the land use planning process.

The Project's wastewater generation is estimated to be approximately 4.785 acre-feet per year (afy). According to the General Plan Infrastructure Element (2020), the City's remaining treatment capacity in 2019 was approximately 232 afy and is Projected to be 140 afy in 2035. Wastewater generated by the proposed Project is in line with what was analyzed in the FEIR and anticipated in the General Plan (2020 Infrastructure Element) and there is sufficient treatment capacity to meet demands. As such, the proposed Project would not require or result in the construction or expansion of new wastewater treatment facilities. Therefore, Project impacts to the wastewater treatment system would be less than significant.

5.19 (d, e) (Solid Waste Generation/Compliance with Solid Waste Management) Less Than Significant Impact: During construction, the Project would generate waste from demolition and vegetation/tree removal. Consistent with CalGreen Mandatory Measures, and as a standard requirement for building permits, the applicant would be required to recycle or salvage at least 65 percent of nonhazardous construction and demolition waste and prepare a Construction Waste Management Plan that documents the diversion of materials. Accordingly, impacts associated with construction waste would be less than significant.

At operation, the Project would generate solid waste including debris, recyclables, and compostable. The City is under contract with Upper Valley Disposal & Recycling for hauling, sorting, and disposal of waste. Solid waste is collected and transferred to landfill sites with remaining capacity. Although the waste stream generated by the Project is expected to increase during construction and operation, it is not expected to exceed landfill capacity and is not expected to result in violations of federal, state, and local statutes and

regulations related to solid waste. Therefore, the disposal of solid waste resulting from Project construction and operation would have less than significant impacts.

Mitigation Measures*:* None Required.

5.20. WILDFIRE

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

Sources: City of Calistoga General Plan, as amended and 2003 General Plan EIR; Calistoga Very High Fire Hazard Severity Zones in Calistoga Local Responsibility Area, produced by CalFire, September 23, 2008.

Wildfire Setting

Calistoga is susceptible to wildland fires due to the steep topography, abundant fuel load, and climatic conditions, primarily in the region southwest of Highway 128/SR 29/Foothill Boulevard, which is designated as "Very High Fire Hazard Severity Zone" within the Local Responsible Area by CAL FIRE.[37]

In October 2017, the Tubbs Fire (Central LNU Complex) burned as close as 1.5 miles west of City limits, and in 2019, the Kincade Fire burned as close as 6 miles from City limits. Residents were exposed to secondary effects of the wildfire, such as smoke and air pollution. Smoke generated by wildfire consists of visible and invisible emissions that contain particulate matter (soot, tar, water vapor, and minerals) and gases (carbon monoxide, carbon dioxide, nitrogen oxides). Public health impacts associated with wildfire include difficulty in breathing, odor, and reduction in visibility.

[37] https://osfm.fire.ca.gov/media/5872/calistoga.pdf

The Project site is located within city limits and surrounded by roadways and residential development. The Project site is categorized as a Non-VHFHZ by CAL FIRE and surrounded by land designated as Non-VHFHZ on all sides. The Project site is located over 0.5 mile from areas designated as having a "Very High Fire Hazard Severity Zone."

Wildfire Impact Discussion

5.20(a) (Impair Emergency Plans) Less Than Significant Impact: The Project site is not located within a VHFHZ. Further, as proposed the Project would not interfere with an emergency response plan or emergency evacuation plan. There are no elements of the Project that would obstruct or otherwise impede emergency response access or evacuation. The Calistoga Fire Department is located less than one mile from the Project site, which would allow for short response times. The Project site is accessible from Grant Street, which provides access to regional roadways via Lincoln Street, including Silverado Trail to the north and SR 29/Foothill Boulevard to the south. The Project is designed to accommodate safe and efficient ingress and egress including for emergency vehicles. in the event of a wildfire, the Proposed Project is not expected to substantially impair an adopted emergency response plan or emergency evacuation plan. Therefore, impacts would be less than significant.

5.20(b-d) (Wildfire Risk Exacerbation, Infrastructure Contributing to Wildfire Risk, Exposure to Wildfire-Related Risks) Less Than Significant Impact: The Project site is categorized as a Non-VHFHZ by CAL FIRE, located approximately 0.5 miles from land designated as "Very High Fire Hazard Severity Zone." The Project site is relatively flat and is not subject to risks associated with flooding, landslides, or slope instability. It is surrounded by urban uses, which do not contain substantial fuel loads. The new residential buildings introduced by the Project would be constructed in compliance with the latest California Building Code and Fire Code, which contains standards for building materials, systems, and assemblies used in the exterior design and construction of new buildings. There are no factors, such as steep slopes, prevailing winds, or the installation/maintenance of new infrastructure, that would exacerbate fire risk or expose Project occupants to the uncontrolled spread of a wildfire, pollutant concentrations from a wildfire, post-fire slope instability, or post-fire flooding. Therefore, impacts would be less than significant.

Mitigation Measures: None Required.

