

Veterans Home of California Yountville Skilled Nursing Facility

Draft Environmental Impact Report/ Environmental Assessment

SCH No. 2019039077

March 2020

CEQA Lead Agency:



**California Department of
Veterans Affairs**

NEPA Lead Agency:



**U.S. Department of
Veterans Affairs**

Prepared For:



**California Department of
General Services**

Prepared By:



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LIST OF APPENDICES

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CHAPTER ACRONYMS, ABBREVIATIONS, AND SYMBOLS

Acronym / Symbol	Full Phrase or Description
µg/m ³	micrograms per cubic meter
AB	Assembly Bill
ABAG	Association of Bay Area Governments
AC	asphalt concrete
ACHP	Advisory Council on Historic Preservation
ACCM	Asbestos-containing Construction Materials
ACM	Asbestos-containing Materials
ADA	Americans with Disabilities Act
ADT	average daily traffic
AECOM	AECOM Technical Services, Inc.
APE	Area of Potential Effects
AQ	Air Quality
ASL	above sea level
ASTM	American Society for Testing and Materials
ATCM	Airborne Toxic Control Measure
BAAQMD	Bay Area Air Quality Management District
BHP	Brake Horsepower
BIO	Biological Resources
BMPs	best management practices
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CalFire	California Department of Forestry and Fire Prevention
CALGreen Code	California Green Building Code
CAL/OSHA	California Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CalVet	California Department of Veterans Affairs
CARB	California Air Resources Board
CBC	California Building Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CDPH	California Department of Public Health
CEQ	White House Council on Environmental Quality
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFC	California Fire Code
CFR	Code of Federal Regulations
cfs	cubic feet per second
CGS	California Geological Survey
CH ₄	Methane
CHL	California Historic Landmark
CHRIS	California Historical Resources Information System
Clean Air Plan	Spare the Air-Cool the Climate 2017 Clean Air Plan
CNA	Certified Nurse Assistant

Acronym / Symbol	Full Phrase or Description
CNDDDB	California Natural Diversity Database
CNPPA	California Native Plant Protection Act
CNPS	California Native Plant Society
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
County Fire	Napa County Fire Department
CNRA	California Natural Resources Agency
CRHR	California Register of Historic Resources
CSSC	California Species of Special Concern
CTMP	construction traffic management plan
CUL	Cultural and Cultural Tribal Resources
CWA	Federal Clean Water Act
CY	Cubic Yards
DGS	California Department of General Services
DPM	Diesel Particulate Matter
DSA	California Division of the State Architect
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
EA	Environmental Assessment
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EOC	Napa County Emergency Operations Center
ESA	Federal Endangered Species Act
FEMA	Federal Emergency Management Agency
FMPE	CalVet Veterans Home of California Yountville Facilities Master Plan Evaluation
FONSI	Finding of No Significant Impact
FYLF	foothill yellow-legged frog
GEO	Geology and Soils
GHG	Greenhouse Gas(es)
gpd	gallons per day
gsf	gross square feet
GSP	Groundwater Sustainability Plan
GWh	Gigawatt hours
GWP	Global Warming Potential
GVWR	Gross Vehicle Weight Rating
HAP	Hazardous Air Pollutant
HAZ	Hazards and Hazardous Materials
HCM	Highway Capacity Manual
HFC	Hydrofluorocarbon
hp	horsepower
H ₂ S	Hydrogen Sulfide
HVAC	heating, ventilation, and air conditioning system
HYD	Hydrology and Water Quality

Acronym / Symbol	Full Phrase or Description
ICF	intermediate care facility
IPAC	USFWS Information for Planning and Consultation
IPCC	Intergovernmental Panel on Climate Change
IWMPs	Integrated Waste Management Plans
JRP	JRP Historical Consulting, LLC
JWTP	Joint Wastewater Treatment Plant
kBtu	kilo-British Thermal Units
kv	kilovolt
kWh	kilowatt hours
LBP	lead-based paint
lbs/MWh	Pounds per Megawatt-hour
LCFS	Low Carbon Fuel Standard
LCMs	lead-containing materials
LEED	Leadership in Environmental Design
LID	low impact development
LOS	Level of Services
LUST	leaking underground storage
MBTA	Migratory Bird Treaty Act
MEP	maximum extent practicable
mgd	million gallons per day
MMI	Modified Mercalli Intensity Scale
MMRP	Mitigation, Monitoring, and Reporting Plan
MPO	Metropolitan Planning Organization
MS4s	municipal separate storm sewer systems
MTC	Metropolitan Transportation Commission
MTCO _{2e}	Metric Tons of Carbon Dioxide Equivalents
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NAHC	Native American Heritage Commission
NCSPPP	Napa County Stormwater Pollution Prevention Program
NEPA	National Environmental Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NHPA	National Historic Preservation Act
N ₂ O	Nitrous Oxide
NO	Nitric Oxide
NO ₂	Nitrogen Dioxide
NO _x	Oxides of Nitrogen
NOI	Noise
NOAA Fisheries	National Oceanic and Atmospheric Administration National Marine Fisheries Service
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NRCS	United States Department of Agriculture Natural Resources Conservation Service

Acronym / Symbol	Full Phrase or Description
NRHP	National Register of Historic Places
NVTA	Napa Valley Transit Authority
NWI	National Wetlands Inventory
NWIC	Northwest Information Center
O ₃	Ozone
OEHHA	California Office of Environmental Health Hazard Assessment
OES	Napa County Office of Emergency Services
OSHA	Federal Occupational Safety and Health Administration
OSHPD	California Office of Statewide Health Planning and Development
NESHAP	National Emission Standards for Hazardous Air Pollutants
PCBs	polychlorinated biphenyls
PEL	Permissible Exposure Level
PERP	Portable Equipment Registration Program
PFC	Perfluorocarbon
PGA	peak ground acceleration
PG&E	Pacific Gas and Electric Company
Phase I ESA	Phase I Environmental Site Assessment
PM	Particulate Matter
PM ₁₀	Particles with an aerodynamic diameter between 2.5 and 10 microns
PM _{2.5}	Particles with an aerodynamic diameter smaller than 2.5
Point	Point of Historical Interest
ppm	Parts per Million
PPP	public private partnership
PRC	Public Resources Code
PV	photovoltaic
RECs	recognized environmental conditions
ROG	Reactive Organic Gasses
RPS	Renewable Portfolio Standard
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SAEZ	San Andreas Fault Zone
SAM	State Administrative Manual
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SCH	State Clearinghouse
SCS	Sustainable Communities Strategy
SDWA	California Safe Drinking Water Act
SF ₆	Sulfur Hexafluoride
SFBAAB	San Francisco Bay Area Air Basin
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SNF	skilled nursing facility
SO ₂	Sulfur Dioxide
SO ₄ ²⁻	Sulfates

Acronym / Symbol	Full Phrase or Description
SO _x	Oxides of Sulfur
SOI	United States Secretary of the Interior
SRRE	Source Reduction and Recycling Elements
State	State of California
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminant
TIA	Transportation Impact Analysis
TRA	Transportation
TSCA	Toxic Substances Control Act
UN	United Nations
USACE	United States Army Corps of Engineers
USC	United States Code
USDVA	United States Department of Veterans Affairs
U.S. EPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGBC	United States Green Building Council
USGS	United States Geological Survey
US HUD	United States Department of Housing and Urban Development
USS	Utilities and Service Systems
UVDS	Upper Valley Disposal Service
UWMPs	urban water management plans
VHC-Yountville	Veterans Homes of California, Yountville campus
VMT	vehicle miles traveled
VOC	Volatile Organic Compounds
ZNE	zero net energy

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SUMMARY

S.1 INTRODUCTION

This Draft Environmental Impact Report/Environmental Assessment (Draft EIR/EA) for a new Skilled Nursing Facility (SNF) at the Veteran's Homes of California Yountville Campus (VHC-Yountville) addresses the environmental impacts, environmental issues, and alternatives associated with the proposed project. A new SNF is needed that meets current building and energy codes, as well as the prevailing standards of care established by the United States Department of Veterans Affairs (USDVA).

On behalf of the State of California (State), the California Department of General Services – Real Estate Services Division (DGS) and the California Department of Veterans Affairs (CalVet) have prepared this Draft EIR/EA in accordance with the requirements of the California Environmental Quality Act (CEQA) and the CEQA Guidelines (14 California Code of Regulations Section 15000 et seq.); the document integrates National Environmental Policy Act (NEPA) requirements (40 Code of Federal Regulations 1501), as applicable, to satisfy the USDVA regulatory requirements.

CalVet, with the assistance from DGS, is the lead State agency responsible for the preparation of an EIR under CEQA for the proposed project. The new SNF would be constructed with federal funds from the USDVA, which requires the proposed project to comply with NEPA. Therefore, a joint CEQA and NEPA document is being prepared, consisting of an EIR in satisfaction of CEQA and an EA in satisfaction of NEPA. The USDVA is acting as lead Federal agency in accordance with the requirements of NEPA and to ensure that the Draft EIR/EA and underlying administrative record support the USDVA decision-making and disclosure process.

This Draft EIR/EA discloses relevant information concerning the proposed project and alternatives to the proposed project and invites all interested parties to play a role in both the decision-making process and the implementation of the decision. It also provides Federal, State, and local decision-makers with detailed information concerning the potentially significant environmental, social, economic, cultural, and other impacts associated with the proposed project.

S.2 PROPOSED PROJECT/PROPOSED ACTION AND ALTERNATIVES

VHC-Yountville is approximately 7 miles north-northwest of Napa and is located in the southwestern portion of Yountville. Access to the campus is provided via Highway 29, St. Helena Highway, and California Drive. The campus comprises over 128 structures totaling approximately 615 acres. The project is located within the Veteran's Home of California (VHC) Historic District, which was determined eligible for listing in the National Register of Historic Places (NRHP) and is on the State of California's Master List of Historical Resources of state-owned properties.

S.2.1 Alternatives Considered in Detail

Alternative 1: Proposed Project. CalVet proposes to build an approximately 285,000-gross square-foot (gsf) SNF, containing 240 beds for skilled nursing with memory care for long-term care of resident veterans. The project delivery is design-build and final design will be developed by a Design Build team selected by DGS. The building would be designed on approximately

11.7 acres with a maximum height of four stories. The building footprint and hardscape surfaces (i.e., parking, access road, and walkways) would cover approximately 7 acres. This alternative requires demolition of six existing site structures which include Jefferson Hall and carports, Polk Hall, Nurses Education Building, Hostess House, and Bandstand. The project includes a central plant building, a 300,000-gallon water tank to provide fire flow supply, and new utility lines. The Proposed Project is the Environmentally Superior Alternative that meets project objectives.

CalVet has applied for federal grant funding of the project under the State Homes Construction Program. The USDVA proposed action subject to NEPA under this alternative is to award grant funding under the State Homes Construction Program to CalVet for the Yountville SNF project.

Alternative 2: West of Ballpark Location. Under this alternative, CalVet would utilize State funds to construct the proposed SNF on a 13-acre site located on the north end of campus west of the ball field and community garden. The purpose of this alternative would be to develop the SNF in a location that avoids demolition of residential buildings. A portion of this site is identified in the Facilities Master Plan Evaluation (FMPE) as a Public Private Partnership (PPP) development zone and a possible location for senior market housing. The site was formerly an RV park and is currently occupied by the picnic grounds and stage, several storage buildings, an auto hobby shop, access roads, parking, and trees and landscaped areas. Under this alternative, existing uses would be removed to create development space for the new SNF. Primary access to the site is currently from Presidents Circle through the ballpark access road and parking area.

Under this alternative, the proposed federal action under NEPA is the award of USDVA grant funding under the State Homes Construction Program to CalVet for the Yountville SNF project.

Alternative 3: Northeast Campus Location. Under this alternative, CalVet would utilize State funds to construct the proposed SNF on a 14-acre site located on the northeastern corner of the campus on the north end of the Alameda. The purpose of this alternative would be to develop the SNF in a location close to the campus entrance. The portion of the site excluding Wilson Hall is identified in the FMPE as a PPP development zone and a potential location for an inn to replace the Hostess House.

Under this alternative, the proposed federal action under NEPA is the award of USDVA grant funding under the State Homes Construction Program to CalVet for the Yountville SNF project.

Alternative 4: No Project Alternative. Under the No Project Alternative, no new SNF would be constructed on the campus and existing SNF beds would stay in the current locations in the Holderman Building, Roosevelt Hall (Annex I), and Eisenhower Hall (Annex II). SNF patient care would continue in buildings that are deteriorating and do not meet current California's Office of Statewide Health Planning and Development (OSHPD) standards. Potentially, program objectives would not be met in the future as the facility would be unable to serve this resident population. The No Project Alternative does not meet current or future demand for SNF beds and does not meet project objectives of serving needs of campus residents. The No Project Alternative is the Environmentally Superior Alternative but does not meet project objectives.

This alternative is the no-action alternative as required under NEPA.

S.2.2 Alternatives Rejected from Further Consideration

Other On-Campus Sites. Two alternate sites previously considered in the FMPE or by the lead agency including a 3-acre site in the central campus area and a 3-acre site east of Holderman Building. Both sites are too small to accommodate the building footprint and required access

minimize for the proposed SNF. The central campus location does not have direct access and would disrupt the primary aesthetic design and landscape feature of the Alameda. The east of Holderman site contains natural drainages presenting design constraints. As a result of limited size and environmental constraints, these locations are infeasible and have been rejected from further consideration in this EIR/EA.

Golf Course Property Location. The Vintner's Golf Club operates under a long-term lease on land owned by CalVet. Constructing a SNF on the golf course land would require use of 5 acres to be removed from the golf course greens and fairway. The greens, fairways, and water features comprise roughly 50 acres. The loss of acreage to construct a SNF would infringe upon the golf course operation and potentially affect the golf course business and aesthetics. Removal of acreage from the golf course would require agreement and renegotiation of the lease agreement with the golf club. Due to the impact of the loss of acreage upon the golf course operation and the recognized value of the golf course as a community resource, this alternative is rejected from further consideration in this EIR/EA.

Renovation of Holderman Building. Renovation of the Holderman Building to meet current spatial and licensing standards includes structural reinforcement, upgrades to all infrastructure components of the building, removal of hazardous materials, upgrade in Fire/Life Safety codes, sensitivity of the historic significance of the building, as well as temporary swing space for residents during construction. Based on current USDVA space standards, the number of SNF beds at Holderman would be reduced from its current 156 beds resulting in fewer rather than increased SNF beds. There are no buildings on the VHC-Yountville campus meeting OSHPD requirements that can temporarily house existing SNF residents in Holderman during renovation. Renovation of Holderman Building would require relocation of residents off-site. Additionally, changing the interior structure of the building would be difficult given the Holderman Building's designation as a contributor to the VHC Historic District. This alternative is infeasible and rejected from further consideration in this EIR/EA.

Off-site Location. CalVet provides 1,027 licensed SNF beds across six campus locations statewide. All SNFs except Barstow (60-bed capacity) operate at full occupancy. There is limited opportunity to transfer existing or new SNF patients between campuses. One or more VHC campus locations would have to expand SNF capacity to provide additional SNF beds in order to provide 240 SNF/memory care beds proposed by the VHC-Yountville SNF project. Veterans Home programs historically were intended to serve Veterans in a regional geographic area. Expansion of facilities at other campuses does not meet the primary project objectives of replacing existing aged facilities on campus and serving the needs of VHC-Yountville residents. Therefore, this alternative was rejected from further consideration in this EIR/EA.

Reduced Project. A reduced scale project would be scaled to fit the building within a smaller footprint on the project site. The goal of this alternative would have a smaller SNF structure to avoid demolition of the residential buildings on the project site (i.e., Polk Hall and Jefferson Hall), which are contributors to the VHC Historic District. The Hostess House (built in the 1950s), Bandstand, and Nurses Education Building (built in the 1970s) would still be demolished as in the proposed project. The SNF would be constructed on 7 acres toward the center of the site and encompass the existing parking area. The maximum sized SNF footprint that could be built on the site would be 172,000 square feet and would allow for 150 SNF beds. This reduced sized SNF would be too small to meet the project goal of replacing aging facilities with modern buildings, as the need is to replace the 156 beds in the Holderman Building as well as some of

the 105 intermediate care facility (ICF) beds in Eisenhower Hall and some of the 75 memory care beds in Roosevelt Hall. Therefore, this alternative is dismissed from further consideration.

S.3 SIGNIFICANT PROJECT IMPACTS AND MITIGATION MEASURES

Consistent with CEQA and NEPA, this EIR/EA focuses on the potentially significant direct and indirect impacts that could result from implementation of the proposed project. Impacts identified in the CEQA Guidelines that were determined to be less than significant due to absence of the evaluated resource or the characteristics of the proposed activity include aesthetics, agricultural and forest resources, land use and planning, mineral resources, population and housing, public services, and recreation. Additionally, NEPA impact topics of environmental justice and socioeconomics were determined to be not significant. These impacts are discussed in EIR Section 17.5. The EIR/EA impact analysis evaluates in detail potential impacts to air quality, biological resources, cultural/historical/tribal resources, energy/greenhouse gases, geology and soils, hazards and hazardous materials, hydrology and water quality, noise, transportation, utilities and service systems, and wildfire. This EIR/EA identifies that the proposed SNF project could result in potentially significant environmental impacts as summarized in Table S-1.

Under CEQA, all impacts except Impact CUL-1 can be reduced to less-than-significant levels. Impact CUL-1 remains significant and unavoidable.

Under NEPA, all impacts can be sufficiently mitigated and there are no significant impacts.

Table S-1. Summary of Project Impacts and Mitigation Measures

1. BIOLOGICAL RESOURCES

Impact BIO-1: The proposed project could harm foothill yellow-legged frogs and result in the temporary loss of dispersal habitat during construction.

Impact is Less than Significant with mitigation incorporated.

Mitigation Measure BIO-1A: Pre-Construction Surveys for Foothill Yellow-legged Frog. A qualified biologist shall survey aquatic habitat within 0.5 mile of the project site for foothill yellow-legged frogs (FYLF, *Rana boylei*). Proposed survey methods shall be submitted to CDFW for review and approval prior to commencing the surveys. At a minimum, multiple surveys shall be conducted during the breeding season (March through early June) for all FYLF life stages to determine presence or absence with a reasonable degree of confidence. If FYLF are not detected during the surveys, no further mitigation is required. If FYLF are detected during the surveys, Mitigation Measure BIO-1B shall be implemented.

Mitigation Measure BIO-1B: Avoidance and Minimization of Construction Impacts to Foothill Yellow-legged Frog. If one or more FYLF are found during the surveys required in Mitigation Measure BIO-1A, the following measures shall be implemented to avoid and minimize impacts to FYLF during project construction.

- 1) **Pre-Construction/Pre-Disturbance Survey for Foothill Yellow-legged Frog.** No more than twenty-four hours prior to the start of project activities, including installation of fencing, staging of equipment and materials, and vegetation trimming or removal, a pre-construction survey for foothill yellow-legged frog shall be conducted by a qualified approved biologist within the impact area. The survey will consist of walking the limits of impact to ascertain

the possible presence of the species. The agency-approved biologist shall investigate all potential areas that could be used by foothill yellow-legged frog for feeding, breeding, sheltering, movement, and other essential behaviors. The results of the survey shall be documented.

2) **Wildlife Exclusion Fence.** In order to prevent FYLF from entering the project site during construction, a wildlife exclusion fence shall be placed around the entire site including all construction and staging areas. The fence shall be at least three feet tall and shall be entrenched three to six inches into the ground. Escape funnels shall be included in the fence design so that wildlife species are able to vacate the project site prior to disturbance. A qualified biologist shall inspect the fence daily prior to the start of work to ensure it is in good repair and functioning as intended to exclude FYLF.

3) **Worker Environmental Awareness Program.** All construction personnel shall participate in a worker environmental awareness program. These personnel will be informed about the possible presence of FYLF and that unlawful take of the animal or destruction of its habitat is a violation of the California Endangered Species Act. Prior to construction activities, the agency-approved biologist shall instruct all construction personnel about (1) the description and status of the protected species; (2) the importance of their associated habitats; and (3) a list of measures being taken to reduce impacts on these species during project construction and implementation. A fact sheet conveying this information will be prepared for distribution to the construction crew and anyone else who enters the project site.

4) **Pipe Inspection.** All construction pipes, culverts, or similar structures that are stored at the construction site for one or more overnight periods shall be either securely capped prior to storage or thoroughly inspected by the agency-approved biologist and/or the construction foreman/manager for animals before the pipe is subsequently buried, capped, or otherwise used or moved in any way.

5) **Steep-walled Holes and Trenches.** To prevent inadvertent entrapment of the foothill yellow-legged frog during construction, the agency-approved biologist and/or construction foreman/manager shall ensure that all excavated, steep-walled holes or trenches more than one-foot-deep are completely covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks and inspected by the agency-approved biologist. Before such holes or trenches are filled, they will be thoroughly inspected for trapped animals by the agency-approved biologist and/or construction foreman/manager.

6) **Protocol if Foothill Yellow-legged Frog is Encountered.** If a yellow-legged frog or any frog that construction personnel believes may be this species is encountered during project construction, the following steps will be taken:

- a. All work that could result in direct injury, disturbance, or harassment of the individual animal shall immediately cease.
- b. The foreman and qualified biologist shall be immediately notified.
- c. The animal shall be allowed to leave the site on its own, or if it does not leave in a reasonable amount of time, it can be relocated as follows.

7) **FYLF Relocation.** If an animal believed to be a FYLF is discovered on site, a qualified biologist shall determine if the animal is a special-status species, and, if so, shall contact

CDFW to determine if moving the individual(s) is appropriate. If CDFW approves moving FYLF, the project proponent shall ensure the qualified biologist is given sufficient time to move the animals from the impact area before ground disturbance is initiated. Only CDFW-approved biologists shall capture, handle, and move the foothill yellow-legged frog. The qualified biologist shall monitor any relocated frog until it is determined that it is not imperiled by predators or other dangers.

8) **Speed Limit.** Project-related vehicles shall observe a 15 mile-per-hour speed limit in all project areas, except on Town and County roads, and State highways; this is particularly important during the rainy season when FYLF are likely to be most active.

9) **Daytime Restriction.** To the maximum extent practicable, nighttime construction shall be avoided or minimized.

10) **Food and Trash.** To eliminate an attraction for the predators of the foothill yellow-legged frog, all food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in solid, closed containers (trash cans) and removed at the end of each working day from the entire construction site.

11) **Prohibition of Plastic Mono-filament Netting.** Plastic mono-filament netting (erosion control matting), rolled erosion control products or similar material shall not be used at the project site to prevent trapping FYLF.

Impact BIO-2: The proposed project could result in temporary and permanent impacts to white-tailed kite and other nesting birds protected by the MBTA and California Fish and Game Code.

Impact is Less than Significant with mitigation incorporated.

Mitigation Measure BIO-2A: Avoid and Minimize Impacts to Nesting Birds. The Design Build entity shall remove all trees, shrubs, and buildings on the project site outside of the bird nesting season if possible (defined as the time between September 1st and January 31st). If construction starts during the bird nesting season between February 1st and August 31st, a qualified biologist shall perform a pre-construction survey to identify active bird nests on or near the site. The pre-construction survey shall take place no more than 14 days prior to the start of construction, and if more than 14 days pass with no construction activities, another pre-construction survey shall be required. The survey shall include all trees and shrubs on the site, all buildings or other structures to be demolished, and all trees and shrubs within a 250-foot radius of the site. If an active, native bird nest is found during the survey, the biologist shall designate a construction-free buffer zone (typically 500 feet for raptors and 250 feet for other birds, but these distances can sometimes be reduced in urban areas) around the nest to remain in place until the young have fledged. The qualified biologist shall be contacted immediately if a bird nest is discovered during project construction.

Mitigation Measure BIO-2B: Avoid and Minimize Impacts to Woodpecker Granaries.

Acorn woodpecker granary trees and utility poles shall be retained on the project site if possible. If it is necessary to remove any granary trees or utility poles, the trees or poles shall be removed gradually to minimize impacts to woodpeckers. If possible, removed utility pole granaries shall be placed upright in the ground onsite or nearby for continued use by woodpeckers. Removed granary poles shall be relocated or replaced within three days. Removed granary trees shall be relocated as specified in Mitigation Measure BIO-4B.

Impact BIO-3: The proposed project could impact roosting bats protected by California Fish and Game Code.

Impact is Less than Significant with mitigation incorporated.

Mitigation Measure BIO-3A: Pre-Construction Survey for Roosting Bats. A survey of tree cavities and structures (tile roofs) within the project site, including a 50-foot buffer (as feasible) shall be conducted by a qualified bat biologist no less than 30 days before the start of construction-related activities (including but not limited to mobilization and staging, clearing, grubbing, tree removal, vegetation removal, fence installation, demolition, and grading). If construction activities are delayed by more than 30 days, an additional bat survey shall be performed.

The survey may be conducted at any time of year but should be conducted in such a way to allow sufficient time to determine if special-status bats or maternity colonies are present on the site, provide replacement habitat (if required), and exclude bats during the appropriate time of year (e.g. outside the maternity season from March 1 to August 31). The results of the survey shall be documented.

If no habitat or signs of bats are detected during the habitat suitability survey, no further surveys are warranted. If suitable habitat is present and signs of bat occupancy (e.g., guano pellets or urine staining) are detected, Mitigation Measure BIO-3B shall apply.

Mitigation Measure BIO-3B: Acoustic Survey. If suitable habitat is present and signs of bat occupancy are detected, a follow-up dusk emergence survey shall be conducted no less than 30 days prior to construction activities or removal of potential habitat during the spring or summer months, when bats would be detected. A dusk survey will determine the number of bats present and will also include the use of acoustic equipment to determine the species of bats present. For removal of roost habitat, the 30 days allows time for the exclusion and replacement of roost habitat in the step described below. The results of the survey shall be documented. If an active roost is observed within the project site, Mitigation Measure BIO-3C shall apply.

Mitigation Measure BIO-3C: Roost Buffer. If a day roost of a special-status bat or a maternity colony is detected and is found sufficiently close to work areas to be disturbed by construction activities, the qualified biologist shall determine the extent of a construction-free buffer zone to be established around the roost in consultation with CDFW. Within the buffer zone, no site disturbance and mobilization of heavy equipment, including but not limited to equipment staging, fence installation, clearing, grubbing, vegetation removal, demolition, and grading shall be permitted. Monitoring shall be required to ensure compliance with relevant California Fish and Game Code requirements. Monitoring dates and findings shall be documented. If an active roost cannot be avoided by construction activities, Mitigation Measure BIO-3D shall apply.

Mitigation Measure BIO-3D: Exclusion and Replacement Roost Habitat. If day roosts of a special-status bat or maternity colony are detected and cannot be avoided, replacement roost habitat appropriate for the species shall be provided, as determined by the qualified biologist, prior to removal of the roost.

Outside of the maternity season, a day roost may be removed after individual bats are safely evicted under the direction of a qualified bat biologist. Eviction shall occur between September 1 and March 31 but shall not occur during long periods of inclement or cold weather (as determined by the bat biologist) when prey is not available, or bats are in torpor. If feasible, one-

way doors shall be used to evict bats from tree roosts. If use of a one-way door is not feasible, or the exact location of the roost entrance in a tree is not known, the trees with roosts that need to be removed shall first be disturbed by removing some of the trees' limbs not containing the bats. Such disturbance shall occur at dusk to allow bats to escape during the darker hours. These trees shall then be removed the following day. The eviction method for structures shall be determined by the qualified biologist. All of these activities shall be performed under the supervision of the bat biologist. The replacement roost habitat shall be monitored for two years and the criteria for success shall be the occupancy of the replacement roost structure. If the roost structure is not occupied after two years, CDFW shall be consulted on what adaptive management measures will be implemented. Monitoring dates and findings shall be documented.

Impact BIO-4: The proposed project could result in the loss of up to 162 trees, including 31 native oaks, 31 other native trees and associated wildlife habitat values.

Impact is Less than Significant with mitigation incorporated.

Mitigation Measure BIO-4A: Tree Preservation and Protection During Construction. A tree protection plan shall be prepared by a qualified professional (forester, arborist, landscape architect, or restoration ecologist) to identify protection measures for all preserved trees within or adjacent to the development footprint which could be impacted by construction activity. Trees on the project site shall be preserved to the extent possible, particularly native oak trees. The plan shall identify the trees on the project site to be retained and establish a tree protection zone during project construction. The tree protection zone fencing shall be enclosed by a chain-link fence or other suitable fencing and shall be established along the tree dripline. The following activities shall be prohibited within the tree protection zone:

1. Storage or parking of vehicles, equipment, construction materials, refuse, excavated spoils or poisonous materials on or around trees and roots.
2. The use of tree trunks as a winch support, anchorage, as a temporary power pole, signposts or other similar function.
3. Cutting tree roots by utility trenching, foundation digging, placement of curbs and trenches and other miscellaneous excavation.
4. Soil disturbance or grade change.
5. Drainage changes.

The tree protection zone shall be inspected by the qualified professional after initial installation, during any activity in the zone, and monthly throughout construction. The tree protection zone shall remain in place throughout the entire construction period.

Mitigation Measure BIO-4B: Tree Replacement. Habitat values lost by oak tree removal during project development and construction shall be replaced. A landscape architect or other qualified expert shall prepare a native oak planting plan to increase oak woodland habitat characteristics and values on VHC-Yountville natural lands near existing oak woodlands adjacent to the Bandstand building area as shown in Figure 5 5 Oak Tree Planting Area. The planting plan shall be prepared addressing: 1) Location of planting area(s); 2) Planting of oaks and other native species on acreage commensurate with the final acreage of the oak tree removal area; 3) Planting of oak tree species and other native species consistent with the adjacent oak

woodland and with age (size) diversity; and 4) Provision of irrigation until plantings are established.

Locally native species such as native oaks shall be used as replacement trees when possible, and invasive species such as eucalyptus (*Eucalyptus* spp.) shall be avoided. All replacement trees used shall be healthy and sourced from a reputable nursery, guaranteed to be pathogen free.

All planted trees shall be monitored for five years. Trees that do not survive shall be replaced. At the end of one year, CalVet shall be responsible for monitoring and care for the trees.

All granary trees and poles identified in Figure 5 6 Tree Inventory Map shall be protected. If removal is required by project, granary trees shall be preserved and relocated to the oak tree planting area (Figure 5 5).

2. CULTURAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES

Impact CUL-1: Under Alternative 1, the SNF Project will require demolition of five buildings within the Veteran’s Home of California (VHC) Historic District: Section L – Jefferson Hall (Building 24) (including its carports); Nurses Education Office (Building 25); Hostess House (Building 26); Section K – Polk Hall (Building 27), and the Open Air Theater “Bandstand” (Building 69), as well as removal of Memorial Grove. Jefferson Hall, Hostess House, and Polk Hall are contributor buildings to the historic district. Contributor landscape features include the archway and entrance gate to Memorial Grove, stone walls adjacent to Jefferson Hall, and light poles along the sidewalk between Jefferson Hall and the Nurses Education Building. Memorial Grove, located northwest of Polk Hall, is considered a sensitive resource within the historic district. The Nurses Education Building and Open Air Theater “Bandstand” are not contributor buildings to the VHC Historic District.

Under CEQA, the impact is Significant and Unavoidable with mitigation incorporated.

Under NEPA, there is no significant impact following implementation of mitigation stipulated in the Memorandum of Agreement executed under Section 106 of the National Historic Preservation Act.

Mitigation Measure CUL-1A: Documentation. CalVet shall ensure that prior to any alteration or demolition activities, the Veteran’s Home of California Historic District shall be the subject of recordation by photography and written historical data following the standards of the Historic American Buildings Survey (HABS). The HABS report shall provide the greatest level of detail for those buildings and landscape features directly affected by the project, but also include the historic district in general and its landscape features as part of the district’s setting. The appropriate level of documentation is expected to be HABS Level II, which includes large-format archival photographs and written data. Documentation shall include historic plans of the affected buildings, landscape features, and Memorial Grove. Documentation shall be completed by a qualified professional who meets the standards for History or Architectural History set forth by the Secretary of the Interior’s Professional Qualification Standards (36 CFR, Part 61). The HABS documentation shall include exterior and representative interior photographs of the affected buildings, and exterior photographs only of other buildings and structures located within the historic district. The draft documentation shall be submitted to CalVet and USDVA for review and approval. The final documentation shall be distributed or offered to the California State Historic Preservation Officer (SHPO), DGS, CalVet, USDVA, and other interested parties.

Mitigation Measure CUL-1B: Interpretive Signage. CalVet shall develop and install three (3) interpretive signs adjacent to, or on the proposed SNF, or other appropriate locations, incorporating historical and descriptive narrative and images that relate to all demolished buildings and sensitive areas. Data for the narrative on this signage shall be culled from the HABS document or other cited sources, including the archives held at VHC-Yountville Library. The location and content of the interpretive signs shall be developed to coordinate with the existing interpretive signs on VHC-Yountville.

Mitigation Measure CUL-1C: Media Publications and Presentations. CalVet shall develop two (2) publications: one that will document with photos and text the history and evolution of Skilled Nursing and Memory Care at VHC-Yountville, and one that will document the history of Memorial Grove. The publications shall be posted by CalVet via social media. Ten (10) hard copies will be made available for use at VHC-Yountville Library, CalVet Headquarters, DGS and for other interested parties.

CalVet shall develop two (2) pictorial, history slide presentations. One that will document the history and evolution of Skilled Nursing and Memory Care at VHC-Yountville, and one that will document the history of Memorial Grove. CalVet shall post the pictorial slide shows via social media and for VHC-Yountville Library use.

CalVet shall ensure that all publication and presentation materials are ADA Section 508 accessibility compliant. Text in publications for library use shall be a minimum 14pt font size.

Mitigation Measure CUL-1D: Salvage. No less than one month prior to beginning of demolition, salvage of significant architectural features of buildings and landscape features being demolished shall occur. All building and landscape features shall be inventoried, and copies provided to CalVet and DGS. The features shall be salvaged for incorporation into the new SNF as feasible, displayed at Yountville Veteran's Home Library and public venues at VHC-Yountville, and/or reused in historically appropriate uses within the historic district.

CalVet shall salvage building features that include approximately 10% of the clay roof tiles located on Jefferson Hall, Hostess House, and Polk Hall and store them in an area designated by CalVet for incorporation into the new SNF as feasible, and/or for future repair and maintenance needs on other buildings with the same roofing materials.

All salvaged building features shall be stored together in an area designated by CalVet in a manner consistent with appropriate preservation standards.

Locations and landscape features to be salvaged include: 1) Memorial Grove - Memorial Grove archway sign with concrete pedestals and metal gates, approximately thirty (30) boulders with plaques and dedication features, three (3) tree banded tin plates; 2) Mothers of War Memorial Grove (extension of Memorial Grove) - two (2) Mothers of War Grove signs, one (1) boulder with plaque; 3) Hostess House front wall - one (1) plaque, 4) Jefferson Hall adjacent to sidewalk: one (1) boulder with plaque; 5) Sidewalk between Jefferson Hall and Nurses Education Center: five (5) historic lamp posts (with cast concrete posts and pendant lights).

Lamp posts shall be restored and retrofitted and incorporated as feasible into the new SNF and/or other locations on campus.

All salvaged landscape features shall be stored together in an area designated by CalVet in a manner consistent with appropriate preservation standards.

CalVet shall, after the SNF design is complete, archive and/or continue to store as feasible the remaining landscape features not incorporated into the new SNF or VHC-Yountville campus.

Mitigation Measure CUL-1E: Displays in New SNF. CalVet shall prepare a minimum of one (1) high quality, display copy of historic photographs of each of the buildings impacted by the project. CalVet shall also prepare a minimum of one (1) high quality, display copy of Memorial Grove historical map that illustrates where original trees were located in the grove. Photos and maps shall be culled from the campus' library archives.

CalVet shall install display copies of historic photographs and historic Memorial Grove map in public space(s) within the new SNF. All displays shall be appropriately captioned and cited.

Mitigation Measure CUL-1F: Mothball Holderman Building. CalVet shall ensure that Holderman Building will be mothballed after it is vacated in accordance with National Park Service (NPS) Preservation Brief 31 – Mothballing Historic Buildings. For the duration that the building is vacated, CalVet shall protect the building from damage caused by pests, vandalism and break-ins, moisture intrusion and build-up, defective utilities and mechanical systems, and other factors related to its vacancy. CalVet shall install appropriate weatherization and security measures, as well as prepare and implement a maintenance and monitoring plan to protect the building from deterioration or damage.

Impact CUL-2: Potential disturbance of unknown prehistoric or historic cultural resources, including human remains, during project construction.

Impact is Less than Significant with mitigation incorporated.

Mitigation Measure CUL-2A: Inadvertent Discovery. In the event that archaeological remains from either a historic or prehistoric period are discovered (or have been suspected to have been discovered) during project construction, all ground disturbing work within a 100' radius buffer of the discovery will cease. An archaeologist who meets the Secretary of the Interior's Standards for Archaeology will be brought in to assess the discovery before any additional ground disturbing work within the 100' buffer will be allowed to continue. No further ground disturbing work will be allowed to continue until the archaeologist has fully evaluated the find and permits work to continue. Dependent on the evaluation by the archaeologist, archaeological excavation and recordation may be required before construction can continue. Archaeological monitoring will be enacted on the site at the discretion of the archaeologist.

Should the newly discovered artifacts be determined to be Native American in origin, Native American Tribes/Representatives will be contacted and consulted as directed by the NAHC and Native American construction monitoring will be initiated. It is possible for a lead agency to determine that an artifact is considered significant to a local tribe, and thus considered a significant resource under CEQA, even if it would not otherwise be considered significant under CEQA. As such, all Native American tribal finds are to be considered significant until CalVet has enough evidence to make a determination of significance. with the consultation of a qualified archaeologist and local tribal representative(s) as directed by the NAHC.