5.21. MANDATORY FINDINGS OF SIGNIFICANCE (CAL. PUB. RES. CODE §15065)

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Does the Project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b) Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a Project are considerable when viewed in connection with the effects of past Projects, the effects of other current Projects, and the effects of probable future Projects)?	☐	☐	☒	☐
c) Does the Project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Mandatory Findings Discussion

5.21(a) (Degrade the Environment): Less Than Significant Impact: The Project is located within the City of Calistoga and is consistent with the General Plan Land Use designation and zoning for the site, including goals, policies, and programs of the City. The Project site is currently underutilized and is partially developed with existing structures, and ancillary improvements. Undeveloped portions of the site consist of ruderal habitat occupied by mature trees and a drainage feature that extends along the western site boundary. The Project proposes to remove 102 protected trees and establish a 25-foot buffer from the drainage feature, where replanting of 112 native oaks would occur and development would be precluded.

The proposed development would not adversely impact sensitive habitat, riparian areas, nor would the Project result in significant impacts to special-status plant or wildlife species. With implementation of mitigation measures set forth above in air quality, biological resources, cultural and tribal cultural resources, geology and soils, hazards and hazardous materials, and hydrology and water quality, as well as adherence to the City's uniformly applied development standards including erosion control, the Project's potential impacts to the quality of the environment would be reduced to levels below significance. As such, the Project would not degrade the quality of the environment, reduce habitat, or adversely affect cultural resources.

5.21(b) (Cumulatively Affect the Environment) Less Than Significant Impact: The CEQA Guidelines define cumulative impacts as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The individual effects may be changes resulting from a single Project or increase in environmental impacts. The cumulative impact from several Projects is the change in the environment which results from the incremental impact of the proposed Project when added to other closely related past, present, and reasonably foreseeable probable future Projects. Cumulative impacts can result from individually minor but collectively significant Projects taking place over a period of time" (Guidelines, Section 15355(a)(b)).

The analysis of cumulative impacts for each environmental factor can employ one of two methods to establish the effects of other past, current, and probable future Projects. A lead agency may select a list of Projects, including those outside the control of the agency, or, alternatively, a summary of Projections. These Projections may be from an adopted general plan or related planning document, or from a prior environmental document that has been adopted or certified, and these documents may describe or evaluate the regional or area-wide conditions contributing to the cumulative impact.

The proposed Project is consistent with the City's General Plan land use designation for the site and the City's long-range plan for future development. As described in **Sections 5.1 – 5.20** of this document, potential environmental impacts are expected to remain at, or be mitigated to, less than significant levels. As such, short-term impacts of the Project would not be considered cumulatively considerable.

Development of the proposed Project, in combination with future development in the City of Calistoga and County of Napa could result in long-term impacts to biological resources due to the removal of a substantial quantity of protected native oaks, if replacement criteria are not fulfilled.

Although development would occur on land that has been subject to past disturbance, the Project would introduce hardscape, infrastructure, and would remove numerous protected mature native oak trees and introduce residential development on one of the few remaining undeveloped parcels within City limits. However, the City's General Plan land use and zoning regulation for the subject site, anticipate residential development, and include policies and actions intended to provide protection while accommodating growth. The Project's potential to result in cumulatively considerable impacts to biological resources including past, present, and future impacts, would be reduced to less than significant levels with implementation of mitigation measures (BIO-1- BIO-8) and adherence to uniformly applied development standards including the City's Tree Ordinance. Therefore, with mitigation the proposed Project would result in less than significant cumulative impacts to biological resources.

Due to the site's high sensitivity for prehistoric resources, if present, the Project could contribute to the cumulative loss of cultural and tribal cultural resources. However, with implementation of Mitigation Measure CUL-1, development of the proposed Project would not result in cumulatively considerable impacts to cultural and tribal cultural resources. Therefore, with mitigation the proposed Project would result in less than significant cumulative impacts to cultural resources.

Development and operation of the proposed Project would result in potentially significant impacts; however, those impacts would be reduced to less-than-significant levels with implementation of mitigation measures. Therefore, the Project's potential to result in cumulatively considerable impacts is considered to be less than significant.

5.21(c) (Substantial Adverse Effect on Humans) Less Than Significant Impact: The proposed Project has the potential to result in direct or indirect adverse impacts to human beings due to air quality, hazardous materials, hydrology and water quality, and noise, that has the potential to affect human beings. With mitigation measures set forth herein, potential impacts would be reduced to less than significant levels.

Therefore, the Project would have less than significant impacts due to substantial adverse environmental effects.

Mitigation Measures: None Required.

6. REFERENCE DOCUMENTS

The following information sources were referenced in the preparation of this initial study/ mitigated negative declaration and are available for review online or at the Planning & Building Department, City of Calistoga, 1232 Washington Street, Calistoga:

6.1. TECHNICAL APPENDICES

A. Site Plan for 2008 Grant Street, prepared by CBG Civil Engineers, December 2, 2021.

B. Air Quality and Greenhouse Gas Assessment 2008 Grant Street, prepared by Kimley-Horn and Associates, May 2021.

C. Arborist Report, prepared by Michael Baefsky, Trees, Bugs, Dirt Landscape Consulting & Training, February 1, 2022.

D. Biological Resources Assessment, prepared by AES, August 2021.

E. Cultural Resources Constraints Analysis, prepared by Solano Archaeological Services, October 28, 2020.

F. A Historic Resource Evaluation of the Property Located at 2008 Grant Street, prepared by Evans & De Shazo, November 23, 2021.

G. Geotechnical Study Report, prepared by RGH Consultants, December 22, 2021.

H. Phase I Environmental Site Assessment, prepared by AdvancedGeo, September 25, 2020.

I. Stormwater Control Plan, prepared by Carlson, Barbee & Gibson, Inc, April 2021.

J. Construction Noise Assessment, prepared by Bollard Acoustical Consultants, January 6, 2022.

K. Focused Traffic Study for the 2008 Grant Street Residential Project, prepared by W-Trans, August 26, 2021.

6.2. PROJECT PLAN AND STUDIES REFERENCED

1. Map 2008 Grant Street, prepared by CBG Civil Engineers, December 2, 2021.
2. Architectural Plans, prepared by OAG, April 5, 2021.
3. Overall Landscape Plan, prepared by vTA, January 27, 2022.
4. Tree Evaluation, prepared by Macnair & Associates, August 8, 2017.
5. Biological Permitting Memorandum, prepared by AES, December 1, 2021.
6. 2021 Focused Botanical Surveys, prepared by AES, May 5, 2021.
7. Stream Assessment for 2008 Grant St. Residential Development, prepared by AES, May 21, 2021.
8. Biological Resources Assessment, prepared by Lucy Macmillan, July 2018.
9. Hydrologic and Hydraulic Modeling for Preliminary Stormwater Control Planning, prepared by Balance Hydrologics, Inc., April 8, 2021.
10. Preliminary Wastewater Generation Report, prepared by CBG Civil Engineers, March 15, 2021.

6.3. OTHER DOCUMENTS REFERENCED

1. 2019 California Green Building Standards Code (CalGreen), Effective January 1, 2020.
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7. MITIGATION MONITORING AND REPORTING PROGRAM

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Mitigation Monitoring and Reporting Program

2008 Grant Street

APN 011-010-033

Mitigation Measure	Implementing Procedure	Monitoring Responsibility	Monitoring Schedule	Verification
AESTHETICS				
AES-1: To prevent a potential conflict with the City's tree ordinance and minimize changes to the site's scenic quality due to tree removal, Mitigation Measures BIO-7 and BIO-8, set forth below shall be implemented.	See BIO-7/BIO-8			
AES-2 Prior to issuance of a building permit, the project applicant shall prepare, and the City shall review and approve a Code compliance lighting plan. The lighting plan shall demonstrate that new lighting fixtures are shielded and/or recessed to avoid light overspill, and that each light fixture is directed downward and away from adjoining properties and is consistent with the International Dark Sky Association model ordinance objectives by providing the minimum lighting level necessary for night-time safety, utility, security, productivity, enjoyment, and commerce and minimizing sky glow, light overspill and obtrusive lighting levels.	Incorporate into project design and print on construction documents	Calistoga Planning and Building Department	Prior to issuance of a building permit	
AIR QUALITY				
AQ-1: During all construction activities including demolition and ground disturbance activities, on and offsite, the contractor shall implement the latest BAAQMD recommended Best Management Practices (BMPs) to control for fugitive dust and exhaust as follows: 1. All exposed surfaces (e.g., parking areas, staging areas, soil piles,	Incorporate into project design and print on construction documents	Calistoga Planning and Building Department Project	Prior to issuance of a grading permit Ongoing	

Mitigation Measure	Implementing Procedure	Monitoring Responsibility	Monitoring Schedule	Verification
graded areas, and unpaved access roads) shall be watered two times per day. 2. All haul trucks transporting soil, sand, or other loose material shall be covered. 3. All visible mud and dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. 4. All vehicle speeds on unpaved roads shall be limited to 15 mph. 5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as practicable. Building pads shall be laid as soon as practicable after grading unless seeding or soil binders are used. 6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. 7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper working condition prior to operation. 8. A publicly-visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints shall be posted on the project site prior to the initiation of construction activities. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.	On-site observation	Applicant Contractor	throughout project construction	