In the event of an archaeological discovery, CalVet shall coordinate with the archaeologist to develop an appropriate treatment plan for the resources. The plan may include implementation of archaeological data recovery excavations to address treatment of the resource along with subsequent laboratory processing and analysis. An archaeological report will be written detailing all archaeological finds and submitted to CalVet and the Northwest Information Center.

Mitigation Measure CUL-2B: Human Remains. In the event that human remains are encountered on the project site, work within 50 feet of the discovery shall be redirected and the County Coroner notified immediately consistent with the requirements of California Code of Regulations (CCR) §15064.5(e). State Health and Safety Code §7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code (PRC) §5097.98. If the remains are determined to be Native American, the County Coroner shall notify the Native American Heritage Commission (NAHC), which shall determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. The MLD recommendations may include scientific removal and nondestructive analysis of human remains and items associated with Native American burials, preservation of Native American human remains and associated items in place, relinquishment of Native American human remains and associated items to the descendants for treatment, or any other culturally appropriate treatment. Consistent with CCR §15064.5(d), if the remains are determined to be Native American and an MLD is notified, the Department of General Services (DGS) shall consult with the MLD as identified by the NAHC to develop an agreement for treatment and disposition of the remains. Prior to the issuance of grading permits, DGS or its designee shall verify that all grading plans specify the requirements of CCR §15064.5(e), State Health and Safety Code §7050.5, and PRC §5097.98, as stated above.

3. GEOLOGY AND SOILS

Impact GEO-1: Project construction could be impacted by seismic shaking.

Impact is Less than Significant with mitigation incorporated

Mitigation Measure GEO-1: Strong Seismic Ground Shaking. Project design and construction shall be in conformance with current best standards for earthquake-resistant construction in accordance with the current California Building Code. In addition, project design shall follow the recommendations of a site-specific final geotechnical investigation report prepared by the Design Build entity. All recommendations for seismic and geo-hazard impact mitigation provided in the final reports completed by the Design Build entity be the basis of the project design and construction.

Impact GEO-2: Project construction could be impacted by unstable and expansive soils.

Impact is Less than Significant with mitigation incorporated

Mitigation Measure GEO-2: Unstable and Expansive Soils. Expansive soils and bedrock shall be mitigated by moisture-conditioning the expansive soil, providing select, non-expansive fill or lime-treated soil below interior and exterior slabs-on-grade, and either supporting foundations in soil and/or bedrock below the zone of severe moisture change or by providing a stiff, shallow foundation (such as a P-T slab or mat foundation) that can limit deformation of the superstructure as the underlying soil shrinks and swells. Pending completion of a final geotechnical report to be prepared by the Design Build entity, recommendations identified in the preliminary geotechnical report (Fugro 2019a and Fugro 2019b) as applicable to the final site location of the structure(s) shall be considered in addition to the findings of the final geotechnical report including:

- 1) supporting the proposed building on combination of drilled pier foundations gaining support in competent bedrock and spread footings bottomed on competent bedrock, and
- 2) over excavating the expansive soil below slabs-on-grade and replacing it with either chemically treated on-site soil or imported non-expansive material.

Specific recommendations regarding the thickness of non-expansive material to be placed below slabs-on-grade should be provided in the final geotechnical report.

4. HAZARDS AND HAZARDOUS MATERIALS

Impact HAZ-1: Demolition, removal, and transport of building materials containing lead, asbestos containing material, PCBs, mercury, and any project soils containing elevated levels of soluble lead could result in airborne emissions of lead resulting in exposure of workers or the environment to a hazardous material.

Impact is Less than Significant with mitigation incorporated.

Mitigation Measure HAZ-1A: Demolition Debris Management and Disposal Plan. CalVet or its Contractor shall develop and implement a demolition debris management and disposal plan for the non-RCRA hazardous materials that are to be removed from the project site. The plan shall be designed to prevent releases of hazardous materials in quantities that could pose a risk to human health and the environment, as determined using appropriate BAAQMD, RWQCB, DTSC, and/or other appropriate agency screening thresholds.

The plan shall identify the receiving qualified landfill and present proof of waste acceptance. The plan shall specify measures to minimize airborne dust during building deconstruction and soil movement to protect construction workers and neighboring residents from exposure to hazardous material emissions. The plan shall address protection of worker exposure to airborne lead paint particulates through use of personal protective gear, clear identification of the location of hazardous materials, and removal by properly trained/certified workers, and proper cover and transport of hazardous materials, etc.

Mitigation Measure HAZ-1B: Hazardous Materials Handling During Demolition.

Consistent with the Hazardous Materials Survey Report prepared for the project (AECOM 2019):

- Remove and dispose of ACM prior to demolition using a licensed abatement contractor in accordance with Federal, State, and local regulations and ordinances.
- Prepare documents and specifications for the demolition project to control the project and ensure lawful removal techniques are used.
- Have a third-party asbestos consultant provide demolition oversight to document that the contractor complies with the specifications, proper protective equipment is used, and proper disposal procedures are followed.
- Follow Federal, State and local regulations for proper abatement and disposal of ACM.
- Notify Bay Area Air Quality Management District with an asbestos notification form prior to demolition activities of the tanks and asbestos containing piping.
- Lead based paint (LBP) should be removed and stabilized by a licensed lead abatement contractor and disposed following Federal, State, and local regulations. LBP may be disposed as construction debris if it remains on the substrate pending sample results of lead waste characterization.

- The demolition contractor should implement precautions to comply with OSHA 29 CFR 1926.62, Lead in Construction.
- Prior to demolition or renovation activities, all UHM identified within the Buildings e.g. potential PCB containing light ballasts and fluorescent tubes should be removed and properly recycled or disposed of by a licensed contractor according to all federal, state and local regulations. All light fixtures should be visually inspected prior to disposal to determine if they contain PCBs (check for “No PCB” or “PCB Free” labels). Also, mercury containing ballasts or thermometers should be recycled for their mercury contents.

Mitigation Measure HAZ-1C: PCBs and Mercury-containing Materials Disposal. PCBs and mercury-containing materials in the existing buildings to be demolished shall be disposed of in accordance with Cal/EPA regulations prior to building demolition. Disposal methods may include those suggested in the Hazardous Materials Survey Report (AECOM 2019).

Impact HAZ-2: Presence of soils containing elevated metals, ACMs, or OCPs could expose future residents of the SNF to a hazardous material. Excavation or transport of project soils containing elevated metals, ACMs, or OCPs could result in airborne emissions of lead or ACM resulting in exposure of workers or the environment to a hazardous material. Excavation of project soils could encounter contamination from adjacent recognized environmental conditions (RECs).

Impact is Less than Significant with mitigation incorporated.

Mitigation Measure HAZ-2A: Project Soils Testing. CalVet shall conduct soil testing to evaluate the project site for presence of metals and organochlorine pesticides (OCPs) in project soils. If present at levels exceeding residential ESLs, site remediation shall occur by removal of the OCPs contaminants to a suitable hazardous waste disposal facility or by other standard practice to achieve compliance with regulatory requirements.

Mitigation Measure HAZ-2B: Soil Management During Construction. The following measures shall be implemented during soil disturbance activities:

- Water spray to minimize generation of airborne dust (particulates) during soil-disturbing activities (that is, excavation and backfilling).
- Short-term particulate/air monitoring during the first day or two of construction activities to confirm the effectiveness of dust control and establish that negative exposure conditions exist (that is, lead/mercury/organochlorine pesticides not detected or detected at low concentrations in airborne particulate samples).
- Contaminant-awareness training for construction workers that would consist of notifying workers of the presence of lead, mercury, and organochlorine pesticides at elevated concentrations in soil in some portions of the path of construction, proper use of personal protective equipment (Level D protection), health and safety precautions (washing hands before eating, drinking, or smoking), and the results of particulate/air monitoring.

The facility shall consider further precautions of managing air intake sources and limiting open air ventilation (open windows) at adjacent buildings occupied by residents or staff during soil-disturbing activities.

Mitigation Measure HAZ-2C: Soil Management During Construction. If any apparent contamination (i.e. staining, odors, buried debris, asbestos pipe, etc.) is encountered during

excavations, the affected area materials shall be evaluated for presence of hazardous materials. All materials shall be assessed and handled for disposal in accordance with regulatory requirements.

5. HYDROLOGY AND WATER QUALITY

Impact HYD-1: The proposed project could potentially alter the existing drainage pattern of the site or area in a manner that would substantially increase the rate or amount of surface runoff that would result in flooding off-site.

Impact is Less than Significant with mitigation incorporated.

Mitigation Measure HYD-1A: On-Site Stormwater Detention. CalVet or its Contractor shall incorporate on-site detention storage into the final project design, sized to reduce increases in flood peaks at the site as a result of increased impervious area and/or increased consolidation of impervious surfaces. CalVet shall complete a hydrologic study to show that, at a minimum, peak flow from the project site does not increase for the 10-, 50-, and 100-year storm events with the incorporation of detention structures (in combination with other stormwater BMPs).

Mitigation Measure HYD-1B: Maintenance of Detention Facilities. CalVet shall be responsible to continuously provide the required volume storage in a 10-, 50-, 100-year storm, throughout the life of the project, and shall ensure that the required maintenance will be performed. The maintenance plan shall include provisions for removal of sediment and other debris from underground storage pipes or vaults (if used) to reduce the potential for loss of detention capacity.

Impact HYD-2: The proposed new stormwater outfall near Valley View Pond could potentially induce bed or bank scour within the receiving channel, contributing to siltation and sedimentation in downstream reaches.

Impact is Less than Significant with mitigation incorporated.

Mitigation Measure HYD-2: Stormwater Outfall Design. The stormwater outfalls to the open drainage channel south of Valley View Pond (if included in final project plans) shall be designed to reduce the potential to cause bank and bed instability. Appropriate energy dissipation shall be incorporated to reduce the potential to cause erosion. Alternatively, distributed outfalls may be used to reduce concentration of high flows in any one location, a planting plan may be established to increase the channel's resistance to bank erosion, and/or an in-line basin may be incorporated to slow discharges before they enter the receiving channel.

6. NOISE

Impact NOI-1: Project construction would occur in close proximity to occupied VHC-Yountville Facilities and near other noise-sensitive receptors. These activities could generate temporary construction noise levels that: 1) Would be substantially above the existing ambient noise environment at the and in the vicinity of the VHC-Yountville Campus; 2) Would be above Town of Yountville's standards; and 3) May interfere with resident use, care, and well-being in Holderman Building, Eisenhower Hall, Kennedy Hall, and staff housing.

Impact is Less than Significant with mitigation incorporated.

Mitigation Measure NOI-1: Construction Noise and Vibration. To reduce potential construction noise and vibration impacts on resident services, CalVet and/or its designated project contractors or other representatives shall:

- 1) Establish a construction superintendent or other point of contact that would, throughout the entire project construction, communicate on a regular basis (e.g., daily, weekly, etc.) with CalVet, VYC-Yountville Home Administrator, public information officer, and any other necessary and appropriate on-site resident care providers to provide information regarding the project's schedule, key milestone dates, the safety and security program in place to prevent unattended site access, and the logistics and impacts of the project's construction activities.
- 2) Provide residents and resident care providers occupying a room that fronts or otherwise has a line of sight to the project area a notice of planned construction activities which identifies:
 - a) Daily construction starts and end times;
 - b) Work activities that have the potential to generate intrusive noise levels, including any evening (after 7 p.m.) or night (after 10 p.m.), or excessive vibration levels (see item 2 in Mitigation Measure NOI-2);
 - c) Exterior areas to avoid (e.g., parking areas or entrances near major construction work activities) and alternative outdoor use areas / points of access (e.g., entrances to buildings away from construction work areas);
 - d) Measures that would be deployed to reduce construction noise and vibration levels; and
 - e) The name and contact information (title, address, phone number, and email address) for the person to contact regarding a noise or vibration complaint. This notice shall be provided by the construction superintendent or other representative established pursuant to item 1).
- 3) Restrict construction activities, including deliveries and soil hauling trips, to the hours of 7:30 AM to 4:30 PM Monday thru Friday. Overtime and weekend or holiday work may occur on an as needed basis with prior notice pursuant to item 2) above.
- 4) Implement the following construction equipment care, siting, and design measures during construction activities, which would dampen or otherwise reduce the transmission of noise from the source to the receptor:
 - a) Heavy equipment shall be equipped with standard noise suppression devices such as mufflers, engine covers, and engine/mechanical isolators, mounts, etc. These devices shall be maintained in accordance with manufacturer's recommendations.
 - b) Pneumatic tools shall include a noise suppression device on the compressed air exhaust.
 - c) CalVet shall, if available and feasible, connect to existing electrical service at the site to avoid the use of stationary, diesel- or other alternatively fueled power generators.
 - d) All stationary or portable noise generating equipment such as pumps, compressors, or welding machines shall be shielded and located as far from sensitive receptor

locations as practical. Shielding may consist of existing structures or walls, plywood, or other barriers provided the barriers break the line of sight between the equipment and the receptor and provides for proper ventilation and equipment operations.

- e) No radios or other amplified sound devices shall be audible beyond work areas.
- 5) Establish a designated delivery route for construction truck traffic, including soil hauling, equipment deliveries, concrete deliveries, and other vendor deliveries. The truck speed limit along designated on-site delivery routes shall be no more than 15 miles per hour.
- 6) Prior to the start of construction, prepare a Construction Noise Complaint Plan which:
 - a) Identifies the name and/or title and contact information (including phone number and email) of the designated CalVet and/or contractor representative(s) responsible for addressing construction related issues.
 - b) Identifies noisy construction activities and a tentative schedule of these activities.
 - c) Includes procedures describing how the designated representative will receive, respond, and resolve to construction noise complaints.
 - d) At a minimum, upon receipt of a noise complaint, the Contractor and/or CalVet representative described in the first sub-bullet above shall identify the noise source generating the complaint, determine the cause of the complaint, and take steps to resolve the complaint.
 - e) Potential steps to resolve complaints or other concerns raised during the regular communication process established by item 1) above may include, but is not limited to, the installation of temporary reversible enclosures (e.g., three sided enclosure for stationary equipment), noise barriers, commercially available acoustic panels, or other products installed between work areas and receptors or on building envelopes, and the use of smaller equipment, electric equipment, or construction activity management techniques that limit daily construction activities and/or concurrent equipment operations. The final type, placement, and design of the project's temporary and reversible noise barrier(s) shall be reviewed by a qualified acoustical consultant prior to installation to ensure proper function and performance.
 - f) As an alternative to the installation of physical barriers, CalVet may also consider the temporary relocation of impacted residents and resident-care givers to facilities that would not be impacted by project construction noise levels. Relocation of impacted residents may occur at the discretion of CalVet.

Impact NOI-2: Project construction would occur in close proximity to occupied VHC-Yountville Facilities and near other noise-sensitive receptors. These activities could generate temporary construction vibration levels that: 1) May be perceptible in buildings near the project area; 2) May interfere with resident use, care, and well-being in Holderman Building, Eisenhower Hall, Kennedy Hall, staff housing, and other buildings; and 3) May result in damage to buildings and structures located near the project area.

Impact is Less than Significant with mitigation incorporated.

Mitigation Measure NOI-2: Construction Vibration. To reduce potential construction vibration impacts on resident services and VHC-Yountville structures, CalVet and/or its designated project contractors or other representatives shall:

- 1) Prohibit the use of vibratory rollers and pile driving equipment in the project area, if feasible given site-specific considerations and building construction needs. Plate compactors are acceptable. Piers, piles, caissons, or other foundation support structures shall be augur drilled, if feasible.
- 2) Prior to the start of construction activity, prepare a Construction Vibration Mitigation Plan for the project which:
 - a) Identifies the name and/or title and contact information (including phone number and email) of the designated CalVet and/or contractor representative(s) responsible for addressing construction-related vibration issues.
 - b) Contains a detailed construction schedule for the following construction activities:
 - i) The use of vibratory rollers within 20 feet of any existing building and 130 feet of any resident-occupied facilities (i.e. not clerical or administrative services only).
 - ii) The use of sonic pile drivers within 70 feet of any building and 400 feet of any resident-occupied facilities.
 - iii) The use of impact pile drivers within 130 feet of any building and 780 feet of any resident-occupied facilities.
 - c) Includes procedures describing how the designated representative will receive, respond, and resolve to construction vibration complaints. At a minimum, upon receipt of a vibration complaint, the Contractor and/or CalVet representative described in the first sub-bullet above shall identify the activity generating the complaint, determine the cause of the complaint, and take steps to resolve the complaint. Such measures may include the use of non-impact drivers, use of rubber-tired equipment instead of track equipment, or other measures that limit annoyance from ground borne vibration levels.
 - d) Include procedures that describe how project construction would avoid generating ground borne vibration levels that could result in damage to existing buildings or structures (consider to be a vibration level above 0.25 inches per second on a peak particle velocity basis). These procedures shall only be required if it is not feasible to prohibit the use of vibratory rollers (20 feet), sonic pile drivers (70 feet) and impact pile drivers (130 feet) near buildings. Such measures may include the use of non-impact drivers, use of rubber-tired equipment instead of track equipment, installation of wave barriers (if feasible), monitoring of vibration levels during construction activities, and monitoring for damage to building and structures.

Impact NOI-3: The project would result in stationary equipment operations in close proximity to occupied VHC-Yountville Facilities. These activities could generate operational noise levels that: 1) Would be substantially above the existing ambient noise environment at and in the vicinity of the VHC-Yountville campus; and 2) Would be above Town of Yountville's standards.

Impact is Less than Significant with mitigation incorporated.

Mitigation Measure NOI-3: Stationary Equipment Operations. Prior to the start of building construction activities, CalVet shall have an acoustical analysis prepared by a qualified acoustical consultant that demonstrates the proposed project's equipment noise levels would not exceed the Town of Yountville standards set forth in Chapter 8.04 of the Town's Municipal Code at on-site sensitive receptor locations. The acoustical analysis shall be based on the final project design, reflect the actual equipment type and location at the project site, and the actual noise enclosures, shielding, or other attenuation measures included in the final project design.

7. TRANSPORTATION

Impact TRA-1: Project construction would result in temporary impacts on traffic congestion at the study intersections, primarily the SR 29 ramp intersections with California Drive and the California Drive/Solano Avenue/Domain Chandon Road intersection. The congestion and movements of heavy haul trucks could impact the safety of vehicle and pedestrian movements.

Impact is Less than Significant with mitigation incorporated.

Mitigation Measure TRA-1: Traffic Construction Management Plan. CalVet shall prepare a detailed construction traffic management plan (CTMP) to address traffic conditions throughout the construction period. As part of the plan development, CalVet and its construction contractors shall meet with appropriate Town of Yountville and Caltrans departments to determine traffic management strategies to reduce, to the maximum extent feasible, safety effects on off-campus roads during construction of the project. CalVet shall develop the plans for review and approval by the appropriate Town and Caltrans departments. The plans shall include at least the following items and requirements:

- A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic hours, detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes.
- Location of construction staging areas for materials, equipment, and vehicles at approved off site locations (if needed).
- A process for responding to, and tracking, complaints pertaining to construction activity, including identification of an on-site complaint manager. The manager shall determine the cause of the complaints and shall take prompt action to correct the problem.
- Provision for accommodation of pedestrians and bicyclists in the construction area.
- Provision for parking management and spaces on the project site for all construction workers to ensure construction workers do not park off-site on Town of Yountville neighborhood streets.
- Photo documentation of pre-project pavement conditions on Highway 29 north and southbound lanes one-half mile from California Drive including ramps at California Drive. A plan for restoration of on-site pavement and Highway 29 pavement within photo documented limit to pre-construction conditions after completion of all construction.

Other items deemed necessary by the Town and Caltrans during preparation of the CTMP.

8. WILDFIRE

Impact WFR-1: The project could expose the new SNF buildings, residents, and staff to risk of loss, injury, or death involving wildland fires.

Impact is Less than Significant with mitigation incorporated.

Mitigation Measure WFR-1: Defensible Space Management Plan. Cal Vet shall prepare and implement a Defensible Space Management Plan to identify specific site treatment activities designed to reduce fuel load. The plan shall identify actions specific to 30-foot and 100-foot defensible space zones pursuant to Cal Fire recommendations. Actions within the defensible space are expected to include, but not be limited to, trimming of trees and other woody vegetation, removal of debris or ground litter, mowing ground-level vegetation, and general maintenance of the defensible space zone. The Plan shall specify the frequency of site inspections and vegetation management activities.

S.4 CUMULATIVE PROJECT IMPACTS

CEQA and NEPA requires that this EIR/EA evaluate a project's cumulative impacts. Cumulative impacts are the project's impacts combined with the impacts of other related past, present, and reasonably foreseeable future projects. The approach taken in this EIR/EA to address the cumulative impact analysis is presented in Chapter 15 of this EIR/EA. The EIR has determined that the project would not result in significant cumulative impacts, with the exception of the cumulative increase in traffic at one intersection in the project area (Impact TRA-1).

S.5 POTENTIAL TO GENERATE SUBSTANTIAL PUBLIC CONTROVERSY

As discussed in Section 1.3, CalVet has solicited input from various federal, State, local, and tribal entities regarding the proposed SNF Project. None of the input has identified opposition or controversy related to the project. CalVet is publishing and distributing this Draft EIR/EA for a 30-day public comment period. Public comments will be considered and addressed in the Final EIR/EA.

S.6 ISSUES TO BE RESOLVED

One issue has yet to be resolved as discussed below.

Final Project Design. The project could potentially demolish buildings which are contributors to the VHC Historic District: Jefferson Hall and carports, Hostess House, and Polk Hall. The actual impact to these structures will not be known until the project design is determined through a design-build process. There remains a possibility that the design contractors could design a SNF that does not impact some of these historic structures. In order to not under report potential impacts, this EIR/EA assumes a worst-case scenario in which all site structures are removed.

Section 106 Memorandum of Agreement. The potential demolition of contributors to the VHC Historic District would be an adverse effect under Section 106 of the National Historic Preservation Act and its implementing regulation (36 CFR § 800). Section 106 requires the USDVA, as the federal lead agency, to consult with the State Historic Preservation Officer (SHPO) regarding identification of historic properties, assessment of adverse effects, and resolution of adverse effects. Pursuant to 36 CFR § 800.2(c)(4), USDVA has authorized CalVet as the state lead agency to initiate Section 106 consultation, which is in progress. CalVet as the state lead agency is also in consultation with SHPO for impacts to historic resources under Public Resources Code (PRC) 5024.5.

If the alternative selected will result in the demolition of contributing buildings to the VHC Historic District, consultation to resolve the adverse effects will result in USDVA and SHPO

entering into a Memorandum of Agreement (MOA) that will stipulate measures to avoid, minimize, and mitigate the adverse effect. CalVet and DGS are expected to be invited signatories on the MOA. For NEPA compliance, impacts to historic resources can be adequately mitigated with the executed MOA. All measures needed to resolve the finding of an adverse effect on historic properties will be fully identified by the end of the Section 106 process and prior to completion of the Final EA. The Final EA will document that the Section 106 consultation has been completed and that a MOA is in effect, which would sufficiently mitigate impact to historic resources under NEPA.

CHAPTER 1 INTRODUCTION

The California Department of Veterans Affairs (CalVet) is proposing to build an approximately 285,000-gross square-foot (gsf) skilled nursing facility (SNF) containing 240 beds to provide long-term care services for skilled nursing/memory care for resident veterans. Project plans presented in this Environmental Impact Report/Environmental Assessment (EIR/EA) are conceptual only. The project delivery is design-build and final design will be developed by a Design Build team selected by the California Department of General Services (DGS). It is anticipated that the buildings to accommodate the program requirements could include a variety of design solutions. Potential designs could include multiple buildings of one to two stories distributed across approximately 9 acres or a multi-story building with ancillary support structures.

CalVet is the California Environmental Quality Act (CEQA) lead agency for the proposed project. The United States Department of Veterans Affairs (USDVA) is federal lead agency under the National Environmental Policy Act (NEPA). On behalf of CalVet and USDVA, DGS is preparing a joint EIR/EA to evaluate the potentially significant environmental impacts that may result from the proposed Veterans Homes of California – Yountville (VHC-Yountville) SNF Project.

1.1 PROJECT BACKGROUND

The mission of the CalVet is to provide the state's aged or disabled veterans with rehabilitative, residential, and medical care and services in a homelike environment. The CalVet system operates eight facilities distributed across California in the general locales where the veterans and their families reside. There are five facilities in Southern California, one in the Central Valley, and two in Northern California (including Yountville). The eight existing CalVet locations are a system of live-in, residential care facilities offering a comprehensive plan of pharmacy, rehabilitation services and social activities within a homelike, small community environment. Residents engage in a wide range of activities including social events, dances, patriotic programs, volunteer activities, arts and crafts, computer access, shopping trips and other off-site activities. The facilities range in size from 60 residents on a 10-acre site to over 900 residents on 615 acres. The eight CalVet facilities provide housing and care for approximately 3,000 veterans. The facilities serve veterans who are age 55 and above and discharged from active military service under conditions other than dishonorable, as well as veterans needing long-term care.

VHC-Yountville opened in 1884 and is currently the largest VHC facility in size (615 acres) and number of residents (up to approximately 900 members). In terms of program and levels of care, VHC-Yountville also provides the most comprehensive program of services, which includes skilled nursing, intermediate care, residential care/assisted living, memory care, out-patient care, and domiciliary/ independent living facilities. The existing SNF at VHC-Yountville consists of 156 SNF beds in the Holderman Building, 105 Intermediate Care Facility (ICF) beds in Eisenhower Hall (Annex II), and 75 memory care beds in F. Roosevelt Hall (Annex I).

1.2 ENVIRONMENTAL REVIEW PROCESS

1.2.1 Lead Agencies

CalVet, with the assistance of DGS, is the State lead agency under CEQA and will be responsible for certifying the Final EIR/EA, determining whether to approve the proposed project, and issuing findings for the proposed project. CalVet will be responsible for implementing the proposed project, including design measures and any required mitigation measures. For this project, DGS is responsible for the oversight of the proposed project design, construction, and contract management of state facilities.

The USDVA is the Federal lead agency under NEPA and will be responsible for signing a separate decision document, anticipated to be a findings of no significant impact (FONSI) under NEPA for the discretionary action of approving grant funding under the USDVA's State Veterans Home Construction Grant Program. The USDVA will use this Draft EIR/EA to inform its decision-making process. In addition, the USDVA is responsible for ensuring that the proposed action would comply with applicable Federal laws, such as the National Historic Preservation Act (NHPA) and the Endangered Species Act (ESA).

1.2.2 California Environmental Quality Act

This EIR/EA has been prepared in accordance with CEQA (Public Resource Code [PRC] Section 21000 et seq.) and the State CEQA Guidelines, which are found in Title 14 of the California Code of Regulations (CCR), commencing with Section 15000. As stated in the State CEQA Guidelines section 15002, the basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities.
- Identify the ways that environmental damage can be avoided or significantly reduced.
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

Pursuant to State CEQA Guidelines section 15121, an EIR is an informational document which will inform public agency decision-makers and the public of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project. The public agency shall consider the information in the EIR along with other information which may be presented to the agency. While the information in the EIR does not control the ultimate decision on the project, the public agency must consider the information in the EIR and respond to each significant effect identified in the EIR by making findings at the time of project approval.

The focus of the environmental review process is upon significant environmental effects. As defined in the State CEQA Guidelines, a "significant effect on the environment" is:

“...a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic

or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether a physical change is significant.”

1.2.3 National Environmental Policy Act

NEPA requires federal agencies to incorporate environmental considerations in their planning and decision-making through a systematic, interdisciplinary approach. Under NEPA, federal agencies are required to consider and publicly disclose the impacts of their actions on the human environment. NEPA applies to all federal agencies on their actions involving implementation, authorization, regulation, or funding. With the exception of federal actions that are categorically excluded from NEPA documentation, NEPA requires that federal agencies prepare EAs or Environmental Impact Statements (EISs) to analyze impacts of their proposed action and a reasonable range of alternatives (including the no action alternative) prior to making decisions, and to involve the public in the decision-making process. The White House Council on Environmental Quality (CEQ), which was established along with NEPA (42 United States Code [USC] 4321 et seq.), has adopted regulations and guidance that provide general procedures for federal agencies to follow when preparing these documents. In addition, each agency has developed NEPA regulations specific to its operations.

According to CEQ’s NEPA regulations, an EA is used to determine whether the proposed action has the potential to significantly affect the quality of the human environment. According to the NEPA Interim Guidance for Projects prepared by the USDVA (USDVA, 2010), an EA is a concise public document that should include brief discussions of:

- The purpose and need for the proposed action;
- Reasonable alternatives for the proposed action;
- The environmental impacts of the proposed action and alternatives;
- Proposed mitigation or monitoring measures; and
- A listing of agencies and persons consulted.

This analysis is conducted in accordance with the CEQ’s “Regulations Implementing the Procedural Provisions of NEPA” (40 CFR 1500-1508), the USDVA’s NEPA regulations titled “Environmental Effects of the Department of Veterans Affairs Actions” (38 CFR Part 26), and the USDVA’s NEPA Interim Guidance for Projects (USDVA, 2010). These requirements specify that USDVA must evaluate the potential environmental impacts of USDVA facilities, operations, and related funding decisions prior to taking action. The USDVA must apply the NEPA review process and use the information to make an informed decision prior to undertaking a proposed action. An EA provides sufficient evidence and analysis for determining whether an action would cause significant environmental impacts (requiring an EIS) or the agency can issue a FONSI (40 CFR 1508.9). A FONSI is a decision document that briefly presents the reasons an action would not have a significant effect on the human environment (40 CFR 1508.13). As required by NEPA and the implementing regulations from CEQ and USDVA, the alternative of taking no action is evaluated, providing a baseline for comparison of potential impacts from the action alternatives.

1.2.4 Similarities and Differences Between CEQA and NEPA

When a project is subject to both NEPA and CEQA review, State and local agencies are encouraged to cooperate with federal agencies in the environmental process, including joint planning, research, hearings, and preparation of environmental documents. As the federal lead agency, the USDVA is responsible for compliance under NEPA, and as the State lead agency, CalVet is responsible for compliance under CEQA. This document has been prepared as a joint EIR/EA in compliance with NEPA and CEQA. A joint EIR/EA must satisfy the procedural and content requirements of both NEPA and CEQA, with a goal of minimizing the need for costly duplicative environmental reviews by many agencies and streamlining the environmental review process by complying with both laws with a single document.

Generally, NEPA and CEQA contain many similar terms and concepts. For example, the term and concept of lead agency are the same under NEPA and CEQA. However, NEPA defines a Federal undertaking as a “proposal” for “action” or a “proposed action,” while CEQA uses the term “project” to describe the action. Similar to CEQA’s definition of a project, proposed actions under NEPA include policies, rules, regulations, plans, programs, and specific projects, including private undertakings requiring federal agency permits or regulatory decisions. However, some terms may appear similar, but they have important differences in concept. One example is “cooperating agency.” Under NEPA, a cooperating agency is a federal agency other than the lead agency that is involved with the preparation of the NEPA document with jurisdiction over the project or with special expertise regarding impacts of the action. The cooperating agency under NEPA is broader than a “responsible agency” under CEQA. A responsible agency is only those State or local agencies that issue permits or provide funding for the project. A cooperating agency is expected to participate in the NEPA process when requested by the lead agency, but a responsible agency generally participates through the commenting process.

This EIR/EA generally uses CEQA terminology; this document uses the term “proposed project” instead of “proposed action” to refer to the implementation of the SNF Project and all federal, State, and local agency actions or approvals that would be issued or undertaken based on it, except when the context requires NEPA terminology. Table 1-1 shows the similarities in terminology between NEPA and CEQA.

Table 1-1. Similarities in Terminology between CEQA and NEPA

CEQA Term	NEPA Term
Lead Agency	Lead Agency
Responsible Agency	Cooperating Agency
Initial Study	Environmental Assessment
Environmental Impact Report	Environmental Impact Statement
Proposed Project	Proposed Action
No Project Alternative	No Action Alternative
Environmentally Superior Alternative	Environmentally Preferable Alternative
Project Objectives	Purpose and Need

CEQA Term	NEPA Term
Environmental Impacts	Environmental Consequences
Environmental Setting	Affected Environment
Notice of Completion	Notice of Availability
Negative Declaration/Mitigated Negative Declaration	Finding of No Significant Impact
Findings	Record of Decision

Although there are similarities between CEQA and NEPA, the two acts are not identical. CEQA, for example, is partly “substantive” in that it requires an agency to adopt “feasible” mitigation measures for any “significant effect on the environment.” In contrast, NEPA is a procedural law requiring federal agencies to evaluate a range of reasonable alternatives, disclose potential impacts, and identify mitigation for impacts. Under NEPA, if impacts are significant and would not be mitigated to a level that is less than significant, the agency must prepare an EIS instead of an EA. In a NEPA EIS, reasonable alternatives must be rigorously and objectively evaluated at a greater level of detail. The threshold for preparing an EIR is lower than the threshold for preparing an EIS under NEPA. Therefore, it is relatively common to have a joint CEQA/NEPA document that is not an EIS/EIR but rather an EIR/EA.

Another difference between CEQA and NEPA is that assessments following the respective regulations and guidance have different approaches for stating conclusions about whether impacts are identified as “significant.” This integrated EIR/EA has been prepared because the CEQA lead agency, CalVet, and DGS determined that there may be significant impacts under CEQA that could require the development of alternatives and the need for mitigation measures to reduce impacts. Under NEPA, the significance of impacts is determined within the context of each project and location, whereas the regulations implementing CEQA define specific thresholds for significance that typically form the basis for the CEQA analyses, subject to lead agency modification.

Because of the obligation under CEQA to mitigate “significant effects on the environment” when feasible, the characterization of impacts as being either “significant” or “less than significant” is very important. For this reason, this Draft EIR/EA has been written in a manner that identifies, for CEQA purposes, “significance thresholds” for anticipated impacts. The CEQA requirement that impacts be mitigated to “less than significant,” ensures that an EA is the appropriate level of NEPA documentation and will support a FONSI. Thus, a mitigated environmental effect may remain significant and unavoidable compared to CEQA thresholds and yet be considered sufficiently mitigated under NEPA to allow for a FONSI. The significance thresholds for this document adhere to Appendix G of the CEQA Guidelines.

1.3 SCOPING OF ENVIRONMENTAL ISSUES AND PUBLIC INVOLVEMENT

1.3.1 Notice of Preparation and Public Scoping Meeting

DGS prepared the Notice of Preparation (NOP) of joint EIR/EA. The NOP was filed at the State Clearinghouse and was posted in the Napa Valley Register on March 15, 2019. The NOP was

also distributed to CalVet stakeholders, adjacent communities and property owners, and to relevant staff of the lead agencies and responsible agencies. The NOP is included in Appendix A to this EIR/EA.

DGS in coordination with CalVet held a public scoping meeting for the EIR/EA on March 28, 2019 at VHC-Yountville in the Member Services Building, Grant Hall, at 170 California Avenue in Yountville, California. DGS provided notice of this meeting in the NOP, the Napa Valley Register, and by direct mailing to project stakeholders, surrounding property owners, and agencies with jurisdiction over the project. The Scoping Meeting included two meeting times with approximately 185 people in attendance (Appendix A). Comments and questions on the project were accepted both orally and in writing.

1.3.2 Summary of EIR/EA Scoping Comments

Written Comments Received by DGS

Ten distinct comment letters, emails, or comment cards were received in response to the NOP. Written comments in response to the NOP included a letter from the California Department of Fish and Wildlife (CDFW), a petition from the residents of Polk Hall and Jefferson Hall, and eight comment cards or emails from interested individuals (provided in Appendix A). Oral comment was received from the meeting attendees at large. The NOP, scoping meeting presentation, summary of comments, and comment letters are presented in Appendix A.

Some of the comments related to broader VHC-Yountville needs rather than the environmental document, and some comments expressed support or opposition to certain aspects of the proposed SNF. Only those comments relating to the scope of the environmental analysis under CEQA and NEPA are addressed. As summarized below in Table 1-2, the comments focused on air quality, biological resources, historical resources, water quality/hydrology, population and housing, and the alternatives analysis. Where these comments are addressed in the EIR/EA is also noted in Table 1-2.

Table 1-2. Scoping Comment Received

General Comments Applying to CEQA/NEPA Process (Addressed in Chapter 1, Introduction)
Address concern of residential relocation and demolition of Polk and Jefferson buildings prior to completion and approval of CEQA and NEPA reports.
Project Description (Addressed in Chapter 2, Project Description)
- Identify when project construction would begin and be finished and where the construction entrance would be located. - Identify when residential buildings (i.e., Jefferson Hall and Polk Hall) would be demolished. - Identify what would happen to Holderman Building, Hostess House, and Memorial Grove. - Identify whether the proposed SNF replace the existing SNF. - Address replacement of Hostess House if demolished. - Address relocation of Polk and Jefferson building residents; consider temporary, modular units if residents are displaced.

- Identify parking provisions for new SNF and address parking impacts if placed next to Holderman Building. - Consider establishing a secondary fire escape lane.
Greenhouse Gas (GHG) (Addressed in Chapter 7, Energy/GHG Emissions)
Address general impacts of carbon footprint.
Biological Resources (Addressed in Chapter 5, Biological Resources)
- Identify the temporary and permanent project footprint and impacts on native habitats, especially oak trees or riparian habitat. - Identify the special-status plants and animals that occur or have the potential to occur in the project area. - Consider the potential “take” of special-status species or other impacts to special-status species or their habitat, project encroachment into riparian or other sensitive habitats, loss or modification of wildlife habitat, and permanent or temporary disturbances to habitat. - Use mitigation and avoidance measures to prevent or minimize impacts to biological resources. - Comply with State regulatory requirements protecting special-status species and sensitive habitats.
Historical Resources (Addressed in Chapter 6, Cultural and Historical Resources)
- General concern for loss of historic buildings. - New building should blend in with existing historic architecture. - Consider preservation of Memorial Grove trees.
Hydrology and Water Quality (Addressed in Chapter 10, Hydrology and Water Quality)
Address potential for deep groundwater contamination.
Transportation (Addressed in Chapter 12, Transportation)
- Consider that construction traffic avoid disturbance on Main Campus Roads. - Address less visibility and increased distance of new SNF from the front gate for fire and other emergency vehicles.
Wildfire (Addressed in Chapter 14, Wildfire)
- Address need for fire safety area between the woodland and the proposed structure. - Want the eucalyptus by SNF out, and gradually replace the entire oak woodland with fire-retardant plants and trees. Replacement plants and trees should provide the Yountville Home and Town with a fire buffer zone.
Cumulative Impacts (Addressed in Chapter 15, Cumulative Impacts)
Consider potential cumulative impacts to special-status species and sensitive habitats from reasonably foreseeable future projects combined with impacts from the proposed project.
Alternatives (Addressed in Chapter 16, Alternatives)

- Evaluate alternative locations on the VHC-Yountville campus (e.g., golf course, behind Buildings D/E, closer to the entrance, etc.).
- Consider use of existing vacant buildings.

1.3.3 Public Involvement and Review

This Draft EIR/EA is being circulated to local, State, and Federal agencies, and to interested organizations and individual who may wish to review and comment on the analysis provide in this document. Publication of this Draft EIR/EA initiates the beginning of a 45-day review period. To ensure proper interpretation of remarks, written comments are highly encouraged. All written comments and questions regarding the Draft EIR/EA that raise issues under CEQA and NEPA will be considered by the lead agencies. The Draft EIR/EA will be sent to the State Clearinghouse and copies of the Draft EIR/EA will be available for review at the following locations:

Veterans Home of California Library
Veterans Services Center also known as Member Services Center or Member Services Building, 60 California Drive, Yountville, CA 94599

The Draft EIR/EA will also be available on the VHC-Yountville SNF Project Website:
<https://www.yvhsnfproject.com>

Comments can be provided in two ways: 1) by U.S. mail, or 2) by electronic mail (email). Comments provided by email should include “SNF Project Draft EIR/EA Comments” in the subject line, and the name and physical address of the commenter should be contained in the body of the email. Please send all comments via mail to:

Terry Ash, Senior Environmental Planner
Department of General Services,
Real Estate Division Project Management and Development Branch, Environmental Services
2635 North 1st Street, Ste. 149, San Jose, CA 95134

OR via email to:

comments@yvhsnfproject.com
(enter “YVHSNF Project NOP Draft EIR/EA Comments” in the ‘Subject’ line).

1.4 OUTLINE OF THIS EIR/EA

This Draft EIR/EA contains the information required by the CEQA Guidelines (PRC Sections 15120-15131) for EIRs. It also includes the information consistent with USDVA NEPA Regulations and policies, including sections of Chapter 17 that are specific to NEPA.

Summary: Summarizes the contents of the document and includes a table that summarizes the potential impacts.

Chapter 1. Introduction: Provides an overview of the document and the proposed project, including the project background, a discussion of CEQA and NEPA requirements, and a description of scoping and public involvement for this EIR/EA.

Chapter 2. Proposed Project: Describes the proposed project.

Chapter 3. Environmental Impact Analysis: Describes the methodology of the environmental analysis in this document, an overview of the analysis in Chapters 4-14, and a list of the CEQA and NEPA resource topics not considered in detail in this EIR/EA.

Chapters 4 through 14: These chapters include the environmental setting, regulatory framework, impact analysis, and mitigation measures for the resource topics which the proposed project could significantly impact, including: Air Quality (Chapter 4), Biological Resources (Chapter 5), Cultural, Historical, and Tribal Cultural Resources (Chapter 6), Energy/Greenhouse Gas Emissions (Chapter 7), Geology and Soils (Chapter 8), Hazards and Hazardous Materials (Chapter 9), Hydrology and Water Quality (Chapter 10), Noise (Chapter 11), Transportation (Chapter 12), Utilities and Service Systems (Chapter 13), and Wildfire (Chapter 14).

Chapter 15. Cumulative Impacts: Discusses the potential cumulative impacts of the proposed project when combined with other reasonably foreseeable projects.

Chapter 16. Alternatives: Discusses project alternatives including those considered and rejected from detailed evaluation. This chapter also identifies the environmentally superior alternative.

Chapter 17. Other Statutory Considerations: Discusses significant and unavoidable impacts, growth-inducing impacts, irreversible changes and commitment of natural resources, the potential for short-term gain versus long-term impacts, effects found to be less than significant, and the mitigation, monitoring and reporting program (MMRP) as required by CEQA and/or NEPA.

Chapter 18. References: Identifies report preparers, agencies informed of this document, and literature sources used in preparing the environmental analysis.

Appendices: Includes the NOP and public scoping comments and supporting documentation for air quality, biology, and noise.

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CHAPTER 2 PROPOSED PROJECT

CalVet is proposing to build an approximately 285,000-gsf SNF at the VHC-Yountville campus. The facility will provide 240 beds for long-term care services, including skilled nursing/memory care for resident veterans. The project purpose and need, site location, characteristics, operation and construction are described below. Best management practices (BMPs) included in the project and permits and approvals needed for the project are also listed.

CalVet has applied for federal grant funding of the project under the USDVA State Veterans Homes Construction Grant Program. The proposed action for purposes of NEPA review is for USDVA to award grant funding under this program to CalVet for the Yountville SNF project.

The No Action project alternative under NEPA is described in full detail and analyzed in the Alternatives Chapter in Section 16.6.

2.1 PURPOSE AND NEED/PROJECT OBJECTIVES

2.1.1 Project Need

The Holderman Building, which houses the SNF program, is in need of significant improvements and modernization to ensure the greatest comfort and quality of life the residents deserve. The Eisenhower Hall Building (Annex II), which is occupied by the ICF program, is also antiquated and requires some renovation to address current building and infrastructure standards. The F. Roosevelt Hall Building (Annex I), which is occupied by the SNF Memory Care program, was renovated in 2007 and while it can be used immediately to provide alternative programming, it too may require some renovation in the future.

With the changing nature of long-term care, emphasizing a non-institutional character in both physical plant and operations, CalVet determined that there was a need for the evaluation of the VHC-Yountville campus to assess current and future needs. CalVet completed a comprehensive Facilities Master Plan Evaluation (FMPE) of VHC-Yountville in January 2013. That FMPE identified ongoing facility needs, and provided an overview of short, medium, and long-term planning for the VHC-Yountville campus, and recommended alternatives for the appropriate usage of the existing buildings and property. The FMPE also identified several deficiencies within the existing VHC-Yountville buildings and determined that housing accommodations (necessary for basic care delivery as well as key necessities as privacy and maximized independence) are in need of improvements or updating at all levels of care. The FMPE determined that a program of phased upgrading of all levels of care is the greatest need for the VHC-Yountville campus. The current SNF is the housing program with the most severe needs in both size and efficiency; therefore, the new replacement SNF is of the highest priority in the phasing upgrading of the campus.

The original Holderman Building was built in 1932 and designed to be a hospital. Subsequent wings were added onto the building over the next few decades. The hospital closed in 2009 and is currently being used as a long-term care facility, and the existing design requires improvements in order to best facilitate use as a long-term care facility. Nearly all of the SNF beds in the Holderman Building are double-occupancy and do not have ensuite toilets or meal preparation facilities. In addition, the SNF bedrooms are smaller in size compared to the single-occupancy rooms for skilled nursing care at the newest CalVet facilities in Fresno and Redding.

The facilities currently available in the Holderman Building include ward layouts with long hallways and oddly sized rooms. All rooms open onto a long, narrow central hallway, which is easily congested as clinical staff and residents in wheelchairs move from point to point. There is very limited gathering or dining spaces within the resident occupied areas that can be adapted for social activities. As an alternative, residents must be wheeled to large gatherings in the Holderman Building central recreation area. Like the wards, the recreation area has a strong institutional feel. The USDVA standards and Code of Federal Regulations (CFR) require including a natural, home-like environment, and maximizing the residents' degree of personal autonomy and freedom.

In addition, the Holderman Building is in disrepair and does not meet current building code standards. For example, the Holderman Building is a four-wing, three-story concrete building which was not originally designed with air conditioning (later retrofitted) and the current heating and cooling system is not energy efficient. Several of the building's elevators are not working or work inconsistently. The building also does not meet current earthquake or other life safety standards.

2.1.2 Project Purpose/Objectives

The specific goals and objectives of the proposed SNF Project are:

- Replace aging facilities with buildings that meet current building codes and regulations.
- To provide state-of-the-art long-term-care facilities for aged and/or disabled veterans.
- To enhance the quality of life for residents by providing common amenities, spaces, and conditions.
- To establish a new building capable of serving those with dementia and other memory disorders.
- To concentrate assisted living and medical care services at the southern end of the campus consistent with the vision of the Facilities Master Plan Evaluation completed in 2013.
- To utilize, to the fullest extent possible, the existing infrastructure, programs, and pool of skilled health care providers.
- Develop a sustainable and energy-efficient building.
- Design a building that is respectful of the existing historic structures throughout the Yountville campus.
- Maximize the effectiveness of the design-build project delivery method by maintaining sufficient flexibility in the performance criteria to support innovation in the design competition.
- Design the treatment program using current best practices.
- Increase satisfaction of both patient/family and staff.

2.2 PROJECT LOCATION AND SITE DESCRIPTION

VHC-Yountville is located in Napa County, California approximately 7 miles north of Napa in the southwest portion of Yountville (Figure 2-1). Access to the campus is from Highway 29, St. Helena Highway, and California Drive. Surrounding land is occupied by the Vintner's Golf Club, Yountville Wastewater Reclamation Facility, oak woodland, vineyards, and the Town of Yountville (Figure 2-2). Existing facilities on the VHC-Yountville campus are shown in Figure 2-3.

The proposed SNF would be located on approximately 11.7-acre site west of the Holderman building (Figure 2-4). Site access is provided by the main internal road (President's Circle) which goes around the campus and connects to a secondary internal road that circles the project site. The project site is bordered by Eisenhower and McKinley Halls to the north, the Holderman Building to the east, Vineyard View Drive to the south, and oak woodland to the west. Surrounding land uses include the Veteran's Homes buildings to the north and east, vineyards to the south, and oak woodland to the west.

The project site is currently occupied by six existing structures, the Holderman Building parking lot, and natural and landscaped vegetation (Figure 2-5). Site elevation is less than 200 feet, and the site slopes gently downward from the southwest to the northeast. The six structures include two independent living facilities (Polk Hall and Jefferson Hall), carport garages, the Hostess House, the Nurses Education Building, and the Bandstand. All structures except the Nurses Education Building and Bandstand are contributors to the VHC Historic District.

Vegetation on the site includes native and ornamental trees located within managed landscaped areas. The project site also includes Memorial Grove which is an area with commemorative trees and associated plaques located between Polk Hall and the Hostess House. There are also landscape trees and shrubs along the western border of the Holderman Building parking lot, and in the area surrounding Jefferson Hall. Photographs of the project site are included in Figure 2-6.

2.3 PROJECT CHARACTERISTICS

CalVet is proposing to build an approximately 285,000-gsf SNF at the VHC-Yountville campus. The facility will provide 240 beds for long-term care services, including skilled nursing/memory care for resident veterans. The environmental analysis assumes a maximum scale project design in which all existing site structures (Polk Hall, Jefferson Hall with garages, Hostess House, the Bandstand, and the Nurses Education Building) and landscape features will be demolished.

2.3.1 Design-Build Method

The proposed project will utilize the design-build method of project delivery. Because this is a design-build project, total improved site development details, which include building elevations, landscaping, access driveway, parking area, and other project specific facilities details are not known at this time.

In design-build, a Criteria Architect (or Master Architect) team develops performance criteria to establish the building's design characteristics, such as:

- Maximum square footage;

- Design mandates such as solar panels, and the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) certification;
- Facilities required by anticipated building tenants such as sufficient resident and office space and features;
- Performance design criteria for site landscape, parking, circulation, and building design consistent with the Secretary of the Interior's Standards for Rehabilitation, as it pertains to infill development in historic districts, and all necessary building systems and finishes;
- Identification of site infrastructure needs relative to all necessary utilities; and
- Minimum parameters to meet maintenance and functionality requirements.

The analysis in this Draft EIR/EA is based on the performance criteria prepared by the Criteria Architect team.

2.3.2 Site Plan Development

SNF/Memory Care Building

The proposed approximately 285,000-gsf SNF could include a variety of designs; however it is anticipated that the maximum footprint of the SNF building would be 106,000 gsf for a single-story building and the maximum height of the building would be four stories (72 feet; 4 stories with 16-foot decks plus 6-foot parapet at roof). A conceptual site plan showing the project disturbance limit is shown in Figure 2-7.

The SNF building(s) would be designed around the concept of resident care neighborhoods that share communal and support spaces, including a living room, and caregiver workstation. A neighborhood, with single rooms that include a shower and toilet, would house up to 30 residents. Two neighborhoods could be grouped together to form a resident unit, or the neighborhoods could be stand alone. Each neighborhood would contain nurse's stations and other patient support spaces including medication, clean and soiled laundry, satellite kitchen, neighborhood dining area, and a calming room.

Aside from the neighborhoods, the SNF building would include a main kitchen and dining area, administrative offices, patient support services, medical consultation, and chapel services. The main kitchen and dining area would be supported by various storage areas, loading dock and refuse facilities. A central plant would furnish distributed mechanical services. The building would house a main administration area for member services and administrative support functions of the new facility. The member services would include space/offices for nursing administration, medical records, human resources/personnel, business services, admissions/reception, social services, and other employee facilities. The member services would also include space/offices for housekeeping, security, information technology services (IT), plant operations, medical suites, physical and occupational therapy, a pharmacy, and a meditation room.

The exterior materials to be used on the building façade could include a combination of cementitious finish, clay tile, glass with minimal metal trim, and concrete masonry units. The materials would be compatible with the materials on the existing buildings on the VHC-Yountville campus, including those in the adjacent historic district, in terms of colors and texture. The use of glass and glare-producing materials would be limited on the façade.

The SNF building(s) will be designed to seek United States Green Building Council (USGBC) LEED gold rating.

Central Plant Building

The project would include a central plant building, approximately 8,000 gsf in size. This building would include boilers, chillers, pumps, and an emergency generator. Given the sloping nature of the site, the final height of the central plant building could vary between 20 and 22 feet. Two 20-foot-tall cooling towers, transformer boxes, and a fuel tank would be located in the service yard of the central plant. A wall approximately, 12 feet high, would be constructed around the central plant and the service yard. In addition, appropriate landscaping would be provided to the shield the central plant from surrounding structures. All louvers and vents would be designed to face away from the campus.

Site Access, Circulation, and Parking

Access to the SNF would via California Avenue to a loop road around the site. The loop road would be constructed to accommodate emergency and service vehicles. The loading area would receive all major deliveries and large trucks (50-ton size and up to 60 feet in length, maximum) for food and supplies. Deliveries would go through the loading area and be distributed internally. Parking would be made available for both employees and visitors, including short-term parking for ambulances or other medical emergency vehicles.

Approximately 275 existing parking spaces would be temporarily displaced due to construction of the SNF. Upon project completion, a total of 350 total spaces comprised of new and existing spaces would be provided on the development site.

Landscaping Plan

Landscaping would be an integral part of the building design, involving internal building spaces as well as outdoor spaces. The outdoor spaces would be designed to harmonize with the existing landscaping and terrain on the VHC-Yountville campus to ensure the integration of the SNF facilities with the other buildings on the campus. The outdoor spaces would include a large green space planted with a variety of trees, shrubs, and flowering plants. The courtyards would include hardscape elements. Native and drought tolerant species will be recommended to the Design Build entity.

Building Demolition

The proposed SNF building and its associated site development would require the demolition of existing structures and landscape within the development footprint. Although the actual footprint of the development area will not be known until the project design is determined through a design-build process, it is assumed for the purpose of this environmental analysis that all buildings within the conceptual site plan boundary would be demolished. Therefore, the buildings potentially removed by development include Polk Hall, Jefferson Hall and carport garages, Hostess House, the Bandstand, and the Nurses Education Building. The cumulative footprint of these structures is approximately 40,000 gsf (0.92 acres).

2.3.3 Utility Improvements

The proposed project would include new water, sewer, and on-site stormwater retention to serve the new SNF. The new utility lines would run parallel to existing underground utility lines,

which are primarily in existing internal roads on the VHC-Yountville Campus. Existing gas and electric lines would serve the project, although there may be minor electrical upgrades.

Water System

The VHC-Yountville campus is served by water from the Rector Reservoir located on state property in Napa County, northwest of the Yountville Veterans Home campus. A 6-inch water main serves Polk Hall and Jefferson Hall adjacent to the project site. A new 12-inch water line would be constructed along the perimeter of the project site to serve the SNF. The new water line would connect to an existing 6-inch water line east of the project site and south of the maintenance buildings.

A new 300,000-gallon water tank, 48 feet in diameter and 24 feet high, would be constructed above ground within the project boundary to provide fire protection water supply and tie into existing hydrant lines. While the water tank dimensions, and its siting would be determined during the design development phase this is considered a conservative allocation of capacity under a worst-case scenario. The water tank would be sized in final design to meet fire flow requirements specified by CalFire.

The proposed SNF replaces the current SNF operations located in Holderman Building and portions of Eisenhower and Roosevelt buildings. The estimated new water demand for the project is approximately 82,000 gallons per day (gpd) as shown in Table 2-1. Project Water Demand.

Table 2-1. Project Water Demand

Water Use	Units	Demand per Unit	Total Water Demand
SNF Patients	240	189 gpd	45,360 gpd
SNF Staff	220	100 gpd	22,000 gpd
Other Facilities	60	100 gpd	6,000 gpd
Landscape Irrigation	3 acres	0.042 gpd/sf	8,215 gpd
Total Demand		389 gpd	81,575 gpd

A new irrigation service would be required for the facility and would connect to the domestic line on-site. The location of the service point of connection and irrigation controller would be determined during the design development phase.

Sanitary Sewer System

The new SNF facility will require new sewer system infrastructure and will connect to existing sewer mains east of the project site. The existing sewer system connects to the wastewater treatment plant located within the Vintner's Golf Club property adjacent to the VHC-Yountville campus. The wastewater treatment plant is operated by the Town of Yountville. A new 8-inch sewer line would be installed in trenches alongside an existing sewer line east of the project site as shown in the Area of Potential Effects (APE) map in Figure 6-1. The point of connection

would be east of the chapel, along the property line (Figure 6-1). The new sewer demand for the project would be similar to water demand shown in Table 2-1 estimated at 82,000 gpd.

Stormwater Retention and Drain Plan

Stormwater runoff from the project site would be captured and retained on site with subterranean percolation pipes and stormwater detention controls. A stormwater control plan would be prepared at the time of project design. Stormwater controls would be designed based on state water resources control board (SWRCB) requirements. Project development would increase impervious surfaces (i.e., rooftops, pavement, walkways) by 4 acres compared to existing conditions (Table 2-2). The change in impervious and pervious surface areas would increase the runoff volume from the site from 11.2 to 19.2 cubic feet per second (cfs).

Table 2-2. Change in Project Site Coverage

Land Cover Type	Existing Conditions	Post-project Conditions	Project Change
Building Footprint	0.92 acres	2.62 acres	+1.7
Water Tank & Pump	--	0.07 acres	+0.07
Roads, Parking, Hardscape	1.88 acres	4.28 acres	+2.4
<i>Impervious Cover Total</i>	2.8 acres	6.97 acres	+4.17
<i>Runoff Volume</i>	6.7 cfs	16.8 cfs	+10.1
Developed Landscape	1.60 acres	1.48 acres	-0.12
Sparsely Irrigated Landscape	0.40 acres	3.01 acres	+2.61
Natural Landscape	6.86 acres	0.25 acres	-6.61
<i>Pervious Total</i>	8.86 acres	4.74 acres	-4.12
<i>Runoff Volume</i>	4.5 cfs	2.4 cfs	-2.1
Total Project Area	11.71 acres	11.71 acres	
Percent impervious	24%	60%	150%
Total Runoff Volume	11.2 cfs	19.2 cfs	

Electrical and Communication Systems

The new SNF will require its own new electrical service and generator system. The generator will provide support to all critical functions during power emergencies (approximately 40% of connected load of the facility). A new power system and electrical lines would be constructed to serve the project. The new SNF would have an estimated power demand by 3,840,000 kilowatt hours per year (kwh/yr). A 5,000 gallon above ground diesel fuel tank would be installed in the central building plant to supply the emergency generator (96-hr, 1500kv).

Gas Service

Gas connection will be made to the Campus' existing high-pressure gas service. A new 2-inch gas line would be installed running north from the project site in the main campus circulation

road, between McKinley Hall and Lincoln Hall. The new line would connect to the existing 2-inch gas line north of the Creative Arts Center and southwest of Madison Hall. The new SNF would have an estimated gas demand of 6,500 BTU-yr.

2.3.4 SNF Operations

SNF Program Elements

Skilled Nursing Care. Skilled Nursing is required for patients that are generally ambulatory but require monitored and more regular care than Residential Care for Elderly. Nurses and/or Certified Nurse Assistants (CNA) are on staff 24 hours a day.

Memory Care. For Memory Care, as with Skilled Nursing, nurses and CNAs are on staff 24 hours a day. Residents require regular, monitored care as well as security measures to keep them calm and assist them with basic tasks such as eating, bathing, and socialization. The project will be designed at the Skilled Nursing/Memory Care level of service to provide VHC-Yountville with a flexible facility that can meet changing program and care needs.

Building Space. The approximately 285,000 gsf facility would be designed with a full range of general service areas along with 240 single occupant rooms, organized in 30 bed Neighborhoods. Each member's room would have a private toilet room with shower and designed for ADA accessibility compliance. Ten percent of these rooms will be larger in size to serve as bariatric patients' rooms.

Each Neighborhood has its own dining and social areas, including a satellite kitchen, as well as workspaces for staff, healthcare exam rooms, and support space for laundry and food service.

A calming room is also provided for families or agitated residents to calm down in a quiet and contemplative environment.

Provision for accessible outdoor spaces and amenities for both members and staff shall provide all users access to nature.

Spaces to provide member care services include a multi-purpose room for social and group activities, a new central pharmacy, a clinic, a wellness center and a convenience store. The new 5,000 gsf central pharmacy it is programmed to serve both outpatients and residents (inpatients).

Administrative Services. The SNF building would provide space for the full range administrative services that are required to operate the new SNF, as well as support space to include pharmacy, building operations, warehousing, loading docks, members storage, a central kitchen, main laundry, electrical and mechanical spaces, a central plant and refuse facilities.

SNF Access

The SNF would be located within a larger unsecured campus. The proposed SNF building would be fully secured with alarms at each entry/exit door. The alarms provide notification for security as well as location and tracking of dementia care residents. Access into and out of the building and secured exterior spaces would be controlled at all points of entry/egress. Upon arriving at the SNF, guests would provide their name and identify the person(s) they are visiting at the security desk located in the main building lobby.

Visiting hours are 24-hours a day, 7 days a week.

Once inside the building, residents, visitors, and staff would be able to walk about freely throughout public corridors and common spaces. Some limitations will be in effect because of memory care program function. Staff would supervise the common areas and corridors from the nurse's station, and all staff support space would be secured visually and with door locks.

Meal Delivery

Delivery of food would be made three times a day to the resident neighborhoods. All food supplies for the SNF would be brought in bulk to the SNF's loading area, and then taken to the ground floor full kitchen. The prepared food would be delivered to each neighborhood satellite kitchen via enclosed carts. The food would be plated in the satellite kitchen serving room and served to residents in the dining area or in their private rooms. Breakfast, lunch, and dinner would be served at set times and snacks would be available in between.

Employee Staffing

A total of approximately 425 full-time equivalent employees would be required to staff the proposed SNF year-round, including weekdays, weekends, and holidays. Most of the staff would relocate from the Holderman Building, which will be vacated upon completion of the new SNF. There would be 100 additional staff added to serve the new SNF as shown in Table 2-3. Three shifts of employees would staff the facility 24 hours a day, 7 days a week. The likely shift hours for the staff at the SNF are as follows: the morning shift would begin at 6:30 a.m. and end at 3:00 p.m., the evening shift would begin at 2:30 p.m. and end at 11:00 p.m., and the night shift would begin at 10:45 p.m. and end at 6:45 a.m. Most staff would work during the day shift with much fewer working in the evening and night shifts.

Table 2-3. SNF Employee Shifts

Shift	Shift Hours	Existing + New SNF Employees	New Employee Shift Distribution
Day Workers Day Shift	8:00 a.m. - 5:00 p.m.	100	24
SNF Clinical and Support Staff AM Shift	6:30 a.m. – 3:00 p.m.	85	20
PM Shift	2:30 p.m. – 11:00 p.m.	70	16
NOC Shift	10:45 p.m. – 6:45 a.m.	70	16
SNF Main Kitchen and Satellites AM Shift	5:00 a.m. – 2:00 p.m.	50	12
PM Shift	10:30 a.m. – 7:00 p.m.	50	12
Total Employees	--	425	100

2.3.5 Relocation of Existing Uses on Project Site

Polk Hall and Jefferson Hall. Residents of Polk and Jefferson buildings would be re-housed at another location within existing buildings at the VHC-Yountville campus. The Polk and Jefferson buildings would not be replaced.

Hostess House. There are no current plans to replace or relocate the Hostess House. However, the FMPE acknowledges that the Hostess House is needed to serve visitors to the VHC-Yountville campus and suggests that it may be replaced at some future date to be determined. Any future replacement of the Hostess House would be subject to separate CEQA review and approval.

Nurses Education Building. The Nurses Education Building houses campus safety and security operations. This function would be relocated to another building on the VHC-Yountville campus.

Memorial Grove. Memorial Grove, located between Hostess House and Polk Hall, was conceived in 1927 as a memorial to all battles fought by Americans by planting trees from those battlegrounds. Though many of the original trees have died, the grove comprises tree plantings with plaques commemorating veterans. An iron frame archway marks the entrance to Memorial Grove. The archway is a landscape feature contributing to the VHC Historic District. Significant artifacts from Memorial Grove would be salvaged and stored for appropriate future use.

2.3.6 Future Use of Vacated Buildings

The Holderman Building would be vacated after project completion and evaluated for appropriate future uses. A reuse study was prepared for the Holderman Building (KALArchitects, 2018) which suggested possible re-uses of the building including employee housing, apartments, independent living units, or hotels. However, there would be substantial costs required to renovate the building and bring it up to current code requirements while maintaining its historic character. CalVet does not currently have the funds to complete the needed renovations. There are no current plans for re-use of the Holderman Building. Any future re-use of the building would be subject to separate legislative authority, project funding, CEQA review, and approval.

Once construction of the SNF is complete, residents from both the Eisenhower Building and F. Roosevelt Building will be evaluated for appropriate licensed care placement within the SNF. The Eisenhower Building and the F. Roosevelt Building would continue to provide licensed care for remaining residents.

2.4 PROJECT CONSTRUCTION

2.4.1 Construction Operations and Phasing

Construction is anticipated to take approximately 26 months and require an average work force of approximately 100. Details regarding demolition and tree removal, construction phasing, and construction methods and equipment are discussed below. The project is design-build and therefore the descriptions of construction phasing, equipment and methods are based upon projects of similar size and construction type.

Construction access to the project site would occur through the primary campus entrance driveway on California Avenue. The construction area would be fenced to keep people from casually entering the work site. If there is a concern that consumers may attempt to enter the site, a private security company could be hired to patrol the fenced area during off-hours and observe the entrance gates during operations. It would be the General Contractor's responsibility to maintain a safe project site.

Throughout the entire project, the construction superintendent would communicate daily with DGS contacts on site and receive advance clearance of any and all interruptions in site utilities.

Anticipated construction phasing and equipment are described below based on projects of similar type and size.

Demolition and site clearing (includes construction stormwater controls & temporary utilities). This phase includes building demolition, removal of trees and other vegetation as needed, and off-haul of vegetation and demolition debris. Construction equipment would include a track excavator with a concrete breaker and debris trucks. This phase would take approximately one month.

Earthwork, perimeter fire road and major underground utilities. This phase would include grading and excavation for site leveling, installation of underground utilities, and potential improvement of the existing perimeter road for fire access. Excavation of site soil and rock could require off haul of up to 80,000 cubic yards of rock and soil and import of 15,000 yards of soil. This estimate is based on the concept site plan as a worst-case scenario. It is anticipated that there would be minor retaining walls at various locations throughout the site pending the final project design. Materials would include road-base and AC Paving materials, storm and sewer piping, manholes and drainage boxes, and electrical conduits/ground-based transformer(s). Construction equipment would include dozers, excavators, mobile cranes, a paving machine, and trucks. This phase would take approximately five months.

Foundations and Slabs. This phase would include the construction of building foundations and slabs. The project may utilize conventional footings and foundations; piles or “deep” footings are not expected to be utilized. Materials would include concrete, concrete pump and rebar. Construction equipment would include concrete trucks, mobile cranes, and an articulating boom concrete pump. This phase would take approximately four months.

Framing and Finishes. This phase would consist of constructing the SNF buildings. Buildings would likely be of varying heights from one to four stories. Materials would include lumber and plywood, steel, drywall and building services material (wiring and plumbing), and fixtures and finishes. Construction equipment would include trucks, mobile cranes, fork-lifts, lift trucks, zoom-booms and scissor-lifts. This phase would take approximately twelve months.

Equipment and Furnishings. This phase would include furnishing the interior of the building(s) with appliances; heating, ventilation and air conditioning (HVAC) equipment; medical equipment; and other furnishings. Construction equipment would include forklifts, trucks, and mobile cranes. This phase would take approximately four months.

Hardscape, Irrigation, and Landscaping. This phase includes the installation of hardscape such as pathways, landscaping, and irrigation. This phase also includes final grading of parking areas and asphalt concrete (AC) paving. Materials would include concrete, trees, planting and irrigation materials as well as site fixtures like benches, trash cans, etc. Construction equipment would include trucks, an AC paving machine, a skip-loader, bobcats, concrete trucks, boom pump, a mobile crane, and forklifts. This phase would take approximately three months.

2.4.2 Site Clearing and Demolition

The proposed project would require the demolition of Polk Hall, Jefferson Hall and carport garages, Hostess House, the Bandstand, and the Nurses Education Building. The project would also require the relocation or removal of the Memorial Grove. Trees on the project site would be removed as discussed in Biological Resources, Chapter 5. It is not yet known how many of these trees would be removed as part of the proposed project; however, this document assumes that the

maximum number of trees would be removed in order to avoid underestimating the impacts in the environmental analysis.

2.4.3 Construction Equipment and Staging

All construction equipment and staging areas would be confined to the within the fenced perimeter of the project site. No additional laydown areas are proposed.

Where feasible and available, diesel construction equipment will be powered by Tier 3 or Tier 4 engines as designated by the California Air Resources Board (CARB) and the U.S.

Environmental Protection Agency (US EPA). In addition, if available for on-site delivery, diesel construction equipment will be powered with renewable diesel fuel that is compliant with California's Low Carbon Fuel Standards and certified as renewable by the CARB Executive Officer. The design-build team will be encouraged to use natural gas or electric forklifts inside the building, to minimize use of building system ventilation and lighting outside of work hours, and to promote to construction staff the use of public transit and carpooling.

Project construction would require an estimated 7,113 total truck trips for demolition off-haul, soil hauling, and concrete deliveries. Construction activities would result in temporary intrusions into the adjacent roadways including President's Circle and California Avenue, including temporary lane closures.

2.4.4 Construction Hours of Operation

Normal work hours would be Monday through Friday from 7:30 a.m. to 4:30 p.m., with some weekend shift and afterhours work occurring on an as needed basis with prior notice.

Although not anticipated, it is possible that periods of nighttime construction may be needed. A distinction is made between nighttime construction indoors, within the building after walls and windows are in place, and outdoor construction activities that are not enclosed by the partially completed building. Indoor construction activities, such as installing wiring, drywall, and carpet, would be permitted during nighttime hours. However, the selected design-build team would only be permitted to conduct outdoor construction during the nighttime hours if there are no other reasonable options. For example, some foundation designs require that once the pouring of concrete begins, the pour must continue without pauses until complete. In some instances, such a concrete pour may take 20 or more hours, requiring work to occur during the nighttime hours. It is unknown at this time if the final building design will have any elements that require outdoor nighttime construction. Therefore, to ensure a comprehensive evaluation of potential environmental effects, this EIR assumes the potential for limited outdoor nighttime construction activity.

2.5 ENVIRONMENTAL PROTECTION MEASURES INCORPORATED INTO PROJECT

CalVet incorporates Best Management Practices (BMPs) into the planning, design, construction, operation and maintenance of its projects to minimize the potential adverse effects of the project on the surrounding community and the environment. The BMPs identified in Table 2-4 would be included in all Yountville SNF project construction documents and are considered part of the project and not mitigation measures.

Table 2-4. Best Management Practices Incorporated into the SNF Project

Subject	Best Management Practice
Air Quality	Control of fugitive dust is required by Bay Area Air Quality Management District Rule 403 and enforced by District staff. The California Air Resources Board (CARB) enforces idling limitations and compliance with diesel fleet regulations. CalVet and/or its contractor shall implement the following Basic Construction Emission Control Practices (BAAQMD CEQA Guide 2017a) during project construction: • Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads. • Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered. • Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited. • Limit vehicle speeds on unpaved roads to 15 miles per hour (mph). • All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used. • Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site. • Provide current certificate(s) of compliance for CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation [California Code of Regulations, Title 13, sections 2449 and 2449.1]. For more information contact CARB at 877-593-6677, doors@arb.ca.gov. Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determine to be running in proper condition before it is operated.
Stormwater and Drainage Control	CalVet and/or its contractor shall prepare and implement a stormwater runoff management plan in compliance with the NPDES Construction General Permit requirements. The plan shall specify best management practices (BMPs) for the control and prevention of stormwater pollution. The plan shall include site design, source control, and treatment BMPs to control potential erosion, sedimentation, and other pollutants from construction sites. consistent with the BMP requirements in the most recent version of the California Stormwater Quality Association (CASQA)

Subject	Best Management Practice
	Stormwater Best Management Handbook-Construction or the Caltrans Stormwater Quality Handbook Construction Site BMPs Manual.

2.6 PERMITS AND APPROVALS REQUIRED FOR PROJECT

2.6.1 U.S. Department of Veterans Affairs

The following approvals are required by the USDVA:

- Publication of the Draft Environmental Assessment for public and stakeholder comment, preparation of a Final Environmental Assessment addressing public and stakeholder comments, and completion and USDVA signature on a Finding of No Significant Impact pursuant to NEPA.
- Authorization of federal funds through the State Veterans Home Construction Grant Program to support project construction.

2.6.2 California Department of Veterans Affairs

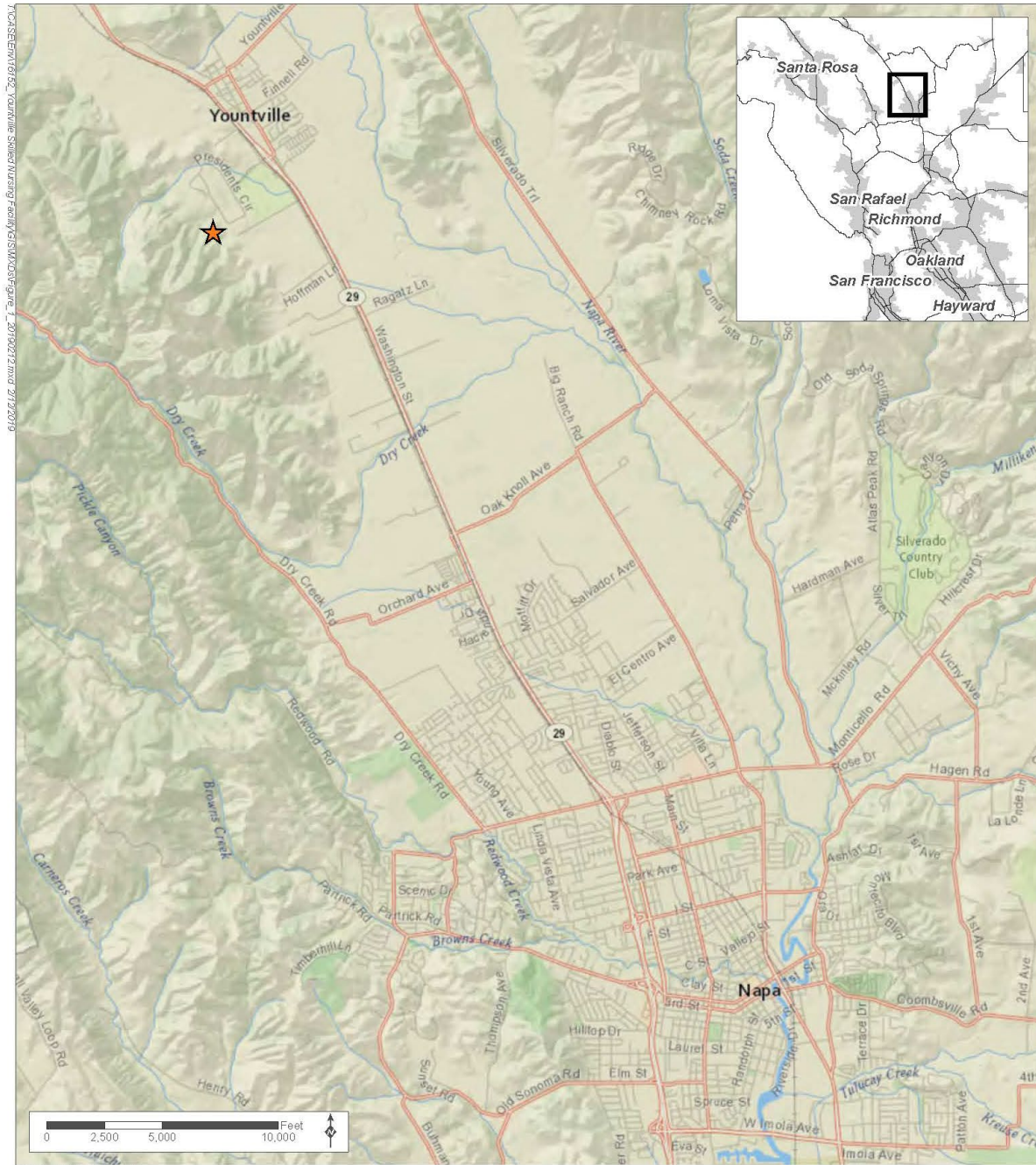
The following approvals are required by CalVet:

- Certification of the Environmental Impact Report, approval of project findings, and approval of a mitigation monitoring and reporting program pursuant to CEQA.
- Authorization of State funds to implement the project. The proposed project is a State sponsored project on State-owned property.