Mitigation Measure	Implementing Procedure	Monitoring Responsibility	Monitoring Schedule	Verification
BIOLOGICAL RESOURCES				
BIO-1: Prior to the start of construction activities, a preconstruction survey of the potentially suitable habitat for the Western pond turtle (WPT), Red-bellied newt, and the California giant salamander shall be conducted by a qualified biologist. If individuals are identified, the biologist shall establish avoidance buffers, as feasible, allow for species to vacate work zone, or prepare and execute a species relocation plan to be reviewed and accepted by the CDFW. Once the work area has been surveyed and deemed clear of special status species, and prior to start of construction activities and under the supervision of a qualified biologist, wildlife exclusion fencing shall be the installed along the onsite drainage feature, between the drainage feature and ground disturbing activities, to impede the migration of WPT, Red-bellied newt, and California giant salamander from entering the construction area, and where determined necessary by the qualified biologist. Exclusion fencing shall be buried at least 6-inches deep and routinely inspected and maintained throughout construction activities. Upon completion of construction activities and as directed by the qualified biologist, all construction exclusion fencing shall be removed.	Conduct a pre-construction survey by a qualified biologist The City shall be provided with the resume of the qualified biologist demonstrating detection experience If necessary, establish a protection buffer zone	Calistoga Planning and Building Department Project Applicant Contractor Qualified Biologist CDFW	Prior to construction activities Ongoing throughout project construction	
BIO-2: If use of pesticides are included as part of the construction activities or as part of the landscaping maintenance plan at operation, only approved pesticides shall be used. Spraying of insecticides shall be limited or refrained from use within the 25-foot setback area from the drainage feature. Improvement plan and construction drawing shall note the requirement for use of approved pesticides and preclusion of insecticides within 25-feet of the drainage feature. The CCR's recorded by the Home Owner's Association shall specify provisions for use of natural pesticides, compliance with application and quantifies for approved pesticide, and the preclusion of insecticides within the 25 foot riparian buffer. The Applicant shall submit CCR language regarding insecticide and pesticide use to the City for review and approved prior to recording. Additionally, the Final Landscaping Plan shall include bee	Incorporate into project design and print on construction documents Verify through review of CCRs	Calistoga Planning and Building Department Project Applicant/HOA Contractor	Prior to construction activities Ongoing throughout project construction Prior to issuance of occupancy	

Mitigation Measure	Implementing Procedure	Monitoring Responsibility	Monitoring Schedule	Verification
friendly planting species, known to benefit native bees which may include coyote brush, sage, and lupines.				
BIO-3: To avoid impacts to Pallid bat and Townsend's big-eared bat if present onsite, building removal shall only be conducted during seasonal periods of bat activity, between August 31 and October 15, when bats would be able to fly and feed independently, and between March 1 and April 1 to avoid hibernating bats, and prior to the formation of maternity colonies. A biologist, one with at least two years of experience surveying for bats, shall conduct a preconstruction survey (bat habitat assessment) of the manmade structures, including within rafters and attics, as well as trees that would be removed no more than 14 days prior to demolition or commencement of site improvement activities. If no special-status bats are found during the surveys, then the biologist shall provide a memo summarizing the results of the survey to the City, and construction activities may commence. If bat signs are observed, an emergence dusk survey shall be conducted. If bat roosts are found, then a plan shall be developed and implemented by the Project applicant for removal and exclusion, which plan shall be reviewed and accepted by the CDFW. If building removal must occur outside the seasonal activity periods (i.e., between October 16 and the end of February, or between April 2 and August 30), then a qualified biologist, shall conduct preconstruction surveys within 14 days of building demolition, and determine if there are young present (i.e., the biologist will determine if there are maternal roosts). If a maternity site is found, impacts to the maternity site shall be avoided by establishment of a fenced, non-disturbance buffer until the young have reached independence (i.e., are flying and feeding on their own) as determined by a qualified biologist. The size of the buffer zone shall be determined by a qualified biologist at the time of the surveys. If the qualified biologist finds evidence of roosting bats but not a maternity site with young, then a plan shall be developed for removal and exclusion, for review and acceptance by the CDFW. The biologist	Conduct a pre-construction survey by a qualified biologist Provide the city with the resume of the qualified biologist demonstrating roosting bat survey and detection experience On-site observation If necessary, establish a protection buffer zone	Calistoga Planning and Building Department Project Applicant Contractor Qualified Biologist CDFW	Prior to construction activities Provide the pre-construction survey to the city Ongoing throughout project construction	

Mitigation Measure	Implementing Procedure	Monitoring Responsibility	Monitoring Schedule	Verification
shall provide the City with a report detailing the results of the survey and any recommendations, as warranted, required for establishment of protective buffers for bat roosts, if identified. Recommendations shall be reviewed and accepted by the City and CDFW and implemented by the project biologist. Removal of trees with the potential to support special status bats shall be felled following a two-step process as recommended by the CDFW. Felled trees shall be left overnight prior to removal from the site or onsite shipping.				
BIO-4: To avoid and minimize potential impacts to nesting birds including passerines and raptors, the following measures shall be implemented: 1. Grading or removal of potentially occupied habitat should be conducted outside the nesting season, which occurs between approximately February 1 through August 31. 2. If grading during the nesting season, generally February 1 through August 31 is infeasible and construction activities (e.g., demolition, tree removal, groundbreaking, or earthwork) must occur within the nesting season, a pre-construction nesting bird survey (migratory species, passerines and raptors) of the potentially occupied habitat (trees, structures, and ruderal habitat) within 500 feet of construction limits shall be performed by a qualified biologist no more than 7 days prior to the start of construction activities. If no nesting birds are observed, no further action is required, and grading shall occur within one week of the survey to prevent "take" of individual birds that could begin nesting after the survey. 3. If active bird nests (passerine and/or raptor) are observed during the pre-construction survey, a disturbance-free buffer zone shall be established around the occupied habitat until the young have fledged, as determined by a qualified biologist. a. The radius of the required buffer zone can vary depending on the	Conduct a pre-construction nesting bird survey by a qualified biologist if construction would occur during the bird nesting season The City shall be provided with the resume of the qualified biologist demonstrating nesting bird survey and detection experience The qualified biologist shall	Calistoga Planning and Building Department Project Applicant Contractor Qualified Biologist	Prior to construction activities Ongoing throughout project construction	