2.6.3 Responsible Agencies

This EIR/EA is available for the use of responsible, trustee, and other agencies that may have jurisdiction or approval authority for the proposed project. The following approvals and regulatory permits may be required for implementation of the proposed project and action alternatives:

- Regional Water Quality Control Board (RWQCB): Storm Water Pollution Prevention Plan (SWPPP) per the State's Construction General Permit for site disturbance of greater than one acre;
- Division of the State Architect (DSA): State Architect Approval for Americans with Disabilities Act (ADA);
- Office of the State Fire Marshal: approval of construction documents;
- California Department of Public Health: approval of kitchen area construction plans and stub outs during construction.

Figure 2-1. Regional Location

★ Project Location



Figure 2-1 Regional Location
VHC-Yountville Skilled Nursing Facility Project

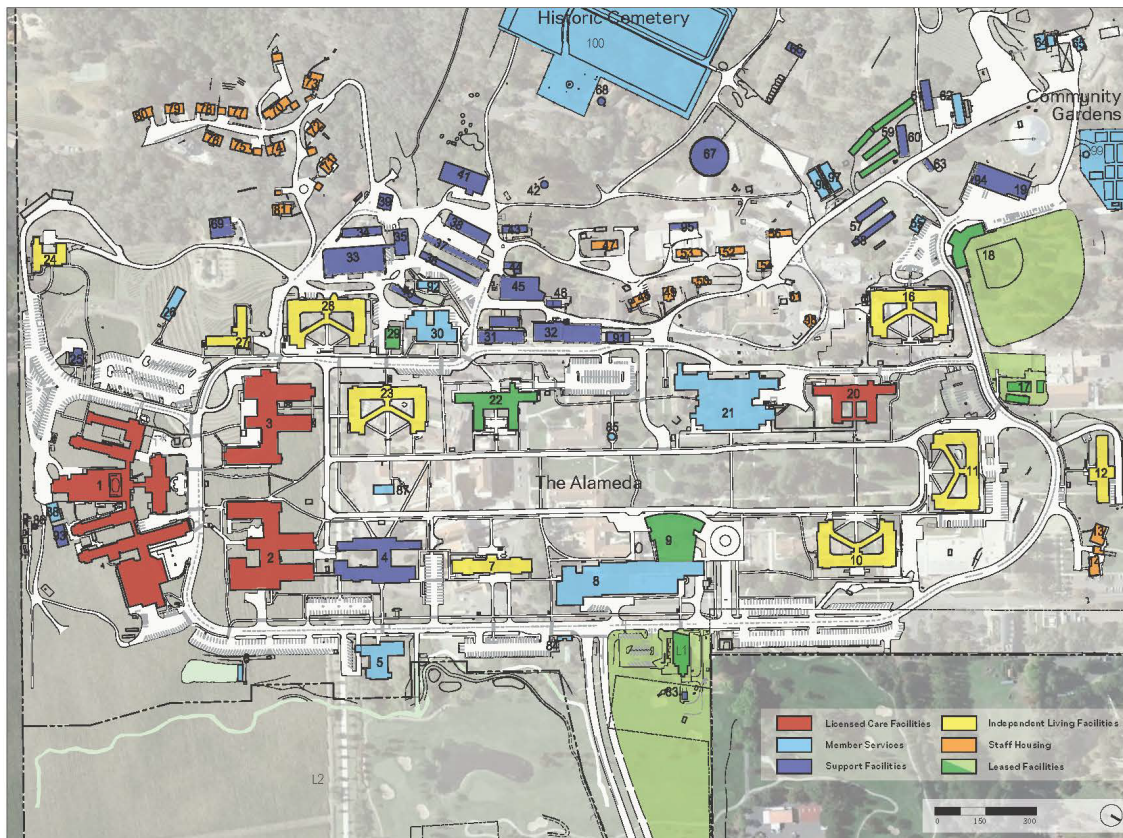
Figure 2-2. Aerial View of VHC-Yountville Campus

 Yountville Campus Boundary

Figure 2-2 Aerial View of VHC-Yountville Campus

VHC-Yountville Skilled Nursing Facility Project



Figure 2-3. VHC-Yountville Existing Facilities Map

Source: California Department of Veterans Affairs, 2019; M/G 2019

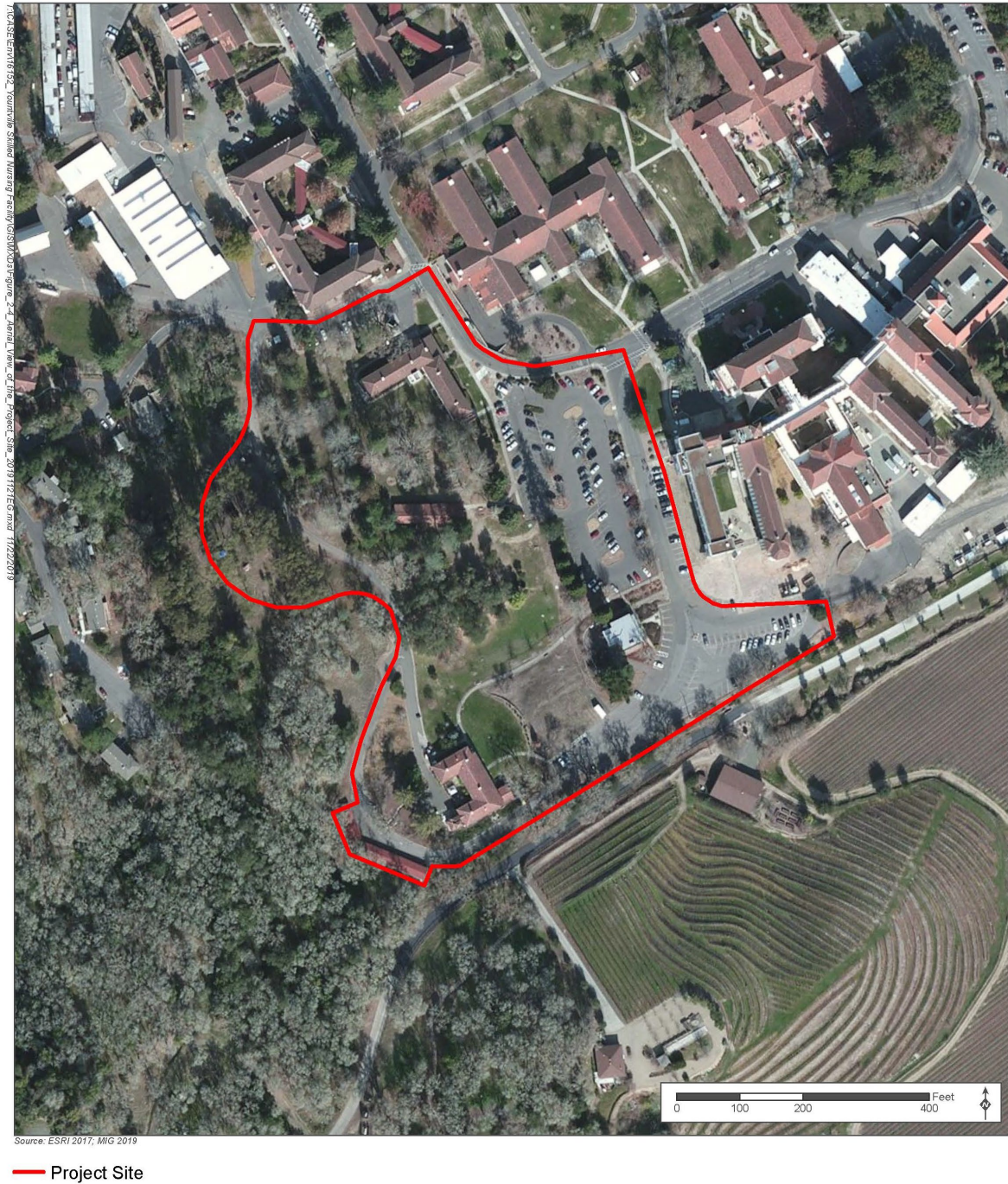
Existing Facility Location Map

1 HOLDERMAN HOSPITAL	19 CENTRAL SUPPLY WAREHOUSE	35 PLANT OPERATIONS	54 RESIDENCE E-6	73 RESIDENCE O-7	90 SECURITY BUILDING
2 ANNEX I, F. ROOSEVELT HALL	20 SECTION F, TRUMAN HALL	36 PARKING SHED	55 BALLPARK LOCKERS	74 RESIDENCE O-16	91 STORAGE
3 ANNEX II, EISENHOWER HALL	21 MAIN DINING ROOM	37 PARKING SHED	56 PARKING SHED	75 RESIDENCE O-17	92 THE LODGE
4 ADMINISTRATION	22 SECTION G, MADISON HALL	38 MASON GROUNDS	57 UPPER TIN STORAGE	76 RESIDENCE O-18	93 DATACENTER
5 CHAPEL	23 SECTION A, LINCOLN HALL	39 RED BARN	58 LOWER TIN STORAGE	77 RESIDENCE O-19	94 PURCHASING/MAIN WAREHOUSE
6 VALLEY VIEW POND	24 SECTION L, JEFFERSON HALL	40 PLANT OPERATIONS	59 GARDEN STORAGE	78 RESIDENCE O-20	95 EQUIPMENT SHED
7 SECTION H, KENNEDY HALL	25 NURSES EDUCATION BUILDING	41 MAINTENANCE WAREHOUSE	60 PLUMBING STORAGE	79 RESIDENCE O-21	96 BASEBALL DORM 1
8 RECREATION CENTER	26 HOSTESS HOUSE	42 FUEL STORAGE TANK	61 PLUMBING STORAGE	80 RESIDENCE O-22	97 BASEBALL DORM 2
9 LINCOLN THEATER	27 SECTION K, POLK HALL	43 EQUIPMENT SHED	62 AUTO HOBBY SHOP	81 RESIDENCE O-23	98 GARAGE
10 SECTION E, WASHINGTON HALL	28 ANNEX III, SECTION B, MCKINLEY HALL	44 CSFA OLD FIRE STATION	63 FLAMMABLE STORAGE	82 YOUNTVILLE CORPORATION YARD	99 COMMUNITY GARDEN
11 SECTION C, WILSON HALL	29 POST OFFICE	45 LAUNDRY	64 CONCESSIONS - TOILETS	83 PUMP HOUSE	100 HISTORIC CEMETERY
12 SECTION J, JOHNSON HALL	30 CREATIVE ARTS CENTER	46 CHILLER TOWER	65 PICNIC AREA STAGE	84 BUS STOP	L1 NAPA VALLEY MUSEUM
13 RESIDENCE O-24	31 BAGGAGE STORAGE	47 RESIDENCE DUPLEX O-8, O-9	66 CORPORATION YARD	85 GAZEBO + FLAG	L2 VINTNERS GOLF CLUB
14 RESIDENCE O-25	32 BOILER ROOM	48 RESIDENCE O-10	67 WATER RESERVOIR	86 MASTER GENERATOR + SWITCHGEAR	
15 CARPORT	33 MAINTENANCE SHOPS	49 RESIDENCE O-11	68 REDWOOD TANK	87 ARMISTICE MUSEUM	
16 T. ROOSEVELT HALL	34 MAINTENANCE STORAGE	50 RESIDENCE O-12	69 OSA (BANDSTAND)	88 CREDIT UNION	
17 SWIMMING POOL		51 RESIDENCE O-14	70 RESIDENCE O-1	89 SEWAGE DISPOSAL	
18 BORMAN FIELD		52 RESIDENCE DUPLEX E-2, E-3	71 RESIDENCE O-2		
		53 RESIDENCE DUPLEX E-4, E-5	72 RESIDENCE O-6		

Figure 2-3 VHC-Yountville Existing Facilities Map

VHC-Yountville Skilled Nursing Facility Project

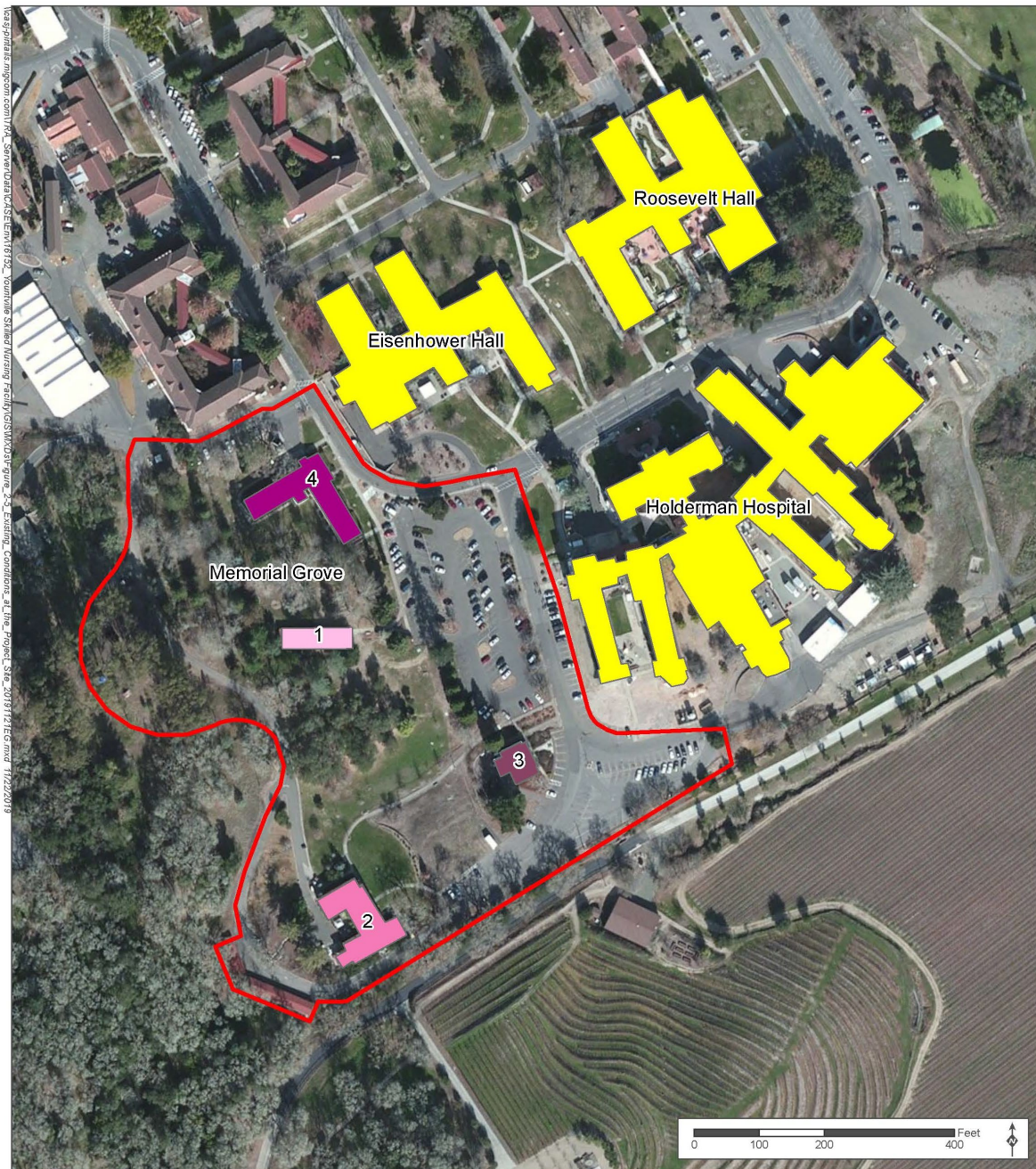


Figure 2-4. Aerial View of the Project Site**Figure 2-4 Aerial View of the Project Site**

VHC-Yountville Skilled Nursing Facility Project



Figure 2-5. Existing Conditions at the Project Site



Existing Facilities

Existing SNF

1. Hostess House

2. Jefferson Hall

3. Nurse's Education Building

4. Polk Hall



Project Site

Figure 2-5 Existing Conditions at the Project Site

VHC-Yountville Skilled Nursing Facility Project

Figure 2-6. Photographs of the Project Site



Polk Hall (Section K)



Jefferson Hall (Section L)



Figure 2-6 Photographs of the Project Site

VHC-Yountville Skilled Nursing Facility Project



Hostess House



Nurse's Education Building

Figure 2-6 Photographs of the Project Site

VHC-Yountville Skilled Nursing Facility Project





Bandstand Building

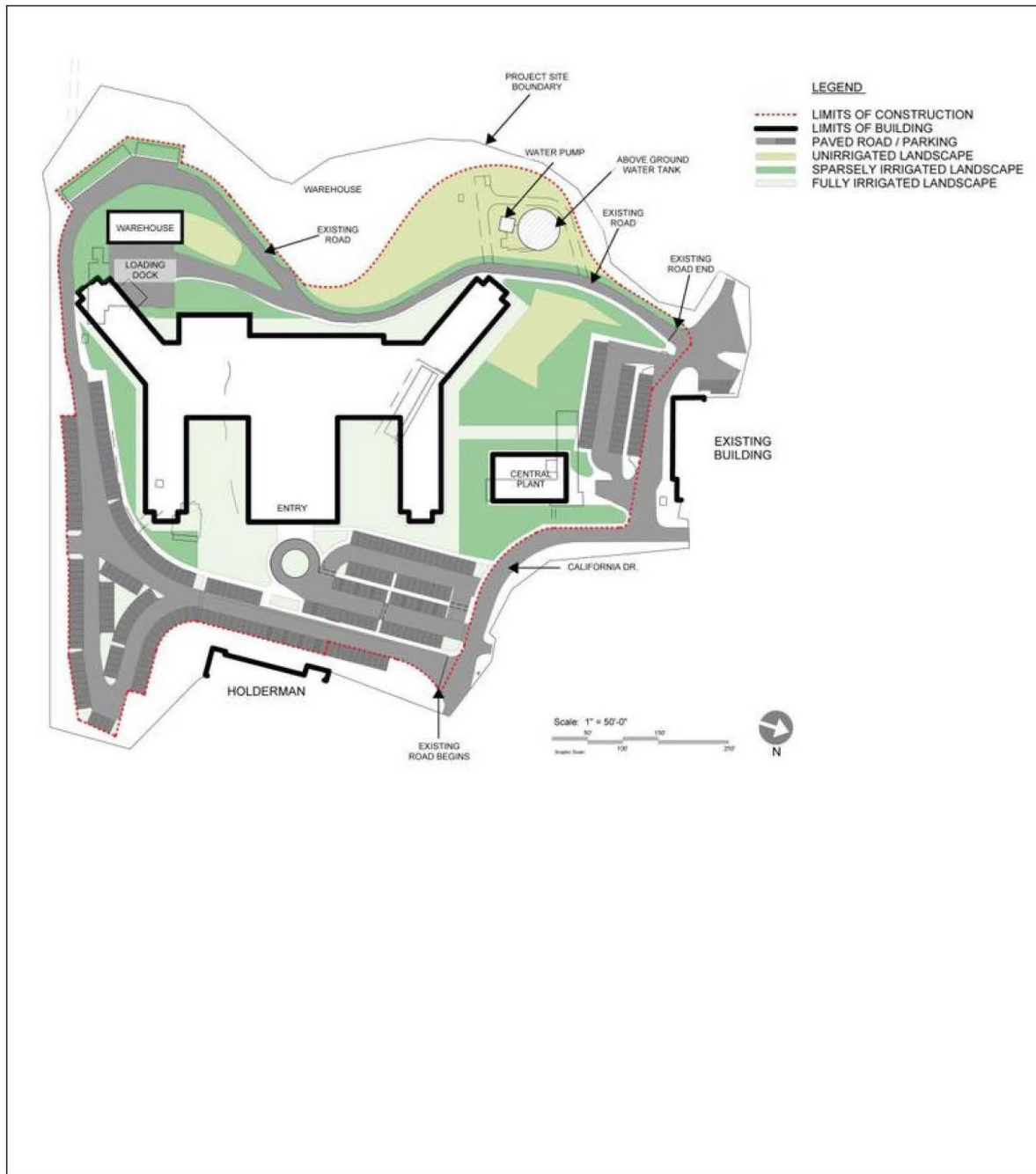


Memorial Grove with Hostess House in the background



Figure 2-6 Photographs of the Project Site

VHC-Yountville Skilled Nursing Facility Project

Figure 2-7. Conceptual Site Plan**Figure 2-7 Conceptual Development Plan**

VHC-Yountville Skilled Nursing Facility Project



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CHAPTER 3 IMPACT ANALYSIS METHODOLOGY

This chapter describes the analytical methodology used, and an overview of the environmental analysis contained in Chapters 4 – 14 of this EIR/EA. This chapter also lists resource areas not considered in detail in this EIR/EA.

3.1 TYPES OF IMPACTS

The analysis contained in this chapter evaluates the potential physical effects associated with implementation of the proposed project and alternatives that may directly, indirectly, or cumulatively affect the environment in accordance with CEQA Guidelines (Section 15064(d)) and NEPA Regulations (40 CFR 1508.8). CEQA and NEPA require that the direct, indirect, and cumulative effects of proposed actions be assessed and disclosed. For the purposes of this EIR/EA, the terms “effects” and “impacts” are used interchangeably (CEQA Guidelines 15358 and 40CFR 1508.8). The CEQA Guidelines and NEPA Regulations define three types of effects (or impacts):

- 1) Direct effects are caused by the action and occur at the same time or place (40 CFR 1508.8(a) and CEQA Guidelines 15064(d)(1)).
- 2) Indirect effects are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable (40 CFR 1508.8). Indirect effects may include growth inducing effects and other effects related to induced change in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems (CEQA Guidelines section 15358(a)(2)). If a direct physical change in the environment in turn causes another change in the environment, then the other change is an indirect change in the environment (CEQA Guidelines section 15064(d)(2)).
- 3) Cumulative impact is an impact on the environment, which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what entity (Federal, non-Federal, or private) is taking the actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7 and CEQA Guidelines section 15355). Please refer to Chapter 15 for the cumulative impact analysis.

Direct and indirect impacts can also vary in duration and result in temporary, short-term, and long-term effects on the physical environment. A temporary effect would occur only during the activity. A short-term effect would last from the time an activity ceases to some intermediate period of approximately one to five years. A long-term or permanent effect would last longer than five years after an activity cease. Long-term effects may be the result of ongoing maintenance and operation of a project or may result in a permanent change in the condition of a resource, in which case it could be considered a permanent effect.

3.2 ANALYTICAL METHODOLOGY

In evaluating the potential impacts of the proposed project and alternatives, the lead agencies utilized the following analytical methodology:

Step 1: Incorporation of Best Management Practices (BMPs). The EIR/EA incorporates BMPs identified in Table 2-4 as project components that are designed to minimize impacts to the existing environmental setting. The application of BMPs is presumed and therefore they are not considered mitigation measures but rather resource protection measures that are part of the proposed project. For example, the proposed project incorporates BMPs into the planning, design, construction, operation and maintenance of its projects to minimize the potential adverse effects of the project on the surrounding community and the environment. The BMPs identified in 2-6 would be included in all Yountville SNF project construction documents and are considered part of the project and not mitigation measures. Thus, the application of these measures is considered prior to making a finding of significance for project impacts.

Step 2: Compliance with Applicable Laws, Ordinances, Statutes, and Regulations. The EIR/EA presumes, unless specifically noted, that project actions would be designed, constructed, operated, and maintained in accordance with the applicable requirements described in the regulatory setting discussion. The regulatory setting is not intended to be exhaustive; rather, it is intended to provide a summary of key regulatory requirements that materially affect the relationship between the project's design, construction, operation, and maintenance and potential environmental impacts. In addition, the regulatory setting does not summarize regulations that do not apply to the proposed project activities.

Step 3: Identification of Existing Physical Conditions. The EIR/EA identifies the existing physical environmental conditions that exist in the project area that could change as a result of project activities. Existing campus operations including the current SNF are part of the environmental setting. Any environmental impacts that may be associated with current park operations are part of the environmental setting. This setting constitutes the baseline physical conditions by which the lead agencies are determining whether the physical change that occurs to the environment as a result of the proposed project is a significant (CEQA) or major (i.e., substantial; NEPA) effect. The environmental setting describes only those physical environmental conditions necessary to understand the significant effects of the proposed project and its alternatives.

CEQA Guidelines section 15125(a) require that an EIR include a description of “the physical environmental conditions in the vicinity of a project, as they exist at the time...environmental analysis is commenced...” These environmental conditions normally constitute the baseline physical conditions by which the CEQA lead agency determines whether an impact is significant. Generally, the appropriate CEQA baseline is the existing environmental conditions at the time the NOP was published or the time the environmental analysis was commenced.

Similarly, analyses under NEPA must also identify impacts compared to current conditions, referred to as the “affected environment.” In addition, the NEPA no action alternative (i.e., the expected future conditions without the project) is a benchmark to which the action alternatives are compared; the no action alternative is also compared to existing conditions. NEPA Regulations at 40 CFR 1508.14 define the environmental setting as the human environment, identified as “the natural and physical environment and the relationship of people with that environment.”

Step 4: Identification of EIR/EA Scope. The analysis contained in this EIR/EA evaluates the potential environmental consequences associated with the proposed project and alternatives in accordance with the requirements of CEQA and NEPA. This analysis is limited to evaluating

whether the proposed project and alternatives would represent a “significant effect on the environment” under CEQA or would “significantly affect the quality of the human environment” according to NEPA.

The EIR/EA impact analysis is limited in scope to the activities that would directly or indirectly cause a physical change to the environment. Existing VHC – Yountville operations are not evaluated for impacts as new activities. Program changes are not part of the environmental review of the SNF project. CalVet decisions regarding relocation of residents to other campus buildings and replacement of the Hostess House are administrative considerations that occur as part of the campus program functioning. These activities are ongoing and occur outside of the proposed CEQA/NEPA project action. The impacts associated with future development in the project area are assessed in Chapter 15, Cumulative Impacts. The purpose of the EIR/EA is to address the environmental effects of the new proposed SNF and its alternatives. Therefore, the scope of the EIR/EA is limited to these activities. It is not the role or intent of this EIR/EA to review or modify the parameters of existing VHC-Yountville operations.

Step 5: Use of Best Available Data. The EIR/EA analysis is based on the best available information. The lead agencies, through the scoping process and discussions with agencies and stakeholders, gathered information and performed focused studies to document resource conditions and evaluate the potential impacts of the proposed project and alternatives. CalVet and DGS have collected data on resources located at VHC-Yountville and performed individual specialized studies, assisted by qualified professionals both in the public and private sector. The data has been used for the environmental review contained in this EIR/EA.

Step 6: Analysis of Environmental Impacts. The EIR/EA evaluates the change to the existing physical conditions of the human environment (i.e., the full range of resources identified in Appendix G to the CEQA Guidelines) that could result from implementation of the proposed project and alternatives. The effects of the proposed project and alternatives were determined by comparing estimates of resulting conditions with baseline conditions. This examination considers the public comments submitted by agencies and interested individuals during the 30-day public review period for the NOP. The EIR/EA’s impact analyses consider the direct, indirect, and cumulative impacts of approving the proposed project as well as the short-term and long-term impacts.

The methods used to evaluate impacts of the alternatives were selected based on CalVet and USDVA standard practices and input from responsible federal, State, and local agencies and resource topic experts. The resource topic experts included engineers, geologists, biologists, cultural resources specialists, landscape architects, hydrologists, and qualified agency and consultant technical experts. For a full list of preparers and those consulted during the preparation of this EIR/EA, please refer to Chapter 18 .

Step 7: Inclusion of Mitigation Measures. The EIR/EA describes the feasible mitigation measures proposed to avoid or minimize the project’s significant impacts under CEQA. These mitigation measures, which address potential environmental impacts would be implemented in addition to the standard and specific resource protection measures (BMPs) incorporated into the project. This EIR/EA uses the term “mitigation” consistent with Section 15126.4(a)(1)(A) of the CEQA Guidelines, which states that an EIR shall “distinguish between measures which are proposed by the project proponents to be included in the project, and other measures proposed by the lead...agency...and not included in the project.”

3.3 DEFINITION OF IMPACT INTENSITIES AND SIGNIFICANCE DETERMINATIONS

CEQA and NEPA have a common objective to identify significant environmental impacts; however, the definition and approach for determining “significance” is slightly different. CEQA defines a significant effect on the environment as “a substantial, or potentially substantial, adverse change in the environment” (PRC Div. 13 21068). Significant, as used in NEPA, requires considerations of both context and intensity (NEPA Regulations 40 CFR 1508.27).

Significance criteria, or thresholds of significance, are commonly used under CEQA in order to determine the extent and magnitude of potential impacts. A “threshold of significance” is “an identifiable quantitative, qualitative, or performance level of a particular environmental effect, non-compliance with which means the effect would normally be determined to be significant by the agency and compliance with which means the effect will normally be determined to be less than significant” (CEQA Guidelines section 15064.7). CEQ NEPA Regulations identify that the determination of significance is based on two criteria: context and intensity. Context is defined as the need to evaluate impacts within the environmental setting in which they occur (40 CFR 1508.279a)). Intensity is defined as the severity of the impacts with the evaluation of 10 non-exclusive criteria (40 CFR 1508.27(b)).

Each resource chapter of this EIR/EA identifies the criteria used to assess the potential effects of the proposed project. Significance criteria used in these analyses are based on both CEQA and NEPA standards, including Appendix G of the CEQA Guidelines. Where CEQA and NEPA standards differ, the more rigorous threshold was applied. This ensures that the criteria applied in the analysis are adequate under both federal and State regulations and the mitigation measures identified will similarly meet both standards.

In evaluating the potential impacts of the proposed project and alternatives, the level of significance is determined by applying the threshold of significance presented for each resource evaluation area. While CEQA requires that identification of the level of significance for each impact be stated in an EIR, NEPA regulations do not require such a discussion. Evaluation of each resource area must take into account that some impacts determined to be significant under CEQA may not necessarily be determined significant under NEPA (e.g., NEPA does not compel mandatory findings of significance). However, for both CEQA and NEPA, environmental impact categories are established by the CEQA and NEPA lead agencies to determine whether an impact is considered significant. For the purpose of this EIR/EA and to provide the degree of specificity required under CEQA, the following terminology is used to evaluate the level of significance of impacts discussed in this EIR/EA. These terms are consistent with the generally accepted standards of CEQA compliance practice.

- **No impact.** No project-related impacts to the environment would occur with development of the proposed project and alternatives. This impact level does not require mitigation measures.
- **Less Than Significant Impact.** The impact would not result in a substantial adverse change in the environment. This impact level does not require mitigation measures.
- **Less Than Significant with Mitigation Incorporated.** An impact that may have a “substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project” (CEQA Guidelines section 15382). However, the

incorporation of mitigation measures that are specified after analysis would reduce the project-related impact to a less-than-significant level.

- **Significant and Unavoidable Impact.** An impact is considered significant and unavoidable if the analysis concludes that there could be a substantial adverse effect on the environment, and no feasible mitigation measures are available to reduce the impact to a less-than-significant level. Mitigation is still necessary to lessen impacts, even if they would remain significant and unavoidable.

3.4 OVERVIEW OF THE ANALYSIS

This EIR/EA analyzes the potential effects of the proposed project on the environment under the applicable environmental resource topics listed in the CEQA Initial Study Checklist in Appendix G of the CEQA Guidelines and NEPA Regulations. Based on comments received during the scoping process and preliminary review, Chapters 4 through 14 of this EIR/EA includes a detailed evaluation of the resource topics identified below. Chapter 15 includes the potential cumulative impacts of the proposed project, Chapter 16 provides a discussion of project alternatives, and Chapter 17 discusses additional topics required by CEQA and NEPA.

- Chapter 4: Air Quality
- Chapter 5: Biological Resources
- Chapter 6: Cultural and Tribal Cultural Resources
- Chapter 7: Energy and Greenhouse Gas Emissions
- Chapter 8: Geology and Soils
- Chapter 9: Hazards and Hazardous Materials
- Chapter 10: Hydrology and Water Quality
- Chapter 11: Noise
- Chapter 12: Transportation
- Chapter 13: Utilities and Service Systems
- Chapter 14: Wildfire

3.5 PROJECT IMPACTS FOUND NOT TO BE SIGNIFICANT

The lead agencies have determined that the proposed Yountville SNF would clearly result in no impact or a less-than-significant impact to the following resources due to absence of the resource or the nature of the project as proposed. To focus the analysis on the issues that are potentially significant, these environmental resources are dismissed from further detailed analysis (40 CFR 1501.1, 40 CFR 1501.1(d), 40 CFR 1501.7(a)(3), and CEQA Guidelines section 16063(c)(3)). The reasons for elimination are discussed in accordance with NEPA Regulations (40 CFR 1508.0) and CEQA Guidelines (Section 15128) in Chapter 17 .

- Aesthetics
- Agricultural and Forestry Resources
- Land Use and Planning
- Mineral Resources

- Population and Housing
- Public Services
- Recreation

In addition, where applicable, Chapters 4–14 identify impacts that would not occur or would be clearly less than significant and are dismissed from further evaluation.

CHAPTER 4 AIR QUALITY

This chapter of the EIR/EA provides information on the existing air quality environment in the San Francisco Bay Area and the Town of Yountville, summarizes applicable air quality guidelines, standards, and regulations, and evaluates potential air quality impacts associated with the proposed project. The chapter was prepared using methodologies and assumptions recommended in the latest version of the Bay Area Air Quality Management District's (BAAQMD) CEQA Air Quality Guidelines (BAAQMD 2017a). Information on existing air quality conditions, federal and state ambient air quality standards, and pollutants of concern was obtained from the U.S. EPA, CARB, and BAAQMD. As described in this chapter, the implementation of the proposed project would not result in a significant air quality impact under CEQA or NEPA.

4.1 REGULATORY SETTING

4.1.1 Federal and State Clean Air Act

The Federal Clean Air Act, as amended, provides the overarching basis for both federal and state air pollution prevention, control, and regulation. The Act establishes the U.S. EPA's responsibilities for protecting and improving the nation's air quality. The U.S. EPA oversees federal programs for setting air quality standards and designating attainment status, permitting new and modified stationary sources of pollutants, controlling emissions of hazardous and toxic air pollutants, and reducing emissions from motor vehicles and other mobile sources. In 1971, the U.S. EPA developed the nation's initial primary and secondary National Ambient Air Quality Standards (NAAQS). The primary standards are designed to protect human health with an adequate margin of safety, while the secondary standards are designed to protect property and public welfare from air pollutants in the atmosphere.

The U.S. EPA requires that each state prepare and submit a State Implementation Plan (SIP), consisting of background information, rules, technical documentation, and agreements that an individual state will use to attain compliance with the NAAQS within federally imposed deadlines. State and local agencies implement the plans and rules associated with the SIP, but the rules are also federally enforceable.

In addition to being subject to federal requirements, air quality in the state is also governed by more stringent regulations under the California Clean Air Act, which was enacted in 1988 to develop plans and strategies for attaining the California Ambient Air Quality Standards (CAAQS).

National and State Ambient Air Quality Standards

The Federal Clean Air Act establishes standards known as the NAAQS. The California Clean Air Act establishes state standards known as the CAAQS. The CAAQS are typically more stringent than the corresponding NAAQS. In general, the NAAQS and CAAQS define "clean" air, and are established at levels designed to protect the health of the most sensitive groups in our communities by defining the maximum amount of a pollutant (averaged over a specified period of time) that can be present in outdoor air without any harmful effects on people or the environment. Air pollutant levels are typically described in terms of concentration, which refers to the amount of pollutant material per volumetric unit of air. Concentrations are typically measured in parts per million (ppm) or micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

In California, air quality is governed by CARB. The state is geographically divided into 15 air basins defined by geographic features such as valleys and mountains. Air quality in these basins is managed by 35 different air districts, which are called Air Quality Management Districts or Air Pollution Control Districts. These agencies are county or regional governing authorities that have primary responsibility for monitoring and enforcing state and federal air quality standards. Each air district sets its own regulations for air pollutant emissions in order to achieve compliance with federal and state ambient air quality standards.

The U.S. EPA, CARB, and regional air agencies assess the air quality of an area by measuring and monitoring the amount of pollutants in the ambient air and comparing pollutant levels against NAAQS and CAAQS. Based on these comparisons, regions are classified into one of the following categories:

- **Attainment.** A region is “in attainment” if monitoring shows ambient concentrations of a specific pollutant are less than or equal to the NAAQS or CAAQS. In addition, an area that has been re-designated from non-attainment to attainment is classified as a “maintenance area” for 10 years to ensure that the air quality improvements are sustained.
- **Non-attainment.** If the NAAQS or CAAQS are exceeded for a pollutant, the region is designated as non-attainment for that pollutant. It is important to note that some NAAQS and CAAQS require multiple exceedances of the standard in order for a region to be classified as non-attainment. Federal and state laws require non-attainment areas to develop strategies, implementation plans, and control measures to reduce pollutant concentrations to levels that meet or attain standards.
- **Unclassified.** An area is unclassified if the ambient air monitoring data are incomplete and do not support a designation of attainment or non-attainment.

Table 4-1 summarizes the NAAQS and CAAQS.

Table 4-1. National and California Ambient Air Quality Standards

Pollutant	Averaging Time	CAAQS ^{(A)(C)}	NAAQS ^{(B)(C)}	NAAQS ^{(B)(C)}
			Primary	Secondary
CO	1-Hour	20 ppm (23,000 µg/m ³)	35 ppm (40,000 µg/m ³)	--
CO	8-Hour	9.0 ppm (10,000 µg/m ³)	9 ppm (10,000 µg/m ³)	--
NO ₂	1-hour	0.18 ppm (339 µg/m ³)	100 ppb (188 µg/m ³)	--
NO	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)	0.053 ppm (100 µg/m ³)	Same as Primary
O ₃	1-hour	0.09 ppm (180 µg/m ³)	--	--
O ₃	8-hour	0.070 ppm (137 µg/m ³)	0.070 ppm (137 µg/m ³)	Same as Primary
PM ₁₀	24-hour	50 µg/m ³	150 µg/m ³	Same as Primary

Pollutant	Averaging Time	CAAQS ^{(A)(C)}	NAAQS ^{(B)(C)}	NAAQS ^{(B)(C)}
			Primary	Secondary
PM ₁₀	Annual Arithmetic Mean	20 µg/m ³	--	--
PM _{2.5}	24-hour	--	35 µg/m ³	Same as Primary
PM _{2.5}	Annual Arithmetic Mean	12 µg/m ³	12.0 µg/m ³	15.0 µg/m ³
SO ₂	1-hour	0.25 ppm (655 µg/m ³)	0.075 ppm (196 µg/m ³)	--
SO ₂	3-hour	--	--	0.5 ppm (1,300 µg/m ³)
SO ₂	24-hour	0.04 ppm (105 µg/m ³)	0.14 ppm	--
SO ₂	Annual Arithmetic Mean	--	0.030 ppm	--
SO ₄ ²⁻	24-hour	25 µg/m ³	--	--
H ₂ S	1-hour	0.03 ppm (42 µg/m ³)	--	--
Lead	30-day Average	1.5 µg/m ³	--	--
Lead	Calendar quarter	--	1.5 µg/m ³	Same as Primary
Lead	Rolling 3-month Average	--	0.15 µg/m ³	Same as Primary
Vinyl Chloride	24-hour	0.01 ppm (26 µg/m ³)	--	--
Visibility-Reducing Particles	8-hour	Extinction of 0.23 per kilometer	--	--

Source: BAAQMD, 2017b

Key: µg/m³ = micrograms per cubic meter; ppm = parts per million; ppb = parts per billion

Notes:

- (A) The CAAQS for O₃, CO, SO₂ (1-hour and 24-hour), NO₂, PM_{2.5}, PM₁₀, and visibility reducing particles are values that are not to be exceeded.
- (B) Primary standards are the levels of air quality necessary, with an adequate margin of safety, to protect the public health; secondary standards are the levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant. The methodology for interpreting the NAAQS and determining when a violation has occurred is set forth in Title 40 of the U.S. Code of Regulations, Part 50, Primary and Secondary Ambient Air Quality Standards, and varies by pollutant.
- (C) Standards are expressed first in the units in which the standard was promulgated. Equivalent units in parentheses are based upon a reference temperature of 25 degrees Celsius and a reference pressure of 760 torr.

Regulated Air Pollutants

The U.S. EPA has established NAAQS for six common air pollutants: ozone (O₃); particulate matter (PM), which consists of “inhalable coarse” PM (particles with an aerodynamic diameter between 2.5 and 10 micrometers, or PM₁₀) and “fine” PM (particles with an aerodynamic diameter smaller than 2.5 micrometers, or PM_{2.5}); carbon monoxide (CO); nitrogen dioxide (NO₂); sulfur dioxide (SO₂); and lead. The U.S. EPA refers to these six common pollutants as “criteria” pollutants because the agency regulates the pollutants on the basis of human health and/or environmentally based criteria. CARB has established CAAQS for the six common air pollutants regulated by the federal Clean Air Act plus the following additional air pollutants: hydrogen sulfide (H₂S), sulfates (SO_x), vinyl chloride, and visibility reducing particles.

A description of the air pollutants associated with the project and its vicinity is provided below. Air pollutants not commonly associated with the existing or proposed sources in the vicinity of the project site, such as visibility reducing particles, are not described below.

- **Ground-level Ozone**, or smog, is not emitted directly into the atmosphere. It is created from chemical reactions between oxides of nitrogen (NO_x) and volatile organic compounds (VOCs), also called Reactive Organic Gasses (ROG), in the presence of sunlight (U.S. EPA 2018a). Thus, ozone formation is typically highest on hot sunny days in urban areas with NO_x and ROG pollution. Ozone irritates the nose, throat, and air pathways and can cause or aggravate shortness of breath, coughing, asthma attacks, and lung diseases such as emphysema and bronchitis.
 - **ROG** is a CARB term defined as any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, and includes several low-reactive organic compounds which have been exempted by the U.S. EPA (CARB 2004).
 - **VOC** is an EPA term defined as any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions. The term exempts organic compounds of carbon which have been determined to have negligible photochemical reactivity such as: methane, ethane, and methylene chloride (CARB 2004).
- **Particulate Matter**, also known as particle pollution, is a mixture of extremely small solid and liquid particles made up of a variety of components such as organic chemicals, metals, and soil and dust particles (U.S. EPA 2016a).
 - **PM₁₀**, also known as inhalable coarse, respirable, or suspended PM₁₀, consists of particles less than or equal to 10 micrometers in diameter (approximately 1/7th the thickness of a human hair). These particles can be inhaled deep into the lungs and possibly enter the blood stream, causing health effects that include, but are not limited to, increased respiratory symptoms (e.g., irritation, coughing), decreased lung capacity, aggravated asthma, irregular heartbeats, heart attacks, and premature death in people with heart or lung disease (U.S. EPA 2016a).
 - **PM_{2.5}**, also known as fine PM, consists of particles less than or equal to 2.5 micrometers in diameter (approximately 1/30th the thickness of a human hair). These particles pose an increased risk because they can penetrate the deepest parts

of the lung, leading to and exacerbating heart and lung health effects (U.S. EPA 2016a).

- **Carbon Monoxide (CO)** is an odorless, colorless gas that is formed by the incomplete combustion of fuels. Motor vehicles are the single largest source of carbon monoxide in the Bay Area. At high concentrations, CO reduces the oxygen-carrying capacity of the blood and can aggravate cardiovascular disease and cause headaches, dizziness, unconsciousness, and even death (U.S. EPA 2016b).
- **Nitrogen Dioxide (NO₂)** is a byproduct of combustion. NO₂ is not directly emitted but is formed through a reaction between nitric oxide (NO) and atmospheric oxygen. NO and NO₂ are collectively referred to as NO_x and are major contributors to ozone formation. NO₂ also contributes to the formation of particulate matter. NO₂ can cause breathing difficulties at high concentrations (U.S. EPA 2016c).
- **Sulfur Dioxide (SO₂)** is one of a group of highly reactive gases known as oxides of sulfur (SO_x). Fossil fuel combustion in power plants and industrial facilities are the largest emitters of SO₂. Short-term effects of SO₂ exposure can include adverse respiratory effects such as asthma symptoms. SO₂ and other SO_x can react to form PM (EPA 2016d).
- **Sulfates (SO₄²⁻)** are the fully oxidized ionic form of sulfur. SO₄²⁻ are primarily produced from fuel combustion. Sulfur compounds in the fuel are oxidized to SO₂ during the combustion process and subsequently converted to sulfate compounds in the atmosphere. Sulfate exposure can increase risks of respiratory disease (CARB 2009).
- **Lead** is a metal found naturally in the environment as well as in manufactured products. Mobile sources used to be the main contributor to ambient lead concentrations in the air. In the early 1970s, the U.S. EPA established national regulations to gradually reduce the lead content in gasoline, and in 1996, lead was banned from gasoline. As a result of these efforts, emissions of lead from the transportation sector and levels of lead in the air decreased dramatically. Lead can adversely affect multiple organ systems of the body and people of every age group. Lead poisoning in young children can cause brain damage, behavioral problems, and liver or kidney damage. Lead poisoning to adults can cause reproductive problems, muscle and joint pain, nerve disorders and kidney disease (CARB 2016).

Toxic Air Contaminants

In addition to criteria air pollutants, the U.S. EPA and CARB have classified certain pollutants as Hazardous Air Pollutants (HAPs) or Toxic Air Contaminants (TACs), respectively. These pollutants can cause severe health effects at very low concentrations, and many are suspected or confirmed carcinogens.

The air toxics provisions of the Federal Clean Air Act require the U.S. EPA to develop and enforce regulations to protect the public from exposure to airborne contaminants that are known to be hazardous to human health. In accordance with Section 112 of the Federal Clean Air Act, the U.S. EPA establishes National Emission Standards for Hazardous Air Pollutants (NESHAP). Asbestos was one of the first hazardous air pollutants regulated under the air toxics program. Air toxics regulations under the Clean Air Act specify work practices for asbestos to be followed during demolitions and renovations of all facilities, including, but not limited to, structures,

installations, and buildings (excluding residential buildings that have four or fewer dwelling units). The regulations require a thorough inspection where the demolition or renovation operation will occur. The regulations require the owner or the operator of the renovation or demolition operation to notify the appropriate delegated entity before any demolition, or before any renovations of buildings that contain a certain threshold amount of regulated asbestos-containing material. For projects occurring in Napa County, the BAAQMD has been delegated authority from the U.S. EPA to enforce the Asbestos NESHAP.

The Asbestos NESHAP requires work practice standards that control asbestos emissions. Work practices often involve removing all asbestos-containing materials, adequately wetting all regulated asbestos-containing materials, sealing the material in leak tight containers and disposing of the asbestos-containing waste material as expediently as practicable, as the regulation explains in greater detail (U.S. EPA 2019).

TACs in California are regulated primarily through the Tanner Act Toxics Act (AB 1807, Chapter 1047, Statutes of 1983) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588, Chapter 1252, Statutes of 1987). AB 1807 sets forth a formal procedure for CARB to designate substances as TACs. Research, public participation, and scientific peer review are required before CARB can designate a substance as a TAC.

The U.S. EPA has identified 187 HAPs, including such substances as benzene and formaldehyde. In addition to the U.S. EPA's list of HAPS, CARB has identified 21 other substances as TACs, including diesel particulate matter (DPM).¹

- **Diesel Particulate Matter (DPM).** Diesel engines emit both gaseous and solid materials. Almost all solid diesel particles, known as DPM, are less than 1 µm in diameter, and thus are a subset of PM_{2.5} and PM₁₀. DPM is typically composed of carbon particles and numerous organic compounds. Diesel exhaust also contains gaseous pollutants, including VOCs and oxides of nitrogen. The primary sources of diesel emissions are ships, trains, trucks, rail yards and heavily traveled roadways. These sources are often located near highly populated areas, resulting in greater DPM related health consequences in urban areas.

The majority of DPM is small enough to be inhaled into the lungs. Particles that are not exhaled can be deposited on the lung surface and in the deepest regions of the lungs where the lung is most susceptible to injury. In 1998, CARB identified DPM as a TAC based on evidence of a relationship between diesel exhaust exposure and lung cancer and other adverse health effects. DPM also contributes to the same non-cancer health effects as PM_{2.5} exposure (CARB, 2019a).

- **Asbestos.** Asbestos is a designated TAC. Breathing asbestos can cause tiny fibers to get stuck in the lungs and irritate lung tissues. Prolonged exposure to airborne asbestos can lead to non-cancer related diseases by scarring the lungs and causing changes to the membrane that surround the lungs, making it harder to breathe. Asbestos exposure also increases the risk of developing lung cancer and mesothelioma (CDC, 2016). As

¹ Since CARB's list of TACs references and includes the U.S. EPA's list of HAPs, this EIR/EA uses the term TAC when referring to HAPs and TACs.

discussed in Section 8.1.2.2, AECOM performed a hazardous materials survey to identify asbestos-containing materials (ACM) and asbestos-containing construction materials (ACCM), which were found to be in buildings that would be demolished during project construction.

Common criteria air pollutants, such as ozone precursors, SO₂, and PM, are emitted by a large number of sources and have effects on a regional basis (i.e., throughout the San Francisco Bay Area Air Basin (SFBAAB)); other pollutants, such as TACs, and fugitive dust, are generally not as prevalent and/or emitted by fewer and more specific sources. As such, these pollutants have much greater effects on local air quality conditions and local receptors.

4.1.2 Mobile Source Emission Standards

In addition to ambient air quality standards, federal and state governments have established exhaust emission standards for on- and off-road vehicles, such as cars, trucks, recreational vehicles, and heavy-duty diesel construction equipment, as well as the fuels these vehicles use.

On-Road Vehicles

On-road vehicle exhaust emissions standards are regulated on a grams/mile basis according to the weight of the vehicle. The U.S. EPA has established progressive emission standards for on-road vehicles in a series of “tiers.” The state standards for on-road vehicles are contained in 13 California Code of Regulations (CCR), Division 3, Chapter 1, Motor Vehicle Pollution Control Devices.

Off-Road Diesel Engines

Similar to on-road vehicles, the U.S. EPA has established progressive emission standards for non-highway diesel engines to be implemented in a series of “tiers.” Tier 2 standards apply for equipment manufactured between 2001 and 2006. Tier 3 standards apply for equipment manufactured between 2006 and 2008. The most stringent standards, Tier 4 standards, consist of an interim and final set of standards. The standards for engines less than 75 horsepower (hp) began in 2008, the standards for engines between 76 and 174 hp begin in 2012, and the standards for engines 175 hp and greater began in 2011. The EPA estimates that Tier 2 and Tier 3 standards will reduce ozone precursor and PM emissions from non-highway diesel vehicles by 50 and 40 percent by 2020, and that Tier 4 standards will achieve a further 90 percent NO_x reduction and 95 percent PM reduction from these vehicles by 2030 (U.S. EPA 1998, 2004).

4.1.3 State Air Quality Regulations

CARB has adopted many regulations that govern air quality in California. Below is a summary of the state’s air quality regulations that are most likely to directly affect the project’s potential emissions sources, emissions levels, and local and regional communities.

CARB Regulation for In-Use Off-Road Diesel-Fueled Fleets

CARB’s Regulation for In-Use Off-Road Diesel-Fueled Fleets operating in California is intended to reduce emissions of NO_x and PM from off-road diesel vehicles, including construction equipment. The regulation imposes limits on idling; requires reporting equipment and engine information and labeling all vehicles reported; restricts adding older vehicles to fleets; and requires fleets to reduce their emissions by retiring, replacing, or repowering older engines or installing exhaust retrofits for PM. The requirements and compliance dates of the off-road regulation vary by fleet size, and large fleets (fleets with more than 5,000 hp) must meet

average targets or comply with Best Available Control Technology requirements beginning in 2014. In general, Year 2020 NO_x emission rate targets for large and medium fleets set by this regulation fall between the U.S. EPA's Tier III and Tier IV Interim standards for equipment between 100 and 750 hp.

CARB Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen, and Other Criteria Pollutants from In-Use Heavy-Duty Diesel Fueled Vehicles

CARB's Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen, and Other Criteria Pollutants from In-Use Heavy-Duty Diesel-Fueled Vehicles (also known as the Truck and Bus Regulation) is intended to reduce emissions of NO_x, PM, and other criteria pollutants generated from existing on-road diesel vehicles operating in California. The regulation applies to nearly all diesel-fueled trucks and buses with a gross vehicle weight rating (GVWR) greater than 14,000 pounds that are privately or federally owned, and for privately and publicly owned school buses. Heavier trucks and buses with a GVWR greater than 26,000 pounds must comply with a schedule by engine model year or owners can report to show compliance with more flexible options. By 2023, all trucks and buses must have at least 2010 model year engines with few exceptions.

CARB Airborne Toxic Control Measures

CARB has adopted a number of Airborne Toxic Control Measures (ATCM) intended to reduce emissions of TACs from mobile and stationary sources. The ATCMs applicable to the project are described in detail below.

ATCM to Limit Diesel-Fueled Commercial Motor Vehicle Idling. CARB's ATCM to Limit Diesel-Fueled Commercial Motor Vehicle Idling (13 CCR §2485) reduces public exposure to DPM and other air contaminants by limiting the idling of diesel-fueled commercial motor vehicles. In general, the ATCM prohibits idling a vehicle's primary diesel engine for more than 5 minutes at any location or operating a diesel-fueled auxiliary power system for more than 5 minutes when within 100 feet of land zoned for housing; however, exceptions are provided under certain circumstances.

ATCM for Diesel Particulate Matter from Portable Engines Rated at 50 Horsepower or Greater. CARB's ATCM for Diesel Particulate Matter from Portable Engines Rates at 50 hp and Greater (17 CCR §93116) reduces DPM and other emissions from portable diesel-fueled engines having a rated brake horsepower (BHP) of 50 and greater by requiring compliance with emissions standards that align with PA Tier I through IV standards. CARB's Portable Equipment Registration Program (PERP) works in concert with this ATCM and allows owners and/or operators of portable engines to register their equipment under the CARB Statewide PERP so it can be operated throughout California without having to obtain individual permits from local air districts.

ATCM to Reduce Diesel Particulate Matter Emissions from Diesel-Fueled Engines – Standards for Nonvehicular Diesel Fuel. CARB's ATCM to Reduce Diesel Particulate Matter Emissions from Diesel-Fueled Engines – Standards for Non-vehicular Diesel Fuel (13 CCR §2281) reduces DPM and other emissions from diesel-fueled engines by limiting the sulfur content of vehicular and non-vehicular diesel fuel sold in California to 15 ppm.

ATCM for Stationary Compression Ignition Engines. CARB's ATCM for Stationary Compression Ignition Engines (17 CCR §93115) reduces DPM and other emissions from

stationary diesel-fueled compression ignition engines by imposing operating requirements and strict emissions standards on these engines.

4.1.4 Local Regulations

Bay Area Air Quality Management District

The Veterans Homes of California – Yountville (VHC-Yountville) is located in Napa County, which is in the SFBAAB (Section 4.2.1) and the jurisdictional boundary of the BAAQMD. The BAAQMD has the primary responsibility for maintaining air quality and regulating emissions of criteria and toxic air pollutants within SFBAAB. The BAAQMD carries out this responsibility by preparing, adopting, and implementing rules, regulations, and plans that are designed to achieve attainment of state and national air quality standards.

Rules and Regulations

The BAAQMD currently has 13 regulations containing more than 100 rules that control and limit emissions from sources of pollutants. Table 4-2 presents the major BAAQMD rules and regulations that may apply to the project.

Table 4-2. Potentially Applicable BAAQMD Rules and Regulations

Regulation	Rule	Description
Regulation 2 (Permits)	Rule 1 – General Requirements	Includes criteria for issuance or denial of permits, exemptions, and appeals against decisions of the District actions on applications.
Regulation 2 (Permits)	Rule 2 – New Source Review	Provides for the review of new and modified sources of pollutants; requires use of Best Available Control Technology and emissions offsets to achieve no net increase in nonattainment pollutants; implements Prevention of Significant Deterioration review for attainment pollutants.
Regulation 2 (Permits)	Rule 5 – New Source Review of TACs	Applies preconstruction permit review to new and modified sources of toxic air contaminants; contains project health risk limits and requirements for Toxics Best Available Control Technology.
Regulation 6 (Particulate Matter)	1 – General Requirements	Limits the quantity of particulate matter in the atmosphere by controlling emission rates, concentration, visible emissions and opacity.
Regulation 6 (Particulate Matter)	6 – Prohibition of Trackout	Addresses fugitive road dust emissions associated with trackout.
Regulation 8 (Organic Compounds)	Rule 3 – Architectural Coatings	Limits the quantity of volatile organic compounds in architectural coatings supplied, sold, offered for sale, applied, solicited for application, or manufactured for use within the BAAQMD.

Regulation	Rule	Description
Regulation 9 (Inorganic Gaseous Pollutants)	Rule 8 – NO _x and CO from Stationary Internal Combustion Engines	Limits emissions of NO _x and CO from stationary internal gas combustion engines more than 50 BHP.
Regulation 11 (Hazardous Pollutants)	Rule 2 – Asbestos Demolition, Renovation, and Manufacturing	Controls emissions of asbestos to the atmosphere during demolition.
Regulation 14 (Mobile Source Emissions Reduction Measures)	Rule 1 – Bay Area Commuter Benefits Program	Requires employers with 50 or more full-time employees in the Bay Area to provide commuter benefits to their employees.

Source: BAAQMD, 2019a

2017 Clean Air Plan

On April 29, 2017, the BAAQMD adopted its Spare the Air-Cool the Climate 2017 Clean Air Plan (Clean Air Plan). The 2017 Clean Air Plan updates the most recent Bay Area ozone plan, the 2010 Clean Air Plan, in fulfillment of state ozone planning requirements. Over the next 35 years, the plan will focus on the three following goals:

- Attain all state and national air quality standards;
- Eliminate disparities among Bay Area communities in cancer health risk from toxic air contaminants; and
- Reduce Bay Area greenhouse gas (GHG) emissions to 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050.

The plan includes 85 distinct control measures to help the region reduce air pollutants and has a long-term strategic vision which forecasts what a clean air Bay Area will look like in the year 2050. The control measures aggressively target the largest source of GHG, ozone pollutants, and particulate matter emissions – transportation. The 2017 plan includes more incentives for electric vehicle infrastructure, off-road electrification projects such as Caltrain and shore power at ports, and reducing emissions from trucks, school buses, marine vessels, locomotives and off-road equipment (BAAQMD 2017c).

4.2 ENVIRONMENTAL SETTING

Air quality is a function of pollutant emissions and topographic and meteorological influences. The physical features and atmospheric conditions of a landscape interact to affect the movement and dispersion of pollutants and determine its air quality.

4.2.1 San Francisco Bay Area Air Basin

The project site is located in Napa County, in the southwest portion of Yountville, within the SFBAAB. The SFBAAB covers all of Alameda, Contra Costa, Marin, Napa, Santa Clara, San Mateo, and San Francisco counties, as well as portions of Solano and Sonoma counties.

The topography and meteorology of the SFBAAB are characterized by the coast mountain ranges and the seasonal migration of the Pacific high-pressure cell. Regionally, basin airflow is affected by the coast mountain ranges, which create complex terrains consisting of higher elevations, valleys, and bays. The Golden Gate to the west and the Carquinez Strait to the east create gaps in the mountain ranges that allow air to flow into and out of the SFBAAB. In the summer, winds from the northwest are channeled through the Golden Gate and other narrow openings, resulting in localized areas of high wind speeds. Air flowing from the coast inland is called the sea breeze and begins developing in the late morning or early afternoon; air flowing from the inland regions back to the coast, or drainage, occurs at night.

Basin climate is also influenced by the Pacific high-pressure cell, a semi-permanent area of high pressure located over the Pacific Ocean. In the summer, the cell is centered over the northeastern Pacific Ocean, pushing storms to the north and resulting in generally stable conditions within the Bay Area. In the winter, the cell weakens and migrates south, bringing cooler temperatures and stormy conditions.

The SFBAAB is most susceptible to air pollution during the summer when cool marine air flowing through the Golden Gate can become trapped under a layer of warmer air (known as an inversion) and prevented from escaping the valleys and bays created by the Coast Ranges.

The project site is located in Napa County, which is in the northeastern portion of the San Francisco Bay Area. Napa County is bordered by Solano County on the east and Sonoma County on the west. The mountains bordering Napa Valley block much of the prevailing northwesterly winds throughout the year. Sunshine is plentiful in Napa County, and summertime can be very warm in the valley, particularly in the northern end. Winters are usually mild, with cool temperatures overnight and mild-to-moderate temperatures during the day. Wintertime temperatures tend to be slightly cooler in the northern end of the valley. Winds are generally calm throughout the county. Annual precipitation averages range from about 24 inches in low elevations to more than 40 inches in the mountains (BAAQMD 2019b).

4.2.2 San Francisco Bay Area Air Basin Attainment Status

The SFBAAB's attainment status is summarized in Table 4-3. The SFBAAB is unclassified or designated attainment for all NAAQS and CAAQS except federal ozone, state ozone, state PM₁₀, federal PM_{2.5}, and state PM_{2.5} standards. Ozone is primarily a problem in the summer, and fine particle pollution in the winter.

Table 4-3. SFBAAB Attainment Status

Pollutant	State Attainment Status	Federal Attainment Status
CO (1-hr and 8-hr)	Attainment	Attainment
O ₃ (1-hr)	Nonattainment	--
O ₃ (8-hr)	Nonattainment	Nonattainment

NO ₂ (1-hr)	Attainment	Unclassified
NO ₂ (Annual)	--	Attainment
PM ₁₀ (24-hr)	Nonattainment	Unclassified
PM ₁₀ (Annual)	Nonattainment	--
PM _{2.5} (24-hr)	--	Nonattainment ^(A)
PM _{2.5} (Annual)	Nonattainment	Unclassified/Attainment
SO ₂ (1-hr)	Attainment	Unclassified
SO ₂ (24-hr)	Attainment	--
SO ₄ (24-hr)	Attainment	--
Lead (30 Day)	Attainment	Attainment
Lead (Quarter)	--	Attainment
Lead (3-month)	--	--
H ₂ S (1-hr)	Unclassified	--
Vinyl Chloride	No information available	--
Visibility Reducing Particles	Unclassified	--

Source: BAAQMD, 2017b

Notes:

- (A) On January 9, 2013, U.S. EPA issued a final rule to determine that the Bay Area attains the 24-hour PM_{2.5} national standard. Despite this action, the Bay Area will continue to be designated as “non-attainment” for the national 24-hour PM_{2.5} standard until such time as the BAAQMD submits a “redesignation request” and a “maintenance plan” to U.S. EPA, and U.S. EPA approves the proposed redesignation.

4.2.3 County and Regional Emissions Levels

CARB’s estimate of the amount of emissions generated within Napa County and the SFBAAB in 2012, the most recent year for which data is available, is summarized in Table 4-4 through Table 4-7, below.

Table 4-4. Napa County 2012 Pollutant Emissions (Tons Per Day)

Source	ROG	NO _x	PM	PM ₁₀	PM _{2.5}	CO	SO _x
Stationary ^(A)	1.5	0.3	0.7	0.3	0.2	0.4	0.0
Area-wide ^(B)	1.6	0.3	5.1	2.6	0.8	2.8	0.0
Mobile ^(C)	3.7	6.3	0.5	0.5	0.3	23.8	0.0
Total ^(D)	6.8	6.9	6.3	3.4	1.3	27.0	0.1

Table 4-5. SFBAAB 2012 Pollutant Emissions (Tons Per Day)

Source	ROG	NO _x	PM	PM ₁₀	PM _{2.5}	CO	SO _x
Stationary ^(A)	61.0	39.9	21.1	14.3	10.4	34.9	20.2
Area-wide ^(B)	69.2	15.2	56.5	56.5	18.5	69.2	0.5

Source	ROG	NO _x	PM	PM ₁₀	PM _{2.5}	CO	SO _x
Mobile ^(C)	112.7	235.8	16.8	16.4	10.5	865.4	3.6
Total ^(D)	242.9	290.8	142.5	87.2	37.4	696.5	24.3

Table 4-6. Napa County 2012 Pollutant Emissions (Tons Per Year)^(E)

Source	ROG	NO _x	PM	PM ₁₀	PM _{2.5}	CO	SO _x
Stationary ^(A)	539	107	268	94	64	141	6
Area-wide ^(B)	588	122	1,856	962	274	1,015	5
Mobile ^(C)	1,363	2,298	183	177	123	8,705	7
Total ^(D)	2,490	2,527	2,306	1,233	462	9,861	19

Table 4-7. SFBAAB 2012 Pollutant Emissions (Tons Per Year)^(E)

Source	ROG	NO _x	PM	PM ₁₀	PM _{2.5}	CO	SO _x
Stationary ^(A)	22,265	14,564	7,702	5,220	3,796	12,739	7,373
Area-wide ^(B)	25,258	5,548	20,623	20,623	6,753	25,258	183
Mobile ^(C)	41,136	86,067	6,132	5,986	3,833	31,5871	1,314
Total ^(D)	88,659	106,17	34,456	31,828	14,381	353,868	8,870

Source: CARB, 2013

Notes:

- (A) Stationary sources include fuel combustion in stationary equipment or a specific type of facility such as printing and metals processing facilities.
- (B) Area-wide sources include solvent evaporation (e.g., consumer products, painting, and asphalt paving) and miscellaneous processes such as residential space heating, fugitive windblown dust, and cooking.
- (C) Mobile sources include automobiles, trucks, and other vehicles intended for “on-road” travel and other self-propelled machines such as construction equipment and all-terrain vehicles intended for “off-road” travel.
- (D) Totals may not equal due to rounding.
- (E) CARB emissions data is available in tons per day. Tons per year emission estimates are derived by multiplying tons per day data times 365 days per year.

4.2.4 Local Air Quality Conditions

In Napa County, ozone rarely exceeds health standards, but PM_{2.5} occasionally does reach unhealthy concentrations. There are multiple reasons for PM_{2.5} exceedances in Napa County. First, much of the county is wind-sheltered, which tends to trap PM_{2.5} within the Napa Valley. Second, much of the area is well north of the moderating temperatures of San Pablo Bay and, as a result, Napa County experiences some of the coldest nights in the Bay Area. This leads to greater fireplace use and, in turn, higher PM_{2.5} levels. Finally, in the winter, easterly winds often move fine-particle-laden air from the Central Valley to the Carquinez Strait and then into western Solano and southern Napa County.

The BAAQMD maintains a comprehensive air quality monitoring network consisting of over 30 stations distributed among the nine Bay Area counties in its jurisdiction. Table 4-8 shows the

three most recent years' worth of data from the monitors in Napa County. Data from 2016 and 2017 is from the monitor on Jefferson Avenue in Napa. Data from 2018 is from the Napa Valley College.²

Table 4-8. Local Ambient Air Quality Exceedances (2016-2018) at the Jefferson Avenue/Napa Valley College Monitoring Stations, as Compared to Pollutant Standard Concentration (PSC)

Pollutant/Duration	Standard	PSC	2016 ^(A)	2017 ^(A)	2018 ^(B)
PM ₁₀ - 24-hour	CAAQS	50 µg/m ³	0	2 ^(C)	0
	NAAQS	150 µg/m ³	0	0 ^(C)	0
PM _{2.5} - 24-hour	CAAQS	N/A	--	--	--
	NAAQS	35 µg/m ³	0	13	12
Ozone - 8-hour	CAAQS and NAAQS	137 µg/m ³	0	2	0
Ozone - 1-hour	CAAQS	180 µg/m ³	0	1	0
	NAAQS	N/A	--	--	--
CO - 8-hour	CAAQS and NAAQS	10,000 µg/m ³	0	0	0
CO - 1-hour	CAAQS	23,000 µg/m ³	0	0	0
	NAAQS	40,000 µg/m ³	0	0	0
NO ₂ - 1-hour	CAAQS	339 µg/m ³	0	0	0
	NAAQS	188 µg/m ³	0	0	0
SO ₂ - 24-hour	CAAQS	105 µg/m ³	0 ^(D)	0 ^(D)	0 ^(D)
	NAAQS	N/A	--	--	--
SO ₂ - 1-hour	CAAQS	655 µg/m ³	0 ^(D)	0 ^(D)	0 ^(D)
	NAAQS	196 µg/m ³	0 ^(D)	0 ^(D)	0 ^(D)

Source: BAAQMD 2017d, 2018, 2019c

Notes:

- (A) Unless otherwise noted, data from 2016 and 2017 is from the Jefferson Avenue monitoring station in Napa.
- (B) Unless otherwise noted, data from 2018 is from the Napa Valley College.
- (C) This data is from the San Rafael monitoring station, the next, closest, BAAQMD monitoring station in proximity to the project site with data available.
- (D) This data is from the Vallejo monitoring station, the next, closest, BAAQMD monitoring station in proximity to the project site with data available.

² Air monitoring at Jefferson Avenue was discontinued on March 31, 2018 and started at Napa Valley College on April 1, 2018.

4.2.5 Sensitive Air Quality Receptors

Some people are more affected by air pollution than others. 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” (BAAQMD 2017a). In general, children, senior citizens, and individuals with pre-existing health issues (e.g., asthmatics) are considered sensitive receptors. Both CARB and the BAAQMD consider schools, schoolyards, parks and playgrounds, daycare facilities, nursing homes, hospitals, and residential areas as sensitive air quality land uses and receptors (BAAQMD 2017a, and CARB 2005).

The potentially sensitive air quality receptors in proximity to the project site include:

- Inpatient receptors at Holderman Building, immediately east of the project site;
- Staff residential receptors, located west of the project site;
- Receptors at Eisenhower Hall, northeast of the project site; and
- Single-family homes along Vineyard View Drive, south of the project site.

4.2.6 Existing Emissions at the Project Site

Existing land uses at the project site generate emissions from the following sources:

- **Small “area” sources.** Existing land uses generated emissions from small area sources including landscaping equipment and the use of consumer products such as paints, cleaners, and fertilizers that result in the evaporation of chemicals to the atmosphere during product use.
- **Energy use and consumption.** Existing land uses generate emission from the combustion of natural gas in building water and space heating equipment, as well as industrial processes.

Existing land uses at the project site include Jefferson Hall, Polk Hall, the Hostess House, the Nurses Education Building, and the Bandstand. Existing emissions were estimated using the California Emissions Estimator Model (CalEEMod), version 2016.3.2. The existing emissions were estimated using default data assumptions contained within CalEEMod, with the following project-specific modification.

- **Energy Use and Consumption:** The residential default electrical energy intensity and natural gas energy intensity values were adjusted upwards by a factor of 1.85 to reflect lower energy efficiency requirements of the 2008 energy code (Trinity Consultants 2017). Similarly, the non-residential default electrical and natural gas energy intensity values were adjusted upwards by a factor of 1.40. This is appropriate as the buildings at the project site were constructed prior to the adoption of both the 2008 (modeled energy efficiency) and 2016 (default assumption) Title 24 building energy efficiency standards.

The emissions generated by current land uses at the project site are shown in Table 4-9.

Table 4-9. Average Daily Pollutant Emissions (Pounds per Day) at the Existing Project Site, Year 2019

Emission Source	ROG	NO _x	CO	PM ₁₀ Dust	PM ₁₀ Exhaust	PM _{2.5} Dust	PM _{2.5} Exhaust
Area	1.9	<0.0 ^(A)	4.1	0.0	0.2	<0.0 ^(A)	0.2
Energy	<0.0 ^(A)	0.3	0.2	0.0	<0.0 ^(A)	0.0	<0.0 ^(A)
Mobile	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Year 2019 Total^(B)</i>	<i>1.9</i>	<i>0.4</i>	<i>4.2</i>	<i>0.0</i>	<i>0.2</i>	<i><0.0^(A)</i>	<i>0.2</i>

Source: MIG, 2019a (see Appendix B)

Notes:

(A) <0.0 does not mean zero; rather, it means less than 0.05, but greater than zero.

(B) Totals may not equal due to rounding.

4.3 PROJECT IMPACTS

4.3.1 CEQA Thresholds of Significance

Based on CEQA Guidelines Appendix G, the implementation of the project or its alternatives would have a significant environmental impact related to air quality emissions if it would:

- (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) Expose sensitive receptors to substantial pollutant concentrations;
- (d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people);

In May 2017, the BAAQMD published a new version of the *CEQA Air Quality Guidelines*, which includes revisions made to address the Supreme Court's decision on the *California Building Industry Association v. BAAQMD*. The Guidelines contain the BAAQMD's recommendations to Lead Agencies for evaluating and assessing the significance of a project's potential air quality impacts (BAAQMD 2017a). The BAAQMD's construction- and operational-related thresholds of significance for criteria pollutants and toxic air contaminants are summarized in Table 4-10.

Table 4-10. BAAQMD CEQA Project-Level Thresholds of Significance^(A)

Pollutant	Daily Construction Emissions (pounds/day)	Daily Operational Emissions (pounds/day)	Annual Operational Emissions (tons per year)
ROG	54	54	10
NO _x	54	54	10

Pollutant	Daily Construction Emissions (pounds/day)	Daily Operational Emissions (pounds/day)	Annual Operational Emissions (tons per year)
Exhaust PM10	82	82	15
Exhaust PM2.5	54	54	10
Fugitive Dust PM ₁₀ /PM _{2.5}	Best Management Practices	<i>None</i>	<i>None</i>
Local CO	<i>None</i>	9.0 ppm (8-hour average) 20.0 ppm (1-hour average)	9.0 ppm (8-hour average) 20.0 ppm (1-hour average)
Risks and Hazards – New Source/Receptor (Individual)	Compliance with Qualified Community Risk Reduction Plan; or Increased cancer risk of >10.0 in a million; and Increased non-cancer risk of >1.0 Hazard Index (chronic or acute); and Ambient PM _{2.5} increase: >0.3µg/m ³ annual average	Compliance with Qualified Community Risk Reduction Plan; or Increased cancer risk of >10.0 in a million; and Increased non-cancer risk of >1.0 Hazard Index (chronic or acute); and Ambient PM _{2.5} increase: >0.3µg/m ³ annual average	Compliance with Qualified Community Risk Reduction Plan; or Increased cancer risk of >10.0 in a million; and Increased non-cancer risk of >1.0 Hazard Index (chronic or acute); and Ambient PM _{2.5} increase: >0.3µg/m ³ annual average
Risks and Hazards – New Source/Receptor (Cumulative)	Compliance with Qualified Community Risk Reduction Plan; or Increased cancer risk of >100 in a million (from all local sources); and Increased non-cancer risk of >10.0 Hazard Index (from all local sources) (chronic); and Ambient PM _{2.5} increase: >0.8µg/m ³ annual average (from all local sources)	Compliance with Qualified Community Risk Reduction Plan; or Increased cancer risk of >100 in a million (from all local sources); and Increased non-cancer risk of >10.0 Hazard Index (from all local sources) (chronic); and Ambient PM _{2.5} increase: >0.8µg/m ³ annual average (from all local sources)	Compliance with Qualified Community Risk Reduction Plan; or Increased cancer risk of >100 in a million (from all local sources); and Increased non-cancer risk of >10.0 Hazard Index (from all local sources) (chronic); and Ambient PM _{2.5} increase: >0.8µg/m ³ annual average (from all local sources)

Pollutant	Daily Construction Emissions (pounds/day)	Daily Operational Emissions (pounds/day)	Annual Operational Emissions (tons per year)
Accidental Release of Acutely Hazardous Pollutants	<i>None</i>	Storage or use of acutely hazardous materials locating near receptors or receptors locating near stored or used acutely hazardous materials considered significant	Storage or use of acutely hazardous materials locating near receptors or receptors locating near stored or used acutely hazardous materials considered significant
Odors	<i>None</i>	Complaint History – 5 confirmed complaints per year averaged over three years	Complaint History – 5 confirmed complaints per year averaged over three years

Source: BAAQMD, 2017a

4.3.2 CEQA Conflict with or Obstruct Implementation of the Applicable Air Quality Plan

The proposed Yountville Skilled Nursing Facility (SNF) Project would not conflict with or obstruct implementation of the BAAQMD Clean Air Plan. The Clean Air Plan includes criteria air pollutant emissions from construction, mobile, and stationary source activities in its emissions inventories and plans for achieving attainment of air quality standards. Eighty-five control strategies are grouped into nine categories: Stationary Source Measures, Transportation Control Measures, Energy Control Measures, Buildings Control Measures, Agriculture Control Measures, Natural and Working Lands Control Measures, Waste Management Control Measures, Water Control Measures, and Super GHG Control Measures. Most of these control strategies do not apply to the proposed Project or are implemented at the local and regional level by municipal government and the BAAQMD. Table 4-11, below, presents the potentially applicable control strategies and project consistency with those measures.