Mitigation Measure	Implementing Procedure	Monitoring Responsibility	Monitoring Schedule	Verification
species, (i.e., 75-100 feet for passerines and 200-500 feet for raptors), with the dimensions of any required buffer zones to be determined by a qualified biologist in consultation with the CDFW, as required. b. To delineate the buffer zone around the occupied habitat, appropriate construction fencing and exclusion signage shall be placed at the specified radius from the nest within which no machinery or workers shall intrude. c. Biological monitoring of active nests shall be conducted by a qualified biologist to ensure that nests are not disturbed and that buffers are appropriately adjusted by a qualified biologist as needed to avoid disturbance. d. No construction or earth-moving activity shall occur within any established nest protection buffer prior to September 1 unless it is determined by a qualified ornithologist/biologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid Project construction zones, or that the nesting cycle is otherwise completed. e. At the time the qualified biologist determines that the nesting cycle is complete, all buffer zone fencing shall be removed. 4. Should construction activities cease for 7 days or more during the breeding season, surveys shall be repeated by a qualified biologist to ensure birds have not establishes nests during inactivity.	have minimum of 2 years experience implementing the CDFW 2012 survey methodology resulting in detections If necessary, establish a protection buffer zone			
BIO-5: During construction activities and specifically installation of the proposed free span bridge over the onsite drainage feature, direct and indirect impacts to the identified waters of the State shall be avoided through the bridge design (free span with abutments above the highwater mark and outside the top of bank and a minimum clearance of one-foot between the bottom of the bridge and the 100-year storm water surface elevation) and installation procedures (using properly	Incorporate into project design and print on construction documents	Calistoga Planning and Building Department Calistoga Public Works	Prior to construction activities Ongoing throughout project	

Mitigation Measure	Implementing Procedure	Monitoring Responsibility	Monitoring Schedule	Verification
maintained construction equipment, locating equipment as far as possible from the drainage feature, and conducted work during the dry season). Best management practices (BMPs) shall be installed prior to earth-work and installation of the bridge to protect the onsite drainage feature. Designated work areas shall be established by a qualified biologist to ensure that there are no inadvertent impacts to waters of the State, and to downstream receiving waters within the watershed. BMPs shall include use of properly maintained and inspected construction equipment, staging of equipment away from the drainage feature, use of orange construction fencing, silt fencing, wildlife friendly hay wattles (that is, no monofilament netting), and gravel wattles, as well as other protective measures installed between Project construction activities and the drainage feature. Orange construction fencing and other appropriate BMPs shall be installed along the eastern edge of the drainage feature, north of the proposed crossing and both east and west of the feature south of the crossing to protect the top of bank as well as the tree canopy of the drainage feature. Prior to the start of construction, a biological monitor shall inspect installation of BMPs to ensure that the drainage feature is adequately protected. BMPs shall thereafter be routinely inspected by the construction manager to ensure BMPs remain in place for the duration of the construction Project. Upon completion of Project construction all orange fencing shall be removed along with any temporary BMPs.	Verify through on-site observation	Department Project Applicant Contractor Registered Civil Engineer	construction Prior to issuance of occupancy	
BIO-6: In the event that the bridge design requires abutments located within the top of bank and/or removal of the existing culvert, or at the discretion of the regulatory agencies (CDFW and RWQCB), then the Project shall satisfy compensatory mitigation requirements for all temporary and permanent impacts including compliance with Section 401 of the Clean Water Act, through acquisition of a 401 Water Quality Certification issued by the RWQCB and/or Section 1602 of the Fish and Game Code, through acquisition of a Lake or Streambed Alteration	Incorporate into project design and print on construction documents Verify through on-site	Calistoga Planning and Building Department Calistoga Public Works Department	Prior to construction activities Ongoing throughout project construction	

Mitigation Measure	Implementing Procedure	Monitoring Responsibility	Monitoring Schedule	Verification
Agreement. The Applicant shall submit to the City proof that notification of the proposed construction action, tree removal and replacement planting plan, invasive species management plan, and ongoing maintenance plan for management of the drainage feature and the area within 25 feet of the top of bank, has been provided to the RWQCB and the CDFW, as required, and that compensatory mitigation, if required, has been reviewed and accepted by the regulatory agencies.	observation	Project Applicant Contractor Registered Civil Engineer CDFW RWQCB		
BIO-7: To mitigate for the proposed removal of 102 protected trees, including 11 protected trees within the riparian buffer and 91 trees throughout the balance of the project site, the applicant shall prepare a Final Landscape Plan and a Tree Permit Application for review and acceptance by the City demonstrating a minimum replacement of 112 native trees within the riparian buffer and 273 replacement trees on the balance of the site or a monetary reimbursement equal to the cost of tree replacement and in conformance with Chapter 19.01. The applicant shall include the planting of appropriately sized trees as part of the Project's Final Landscaping Plan, in conformance with the City's Tree Ordinance, and CDFW replacement ratios for removal of riparian trees to offset removal of protected trees. All requirements and restrictions contained in Chapter 19.01 of the City's Municipal Code shall be met, including the incorporation of replacement trees for trees slated for removal, protection of trees to remain onsite (see BIO-8), as well as any recommendations of the Project arborist including those set forth in the Tree Protection Plan. The following provisions shall be implemented: a. The applicant shall prepare and submit a Tree Permit Application for review and acceptance by the City of Calistoga, at the discretion of the Director of Public Works. Tree replacement shall demonstrate the City's 3:1 replacement ratio and minimum container size of 24-gallons for replacement trees, unless otherwise accepted by the Director of Public Works. If onsite replacement planting is not feasible, the City, may	On-site observation Incorporate into project design and print on construction documents.	Calistoga Planning and Building Department Calistoga Public Works Department Project Applicant Qualified Arborist	Prior to issuance of a demolition permit	

Mitigation Measure	Implementing Procedure	Monitoring Responsibility	Monitoring Schedule	Verification
accept a monetary reimbursement, at the Public Work Director's discretion equal to the cost of replacement (Tree Mitigation deposits shall be a minimum of $250.00 for each tree removed. Mitigation deposits on the protected Valley Oak shall be $750.00 for each tree removed). The monetary reimbursement shall be used by the City to fund replacement planting at other locations within the City such as at public parks, along City right-of-way, and/or at other appropriate locations. b. Adherence to all recommendations identified in the Riparian Corridor Tree Removal & Mitigation Plan including meeting the CDFW recommended replanting ratios for removal of native oak trees (e.g., 4:1 for removal of oaks between 5 and 10 inches diameter breast height (DBH), 5:1 for removal of oaks between 10 and 15 inches DBH, and 10:1 for removal of oaks greater than 15 inches DBH). Refer the Riparian Corridor Tree Removal & Mitigation Plan to the CDFW for review and comment. The Applicant shall integrate all recommendations provided by the CDFW for riparian tree removal and replanting. c. Native tree replacement shall be sourced from local nurseries using best management practices to avoid the spread of Phytophthora sp., and/or shall be sourced from acorns found at the Project site, or other appropriate local acorn collection site. Prior to planting acorns found at the Project site, or locally, a qualified arborist shall ensure that acorns will not inadvertently spread Phytophthora sp (e.g., Phytophthora ramorum), which causes Sudden Oak Death. d. A minimum of 5 years of monitoring of all planted oak trees is required and replacement plantings shall achieve a minimum 80 percent survival by the end of the monitoring period. If planted oak trees are not achieving success criteria during any of the monitoring years, additional oaks shall be planted and monitored and maintained for 5 years to ensure they achieve the success criteria. Planted oaks shall be surrounded by cages if there is a potential for deer browse. Cages shall				

Mitigation Measure	Implementing Procedure	Monitoring Responsibility	Monitoring Schedule	Verification
be removed once oak trees are large enough to withstand deer browse. Watering and weeding around oak trees may be necessary to ensure their survival. The applicant shall consult with the Napa County Resource Conservation District, or qualified arborist, regarding caring for planted oak trees.				
BIO-8: Prior to issuance of a grading permit, the applicant shall incorporate the applicable recommended tree protection measures for trees that will be preserved onsite identified in the Project arborist report into a Tree Protection Plan prepared by a qualified arborist in accordance with Section 19.01.040E of the City's Municipal Code and submit the plan to the City for review and acceptance. The Protection Plan shall identify locations for the installation of temporary protective fencing surrounding protected trees to remain and specify restrictions for root cutting, tree trimming, trenching, irrigation, parking, staging of construction equipment, and other activities that might cause harm to protected trees. The Protection Plan including all recommendation of the Project Arborist shall be implemented by the applicant during all stages of construction.	Prepare and implement a Tree Protection Preservation Plan On-site observation	Calistoga Planning and Building Department Calistoga Public Works Department Project Applicant Qualified Arborist	Prior to issuance of a demolition and/or grading permit	
CULTURAL RESOURCES				
CUL-1: A professional archaeologist shall be onsite during initial ground disturbing activities to monitor potential uncovering of undiscovered archeological and tribal resources. The archaeologist shall have the authority to temporarily halt work upon discovery of potentially significant resources and earthwork within 100 feet of the discovery shall be immediately stopped until the archeologist inspects the resource, assess significance, consults with tribes and related parties, and provides recommendations on treatment of the discovery. The City shall be notified of any such discoveries and the Project applicant shall implement the recommendations of the archaeologist.	Incorporate into project design and print on construction documents On-site observation	Calistoga Planning and Building Department Project Applicant Contractor Qualified Archaeologist	Prior to issuance of a demolition and/or grading permit During ground disturbance activities	