Table 4-11. BAAQMD 2017 Clean Air Plan

Measure Type	2017 Clean Air Plan Control Measures	Project Consistency
Stationary Source Measures	SS32 – Emergency Backup Generators	The proposed project would involve the installation of an approximately 1,500 kW emergency generator. Control measure SS32 focuses on the reduction of emissions of diesel PM and back carbon from back-up generators through Rule 11-18. The proposed Project would comply

Measure Type	2017 Clean Air Plan Control Measures	Project Consistency
		with the Rule, which would result in reduced health risks to impacted individuals, and in climate protection benefits.
Transportation Measures	TR2 – Trip Reduction Programs	The proposed Project would comply with control measure TR2 that requires employers with 50 or more Bay Area employees to provide commuter benefits. The control measure encourages local governments and entities, on top of other things, to develop innovative ways to encourage rideshare, transit, cycling, and walking for work trips. The State provides monetary incentives to State employees for alternative modes of travel.
Building Control Measures	BL1 – Green Buildings	The proposed Yountville SNF Project is seeking LEED Gold certification. The Project would feature many green elements, such as having a building design that is 15% more efficient than the 2019 Title 24 CalGreen Code and would implement water conservation measures (DGS 2019).
Building Control Measures	WA4 – Recycling and Waste Reduction	CalVet would implement a Waste Management Plan needed to meet LEED Gold certification and compliance with California Green Building Code requirements including separation of construction waste and diversion from landfill and incinerators.

The proposed project would consist of the demolition of older, less energy efficient buildings, and the construction and operation of a new SNF that have been designed to meet CalVet's needs at the VHC-Yountville campus. The proposed Project would achieve LEED Gold certification, at a minimum. The project supports the primary goals of the Clean Air Plan in the fact that it does not exceed the BAAQMD thresholds for criteria air pollutant emissions (see section 4.3.3, below), it would not promote or increase disparities among Bay Area communities in cancer risk from TACs, and is consistent with AB32 reduction goals (see Chapter 8, Energy and GHG Emissions). The project is consistent with the Clean Air Plan and, therefore, would not result in a significant impact related to air quality. This impact would be ***less than significant***.

4.3.3 CEQA Cumulatively Considerable Net Increase of Any Criteria Pollutant for which the Basin is in Non-Attainment

The proposed Project would generate short-term construction and long-term operational emissions of regulated air pollutants (i.e., criteria air pollutants and TACs). These emissions would be released to the ambient air and disperse according to the topographic and meteorological influences that prevail near the VHC-Yountville campus and in the greater SFBAAB (see Section 4.2.1). The BAAQMD and/or CARB monitor levels of criteria air pollutant concentrations in ambient air to evaluate attainment of the CAAQS and NAAQS; the significance of the level of criteria air pollutant emission that the proposed project could emit during construction and operation is evaluated below.

Neither the BAAQMD nor CARB conduct regular and routine monitoring of TACs because most TACs do not have an established ambient air quality standard against which ambient air concentrations can be compared³; however, TAC emissions could result in local effects if substantial concentrations were to occur at sensitive receptor locations as a result of the proposed project. The proposed project's TAC emissions are discussed in Section 4.3.4.

Construction Emission Air Quality Impacts

Construction activities associated with development of the proposed SNF would include demolition; earthwork; utility trenching; foundations and slabs; framing and finishes; equipment and furnishings, and hardscape, irrigation, and landscaping. Ground-disturbing activities, such as demolition, earthwork, utility trenching, and foundation construction, as well as on- and off-site travel would generate dust and PM emissions. Construction is anticipated to occur over an approximately 26-month period, with initial demolition activities occurring in early- to mid-2021.

The project's potential construction emissions were modeled using CalEEMod, Version 2016.3.2 (see Appendix B). Construction phase, duration, and equipment type were provided by DGS, and are summarized in Table 4-12. Where feasible and available, diesel construction equipment will be powered by engines meeting Tier III or Tier IV emission standards as designated by CARB and/or the U.S. EPA. The modeling assumes all heavy-duty off-road construction equipment would meet Tier III emission standards.

Table 4-12. Project Construction Phases, Duration, and Typical Equipment Use

Phase	Duration (Months)	Typical Equipment Used
Demolition (2021)	1	Excavator
Earthwork (2021)	5	Dozers, Excavators, Mobile Cranes, Paving Machine
Utility Trenching (2021-2022) ^(A)	12	Trencher, Paving Equipment, Forklift

³ Ambient air quality standards have been adopted for lead and vinyl chloride, both of which are TACs; however, these pollutants are monitored at far fewer locations than criteria air pollutants like ozone precursor and PM.

Phase	Duration (Months)	Typical Equipment Used
Foundations and Slabs (2021)	4	Mobile Cranes, Articulation Boom Concrete Pump, Concrete Trucks
Framing and Finishes (2021-2022) ^(B)	12	Forklifts, Mobile Cranes
Equipment and Furnishing (2022-2023) ^(B)	4	Forklifts, Mobile Cranes
Architectural Coating (2022) ^(C)	1	Air Compressor
Hardscape and Landscaping (2023)	3	AC Paving Equipment, Skip-loader, Bobcat, Boom Pump, Crane, Forklifts, Concrete Trucks

Notes:

- (A) Utility trenching phase added in addition to the phasing provided by DGS to account off off-site utility improvement from the site, past Holderman Building, and down toward California Drive.
- (B) Framing and Finishes and Equipment and Furnishing phases combined in CalEEMod, since they utilize the same typical equipment.
- (C) Architectural coating phase retained in CalEEMod to account for architectural coatings that would be applied to interior and exterior surfaces of the SNF.

In addition to on-site construction equipment and off-site vendor and worker vehicle trip emissions, the CalEEMod project file also includes emissions from the following project-specific activities:

1. Demolition Off-haul: Jefferson Hall, Polk Hall, the Hostess House, Nurses Education Building, garages and the Bandstand consist of approximately 43,567 square feet of building space that would be demolished. Demolition of these structures would require approximately 198 haul truck trips to remove debris from the site.
2. Soil Hauling: Excavation activities at the site are, under a worst-case scenario, estimated to require the removal of approximately 80,000 cubic yards (CY) of soil and rock and import of 15,000 CY of fill soil, which would result in approximately 5,938 round-trip haul-truck trips.
3. Concrete Deliveries: Foundation work, repaving after utility construction, and hardscaping (e.g., parking lots, walkways, etc.) would require the import of approximately 15,625 CY of concrete and asphalt to the project site. In total, this equates to an additional approximately 977 round-trip concrete delivery trips.

The average daily emissions generated by the proposed project are shown in Table 4-13.

Table 4-13. Estimated Project Construction Pollutant Emissions (Average Pounds per Day) ^(A) (Unmitigated)

Construction Year	ROG	NO _x	CO	PM ₁₀ Dust	PM ₁₀ Exhaust	PM _{2.5} Dust	PM _{2.5} Exhaust
2021 ^(B)	1.9	33.4	25.6	4.9	0.7	1.7	0.7
2022	18.2	17.1	19.3	3.2	0.4	0.9	0.4
2023	1.3	14.3	20.0	1.4	0.6	0.4	0.6
BAAQMD CEQA Threshold	54	54	--	BMPs^(C)	82	BMPs^(C)	82
Potential Significant Impact?	No	No	No	Yes	No	Yes	No

Source: BAAQMD, 2017; MIG, 2019a (see Appendix B)

Notes:

- (A) Average daily emissions assume 260 active construction days in 2021, 260 days in 2022, and 108 days in 2023. (Assumes 5 days a week; 52 weeks in 2021, 52 weeks in 2022, and 21.6 weeks in 2023)
- (B) To conservatively assess total project emissions during the first year of construction, the CalEEMod project file assumes construction activities would begin on January 1, 2021. This allows the first years' worth of emissions to be categorized under the 2021 calendar year.
- (C) For all projects, the BAAQMD recommends implementing eight basic construction best management practices (BMPs) to control fugitive dust from construction activities.

As shown in Table 4-13, potential construction emissions would be below all BAAQMD significance thresholds for construction equipment exhaust emissions; however, fugitive dust emissions could be potentially significant if not adequately controlled. The BAAQMD's *CEQA Guidelines* identify and recommend a series of "Basic" measures to control and reduction construction-related emissions. For all projects, the BAAQMD recommends implementation of eight Basic Construction Measures (BAAQMD 2017a, pg. 8-4) to reduce construction fugitive dust emissions levels; these basic measures are also used to meet the BAAQMD's best management practices (BMPs) threshold of significance for construction fugitive dust emissions (i.e., the implementation of all basic construction measures renders fugitive dust impacts a less-than-significant impact). As shown in Table 2-4 of the Project Description, the proposed project would implement the BAAQMD's standard BMPs for fugitive dust control, which are presented below for ease of reference.

Standard Best Management Practices (BMPs) for Fugitive Dust Control

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 off-site shall be covered.

3. All visible mud or 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 possible. Building pads shall be laid as soon as possible 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 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 visible emissions evaluator.
8. A publicly visible sign shall be posted with the telephone number and person to contact at DGS regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to help ensure compliance with applicable regulations.

The BMPs listed above would control and reduce fugitive dust in accordance with the BAAQMD CEQA Guidelines. With the incorporation of these measures, the proposed project's criteria air pollutant construction emissions would be *less than significant*.

Operational Emission Air Quality Impacts

Once constructed, the proposed project would generate long-term emissions of criteria air pollutants from the sources described in Section 4.2.6, as well as the additional sources described below:

- **Mobile sources.** The proposed project would generate emissions from vehicles travelling to and from the project site. According to the Transportation Impact Analysis (TIA) prepared for the project by Fehr and Peers, the proposed project is anticipated to generate 100 new round trips per day, with an average round trip distance of 39.4 miles. This rate and distance were used in CalEEMod to reflect project-specific conditions.
- **Stationary Sources.** The proposed project would generate emissions from the operation of one, approximately 1,500 kW, diesel-fueled back-up generator that would be installed in the central plant building. The generation would be required to be able to run up to 96 hours at a time in the event of power loss. Although this source would be regularly tested (approximately one-hour per month), it would not be part of routine, regular operations at the proposed SNF. Its operation would be subject to compliance with BAAQMD permit

requirements and CARB's ATCM for Stationary Compression Ignition Engines (See Section 4.1.3).⁴

The emissions resulting from operation of the proposed project are shown in Table 4-14.

Table 4-14. Project Operational Air Quality Emission Estimates, Average Daily Pollutant Emissions (Pounds per Day)

Emission Sources	ROG	NO _x	CO	PM ₁₀ Dust	PM ₁₀ Exhaust	PM _{2.5} Dust	PM _{2.5} Exhaust
Area	11.0	0.2	14.0	0.0	0.7	0.0	0.7
Energy	0.1	0.6	0.3	0.0	0.0	0.0	0.0
Mobile	0.2	1.4	3.9	1.5	0.0	0.4	0.0
<i>Total^(A)</i>	<i>11.3</i>	<i>2.2</i>	<i>18.2</i>	<i>0.0</i>	<i>1.5</i>	<i>0.4</i>	<i>0.7</i>
BAAQMD CEQA Threshold	54	54	-- ^(B)	--	82	--	84
Potentially Significant?	No	No	No	No	No	No	No

Source: MIG, 2019a (see Appendix B)

Notes:

(A) Totals may not equal due to rounding.

(B) BAAQMD CO significant thresholds are based on ambient air quality standards (See Table 11-1.). According to the BAAQMD screening criteria, a project does not result in significant CO impacts if it would be consistent with the congestion management program and not increase traffic volumes to 44,000 vehicles per hour at impacted intersections. The proposed project would be consistent with the screening criteria and would not result in a significant CO impact.

As shown in Table 4-14, the proposed project's potential long-term increases in emissions would be substantially below all BAAQMD significance thresholds for operational emissions. As such, the project's operational emissions would be less than significant. The project would not result in a cumulatively considerable net increase in emissions for which the SFBAAB is in non-attainment. This impact would be *less than significant*.

4.3.4 CEQA Expose Sensitive Receptors to Substantial Pollutant Concentrations

Toxic Air Contaminants

PM_{2.5} would be emitted from project-related construction activities, including DPM emitted from the exhaust of construction equipment. DPM is a TAC, and high concentrations have the potential to potentially significant health risks. Equipment with diesel engines would be used during all phases of the proposed project (e.g., demolition activities, earthmoving and off haul, foundation and slab construction, etc.). Though some construction phases (e.g., paving) would

⁴ Emissions from the backup generator have not been estimated, since it is speculative how often the generator would need to run on an annual basis for emergency purposes, and its operation is not a specific action proposed by this project. Other than regular testing, it would only be run in the event of an emergency.

take place immediately adjacent to sensitive receptor locations, the majority of activities would occur 200 feet or more from sensitive receptor locations (e.g., Holderman Building to the east, staff housing to the west, single-family homes to the south, etc.) where the SNF would be developed. The proposed project would not expose any of these sensitive receptors to substantial levels of TAC emissions for a number of reasons. The first is described below, and the rest are discussed below under “Pollutant Dispersion and Conclusion.”

As discussed in Section 4.3.3, the proposed project would utilize heavy-duty, off-road construction equipment that meets CARB and U.S. EPA Tier III and Tier IV emission standards. This project design feature would have the added benefit of reducing DPM emissions, a constituent of PM_{2.5}, by approximately 27 percent over the course of project construction.⁵

Criteria Air Pollutants

Though not considered TACs like DPM, exposure to elevated concentrations of criteria air pollutants (e.g., CO, O₃, and PM) is capable of causing adverse health effects on heart, lung, and other organ systems. In the amicus brief filed by the South Coast Air Quality Management District (SCAQMD) on the California Supreme Court’s decision in *Sierra Club versus County of Fresno*, the SCAQMD noted that, “[it] takes a large amount of additional precursor emissions [e.g., NO_x] to cause a modeled increase in ambient ozone levels... a project emitting only 10 tons per year of NO_x or VOC is small enough that its regional impact on ambient ozone levels may not be detected in the regional air quality models used to determine ozone levels...” (SCAQMD 2015). Although this information was submitted by the SCAQMD, it would generally apply to the SFBAAB as well since both the South Coast Air Basin and the SFBAAB are designated as nonattainment areas for state and national ozone standards (the South Coast Air Basin is designated as severe non-attainment, while the SFBAAB is designated as marginal non-attainment) (U.S. EPA 2019).

Pollutant Dispersion and Conclusion

Though some residential and inpatient receptors would be exposed to criteria air pollutant concentrations generated by construction of the project, this impact would be less than significant for several reasons. First, the prevailing wind direction at the project site is generally from the south, meaning that, in general, winds would push emitted pollutant concentrations away from Holderman Building, toward McKinley Hall, which is currently vacant and does not have receptors present, and Eisenhower Hall. Second, the project would utilize heavy-duty, off-road construction equipment that meets Tier III and Tier IV emission standards to the extent feasible, thereby reducing DPM and PM_{2.5} emissions by an estimated 27 percent and NO_x emissions by approximately 18 percent over the course of project construction. In addition, if available for on-site delivery, diesel construction equipment would be powered with renewable diesel fuel that is compliant with California’s low carbon fuel standards (LCFS) and certified as renewable by the CARB Executive Officer. Based on a Multimedia Evaluation of Renewable Diesel prepared by the California EPA in 2015, test results show the use of renewable diesel reduces PM and NO_x emissions by approximately 30 and 10 percent, respectively (CalEPA 2015). Finally, in developing its significance thresholds for criteria air pollutant emissions the

⁵ This is based on the CalEEMod emission estimates for the proposed project, which assumes the construction fleet’s emissions, on average, would meet Tier III emission standards.

BAAQMD considered the level at which a project's emissions would result in a considerable contribution to the SFBAAB's air quality attainment conditions (BAAQMD 2009). In developing the CAAQS and NAAQS, the U.S. EPA and CARB considered scientific evidence linking exposure to air pollutants to health risks, such as the potential to exacerbate asthma symptoms. Although each individual's health characteristics, environment, and pre-disposition to adverse respiratory health effects is different, compliance with the CAAQS and NAAQS, as well as health risk thresholds, is intended to protect the most sensitive individuals. Thus, by association, consistency with the BAAQMD's criteria air pollutant thresholds would mean the project is complying with NAAQS and CAAQS and would not cause adverse health effects from criteria air pollutant exposure.

Since the proposed project would utilize off-road construction equipment meeting Tier III and IV emissions standards, as feasible; may utilize renewable diesel, which would further reduce DPM and criteria air pollutant emissions; would be below the BAAQMD's significance threshold for criteria air pollutants; and the prevailing wind would push criteria air pollutant emissions away from sensitive receptors, it would not expose receptors in the vicinity of the project to substantial pollutant concentrations. This impact would be *less than significant*.

4.3.5 CEQA Odors

Odor impacts could result from siting a new odor source near existing sensitive receptors or siting a new sensitive receptor near an existing odor source. Major sources of odor typically are wastewater treatment plants; landfills; confined animal facilities; composting stations; food manufacturing plants; refineries; and chemical plants. The proposed Project does not include any of these sources.

Construction related activities may result in odors associated with the intermittent operation of diesel-powered equipment, and paving activities may also generate odors. The effects of these odor sources would be temporary and short in duration. Similarly, operational activities would not result in objectionable odors. Therefore, this impact would be *less than significant*.

4.3.6 NEPA Thresholds of Significance

Federal Clean Air Act Conformity Analysis – Section 176(c) of the Federal Clean Air Act prohibits federal participation in any project that is in conflict with the State Implementation Plan (SIP). Participation includes funding, permitting, or other non-direct involvement. Based on the General Conformity requirements (40 CFR Section 93.153), if the total direct and indirect emissions of the criteria pollutant or precursor in a nonattainment or maintenance area from the proposed project are below the federal conformity “de minimis” emissions thresholds, the proposed project would be exempt from performing a comprehensive Air Quality Conformity Analysis, and would be considered to be in conformity with the SIP. The de minimis thresholds are presented below in Table 4-15.

Table 4-15. Federal “De Minimis” Emission Thresholds under the Clean Air Act (Tons per Day)

	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
“De Minimis” Threshold	10	10	100	100	70	100

Source: Federal Conformity Threshold per 40 CFR 93.153

4.3.7 Clean Air Act General Conformity Analysis

As discussed under Section 4.3.3, the proposed project would generate criteria air pollutant emissions during construction and operation of the SNF. Table 4-16 compares the proposed project's estimated construction and operational emissions against the Federal de minimis thresholds.

Table 4-16. General Conformity Analysis of Annual Pollutant Emissions (Tons per Year)

	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
2021 (Construction)	0.2	4.3	3.3	<0.0	0.7	0.3
2022 (Construction)	2.4	2.2	2.5	<0.0	0.5	0.2
2023 (Construction)	0.1	0.8	1.1	<0.0	0.1	0.1
2023 (Total/Operational)	2.1	0.4	3.3	<0.0	0.4	0.2
"De Minimis" Threshold	10	10	100	100	70	100
<i>Potentially Significant</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

Source: Federal Conformity Threshold per 40 CFR 93.153. See appendix B for CalEEMod emission estimates.

As shown in Table 4-16, the proposed project would not exceed the Federal De Minimis thresholds during any year of construction or during operation. This impact would be *less than significant*.

4.4 MITIGATION MEASURES

There are no potentially significant air quality impacts requiring mitigation.

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CHAPTER 5 BIOLOGICAL RESOURCES

5.1 REGULATORY FRAMEWORK

The federal, state and local regulations relevant to biological resources in the project area are described below.

5.1.1 Federal Regulations

Federal Endangered Species Act

The Federal Endangered Species Act (ESA) establishes a broad public and federal interest in identifying, protecting, and providing for the recovery of threatened or endangered species. The Secretary of the Interior and the Secretary of Commerce are designated in ESA as responsible for identifying endangered and threatened species and their critical habitat, carrying out programs for the conservation of these species, and rendering opinions regarding the impact of proposed federal actions on listed species. The United States Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries) are charged with implementing and enforcing FESA. USFWS has authority over terrestrial and continental aquatic species, and NOAA Fisheries has authority over species that spend all or part of their life cycle at sea, such as salmonids.

Section 9 of ESA prohibits the unlawful "take" of any listed fish or wildlife species. Take, as defined by ESA, means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such action." The USFWS's regulations define harm to mean "an act which actually kills or injures wildlife." Such an act may include "significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering" (50 CFR § 17.3). Take can be permitted under ESA under Sections 7 and 10. Section 7 requires consultation with USFWS or NOAA Fisheries for federal projects that may affect listed species and provides a process for take permits for federal projects or projects subject to a federal permit. Section 10 provides a process for incidental take permits for projects without a federal nexus. ESA does not extend the take prohibition to federally listed plants on non-federal land, other than prohibiting the removal, damage, or destruction of such species in violation of state law.

Migratory Bird Treaty Act

Under the Migratory Bird Treaty Act (MBTA), it is unlawful to "pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not." Under the MBTA it is thus illegal to disturb a nest of a migratory species that is in active use, since this could result in killing a bird or destroying an egg. The USFWS oversees implementation of the MBTA.

5.1.2 State Regulations

California Endangered Species Act

The California Endangered Species Act (CESA), administered by CDFW, protects wildlife and plants listed as "threatened" or "endangered" by the California Fish and Game Commission, as well as species identified as candidates for listing. CESA restricts all persons from taking listed

species except under certain circumstances. The state definition of take is similar to the federal definition, except that CESA does not prohibit indirect harm to listed species by way of habitat modification or harassment. Under CESA, an action must have a direct, demonstrable detrimental effect on individuals of the species.

CDFW maintains lists of animal species of special concern (CSSC) that serve as “watch list” species. A CSSC is not subject to the take prohibitions of CESA. The CSSC are species that are declining at a rate that could result in listing under the ESA or CESA and/or have historically occurred in low numbers and known threats to their persistence currently exist. This designation is intended to result in special consideration for these animals and is intended to focus attention on the species to help avert the need for costly listing under federal and state endangered species laws. This designation is also intended to stimulate collection of additional information on the biology, distribution, and status of poorly known at-risk species, and focus research and management attention on them.

California Fish and Game Code

The California Fish and Game Code protects a variety of species, separate from the protection afforded under CESA, as well as sensitive habitats including lakes and streams.

Nesting Birds. The following specific statutes afford some limits on take of named bird species: Section 3503 (nests or eggs), 3503.5 (raptors and their nests and eggs), 3505 (egrets, osprey, and other specified birds), and 3508 (game birds). Section 3503 simply states, “it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.” The exceptions generally apply to species that are causing economic hardship to an industry. Section 3503.5 states that it is “unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted.” Section 3505 prohibits taking, selling, or purchasing egrets, osprey, and other named species or any part of such birds.

Fully Protected Species. The California Fish and Game Code sets forth that “Fully Protected Species” may not be taken or possessed except for scientific research. Four sections of the Fish and Game Code list 37 fully protected species: 3511 (fully protected birds), 4700 (fully protected mammals), 4800 et seq. (mountain lions), 5050 (fully protected reptiles and amphibians), and 5515 (fully protected fish).

Nongame Mammals. Pursuant to Fish and Game Code Section 4150, “[a]ll mammals occurring naturally in California which are not game mammals, fully protected mammals, or fur-bearing mammals, are nongame mammals. Nongame mammals or parts thereof may not be taken or possessed except as provided in this code or in accordance with regulations adopted by the commission.” This provision could apply to bats which could be found in the project area.

California Native Plant Protection Act

The California Native Plant Protection Act (CNPPA) of 1977 preserves, protects, and enhances endangered and rare plants in California by specifically prohibiting the importation, take, possession, or sale of any native plant designated by the California Fish and Game Commission as rare or endangered, except under specific circumstances identified in the CNPPA. Various activities are exempt from the CNPPA, although take as a result of these activities may require other authorization from CDFW. Section 1911 of the CNPPA dictates that all state departments

and agencies shall utilize their authority in furtherance of the purposes of the CNPPA by carrying out programs for the conservation of endangered or rare native plants. Notwithstanding that provision, CNPPA Section 1913 directs that the performance by a public agency of its obligation to provide service to the public shall not be restricted because of the presence of rare or endangered plants.

California Native Plant Society Inventory

The California Native Plant Society (CNPS) has prepared and regularly updated an “Inventory of Rare and Endangered Vascular Plants of California.” In general, the CDFW qualifies plant species on List 1B (Plants Rare, Threatened, or Endangered in California and Elsewhere) or List 2 (Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere) of the CNPS Inventory for legal protection under CEQA. Species on CNPS List 3 (Plants About Which We Need More Information--A Review List) or List 4 (Plants of Limited Distribution--A Watch List) may, but generally do not, qualify for protection under CEQA.

5.2 ENVIRONMENTAL SETTING

This section describes existing vegetation/habitat types on the project site, common wildlife species in the project area, special-status species and sensitive habitats potentially occurring on the project site, and wildlife movement corridors in the project region.

5.2.1 Vegetation / Habitat Types

The vegetation / habitat types found on the project site are described below and shown in Figure 5-1.

Developed. Developed portions of the project site include six structures, a paved access road that circles the site, and parking lots near the Holderman Building. This area generally has very limited habitat value for native plants and wildlife, although some bird species may use the eaves of the buildings for nesting, and bats could use tile roofs for roosting. However, some nesting birds and many bat species may avoid using the buildings due to human activity. The developed portion of the site is 5.8 acres.

Landscape Vegetation. Landscape vegetation covers most of the undeveloped portion of the project site. It includes trees in the Memorial Grove and trees planted along the parking lots and buildings, as well as shrubs and lawns used for landscaping in the unpaved areas surrounding the developed portions of the site. Landscape trees include ginkgo, red oak, silver fir, Italian cypress (*Cupressus sempervirens*), blue spruce (*Picea pungens*), and a variety of ornamental species from around the world. Landscape shrubs are also present near the buildings and parking lots. Mowed lawns with a variety of non-native grasses and herbs cover much of the unpaved portion of the site. Ornamental trees and shrubs do provide habitat for nesting birds as well as common mammals, reptiles and amphibians, and terrestrial invertebrates found in the project area. Some wildlife may also use the lawns for foraging or refuge, although small mammal burrows were not observed on the site. Landscape vegetation covers 5.1 acres of the site.

Native Oak Stand. A small stand of native oaks, comprising predominantly coast live oaks, is located in the center of the project site south of the Hostess House and immediately east of the access road (Figure 5-2). The oaks on the site are a remnant of the oak woodland that once covered the entire project area. The oak stand is part of a managed landscape area in which the understory is mowed and kept clear of woody vegetation. Although it is a small area, because the

oaks on the site are near a large oak woodland to the west of the site, wildlife may move between the site and the adjacent habitat. The oak tree area on the site is approximately 0.5 acres. A photograph of the oak stand on the site is shown in Figure 5-3, Photograph 1.

5.2.2 Tree Survey

MIG, Inc. conducted a tree survey at the project site and adjacent area in May 2019. There are 162 trees within the project site disturbance zone representing twenty-six (26) known species as well as a number of ornamental trees that were not identified to species. The most common tree species, with more than five individuals each, include coast live oak (*Quercus agrifolia*), coast redwood (*Sequoia sempervirens*), blue gum eucalyptus (*Eucalyptus globulus*), valley oak (*Quercus lobata*), ginkgo (*Ginkgo biloba*), red oak (*Quercus rubra*), and silver fir (*Abies alba*). Trees on the site are generally old and in declining health. Of the 314 trees included in the tree inventory all but 6 trees are in moderate to severe decline. Only one tree has a vigorous health rating. A summary of trees present on the project site is included in Table 5-1 below and shown in Figure 5-2.

Table 5-1. Summary of Trees on the Project Site

Common Name	Latin Name	# of Trees	Size Range (dbh) ^(A)	Health Range ^(B)
Unknown ornamental	N/A	37	5 – 927 in.	1 - 2
Coast live oak	<i>Quercus agrifolia</i>	23	7 – 56 in.	1 - 2
Coast redwood	<i>Sequoia sempervirens</i>	18	11 – 37 in.	1 - 3
Blue gum eucalyptus	<i>Eucalyptus globulus</i>	16	29 – 340 in.	2
Valley oak	<i>Quercus lobata</i>	8	6 – 50 in.	1 - 2
Ginkgo	<i>Ginkgo biloba</i>	8	4 – 65 in.	1 - 2
Red oak	<i>Quercus rubra</i>	7	6 – 37 in.	1 - 2
Silver fir*	<i>Abies alba</i>	6	9 – 23 in.	1 - 2
Blue spruce	<i>Picea pungens</i>	4	7 – 13 in.	2 - 4
Foothill pine	<i>Pinus sabiniana</i>	4	4 – 33 in.	1 - 2
Italian cypress*	<i>Cupressus sempervirens</i>	4	0 in.	0 - 2
Deodar Cedar	<i>Cedrus deodara</i>	3	13 – 21 in.	1 - 2
Douglas fir	<i>Pseudotsuga menziesii</i>	3	12 – 50 in.	2
Monterey pine	<i>Pinus radiata</i>	3	23 – 37 in.	1 - 2
White oak	<i>Quercus alba</i>	3	23 – 35 in.	2 - 4
Pacific madrone	<i>Arbutus menziesii</i>	2	8 – 38 in.	1 - 2
Pine- unknown	<i>Pinus</i> sp.	2	5 – 12 in.	2
Tulip tree	<i>Liriodendron</i> sp.	2	30 – 33 in.	2

Common Name	Latin Name	# of Trees	Size Range (dbh) ^(A)	Health Range ^(B)
Chinese elm	<i>Ulmus parvifolia</i>	1	10 in.	2
Evergreen oak	<i>Quercus ilex</i>	1	8 in.	1
Incense cedar	<i>Ginkgo biloba</i>	1	50 in.	2
Lebanon cedar	<i>Cedrus libani</i>	1	23 in.	2
London plane tree	<i>Platanus × hispanica</i>	1	16 in.	2
Melaluca	<i>Melaleuca</i> sp.	1	6 in.	2
Oak- unknown	<i>Quercus</i> sp.	1	13 in.	3
Scarlet maple	<i>Acer rubrum</i>	1	19 in.	2
Swamp white oak	<i>Quercus bicolor</i>	1	32 in.	2

Notes:

(A) Diameter at breast height

(B) Tree health rating: 5 = vigorous; 4 = slight decline; 3 = moderate vigor; 2 = tree in decline; 1 = severe decline; 0 = dead

5.2.3 Wildlife

Some reptiles or amphibians common in the project area include western fence lizard (*Sceloporus occidentalis*), northern alligator lizard (*Elgaria coerulea*), Pacific gopher snake (*Pituophis catenifer catenifer*), California king snake (*Lampropeltis californiae*), California newt (*Taricha torosa*), California slender salamander (*Batrachoseps attenuatus*), Sierran tree frog (*Pseudacris sierra*) and western toad (*Anaxyrus boreas*).

Some of the bird species common in the project area include California quail (*Callipepla californica*), wild turkey (*Meleagris gallopavo*), mourning dove (*Zenaida macroura*), Anna's hummingbird (*Calypte anna*), acorn woodpecker (*Melanerpes formicivorus*), Nuttall's woodpecker (*Dryobates nuttallii*), black phoebe (*Sayornis nigricans*), California scrub jay (*Aphelocoma californica*), Brewer's blackbird (*Euphagus cyanocephalus*), Bewick's wren (*Thryomanes bewickii*), oak titmouse (*Baeolophus inornatus*), chestnut-backed chickadee (*Poecile rufescens*), dark-eyed junco (*Junco hyemalis*), house sparrow (*Passer domesticus*) and house finch (*Haemorhous mexicanus*). Birds of prey such as red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), Cooper's hawk (*Accipiter cooperi*), and barn owl (*Tyto alba*) are also present in the project area.

Mammal species which may occur on the project site include native and non-native mice and rats, eastern fox squirrel (*Sciurus niger*), raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), and striped skunk (*Mephitis mephitis*). The hills to the west of the site may also support species such as black-tailed jackrabbit (*Lepus californicus*), western gray squirrel (*Sciurus griseus*) mule deer (*Odocoileus hemionus*), coyote (*Canis latrans*), bobcat (*Lynx rufus*) and mountain lion (*Puma concolor*).

5.2.4 Special-Status Species

Special-status species are those plants and animals that are legally protected or otherwise recognized as vulnerable to habitat loss or population decline by federal, state, or local resource conservation agencies and organizations. For the purposes of this EIR, special-status species include species:

- Listed, proposed for listing, or a candidate for possible future listing as threatened or endangered under the Federal Endangered Species Act (ESA, 50 CFR §17.12);
- Listed or a candidate for listing by the State of California as threatened or endangered under the California Endangered Species Act (CESA, Fish and Game Code §2050 et seq.);
- Listed as rare under the California Native Plant Protection Act (Fish and Game Code §1900 et seq.);
- Listed as a Fully Protected Species (Fish and Game Code §§3511, 4700, 5050, and 5515);
- Listed as a California Species of Special Concern (CSSC) by CDFW; and
- Considered by California Native Plant Society (CNPS) and CDFW to be “rare, threatened, or endangered in California” (Ranks 1A, 1B, and 2).

MIG performed an on-site habitat assessment and a review of available information on special-status species documented from the project region to evaluate the potential for them to occur based on the presence or absence of suitable habitat in the project area. Review of information included: 1) a search of the California Natural Diversity Database (CNDDDB) and CNPS Rare Plant Inventory for records of species occurring within the USGS Yountville Quadrangle (where the proposed project is located) and eight surrounding quads; 2) a species list created for the project using the USFWS Information for Planning and Consultation (IPAC) online tool; 3) citizen science observations from iNaturalist and eBird; 4) the United States Department of Agriculture Natural Resources Conservation Service (NRCS) Web Soil Survey data to determine the presence or absence of suitable soils for special-status plants; and 5) the USFWS National Wetland Inventory (NWI) mapper to determine the presence or absence of aquatic habitat in the project area. In addition, pursuant to Section 7 of FESA, the USDVA requested from USFWS and received a list of federally-listed threatened and endangered species that may occur within the project area or may be affected by the project (see Appendix C, February 20, 2020 letter from USFWS). MIG included this list as part of its evaluation of potential special-status species occurrences.

Please refer to Appendix C for tables of the special-status plant and wildlife species that occur in the general region of the project, along with their protection status, geographic distribution, habitat and basis for determining which species had the potential to occur at the project site.

Special-status Plants

According to existing information, 47 special-status plant species have been documented in the project region. All 47 special-status plants identified during the background review have no potential or a low potential to occur in the project area due to one or more of the following reasons: (1) a lack of specific habitat (e.g., wetland habitat) and/or edaphic requirements (e.g., serpentine or alkaline soils) for the species in question, (2) the elevation range of the species is outside of the range on the project site, (3) there are no recent nearby documented occurrences

for the species or the species is known to be extirpated from the project area, and (4) the project site is regularly mowed and on-site habitat is marginal due to the presence of non-native species, development, and human foot traffic.

Special-status Animals

According to existing information, 30 special-status animal species have been documented in the project region. Of these, 28 special-status animals identified during the background review have no potential or a low potential to occur in the project area due to one or more of the following reasons: (1) a lack of specific habitat (e.g., wetland habitat) for the species in question, (2) there are no recent nearby documented occurrences for the species or the species is known to be extirpated from the project area, and (3) the species is sensitive to disturbance and human activity on the site makes the species unlikely to occur.

One special-status amphibian species, foothill yellow-legged frog (*Rana boylei*) could potentially disperse through the project site and one special-status bird species, the white-tailed kite (*Elanus leucurus*) could potentially breed on the project site. Both species are described below.

Foothill Yellow-legged Frog (FYLF)

FYLF is listed as a Candidate for threatened under CESA and CSSC. Adult FYLF are moderately-sized (1.5 to 3 inches) with a distinctive lemon-yellow color under their legs. They inhabit partially shaded, rocky perennial streams and rivers at low to moderate elevations in Pacific Coast drainages as well as the lower western slopes of the Sierra Nevada mountains. The FYLF life cycle is synchronized with the seasonal timing of streamflow conditions. Adult frogs move throughout stream networks from winter refugia to mating habitat where eggs are laid in spring and tadpoles rear in summer. For breeding they require streams with riffles containing cobble-sized or larger rocks as substrate to be used as egg laying sites. Nonbreeding habitat is characterized by perennial water where they can forage through the summer and fall months (CBD, 2016).