Mitigation Measure	Implementing Procedure	Monitoring Responsibility	Monitoring Schedule	Verification
CUL-2: In the event that human remains are encountered within the Project Area during Project-related, ground-disturbing activities, all work must stop, and the County Coroner shall be immediately notified of the discovery. If the County coroner determines that remains are, or are believed to be Native American, then the Native American Heritage Commission (NAHC) must be contacted by the Coroner so that a "Most Likely Descendant" (MLD) can be designated to provide further recommendations regarding treatment of the remains. A Secretary of Interior-qualified Archaeologist shall evaluate the historical significance of the discovery, the potential for additional human remains to be present, and to provide further recommendations for treatment of the resource in accordance with the MLD recommendations and the Project applicant shall implement the recommendations of the archaeologist. Federal regulations require that Native American human remains, funerary objects, and object of cultural patrimony are handled consistent with the requirement of the Native American Graves Protection and Repatriation Act.	Incorporate into project design and print on construction documents On-site observation	Calistoga Planning and Building Department Project Applicant Contractor Qualified Archaeologist NAHC MLD County Coroner	Prior to issuance of a demolition and/or grading permit During ground disturbance activities	
GEOLOGY AND SOILS				
GEO-1: The Project applicant shall implement and comply with all applicable recommendations in the Geotechnical Study Report (RGH Consultants) prepared for the subject property, including seismic design for structures foundation support, retaining walls, slab-on-grade, utility trenches, pavement, geotechnical drainage, and maintenance. Final grading plan, construction plans, and building plans shall demonstrate that recommendations set forth in the geotechnical report have been incorporated into the design of the Project and to the satisfaction of the City of Calistoga's Civil Engineer.	Incorporate into project design and print on construction documents	Calistoga Public Works Department/ City Engineer Project Applicant Geotechnical Consultant	Prior to issuance of a grading permit	

Mitigation Measure	Implementing Procedure	Monitoring Responsibility	Monitoring Schedule	Verification
GEO-2: Prior to issuance of a grading permit, an erosion control plan along with grading and drainage plans shall be submitted to the City's Planning and Building Department. All earthwork, grading, trenching, backfilling, and compaction operations shall be conducted in accordance with the City of Calistoga's Stormwater Runoff Pollution Control Ordinance, Chapter 19.05 of the Calistoga Municipal Code. The erosion control plan shall detail erosion control measures such as site watering, sediment capture, equipment staging and laydown pad, and other erosion control measures to be implemented during construction activity on the project site.	Incorporate into project design and print on construction documents	Calistoga Public Works Department/ City Engineer Project Applicant Registered civil engineer	Prior to issuance of a grading permit Ongoing throughout project construction	
GEO-3: In the event that paleontological resources, including individual fossils or assemblages of fossils, are encountered during construction activities all ground disturbing activities shall halt and a qualified paleontologist shall be procured to evaluate the discovery and make treatment recommendations. The Project applicant shall implement and comply with the recommendations of the paleontologist.	Incorporate into project design and print on construction documents On-site observation	Calistoga Planning and Building Department Project Applicant Contractor Qualified Paleontologist	Ongoing throughout project construction	
HAZARDS AND HAZARDOUS MATERIALS				
HAZ-1: Prior to any activities involving the demolition of the existing buildings onsite, an asbestos survey adhering to sampling protocols outlined by the Asbestos Hazard Emergency Response Act (AHERA) and material sampling to determine lead-based paint presence shall be performed. Construction activities that disturb materials or paints containing any amount of lead and/or friable asbestos shall be subject to requirements of the Occupational Safety and Health Administration (OSHA) lead standard contained in 29 CFR 1910.1025 and 1926.62, AHERA requirements, and any other local, state, or federal regulations. In the event that such substances are found, the applicant will adhere to all	Prepare and submit survey for review and acceptance by the city On-site observation	Calistoga Planning and Building Department Calistoga Fire Department Project Applicant	Prior to construction activities Ongoing throughout project construction	

Mitigation Measure	Implementing Procedure	Monitoring Responsibility	Monitoring Schedule	Verification
requirements put forth by OSHA and other agencies regarding the treatment, handling, and disposal of these materials. The Project shall comply with all federal, state, and local regulations when conducting work on buildings and structures involving asbestos and lead paints. The applicant shall submit results of the surveys and/or evidence of proper disposal to the Calistoga Planning and Building Department.		Contractor		
HYDROLOGY AND WATER QUALITY				
HYDRO-1: In accordance with the National Pollution Discharge Elimination System regulation, the applicant shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) prior to construction. The SWPPP shall address erosion and sediment controls, proper storage of fuels, temporary erosion control including fiber rolls, staked straw bales, geofabric, and sandbags, and identification for use and cleanup of hazardous materials. Sediment shall be retained onsite by a system of sediment basins, traps, or other appropriate measures. A Notice of Intent, fees, and other documentation shall be filed with the Regional Water Quality Control Board.	Prepare and submit SWPPP for review and acceptance by the city and RWQCB Incorporate into project design and print on construction documents	Calistoga Planning and Building Department Calistoga Public Works Department RWQCB Project Applicant	Prior to construction activities Ongoing throughout project construction	
HYDRO-2: Should construction dewatering be required, the applicant shall either reuse the water on-site for dust control, compaction, or irrigation, retain the water on-site in a grassy or porous area to allow infiltration/evaporation, or obtain a permit to discharge construction water to a sanitary sewer or storm drain. Discharges to the sanitary sewer system shall require a one-time discharge permit from the City of Calistoga. Measures may include characterizing the discharge and ensuring filtering methods and monitoring to verify that the discharge is compliant with the City's local wastewater discharge requirements. Discharges to a storm drain shall be conducted in a manner that complies with the Regional Water	Incorporate into project design and print on construction documents Prepare Construction Monitoring Report that documents periodic site	Calistoga Public Works Department Project Applicant Contractor	Ongoing throughout project construction	