In California, FYLFs were once found from the Oregon border to at least as far south as the Upper San Gabriel River, Los Angeles County; the species also possibly occurred historically as far south as Orange County, southwestern San Bernardino County and San Diego County. Different regions of California may contain distinct populations or subspecies of FYLFs. FYLFs have now disappeared from more than half of their historically occupied locations throughout California and Oregon, resulting in a range contraction in northern and southern California (CBD, 2016).

The survival of the FYLFs in California is threatened by a combination of factors, including habitat alteration and destruction from: dams, water development and diversions; logging; marijuana cultivation; mining; roads and urbanization; recreation; and off-road vehicles. Frogs are also threatened by impacts from invasive species, disease, climate change, and pollution (CBD, 2016).

There are four CNDDDB occurrences of FYLF within five miles of the project site in a Hopper Creek tributary that goes through Yountville east of the site from 1956, in Dry Creek 4 miles west of Yountville from 1973, along Redwood Creek over 4 miles northwest of the site from 1972 (possibly extirpated), and in a perennial seep that flows into a tributary of Dry Creek in 2003 (exact location suppressed).

Although there is no aquatic habitat on or adjacent to the project site, FYLFs could disperse through the site from nearby aquatic habitat. There are several aquatic features within 0.5 mile of the site (Figure 5-4), which is within dispersal distance for FYLF. These include an intermittent stream approximately 0.1 mile north of the site, freshwater ponds and an emergent wetland on the golf course 0.2 to 0.3 miles east of the site, and two drainages classified by the NWI as “temporarily flooded” approximately 0.3 mile south of the site and 0.5 mile north of the site which also flows southwest through the golf course. Although most FYLF remain within 0.3 of aquatic habitat, one individual was recorded almost one mile from aquatic habitat (Alvarez, 2019). Therefore, there is a moderate potential for FYLF to disperse through the project site.

White-tailed Kite

White-tailed kite is a California Fully Protected species. In California, white-tailed kites can be found in the Central Valley and along the coast, in grasslands, agricultural fields, cismontane woodlands, and other open habitats (Zeiner et al. 1990, Dunk 1995, Erichsen et al. 1996). White-tailed kites are year-round residents of the state, establishing nesting territories that encompass open areas with healthy prey populations, and snags, shrubs, trees, or other nesting substrates (Dunk 1995). Nonbreeding birds typically remain in the same area over the winter, although some movements do occur (Polite 1990). The presence of white-tailed kites is closely tied to the presence of prey species, particularly voles, and prey base may be the most important factor in determining habitat quality for white-tailed kites (Dunk and Cooper 1994, Skonieczny and Dunk 1997). Although the species recovered after population declines during the early 20th century, its populations may be exhibiting new declines as a result of recent increases in habitat loss and disturbance (Dunk 1995, Erichsen et al. 1996).

Two CNDDDB occurrences for white-tailed kite have been documented within 5 miles of the project site, in the Napa River Ecological Reserve about 2 miles northeast of the site in 1986, and about 4 miles northeast of the site near Soda Creek in 1988 (possibly extirpated). There have also been recent observations of white-tailed kite on eBird at the golf course and wastewater treatment plant about 0.3 mile east of the site, and in Yountville and near the Napa River (Cornell Lab of Ornithology, 2019). Suitable nesting habitat is present on the project site and suitable foraging habitat is present surrounding the parcel. Therefore, there is a moderate potential for white-tail kite to occur within the project site at any time during the year.

Nesting Birds

Nesting birds may nest within oak woodland, landscaped areas, and man-made structures in and around the project site. Numerous passerines were noted during the field survey, including a group of resident acorn woodpeckers which have utility pole granaries on the site and others near the site. Examples of nesting bird habitat and a woodpecker granary on the project site are shown in Figure 5-2, Photograph 3. All bird species are protected under California Fish and Game code, and most are protected under the federal MBTA.

Bat Colonies

Bats tend to forage and roost near freshwater sources. There are several freshwater sources in the vicinity of the project site. Tree foliage and cavities, tile roofs, and man-made structures provide suitable day and maternity roost habitat for many species of bats (Figure 5-2, Photograph 2).

Roost sites play a critical role in mating, hibernation, rearing young, conserving energy, and protection from adverse weather and predators. Selection of roost sites is influenced by

distribution and abundance of food resources, risks of predation, as well as the physical attributes of the roost itself. Roost selection is paramount to the success of a species and the removal of roost habitat could adversely impact the survivorship of a species (Kunz, 1982).

Depending upon species, maternity roosts can host from a few to thousands of reproductive female bats that congregate during spring and summer months to give birth and nurse their young. In California maternity roosts may remain active from April through August. As a potentially uncommon and limited resource, maternity roosts may be the limiting resource for a local population of bats, and thus may be essential to the survival of a local bat population. Maternity roosts tend to have sensitivity to disturbance, with documented instances of abandonment even during the presence of flightless young. As bats have a low reproductive rate of typically one pup per year, negative impacts to maternity roosts can have profound impacts on a local population of bats (Szewczak, 2013).

All bats are protected under California Fish and Game code. Disturbance of roosting habitat of any bat species would be considered significant under CEQA guidelines.

5.2.5 Sensitive Natural Communities

The CDFW determines the level of rarity and imperilment of vegetation types; and tracks sensitive communities in its Rarefind database (CNDDDB, 2019). In addition to tracking sensitive natural communities, the CDFW also ranks vegetation alliances, defined by repeating patterns of plants across a landscape that reflect climate, soil, water, disturbance, and other environmental factors (Sawyer et al., 2009).

There are no CDFW classified sensitive natural communities within the project site or mapped within five miles of the project area and there are no CDFW sensitive vegetation alliances within the project site. No stream or riparian habitat occurs within the project site and there is no designated critical habitat within or near the project site.

5.2.6 Jurisdictional Features

Waters of the U.S. and Waters of the State, including wetlands, are under the jurisdiction of the U.S. Army Corps of Engineers (USACE) and the SWRCB, respectively. Lakes and streams are also under the jurisdiction of CDFW.

Based on an on-site evaluation and a review of the NWI (USFWS, 2019), there are no wetlands, streams or other aquatic features subject to federal or state jurisdiction on the project site. Just outside of the project's boundary, there are two riverine features that flow through natural channels (Figure 5-4). Both of these features enter a culvert outside of the project area.

5.2.7 Wildlife Movement

Wildlife movement areas, or habitat linkages, are areas that provide habitat connections for wildlife between two distinct points. Habitat connections are important to enable periodic migrations, to assure access to food and water and to breeding areas, to maintain genetic diversity, to allow recolonization of habitat where populations have declined or been extirpated, to provide for dispersal of seeds, and to allow for long-term distribution changes that may be necessary as a result of climate change (Napa County, 2005).

There are three major wildlife movement corridors in Napa County according to the 2005 Baseline Data Report prepared for the County (Napa County, 2005): the Napa River about 1.3 miles east of the project site at its closest point, the Blue Ridge-Berryessa Natural Area West

about 13 miles northwest of the site at its closest point, and the Blue Ridge-Berryessa Natural Area East about 13 miles northeast of the site at its closest point.

Although none of the major wildlife movement corridors identified in Napa County are on or near the project site, the hills immediately west of the site connect to the Blue Ridge-Berryessa Natural Area West wildlife corridor, and themselves provide movement opportunity for terrestrial wildlife. A variety of birds and other wildlife may regularly move between the project site and the adjacent hills. To the east of the site wildlife movement is more limited by development including the VHC-Yountville campus, vineyards, State Route 29, and the Town of Yountville.

5.3 PROJECT IMPACTS

5.3.1 Thresholds of Significance

Based on CEQA Guidelines Appendix G, the implementation of the project or its alternatives would have a significant environmental impact related to biological resources if it would:

- (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 CDFW or USFWS;
- (b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- (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 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.

The USDVA is implementing ESA Section 7 requirements to consult with the USFWS.

5.3.2 Impacts Dismissed from Further Consideration

The proposed project would have no or minimal impact with regard to the following thresholds; therefore, these issues are dismissed from further discussion in the sections below:

- The project would not impact riparian habitat or sensitive natural communities because they are not present on or adjacent to the project site (Threshold b).
- The project would not impact State or federally protected wetlands because none are present on or adjacent to the project site (Threshold c).

- The project would not substantially interfere with the movement of native fish or wildlife species or established wildlife corridors or impede the use of native wildlife nursery sites because: (1) the project site is already developed with buildings, parking lots and landscaping similar to what is proposed in the project; (2) no new barriers to wildlife movement would be constructed; and (3) the site is not within or near a wildlife movement corridor or nursery site identified by Napa County (Threshold d).
- The project would not conflict with a local policy or ordinance protecting biological resources because the site is on a State-owned property and such policies do not apply to the project (Threshold e).
- The project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan because the project is not within an area covered by such a plan (Threshold f).

5.3.3 Impacts to Special-Status Species

Foothill Yellow-legged Frog

FYLF has been documented within five miles of the project site (CNDDB, 2019), and there is aquatic habitat within 0.5 mile of the site (Figure 5-4); therefore, this analysis assumes FYLF could disperse through the project site.

If FYLF is present in the project area, project activities would result in the temporary loss of FYLF dispersal habitat; and could potentially result in the loss of individuals (e.g., during construction activities) by construction personnel or equipment, or as a result of burial (e.g., during grading or soil stockpiling).

Potential impacts to FYLF include the following:

- Project activities may result in the injury or mortality of individuals as a result of worker foot traffic, equipment use, or vehicular traffic.
- Seasonal movements may be temporarily affected during project activities because of disturbance, and substrate vibrations may cause individuals to move out of refugia, exposing them to a greater risk of predation or desiccation.
- Petrochemicals, hydraulic fluids, and solvents that are spilled or leaked from construction vehicles or equipment may kill individuals, although BMPs to control releases of such chemicals make this unlikely.
- Increases in human concentration and activity in the vicinity of suitable habitat may result in an increase in native and non-native predators that would be attracted to trash left at the work site and that would prey opportunistically FYLF.
- Movement of project personnel within the site, and between on-site and off-site areas, could also spread pathogens such as chytrid fungus, which can impair the health of amphibians.

Pre-construction surveys and protection measures implemented during project construction activity as identified in Mitigation Measures and BIO-1A and if necessary, BIO-1B would

reduce project impacts on FYLF due to habitat loss and impacts on individuals to a less-than-significant level. The impact is ***less than significant with mitigation incorporated.***

White-tailed Kite and Other Nesting Birds

Trees and other vegetation on the site could provide nesting habitat for white-tailed kite (a California fully protected species) and other migratory birds protected by the MBTA and California Fish and Game Code. Some species of birds such as swallows and black phoebes may also use the roofs or overhangs of existing buildings for nesting. In addition, there are existing granary trees and utility poles on the project site established by a group of acorn woodpeckers that apparently have a territory in the vicinity.

Implementation of the proposed project would require tree removal, grading and other ground disturbance, and demolition and construction of buildings that could impact native nesting birds, including white-tailed kite. Nesting birds could be temporarily and permanently impacted by the project.

Short-term impacts from the project could include the loss of bird nests from the removal of on-site trees, shrubs, and buildings during project construction. The exact number of trees to be removed would be dependent on final site design of the proposed project. Short-term impacts to nesting birds could also include the loss of reproductive success or nesting failure as a result of disturbance from nearby demolition and construction activities; however, the project site is currently developed and occupied by residents. Thus, there is already human activity at the site and nesting birds in the area are likely habituated to some degree of disturbance. Nevertheless, construction noise and activity would increase the level of disturbance on the site above everyday levels. Temporary impacts to white-tailed kite and other nesting birds would be reduced to less-than-significant levels by Mitigation Measure BIO-2A. The impact is ***less than significant with mitigation incorporated.***

The project could also result in the loss of acorn woodpecker granaries which could disrupt foraging behavior and eliminate a winter food store for this species. Potential impacts to woodpecker granaries would be reduced to less-than-significant levels by Mitigation Measure BIO-2B. The impact is ***less than significant with mitigation incorporated.***

Permanent impacts to nesting birds would result from the loss of habitat due to the removal of existing trees and other vegetation. Mitigation Measure BIO-4A and BIO-4B would reduce impacts from permanent habitat loss for nesting birds to less-than-significant levels. The impact is ***less than significant with mitigation incorporated.***

Potential Impacts to Bat Colonies

The tile roofs of the Hostess House, Polk Hall, and Jefferson Hall as well as tree cavities may be used as day and/or maternity roosts by bats. Removal or disturbance of roost habitat may constitute significant impacts to non-game mammals under California Fish and Game Code, particularly if an occupied maternity or colony roost is disturbed or removed.

When trees or structures containing bats are removed or modified, individual bats could be physically injured or killed, or subjected to physiological stress resulting from being disturbed during torpor. Additionally, noise associated with construction equipment and generators may disturb roosting bats, potentially causing them to avoid foraging or roosting (or to abandon roosts) in areas close to construction activity. Bats flushed during the day could suffer increased predation, resulting in the loss of individuals. Further, the direct loss of individuals in a maternity

roost could eliminate an entire colony due to the loss of the pregnant females. Disturbance of bat colonies would be considered significant under CEQA guidelines.

The Implementation of Mitigation Measures BIO-3A through BIO-3D would reduce potential impacts to bat day roosts and maternity colonies to less-than-significant levels. The impact is *less than significant with mitigation incorporated*.

5.3.4 Tree Removal and Reduction in Wildlife Habitat

As described Section 5.1.2 Wildlife, a variety of wildlife species occur in the project area and may utilize the project site, including invertebrates, reptiles and amphibians, birds, and mammals. Trees on the site and the large oak woodland adjacent to the west of the site provide habitat for these species, including for nesting, foraging, roosting and movement corridors.

The project could cause the removal of up to 162 trees, including 31 native oak trees and 31 other native trees, resulting in a loss of wildlife habitat at the site. All trees to be removed are in a landscape management area actively managed by VHC-Yountville. Although many of the trees on the site are in declining or poor health (MIG 2019a), declining or even dead trees still provide habitat for wildlife. Some wildlife species prefer older larger trees with more cavities and crevices even though the trees may be declining or dead. When compared to the amount of other habitat that remains available adjacent to the project site, project tree removal would result in a small loss of wildlife habitat value. The loss of wildlife habitat values from tree removal would be mitigated through tree planting near adjacent oak woodland. The planting of oak trees with age (size) diversity in a concentrated area consistent with the species occurring in the adjacent oak woodland would have greater ecological benefit than an in kind 1:1 tree replacement dispersed across the site.

Mitigation Measures BIO-4A and BIO-4B would minimize the loss of native oak trees, other native trees, and wildlife habitat on the project site and would replace or enhance wildlife habitat values. Implementation of these mitigation measures would reduce potential project impacts to wildlife habitat to less-than-significant levels. The impact is *less than significant with mitigation incorporated*.

5.4 MITIGATION MEASURES

Impact BIO-1: The proposed project could harm foothill yellow-legged frogs and result in the temporary loss of dispersal habitat during construction.

Mitigation Measure BIO-1A: Pre-Construction Surveys for Foothill Yellow-legged Frog. A qualified biologist shall survey aquatic habitat within 0.5 mile of the project site for foothill yellow-legged frogs (FYLF, *Rana boylei*). Proposed survey methods shall be submitted to CDFW for review and approval prior to commencing the surveys. At a minimum, multiple surveys shall be conducted during the breeding season (March through early June) for all FYLF life stages to determine presence or absence with a reasonable degree of confidence. If FYLF are not detected during the surveys, no further mitigation is required. If FYLF are detected during the surveys, Mitigation Measure BIO-1B shall be implemented.

Mitigation Measure BIO-1B: Avoidance and Minimization of Construction Impacts to Foothill Yellow-legged Frog. If one or more FYLF are found during the surveys required in Mitigation Measure BIO-1A, the following measures shall be implemented to avoid and minimize impacts to FYLF during project construction.

- 1) **Pre-Construction/Pre-Disturbance Survey for Foothill Yellow-legged Frog.** No more than twenty-four hours prior to the start of project activities, including installation of fencing, staging of equipment and materials, and vegetation trimming or removal, a pre-construction survey for foothill yellow-legged frog shall be conducted by a qualified approved biologist within the impact area. The survey will consist of walking the limits of impact to ascertain the possible presence of the species. The agency-approved biologist shall investigate all potential areas that could be used by foothill yellow-legged frog for feeding, breeding, sheltering, movement, and other essential behaviors. The results of the survey shall be documented.
- 2) **Wildlife Exclusion Fence.** In order to prevent FYLF from entering the project site during construction, a wildlife exclusion fence shall be placed around the entire site including all construction and staging areas. The fence shall be at least three feet tall and shall be entrenched three to six inches into the ground. Escape funnels shall be included in the fence design so that wildlife species are able to vacate the project site prior to disturbance. A qualified biologist shall inspect the fence daily prior to the start of work to ensure it is in good repair and functioning as intended to exclude FYLF.
- 3) **Worker Environmental Awareness Program.** All construction personnel shall participate in a worker environmental awareness program. These personnel will be informed about the possible presence of FYLF and that unlawful take of the animal or destruction of its habitat is a violation of the California Endangered Species Act. Prior to construction activities, the agency-approved biologist shall instruct all construction personnel about (1) the description and status of the protected species; (2) the importance of their associated habitats; and (3) a list of measures being taken to reduce impacts on these species during project construction and implementation. A fact sheet conveying this information will be prepared for distribution to the construction crew and anyone else who enters the project site.
- 4) **Pipe Inspection.** All construction pipes, culverts, or similar structures that are stored at the construction site for one or more overnight periods shall be either securely capped prior to storage or thoroughly inspected by the agency-approved biologist and/or the construction foreman/manager for animals before the pipe is subsequently buried, capped, or otherwise used or moved in any way.
- 5) **Steep-walled Holes and Trenches.** To prevent inadvertent entrapment of the foothill yellow-legged frog during construction, the agency-approved biologist and/or construction foreman/manager shall ensure that all excavated, steep-walled holes or trenches more than one-foot-deep are completely covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks and inspected by the agency-approved biologist. Before such holes or trenches are filled, they will be thoroughly inspected for trapped animals by the agency-approved biologist and/or construction foreman/manager.
- 6) **Protocol if Foothill Yellow-legged Frog is Encountered.** If a yellow-legged frog or any frog that construction personnel believes may be this species is encountered during project construction, the following steps will be taken:
 - a. All work that could result in direct injury, disturbance, or harassment of the individual animal shall immediately cease.

- b. The foreman and qualified biologist shall be immediately notified.
 - c. The animal shall be allowed to leave the site on its own, or if it does not leave in a reasonable amount of time, it can be relocated as follows.
- 7) **FYLF Relocation.** If an animal believed to be a FYLF is discovered on site, a qualified biologist shall determine if the animal is a special-status species, and, if so, shall contact CDFW to determine if moving the individual(s) is appropriate. If CDFW approves moving FYLF, the project proponent shall ensure the qualified biologist is given sufficient time to move the animals from the impact area before ground disturbance is initiated. Only CDFW-approved biologists shall capture, handle, and move the foothill yellow-legged frog. The qualified biologist shall monitor any relocated frog until it is determined that it is not imperiled by predators or other dangers.
 - 8) **Speed Limit.** Project-related vehicles shall observe a 15 mile-per-hour speed limit in all project areas, except on Town and County roads, and State highways; this is particularly important during the rainy season when FYLF are likely to be most active.
 - 9) **Daytime Restriction.** To the maximum extent practicable, nighttime construction shall be avoided or minimized.
 - 10) **Food and Trash.** To eliminate an attraction for the predators of the foothill yellow-legged frog, all food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in solid, closed containers (trash cans) and removed at the end of each working day from the entire construction site.
 - 11) **Prohibition of Plastic Mono-filament Netting.** Plastic mono-filament netting (erosion control matting), rolled erosion control products or similar material shall not be used at the project site to prevent trapping FYLF.

Effectiveness: *These measures would avoid and minimize impacts to FYLF.*

Implementation: *Qualified Biologist and construction workers under supervision of biologist.*

Timing: *During the FYLF breeding season before project initiation (Mitigation Measure BIO-1A) and prior to and during construction (Mitigation Measure BIO-1B).*

Monitoring: *The qualified biologist shall prepare a memo or letter report documenting the methods and results of the FYLF surveys to be submitted to CalVet. If Mitigation Measure BIO-1B is required, a post-construction report shall be prepared documenting compliance with the requirements of this measure.*

Impact BIO-2: The proposed project could result in temporary and permanent impacts to white-tailed kite and other nesting birds protected by the MBTA and California Fish and Game Code.

Mitigation Measure BIO-2A: Avoid and Minimize Impacts to Nesting Birds. The Design Build entity shall remove all trees, shrubs, and buildings on the project site outside of the bird nesting season if possible (defined as the time between September 1st and January 31st). If construction starts during the bird nesting season between February 1st and August 31st, a qualified biologist shall perform a pre-construction survey to identify active bird nests on or near

the site. The pre-construction survey shall take place no more than 14 days prior to the start of construction, and if more than 14 days pass with no construction activities, another pre-construction survey shall be required. The survey shall include all trees and shrubs on the site, all buildings or other structures to be demolished, and all trees and shrubs within a 250-foot radius of the site. If an active, native bird nest is found during the survey, the biologist shall designate a construction-free buffer zone (typically 500 feet for raptors and 250 feet for other birds, but these distances can sometimes be reduced in urban areas) around the nest to remain in place until the young have fledged. The qualified biologist shall be contacted immediately if a bird nest is discovered during project construction.

Mitigation Measure BIO-2B: Avoid and Minimize Impacts to Woodpecker Granaries.

Acorn woodpecker granary trees and utility poles shall be retained on the project site if possible. If it is necessary to remove any granary trees or utility poles, the trees or poles shall be removed gradually to minimize impacts to woodpeckers. If possible, removed utility pole granaries shall be placed upright in the ground onsite or nearby for continued use by woodpeckers. Removed granary poles shall be relocated or replaced within three days. Removed granary trees shall be relocated as specified in Mitigation Measure BIO-4B.

Effectiveness: *These measures would avoid and minimize impacts to nesting birds and woodpecker granaries.*

Implementation: *Qualified Biologist and construction workers under supervision of biologist.*

Timing: *Work to avoid the nesting bird season, and to remove or relocate granary utility poles, shall be conducted during construction; surveys for nesting birds (if needed) and granary trees shall be conducted within 7 days prior to the start of construction.*

Monitoring: *The qualified biologist shall prepare a memo or letter report documenting the methods and results of the nesting bird (if needed) to be submitted to CalVet. If an active bird nest is found, the nest buffer, monitoring, and fledge date shall be documented and submitted to CalVet. The methods and timing of removal or relocation of woodpecker utility pole granaries shall also be documented and submitted to CalVet.*

Impact BIO-3: The proposed project could impact roosting bats protected by California Fish and Game Code.

Mitigation Measure BIO-3A: Pre-Construction Survey for Roosting Bats. A survey of tree cavities and structures (tile roofs) within the project site, including a 50-foot buffer (as feasible) shall be conducted by a qualified bat biologist no less than 30 days before the start of construction-related activities (including but not limited to mobilization and staging, clearing, grubbing, tree removal, vegetation removal, fence installation, demolition, and grading). If construction activities are delayed by more than 30 days, an additional bat survey shall be performed.

The survey may be conducted at any time of year but should be conducted in such a way to allow sufficient time to determine if special-status bats or maternity colonies are present on the site, provide replacement habitat (if required), and exclude bats during the appropriate time of year

(e.g. outside the maternity season from March 1 to August 31). The results of the survey shall be documented.

If no habitat or signs of bats are detected during the habitat suitability survey, no further surveys are warranted. If suitable habitat is present and signs of bat occupancy (e.g., guano pellets or urine staining) are detected, Mitigation Measure BIO-3B shall apply.

Mitigation Measure BIO-3B: Acoustic Survey. If suitable habitat is present and signs of bat occupancy are detected, a follow-up dusk emergence survey shall be conducted no less than 30 days prior to construction activities or removal of potential habitat during the spring or summer months, when bats would be detected. A dusk survey will determine the number of bats present and will also include the use of acoustic equipment to determine the species of bats present. For removal of roost habitat, the 30 days allows time for the exclusion and replacement of roost habitat in the step described below. The results of the survey shall be documented. If an active roost is observed within the project site, Mitigation Measure BIO-3C shall apply.

Mitigation Measure BIO-3C: Roost Buffer. If a day roost of a special-status bat or a maternity colony is detected and is found sufficiently close to work areas to be disturbed by construction activities, the qualified biologist shall determine the extent of a construction-free buffer zone to be established around the roost in consultation with CDFW. Within the buffer zone, no site disturbance and mobilization of heavy equipment, including but not limited to equipment staging, fence installation, clearing, grubbing, vegetation removal, demolition, and grading shall be permitted. Monitoring shall be required to ensure compliance with relevant California Fish and Game Code requirements. Monitoring dates and findings shall be documented. If an active roost cannot be avoided by construction activities, Mitigation Measure BIO-3D shall apply.

Mitigation Measure BIO-3D: Exclusion and Replacement Roost Habitat. If day roosts of a special-status bat or maternity colony are detected and cannot be avoided, replacement roost habitat appropriate for the species shall be provided, as determined by the qualified biologist, prior to removal of the roost.

Outside of the maternity season, a day roost may be removed after individual bats are safely evicted under the direction of a qualified bat biologist. Eviction shall occur between September 1 and March 31 but shall not occur during long periods of inclement or cold weather (as determined by the bat biologist) when prey is not available, or bats are in torpor. If feasible, one-way doors shall be used to evict bats from tree roosts. If use of a one-way door is not feasible, or the exact location of the roost entrance in a tree is not known, the trees with roosts that need to be removed shall first be disturbed by removing some of the trees' limbs not containing the bats. Such disturbance shall occur at dusk to allow bats to escape during the darker hours. These trees shall then be removed the following day. The eviction method for structures shall be determined by the qualified biologist. All of these activities shall be performed under the supervision of the bat biologist. The replacement roost habitat shall be monitored for two years and the criteria for success shall be the occupancy of the replacement roost structure. If the roost structure is not occupied after two years, CDFW shall be consulted on what adaptive management measures will be implemented. Monitoring dates and findings shall be documented.

Effectiveness: *These measures would avoid and minimize impacts to roosting bats.*

Implementation: *Qualified Biologist and construction workers under supervision of biologist.*

- Timing:** *Within 30 days prior to the start of construction.*
- Monitoring:** *The qualified biologist shall prepare a memo or letter report documenting the methods and results of the roosting bat survey(s) to be submitted to CalVet. If a bat roost is found, the roost buffer and monitoring shall be documented and submitted to CalVet. If the bat roost cannot be avoided, the eviction method and monitoring of replacement habitat shall also be documented and submitted to CalVet.*

Impact BIO-4: The proposed project could result in the loss of up to 162 trees, including 31 native oaks, 31 other native trees and associated wildlife habitat values.

Mitigation Measure BIO-4A: Tree Preservation and Protection During Construction. A tree protection plan shall be prepared by a qualified professional (forester, arborist, landscape architect, or restoration ecologist) to identify protection measures for all preserved trees within or adjacent to the development footprint which could be impacted by construction activity. Trees on the project site shall be preserved to the extent possible, particularly native oak trees. The plan shall identify the trees on the project site to be retained and establish a tree protection zone during project construction. The tree protection zone fencing shall be enclosed by a chain-link fence or other suitable fencing and shall be established along the tree dripline. The following activities shall be prohibited within the tree protection zone:

1. Storage or parking of vehicles, equipment, construction materials, refuse, excavated spoils or poisonous materials on or around trees and roots.
2. The use of tree trunks as a winch support, anchorage, as a temporary power pole, signposts or other similar function.
3. Cutting tree roots by utility trenching, foundation digging, placement of curbs and trenches and other miscellaneous excavation.
4. Soil disturbance or grade change.
5. Drainage changes.

The tree protection zone shall be inspected by the qualified professional after initial installation, during any activity in the zone, and monthly throughout construction. The tree protection zone shall remain in place throughout the entire construction period.

Mitigation Measure BIO-4B: Tree Replacement. Habitat values lost by oak tree removal during project development and construction shall be replaced. A landscape architect or other qualified expert shall prepare a native oak planting plan to increase oak woodland habitat characteristics and values on VHC-Yountville natural lands near existing oak woodlands adjacent to the Bandstand building area as shown in Figure 5-5. The planting plan shall be prepared addressing: 1) Location of planting area(s); 2) Planting of oaks and other native species on acreage commensurate with final acreage of the oak tree removal area; 3) Planting of oak tree species consistent with the adjacent oak woodland and with age (size) diversity; and 4) Provision of irrigation until plantings are established.

Locally native species such as native oaks shall be used as replacement trees when possible, and invasive species such as eucalyptus (*Eucalyptus* spp.) shall be avoided. All replacement trees used shall be healthy and sourced from a reputable nursery, guaranteed to be pathogen free.

All planted trees shall be monitored for five years. Trees that do not survive shall be replaced. At the end of one year, CalVet shall be responsible for monitoring and care for the trees.

All granary trees and poles identified in Figure 5-6 Tree Inventory Map shall be protected. If removal is required by project, granary trees shall be preserved and relocated to the oak tree planting area (Figure 5-5).

Effectiveness: *These measures would avoid and minimize impacts to trees and associated wildlife habitat values.*

Implementation: *CalVet or its contractor.*

Timing: *Prior to and during construction (Mitigation Measure BIO-4A); during or after construction is completed (Mitigation Measure BIO-4B).*

Monitoring: *A qualified arborist or other qualified expert shall monitor the tree protection zone prior to and during construction (Mitigation Measure BIO-4A). An oak planting plan shall be prepared for tree replacement by a landscape architect or other qualified expert and submitted to CalVet for review and approval. At the end of one year, monitoring and care for the trees shall be the responsibility of the VHC-Yountville arborist (Mitigation Measure BIO-4B).*

Figure 5-1. Existing Vegetation/Habitat Types on the Project Site



 Project Site

Habitat

Developed (5.8 acres)

Landscape Vegetation (5.1 acres)

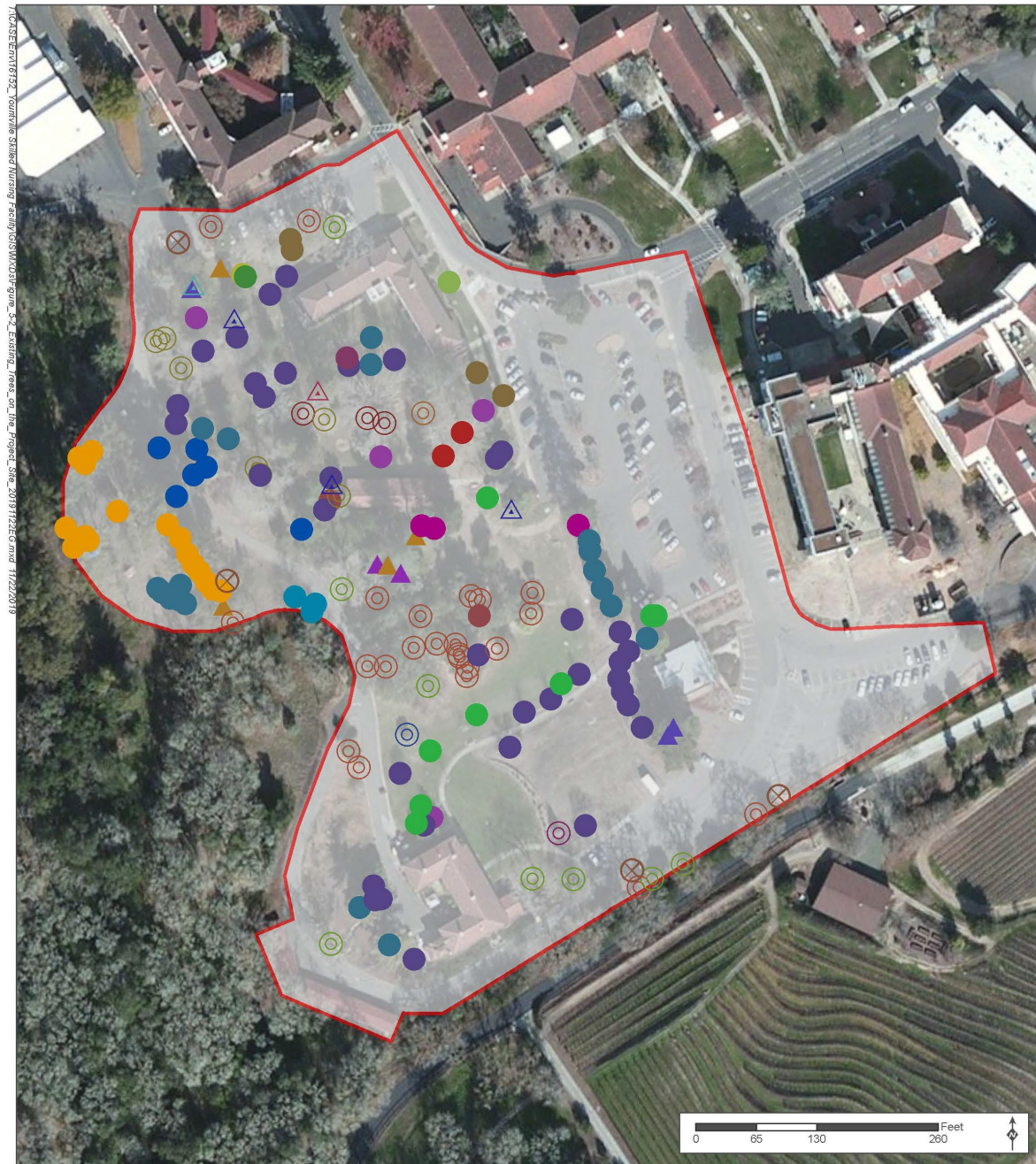
Remnant Oak Woodland (0.5 acres)



Figure 5-1 Existing Vegetation/Habitat Types on the Project Site

VHC-Yountville Skilled Nursing Facility Project

Figure 5-2. Existing Trees on the Project Site.



Project Site	Coast redwood (18)	Foothill pine (4)	London plane tree (1)	Scarlet maple (1)	Unknown ornamental (37)
Blue gum eucalyptus (16)	Common manzanita (3)	Ginkgo (8)	Melaleuca (1)	Silver fir (6)	Unknown pine (2)
Blue spruce (4)	Deodar cedar (3)	Incense cedar (1)	Monterey pine (3)	Swamp white oak (1)	Valley oak (8)
Chinese elm (1)	Douglas fir (3)	Italian cypress (4)	Pacific madrone (2)	Tulip tree (2)	White oak (3)
Coast live oak (23)	Evergreen oak (1)	Lebanon cedar (1)	Red oak (7)	Unknown oak (1)	Telephone pole-grainery (4)

Figure 5-2 Existing Trees on the Project Site

VHC-Yountville Skilled Nursing Facility Project

Figure 5-3. Photographs of Wildlife Habitat on the Project Site



Oak trees on the project site that provide habitat for a variety of wildlife species.



Example of tile roof that could provide habitat for roosting bats and nesting birds.

Figure 5-3 Photographs of Wildlife Habitat on the Project Site

VHC-Yountville Skilled Nursing Facility Project



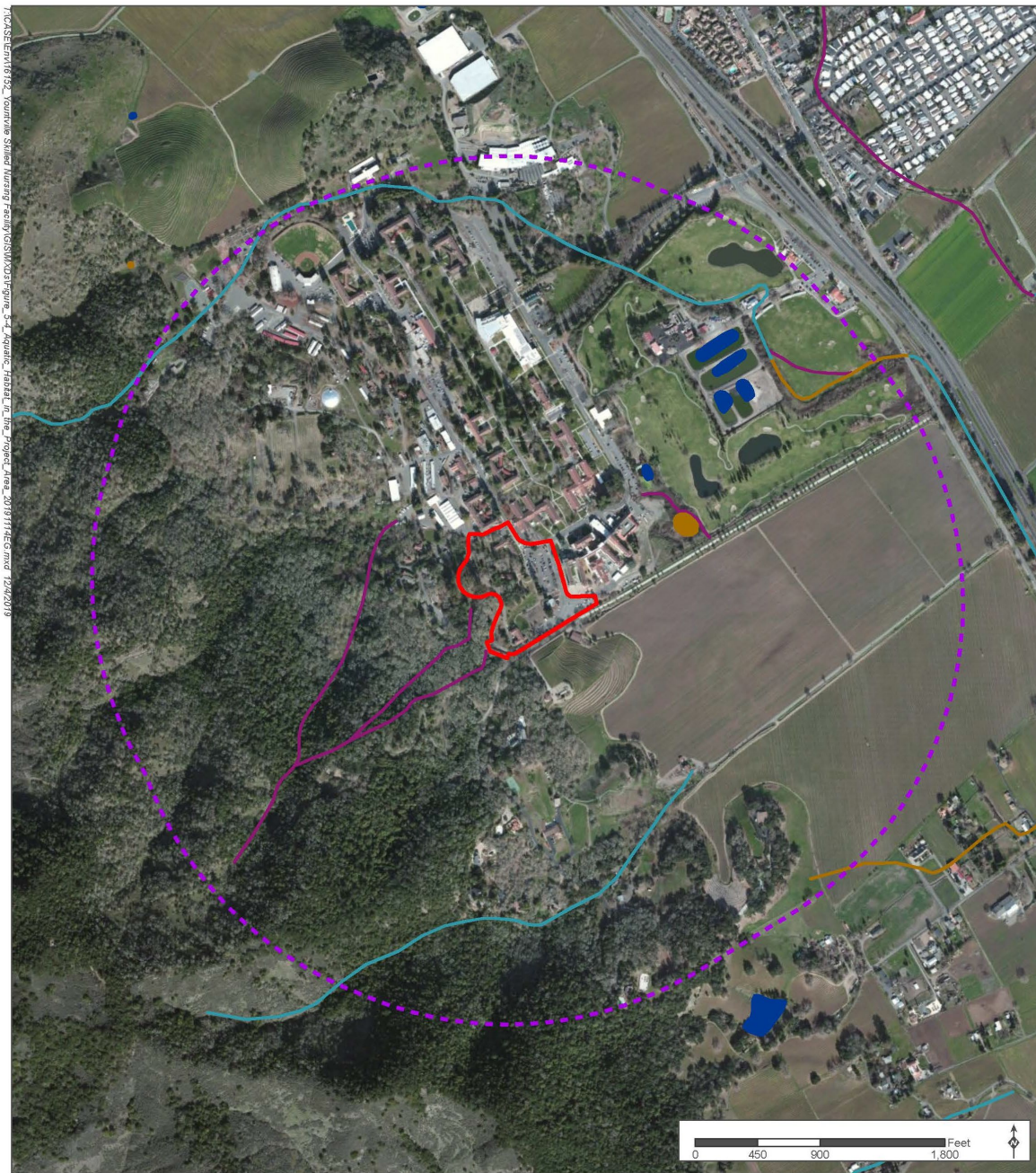


Acorn woodpecker utility pole granary on the project site.