Mitigation Measure	Implementing Procedure	Monitoring Responsibility	Monitoring Schedule	Verification
Quality Control Board Waste Discharge Requirements for Low Threat Discharges to Surface Waters. In the event that groundwater is discharged to the storm drain system, the Applicant shall submit permit registration documents and develop a Best Management Practices/Pollution Prevention Plan to characterize the discharge and to identify specific BMPs, such as sediment and flow controls sufficient to prevent erosion and flooding downstream.	inspections during grading to ensure measures are in place			
HYDRO-3: A final stormwater control plan shall be prepared by the applicant and approved by the City prior to initiating construction activities. The permanent and operational runoff pollutant source control BMPs included in the project's final stormwater control plan shall be incorporated into construction plans and documents and implemented during construction and after project completion. The project's stormwater treatment and flow-control facilities shall be maintained in perpetuity.	Incorporate into project design and print on construction documents	Calistoga Public Works Department Project Applicant	Prior to construction activities Ongoing throughout project construction	
NOISE				
NOI-1: The following Best Construction Management Practices shall be implemented to reduce construction noise levels emanating from the site, limit construction hours, and minimize disruption and annoyance: 1. Construction hour/scheduling: a. Pursuant to Calistoga Municipal Code Section 8.20.025(A), construction activities for all phases of construction, including servicing of construction equipment, shall not occur on Sundays or between 7:00 p.m. and 7:00 a.m., any time during the week. b. Delivery of materials or equipment to the site and truck traffic coming to and from the site should not occur during the restricted hours specified above in 1a. 2. Construction Equipment Mufflers and Maintenance: All construction equipment powered by internal combustion engines shall be	Incorporate into project design and print on construction documents Assign a disturbance coordinator to respond to complaints and address noise concerns as they arise	Calistoga Planning and Building Department Project Applicant Contractor Disturbance Coordinator	Ongoing throughout project construction	

Mitigation Measure	Implementing Procedure	Monitoring Responsibility	Monitoring Schedule	Verification
properly muffled and maintained. 3. Idling Prohibitions: All equipment and vehicles shall be turned off when not in use. Unnecessary idling of internal combustion engines shall be prohibited. 4. Equipment Location and Shielding: All stationary noise-generating construction equipment, such as air compressors, shall be located as far as practical from the adjacent residences. Such equipment shall be acoustically shielded when it must be located within 30 feet of adjacent residences. 5. Staging and Equipment Storage: Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive receptors. 6. Equipment and Vehicle Movements: Project area and site access road speed limits shall be established by the contractor and verified by the site inspector and enforced during the construction period. 7. Schedule Notification: Nearby residences shall be notified of construction schedules so that arrangements can be made, if desired, to limit their exposure to short-term increases in ambient noise levels. 8. Noise Disturbance Coordinator: The Project developer shall designate a "noise disturbance coordinator" who will be responsible for responding to any local complaints about construction noise. This individual would most likely be the contractor or a contractor's representative. The disturbance coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and would require that reasonable measures warranted to correct the problem be implemented. The telephone number for the disturbance coordinator shall be conspicuously posted at the construction site.				

Mitigation Measure	Implementing Procedure	Monitoring Responsibility	Monitoring Schedule	Verification
NOI-2: The Project applicant shall implement the construction vibration control measures, as provided under the Construction Noise & Vibration Assessment, prepared by Bollard Acoustical Consultants, Inc, listed below: 1. Vibration-Generating Equipment: Use of heavy vibration-generating construction equipment, such as large vibratory rollers, shall not be used within 30 feet of the nearest residences. The Project contractor shall use smaller vibratory rollers when compacting materials within the 30-foot setback distance. 2. Dropping of Equipment: Within 30 feet of existing residences, Project construction activities shall utilize alternative methods for breaking up existing pavement, such as a pavement grinder, instead of dropping heavy objects within these setback distances. 3. Heavy Equipment Operators: The contractor shall alert heavy equipment operators to sensitive adjacent structures (i.e., residences within 30 feet) so they can exercise caution.	Incorporate into project design and print on construction documents Assign a disturbance coordinator to respond to complaints and address noise concerns as they arise	Calistoga Planning and Building Department Project Applicant Contractor	Ongoing throughout project construction	
TRIBAL CULTURAL RESOURCES **TCUL-1:** To protect buried Tribal Cultural Resources that may be encountered during construction activities, the Project applicant shall implement Mitigation Measure CUL-1 above.	See CUL-1			