Figure 5-3 Photographs of Wildlife Habitat on the Project Site

VHC-Yountville Skilled Nursing Facility Project

Figure 5-4. Aquatic Habitat in the Project Area

- Project Site
- 5-Mi Buffer
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

**Figure 5-4 Aquatic Habitat in the Project Area**

VHC-Yountville Skilled Nursing Facility Project

Figure 5-5. Oak Tree Planting Area



Source: ESRI 2017, MIG 2019

- Project Site
- Woodland Replanting Area (0.9 acres)
- Blue gum eucalyptus (16)
- Coast live oak (1)
- Coast redwood (6)
- Common manzanita (3)
- Foothill pine (1)
- Silver fir (2)
- X Telephone pole-grainery (1)



Figure 5-5 Tree Replacement Area

VHC-Yountville Skilled Nursing Facility Project

Figure 5-6. Tree Inventory Map

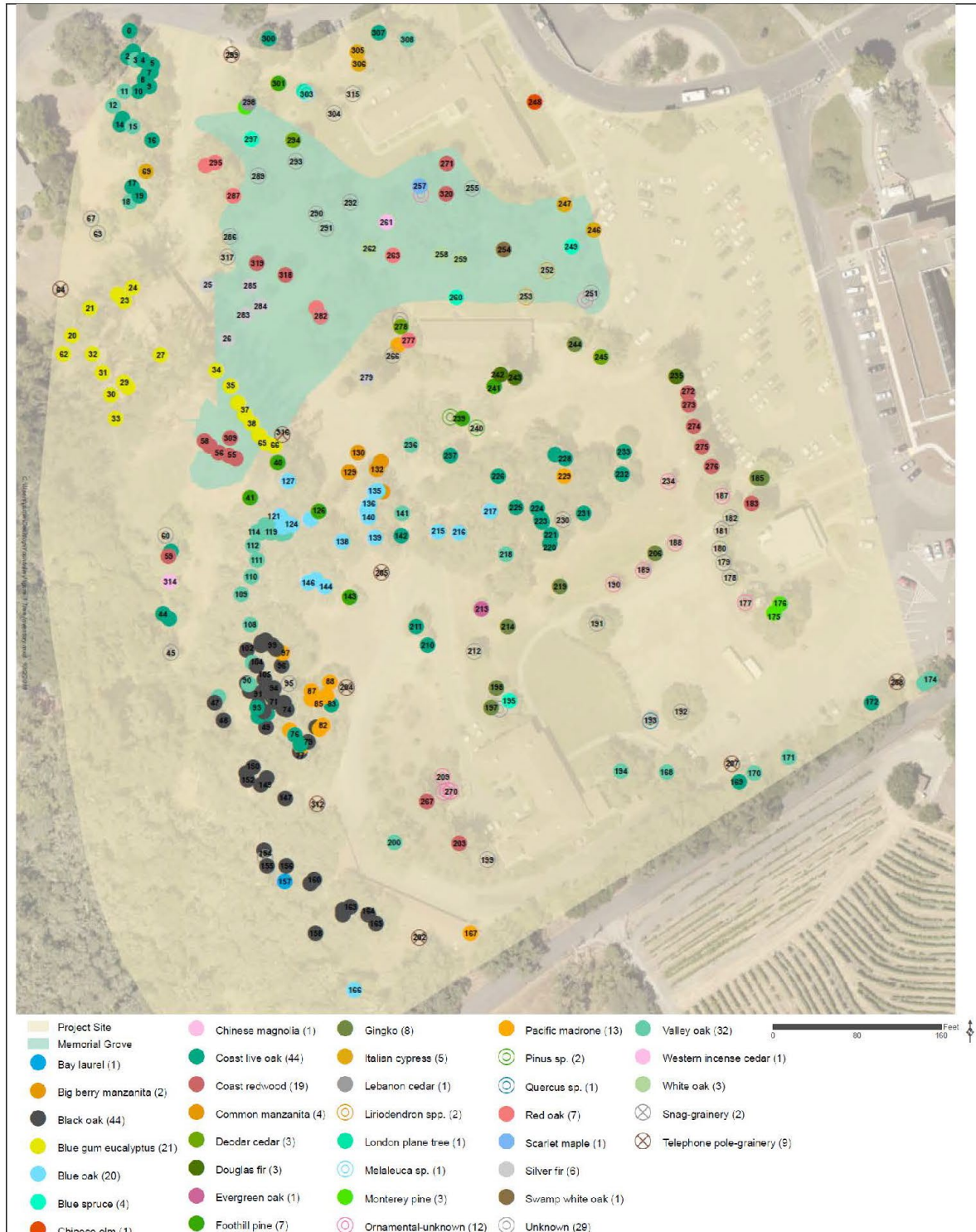


Figure 5-6 Tree Inventory Map
 VHC-Yountville Skilled Nursing Facility Project

M I G

CHAPTER 6 CULTURAL, HISTORICAL, AND TRIBAL RESOURCES

This EIR-EA Chapter describes the cultural resources (archaeological resources and historical building/structures) and Tribal Cultural Resources (TCRs) in the Project area. The Chapter includes the regulatory framework necessary to evaluate potential environmental impacts, describes potential impacts that could result from the Project, and includes mitigation measures, if any, that would avoid or reduce the potential impacts.

6.1 REGULATORY SETTING

6.1.1 Federal Antiquities Act

Cultural resources are indirectly protected under the provisions of the Federal Antiquities Act of 1906 (16 United States Code [U.S.C] §§ 431 et seq.) and subsequent related legislation, regulations, policies, and guidance documents.

6.1.2 Section 106 of the National Historic Preservation Act of 1966

The National Historic Preservation Act (NHPA) establishes the nation's policy for historic preservation and sets in place a program for the preservation of historic properties by requiring Federal agencies to consider effects to significant cultural resources (i.e. historic properties) prior to undertakings. Section 106 of the NHPA states that Federal agencies with direct or indirect jurisdiction over Federally funded, assisted, or licensed undertakings must take into account the effect of the undertaking on any historic property that is included in, or eligible for inclusion in, the National Register of Historic Places (NRHP) and that the Advisory Council on Historic Preservation (ACHP) and State Historic Preservation Officer (SHPO) must be afforded an opportunity to comment on such undertakings, through a process outlined in the ACHP regulations at 36 Code of Federal Regulations (CFR) Part 800.

DGS received authorization to consult with SHPO on behalf of the Federal lead agency (USDVA) on October 24, 2019. DGS has ongoing communication with SHPO.

National Register of Historic Places Criteria

The criteria for determining whether a property is eligible for listing in the NRHP are found in Title 36 of the Code of Federal Regulations, Section 60.4 and are reproduced below:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and

- a. That are associated with events that have made a significant contribution to the broad patterns of our history; or
- b. That are associated with the lives of persons significant in our past; or
- c. That embody 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, or that represent a significant and distinguishable entity whose components may lack individual distinctions; or

- d. That have yielded, or may be likely to yield, information important in prehistory or history.

For a property to qualify for the NRHP, it must meet at least one of the above National Register Criteria for Evaluation by being associated with an important context and retain historic integrity of those features necessary to convey its significance.

6.1.3 Native American Graves Protection and Repatriation Act of 1990

The Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 sets provisions for the intentional removal and inadvertent discovery of human remains and other cultural items from Federal and Tribal lands. It clarifies the ownership of human remains and sets forth a process for repatriation of human remains and associated funerary objects and sacred religious objects to the Native American groups claiming to be lineal descendants or culturally affiliated with the remains or objects. It requires any Federally funded institution housing Native American remains or artifacts to compile an inventory of all cultural items within the museum or with its agency and to provide a summary to any Native American tribe claiming affiliation.

6.1.4 The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings

The Secretary of the Interior's (SOI) Standards for the Treatment of Historic Properties are intended to be applied to a wide variety of resource types, including buildings, sites, structures, objects, and districts. The Standards address four treatments: preservation, rehabilitation, restoration, and reconstruction. The treatment Standards, developed in 1992, were codified as 36 CFR Part 68 in the July 12, 1995, Federal Register (Vol. 60, No. 133). They replaced the 1978 and 1983 versions of 36 CFR Part 68, entitled The Secretary of the Interior's Standards for Historic Preservation Projects. The revised Guidelines herein replace the Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings, published in 1995 to accompany the treatment Standards. The Secretary of the Interior's Standards for the Treatment of Historic Properties are regulatory only for projects receiving Historic Preservation Fund grant assistance and other federally assisted projects. Otherwise, these Guidelines are intended to provide general guidance for work on any historic building or structure.

6.1.5 The Secretary of the Interior's Standards for Rehabilitation

The intent of the Standards is to assist the long-term preservation of a property's significance through the preservation of historic materials and features. The Standards pertain to historic buildings of all materials, construction types, sizes, and occupancy and encompass the exterior and interior of the buildings. They also encompass related landscape features and the building's site and environment, as well as attached, adjacent, or related new construction. To be certified for Federal tax purposes, a rehabilitation project must be determined by the Secretary to be consistent with the historic character of the structure(s), and where applicable, the district in which it is located.

The Standards (Department of the Interior regulations, 36 CFR 67) pertain to historic buildings of all materials, construction types, sizes, and occupancy and encompass the exterior and the interior, related landscape features and the building's site and environment as well as attached, adjacent, or related new construction. The Standards are to be applied to specific rehabilitation projects in a reasonable manner, taking into consideration economic and technical feasibility.

The following are the standards for the Rehabilitation treatment, which is appropriate for the SNF project:

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.
6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.
7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
8. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

6.1.6 The California Environmental Quality Act (CEQA)

CEQA establishes statutory requirements for the formal review and analysis of projects. CEQA recognizes archaeological resources as part of the environment. A project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment (PRC §21084.1).

A record search to determine whether any previously identified resources exist within the project boundary is the first step in determining whether archaeological resources may be present. A record search is conducted at the applicable California Historic Resources Information System (CHRIS) Information Center.

Historical Resources

Pursuant to CEQA Guidelines section 15064.5 (a) the term “historical resources” includes the following:

- A resource listed or determined to be eligible by the State Historical Resources Commission for listing, in the CRHR (PRC §5024.1, 14 CCR, §4850 et seq.).
- A resource included in a local register of historical resources, as defined in Public Resources Code Section 5020.1 (k) or identified as significant in a historical resource survey meeting the requirements of Public Resources Code Section 5024.1 (g), shall be presumed historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency’s determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be “historically significant” if the resource meets the criteria for listing on the CRHR (PRC §5024.1, Title 14 CCR, §4852) including the following:
 - A. Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
 - B. Is associated with the lives of persons important in our past;
 - C. Embodies the distinctive characteristics of type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
 - D. Has yielded, or may be likely to yield, information important in prehistory or history.
- The fact that a resource is not listed in, or determined to be eligible for listing in the CRHR, not included in a local register of historical resources (pursuant to PRC §5020.1(k)), or identified in a historical resources survey (meeting the criteria in PRC §5024.1(g)) does not preclude a lead agency from determining that the resource may be a historical resource as defined by Public Resources Code Section 5020.1(j) or 5024.1.

Unique Archaeological Resources

CEQA applies to archaeological resources when: (1) the archaeological resource satisfies the definition of a historical resource, or (2) the archaeological resource satisfies the definition of a “unique archaeological resource.” A unique archaeological resource is an archaeological artifact, object, or site that has a high probability of meeting any of the following criteria:

1. The archaeological resource contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.
2. The archaeological resource has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. The archaeological resource is directly associated with a scientifically recognized important prehistoric or historic event or person.

6.1.7 Assembly Bill 52 / Cultural Tribal Resources

Assembly Bill (AB) 52, approved in September 2014, creates a formal role for California Native American tribes by creating a formal consultation process and establishing that a substantial adverse change to a tribal cultural resource has a significant effect on the environment. Tribal cultural resources are defined 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 CRHR
 - 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.

A cultural landscape that meets the criteria above is also a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape. In addition, 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) may also be a tribal cultural resource if it conforms with above criteria.

AB 52 requires a lead agency, prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report for a project, to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if: (1) the California Native American tribe requested to the lead agency, in writing, to be informed by the lead agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe, and (2) the California Native American tribe responds, in writing, within 30 days of receipt of the formal notification, and requests the consultation. AB 52 states: “To expedite the requirements of this section, the Native American Heritage Commission shall assist the lead agency in identifying the California Native American tribes that are traditionally and culturally affiliated with the project area.”

The requirements of AB 52 apply only to a project that has a notice of preparation or a notice of negative declaration or mitigated negative declaration filed on or after July 1, 2015.

6.1.8 California Register of Historical Resources

Created in 1992 and implemented in 1998, the California Register of Historical Resources (CRHR) is:

“an authoritative guide in California to be used by State and local agencies, private groups, and citizens to identify the state’s historical resources and to indicate properties that are to be protected, to the extent prudent and feasible, from substantial adverse change.”

Certain properties, including those listed in or formally determined eligible for listing in the NRHP and California Historical Landmarks (CHLs) numbered 770 and higher, are automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historic resources surveys, or designated by local landmarks programs may be nominated for inclusion in the CRHR. A resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria: (modeled after NRHP criteria):

- Criterion 1: It is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.
- Criterion 2: It is associated with the lives of persons important in our past.
- Criterion 3: It embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values.
- Criterion 4: It has yielded, or may be likely to yield, information important in history or prehistory.

Resources nominated to the CRHR must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. It is possible that a resource whose integrity does not satisfy NRHP criteria may still be eligible for listing in the CRHR. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR if, under Criterion 4, it maintains the potential to yield significant scientific or historical information or specific data. Resources that have achieved significance within the past 50 years also may be eligible for inclusion in the CRHR, provided that enough time has lapsed to obtain a scholarly perspective on the events or individuals associated with the resource.

6.1.9 California Historical Landmarks

California Historical Landmarks (CHLs) are buildings, structures, sites, or places that have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value and that have been determined to have Statewide historical significance by meeting at least one of the criteria listed below. The resource must also be approved for designation by the County Board of Supervisors or the City or Town Council in whose jurisdiction it is located, be recommended by the State Historical Resources Commission, or be officially designated by the Director of California State Parks. The specific standards in use now were first applied in the “designation” of CHL No. 770. CHLs No. 770 and above are automatically listed in the CRHR.

To be eligible for designation as a Landmark, a resource must meet at least one of the following criteria per California Historical Landmarks Registration: Criteria for Designation (California Office of Historic Preservation 2019):

- The first, last, only, or most significant of its type in the State or within a large geographic region (Northern, Central, or Southern California)
- Associated with an individual or group having a profound influence on the history of California
- A prototype of, or an outstanding example of, a period, style, architectural movement or construction or one of the more notable works or the best surviving work in a region of a pioneer architect, designer, or master builder

6.1.10 California Points of Historical Interest

California Points of Historical Interest are sites, buildings, features, or events that are of local (City or County) significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value. Points of Historical Interest (Points) designated after December 1997 and recommended by the State Historical Resources Commission are also listed in the CRHR. No historic resource may be designated as both a Landmark and a Point. If a Point is later granted status as a Landmark, the Point designation will be retired. In practice, the Point designation program is most often used in localities that do not have a locally enacted cultural heritage or preservation ordinance.

To be eligible for designation as a Point, a resource must meet at least one of the following criteria:

- The first, last, only, or most significant of its type within the local geographic region (City or County)
- Associated with an individual or group having a profound influence on the history of the local area
- A prototype of, or an outstanding example of, a period, style, architectural movement or construction or one of the more notable works or the best surviving work in the local region of a pioneer architect, designer, or master builder

6.1.11 California Public Resources Code

Section 5020.1

California Public Resources Code (PRC) Section 5020.1(q) states that substantial adverse change includes demolition, destruction, relocation, or alteration such that the significance of an historical resource would be materially impaired.

Section 5097.5

Section 5097.5 of the PRC states, “it is illegal for any person to knowingly and willfully excavate or remove, destroy, injure, or deface cultural resources.” Furthermore, the crime is a misdemeanor punishable by a fine not to exceed \$10,000 and/or county jail time for up to one year. In addition to a fine and/or jail time, the court can order restitution, and restitution will be granted of the commercial and archaeological value of the property.

Sections 5097.9

Under Section 5097.9 of the PRC, a state policy of noninterference with the free expression or exercise of Native American religion was articulated along with a prohibition of severe or irreparable damage to Native American sanctified cemeteries, places of worship, religious or ceremonial sites or sacred shrines located on public property. Section 5097.91 of the PRC established the NAHC, whose duties include the inventory of places of religious or social significance to Native Americans and the identification of known graves and cemeteries of Native Americans on private lands. Section 5097.98 of the PRC specifies a protocol to be followed when the NAHC receives notification of a discovery of Native American human remains from a county coroner.

California Code of Regulations

Section 14 § 4852 states: The criteria for listing historical resources in the California Register are consistent with those developed by the National Park Service for listing historical resources in the National Register, but have been modified for state use in order to include a range of historical resources which better reflect the history of California. Only resources which meet the criteria may be listed in or formally determined eligible for listing in the California Register.

(a) Types of resources eligible for nomination:

- (1) Building. A resource, such as a house, barn, church, factory, hotel, or similar structure created principally to shelter or assist in carrying out any form of human activity. "Building" may also be used to refer to an historically and functionally related unit, such as a courthouse and jail or a house and barn;
- (2) Site. A site is the location of a significant event, a prehistoric or historic occupation or activity, or a building or structure, whether standing, ruined, or vanished, where the location itself possesses historical, cultural, or archeological value regardless of the value of any existing building, structure, or object. A site need not be marked by physical remains if it is the location of a prehistoric event, and if no buildings, structures, or objects marked it at that time. Examples of such sites are trails, designed landscapes, battlefields, habitation sites, Native American ceremonial areas, petroglyphs, and pictographs;
- (3) Structure. The term "structure" is used to describe a construction made for a functional purpose rather than creating human shelter. Examples of structures include mines, bridges, and tunnels;
- (4) Object. The term "object" is used to describe those constructions that are primarily artistic in nature or are relatively small in scale and simply constructed, as opposed to a building or a structure. Although it may be moveable by nature or design, an object is associated with a specific setting or environment. Objects should be in a setting appropriate to their significant historic use, role, or character. Objects that are relocated to a museum are not eligible for listing in the California Register. Examples of objects include fountains, monuments, maritime resources, sculptures, and boundary markers; and
- (5) Historic district. Historic districts are unified geographic entities which contain a concentration of historic buildings, structures, objects, or sites united historically, culturally, or architecturally. Historic districts are defined by precise

geographic boundaries. Therefore, districts with unusual boundaries require a description of what lies immediately outside the area, in order to define the edge of the district and to explain the exclusion of adjoining areas. The district must meet at least one of the criteria for significance discussed in Section 4852(b)(1)-(4) of this chapter.

Those individual resources contributing to the significance of the historic district will also be listed in the California Register. For this reason, all individual resources located within the boundaries of an historic district must be designated as either contributing or as noncontributing to the significance of the historic district.

6.1.12 California Health and Safety Code

Health and Safety Code Section 7050.5 regulates procedures in the event of human remains discovery. Pursuant to Public Resources Code Section 5097.98, in the event of human remains discovery, no further disturbance is allowed until the County Coroner has made the necessary findings regarding the origin and disposition of the remains. If the remains are determined to be Native American, the County Coroner is required to contact the Native American Heritage Commission (NAHC). The NAHC is responsible for contacting the most likely Native American descendent, who would consult with the local agency regarding how to proceed with the remains.

6.1.13 Senate Bill (SB) 18 (California Government Code, Section 65352.3)

Senate Bill (SB) 18 (California Government Code, Section 65352.3) incorporates the protection of California traditional tribal cultural places into land use planning for Cities, Counties, and agencies by establishing responsibilities for local governments to contact, refer plans to, and consult with California Native American tribes as part of the adoption or amendment of any General Plan or Specific Plan proposed on or after March 1, 2005. SB18 requires public notice to be sent to tribes listed on the Native American Heritage Commission's SB18 Tribal Consultation List within the geographical areas affected by the proposed changes. Tribes must respond to a local government notice within 90 days (unless a shorter time frame has been agreed upon by the tribe), indicating whether or not they want to consult with the local government. Consultations are for the purpose of preserving or mitigating impacts to places, features, and objects described in Sections 5097.9 and 5097.993 of the Public Resources Code that may be affected by the proposed adoption or amendment to a General or Specific Plan.

6.2 ENVIRONMENTAL SETTING

The following information is based on the Historic Resources Report prepared for the Project by JRP Historical Consulting, LLC (JRP) under separate cover, records searches of the California Historical Resources Information System and Sacred Lands File, and the Town of Yountville General Plan, all of which are incorporated herein by reference (JRP 2019, Town of Yountville 2019). Details on methodology, site visits/survey, and public outreach are located Section 6.2.5.

6.2.1 Prehistoric, Ethnographic, and Historic Setting

Prehistoric

The first settlers came to Napa County about 2,000-4,000 years ago (O'Sawyer, et al., 1978, p257). By around 500 AD a distinct group of native people had entered an area which stretched from approximately present-day Lake Shasta to San Francisco Bay, along the western side of the Sacramento River to the California Coast Range mountains. This ethnic group was generally

called the Wintun people, although those people in the south of this distinct group were called the Patwin, for their word pat-win, meaning “people”. By contrast, Wintun also meant people in the northern dialect (Kroeber, 1976, p355). The Patwin and the Wintun each spoke a different dialect of the Penutian language family.

In the vicinity of the project area however, the territory was occupied by a distinct group of Native Americans known as the Wappo. They did not share a linguistic group with the Wintun people, and spoke a dialect of Yukian, despite being physically isolated from other groups speaking Yukian dialects (O’Sawyer, et al., 1978, p257).

Many places in Napa County derive their names from Native American words. Suskol and Tulukai were Patwin villages near the Napa River. Suskol became Soscol, and Cayetano Juarez named his rancho Tulucay which Americanos later converted to “Tulocay.” The Wappo villages of Kaimus became George Yount’s Rancho Caymus and the Maiya’kma became Serro de los Mallacomes or the Mayacamas Mountains on the western side of the county. Even the word “Napa” may have come from the Napatos Patwin village. Dr. Edward Bale, who owned Rancho Carne Humana in the upper valley, may have given his land grant that name as a pun on his profession because it translates to “Ranch of Human Flesh.” However, there are two other possible origin theories: it might have referred to the erroneous belief that the local Wappo were cannibals; or it might have been a failed attempt by Bale to write down the pronunciation of the name of the nearby Wappo settlement Colijomanoc or Callajomanas.

Anthropologist Alfred L. Kroeber estimated that prior to the incursion of white settlers there may have been nearly 1,000 Wappo in the Napa Valley and more than 12,000 Wintu state-wide. By 1843 there were fewer than 3,000 Wappo and Patwin combined in Napa County, though in 1851 there were nearly 8,000 Wappo throughout Northern California. By the 1970s it was believed that there were only about 50 Wappo left in California. Kroeber reported that there were 22-150 Patwin left in California in 1924, although none were believed to be Southern Patwin; it is unknown how many Southern Patwin are around today. Today the Mishewal Wappo Tribe of Alexander Valley has over 300 members and is the last extant band of Wappo in the area. Most of the 2,500 Wintun now live on rancherias in the North Central Valley (Napa County Historical Society, 2015).

Wappo men generally wore no clothing and women typically an apron or skirt of shredded bark, tule, or animal skin. There were numerous tribelets, consisting usually of a village with several satellite villages...dwellings, sweathouses and dance houses were all semi-subterranean, earth-covered structures.

The native people-built villages and actively shaped the landscape by collecting and transplanting seeds and periodically burning meadows. These practices are, in part, responsible for the open character that made the valley attractive for ranching and, eventually, adapted for modern agriculture (Town of Yountville, 2019, page 26).

Historic

In the early 1800s, Mexico owned the area that now comprises the Town of Yountville. George C. Yount received an 11,887-acre land grant from the Mexican government in 1836 and named the land Caymus Rancho, after a tribe of Native Americans in the area. By the 1840s, as Mexico’s military and diplomatic presence in California had receded, the United States government—joined by many California residents—expressed interest in annexing California.

As tensions between Mexico and United States grew, hostilities broke out throughout the border region. Between 1846 and 1848, the two countries engaged in direct battle across a wide swath of territory from the Gulf of Mexico to the California coast. After two years, a defeated Mexico agreed to cede much of the present-day United States southwest to its northern adversary in the Treaty of Guadalupe Hidalgo, territory that included California. Following California's coming to statehood in 1850, Yount laid out a six-block area with a public square to form the village of Yountville. Rail service in the town began by 1868 and influence the town's configuration and population (Town of Yountville 2019).

Between 1869 and 1870, the Society of Mexican War Veterans proposed a veteran's home for California. However, the organization was unable to spearhead construction of the home, despite obtaining a plot of land in San Francisco for the site. As a result, the effort remained stagnant until 1877, at which time the Lincoln Post of the Grand Army of the Republic in San Francisco inaugurated measures to secure the San Francisco land and build a veteran's home. In 1877, the San Francisco land was secured, but Col. J.J. Lyon and an appointed committee decided the location of the would be best located in the countryside (Town of Yountville n.d.).

The Veterans Home of Yountville was founded in 1882 when the Veterans Home Association purchased 910 acres of land known as the A.G. Clark place, located on part of Salvador Vallejo's Napa Rancho (Town of Yountville n.d.). In 1884, the Society of Mexican War Veterans and the Grand Army of the Republic built the long-term care facility for 42 elderly and disabled military veterans.

The State of California bought the Yountville Veterans Home from the Veterans Home Association in 1896 and continues to operate the facility today. By 1899, there were 800 veterans housed in the facility, comprised of 45 buildings total. The Veterans Home brought a new population to the Town of Yountville, resulting in many new businesses to serve them. However, after the turn of the 20th century, prohibition forced the closure of the bars, saloons, and brothels that had filled the small town (Town of Yountville 2019).

Between 1900 and 1919, the home continued much as before the sale to the state, but the vitality seemed to have disappeared. The buildings grew old and new structures were not built. The home became very crowded. World War I hero, Col. Nelson M. Holderman, was appointed commandant of the home for a brief period between 1919 and 1921, leaving due to disagreements with Civil War veterans who controlled the site. Holderman returned five years later, however, and remained commandant until his death in 1953. Col. Holderman accomplished much in his term as commandant, including several building improvements, securing the 500-bed Holderman Building, and several successful programs for veterans.

Shortly after the Town of Yountville became the fourth incorporated community in Napa County in 1965, the Veterans Home of California experienced some financial struggles. Decreased funding began to take a physical toll on facilities and staffing levels. As a result, the California Department of Health Services and federal Department of Health, Education and Welfare were threatened to withdraw certification from the home. The California legislature took action and approved a \$100 million renovation master plan for the home. By 1999, the Veterans' Home of California served approximately 1,200 veterans, including almost 150 women veterans and nearly 30 couples. The home continues to offer five certified levels of quality health care and a variety of social and therapeutic activities. (Town of Yountville n.d.).

6.2.2 Project Area

Under NHPA, the Area of Potential Effect (APE) has been established by JRP. An APE means the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The APE includes a separate architectural and archaeological APE (Figure 6-1) which will be used to analyze impacts caused by the proposed project.

Under CEQA, there is no formal recognition of an APE, or equivalent. In general terms the Project Area and archaeological APE, as depicted on Figure 6-1 would be the limit of the analysis of physical effects, as no physical disturbance would occur outside of these areas. Non-physical impacts to the surrounding historic character would be analyzed based on the close proximity of buildings and sites listed in, or eligible for inclusion in, the CRHR. For the purposes of this document section, the term APE will be used, and will refer to those areas as defined on Figure 6-1. The term “project vicinity” will refer to the general landscape surrounding the APE, and archaeological resources within the project vicinity will be discussed to inform the project analysis regarding the potential the discovery of unknown archaeological resources.

6.2.3 Historic Resource Databases

California Historical Resources Inventory System (CHRIS)

MIG enacted a CHRIS search with the Northwest Information Center (NWIC) on March 4, 2019 for information on known archaeological, tribal, or historical resources within a one-half mile radius of the project area. The search identified one resource within the project site (the Veteran’s Home of California Historic District [VHC Historic District]), as well as four archaeological resources and seven built environment resources within one-half mile of the project site. Resources identified in the CHRIS search are listed in Table 6-1 and Table 6-2.

Table 6-1. Summary of CHRIS Archaeological Records Search Results

Identification Number	Common / Trinomial Name	Period of Significance	Location
P-28-000274	CA-NAP-000370	Prehistoric	Study Area
P-28-000442	CA-NAP-000559	Prehistoric	Study Area
P-28-000511	CA-NAP-000633/H	Prehistoric/Historic	Study Area
P-28-001201	CA-NAP-000987	Prehistoric	Study Area

Source: NWIC, 2019 (see Appendix D)

The archaeological resources consist of two Native American midden sites with associated obsidian tools and flakes (P-28-000274 and P-28-000442) and two Native American obsidian tool scatter sites (P-28-000511 and P-28-001201). P-28-000511 also contains historic glass archaeological fragments, likely associated with historic railroad activity. P-28-000274 also contained bedrock mortars and petroglyphs. All the sites have been heavily disturbed by development or agriculture. All four archaeological sites are eligible for inclusion in the CRHP. Their eligibility has not been formally assessed for eligibility in the NRHP, although an informal declaration of eligibility was made in the Section 106 report prepared for this project, which is

anticipated to be concurred with by the State Historic Preservation Officer (SHPO). Thus, each site is considered a NRHP property for the purposes of this EIR-EA.

Table 6-2. Summary of CHRIS Built Environment Records Search Results

Identification Number	Common / Trinomial Name	Period of Significance	Location
P-28-000811	Veterans Home Nursery	Historic	Study Area
P-28-000966	Southern Pacific Railroad	Historic	Study Area
P-28-001202	6464 Washington Street	Historic	Study Area
P-28-001203	6424 Champagne Street	Historic	Study Area
P-28-001409	Boiler Plant, Power Plant	Historic	APE
P-28-001547	Napa Valley Railroad District	Historic	Study Area
P-28-001611	Cemetery	Historic	APE
P-28-001874	Veteran's Home of California	Historic	APE

Source: NWIC, 2019 (see Appendix D)

P-28-001409 and P-28-001611 form part of the VHC Historic District (P-28-001874), which is described in more detail below. These resources are included on both the CRHR and the NRHP. P-28-000811 is the remains of a former greenhouse and nursery complex that was owned by the Veteran's Home. No evidence of these remains was noted during site visits by MIG Senior Archaeologist Robert Templar. However, due to its location outside the project area, no additional effort was made to locate additional evidence of its existence. P-28-000966 is the former route of the Southern Pacific Railroad, now replaced by State Route 29. P-28-001202, P-28-001203, and P-28-001547 are east of State Route 29, and no additional information regarding these resources was requested from the NWIC. These five resources are eligible for the CRHR, although have not been assessed for their eligibility for the NRHP.

Sacred Lands File

MIG contacted the NAHC for a Sacred Lands File (SLF) search, which was completed by the NAHC on January 29, 2019. The NAHC stated that there were positive results in the search area (1/2-mile radius around the project site); it was also noted by the NAHC that the area was considered sensitive regarding Tribal Cultural Resources (TCR) and that the Mishelwal-Wappo Tribe of Alexander Valley held specific information on tribal resources present. As an extension of the SLF records search, the NAHC recommended contacting— representatives of Cortina Rancheria - Kletsel Dehe Band of Wintun Indians, Middletown Rancheria, Mishelwal-Wappo Tribe of Alexander Valley, and the Yocha Dehe Wintun Nation for potential additional information or special knowledge regarding potential Native American cultural resources in the Study Area.

Tribal representatives as indicated by the NAHC were contacted by certified mail and by email on April 2, 2019, as well as by telephone on September 12, 2019, requesting any additional information they may have regarding the project area. All four contacted representatives provided a response.

The Cortina Rancheria – Kletsel Dehe Band of Wintun Indians and the Yocha Dehe Wintun Nation indicated that the project was outside of the normal tribal area of interest.

The Middletown Rancheria had no specific comments but requested contact if new information or evidence of human habitation surfaced.

The Mishelwal-Wappo Tribe of Alexander Valley stated there were no additional known resources beyond those identified by the CHRIS search, but stated that the entire project area is sensitive for tribal resources (Appendix D).

6.2.4 Federal Tribal Outreach

As part of the Section 106 process, federal tribes are consulted on the project, and to ask if there are any tribal concerns. The USDVA is responsible for outreach to federal tribes requesting that the tribes provide any relevant information regarding tribal concerns relating to the project. The Middletown Rancheria of Pomo Indians of California tribes is the only identified federal tribe with interests in Napa County. After consultation, the Middletown Rancheria indicated that the project does not fall within their immediate area of concern.

6.2.5 Historic Resources Report

Methodology

In preparation of the Historic Resources Report, JRP assisted in the preparation of an APE Map, conducted field survey of the VHC Historic District and Project Area, reviewed existing documentation that details the history, physical condition, and significance of the VHC Historic District, attended public informational meetings relating to the proposed project, and assisted in communications with interested parties. JRP conducted an initial site visit on January 10, 2019, as well as a field survey with DGS and CalVet staff on October 17, 2019.

Review of Previous Documentation

Initial documentation of the property occurred during the late 1960s in preparation for the December 4, 1968 designation of Veterans Home of California as California Historical Landmark No. 828. In the late 1970s the property was subject to a couple studies. In 1978, the property was included in the Napa County Historic Resources Survey prepared by Napa Landmarks, Inc. As part of that survey, a two-page Historic Resources Inventory form provided a brief history and limited description of the property. In 1979, the Armistice Chapel at VHC-Yountville was listed in the NRHP and documented on a National Register of Historic Places Inventory – Nomination Form.

The first attempts to comprehensively document and evaluate VHC-Yountville as a historic resource occurred in 1983-1984 when Herold Vejby and Edward Balaun surveyed the property as part of a “Historic Resources Inventory, Veterans Home, Yountville, California.” The Vejby and Balaun inventory recorded most of the historic-period buildings on Historic Resources Inventory forms but did not include a full evaluation under NRHP criteria. In 2003, Myra L. Frank and Associates prepared an update to the 1983-1984 inventory, documenting the property on a DPR 523 District Record with DPR 523 Primary Records for each building. This 2003 update included an evaluation under NRHP criteria, integrity assessment, period of significance, historic district boundary description, and a list of contributing features (Myra L. Frank and Associates 2003).

The most recent inventory of VHC-Yountville was prepared by Mead & Hunt, Inc. in 2014-2016, prepared, in part, to address buildings that became 50 years of age since the 2003 survey. As part of the recordation, Mead & Hunt updated the significance evaluation, integrity assessments, period of significance, district boundaries, and list of contributing and noncontributing buildings (Mead & Hunt 2016). On October 31, 2016, the SHPO provided concurrence with the determination that the VHC Historic District is eligible for listing in the NRHP in compliance with PRC 5024. As noted, USDVA initiated Section 106 consultation with SHPO in a letter dated August 1, 2019. This letter requested SHPO concurrence on the establishment of the APE and the determination of eligibility of the VHC Historic District as a historic property under Section 106 based on the 2016 study. On December 30, 2019, SHPO confirmed that the VHC Historic District is a historic property pursuant to 36 CFR Part 800.16(1)(1) and (2).

The VHC Historic District includes 76 contributing buildings and 15 non-contributing buildings (JRP Historical Consulting, LLC. 2019).

Public Outreach

For the current project, there has been outreach to potential interested parties, including public meetings and letters. JRP Principal / Architectural Historian participated in two sessions of the public scoping meeting held at VHC-Yountville on March 28, 2019 in the Member Services Building. These sessions introduced the project to VHC-Yountville residents and members of the public and discussed the project's environmental process. Issues raised about historic resources included concern for how the new SNF building was going to fit into the campus and its historic character, as well as concerns about the Memorial Grove. There were no questions or comments regarding historic resources / historic preservation during the meeting's second session.

On October 22, 2019, letters from DGS were sent via standard US Postal Service informing interested parties of the SNF project. The interested parties contacted were:

- Napa County Historical Society
- Napa Valley Museum Yountville
- Napa County Landmarks
- Napa County Planning Commission
- Yountville Zoning and Review Board
- Veterans Home Association
- Veterans Museum at Balboa Park
- California Military Museum
- National Veterans Memorial and Museum

Daniel Gordon, Planning Manager of the Town of Yountville, sent a response email on November 14, 2019, expressing the Town Planning and Building Department's concerns about the historic buildings that may be impacted by the project. He relayed the Town's request for DGS to avoid demolishing historic buildings and provided suggested alternatives. He also requested that the historic buildings be fully documented, and historic markers be installed if demolition and the suggested alternatives were not feasible. In his correspondence, Mr. Gordon also noted that Residence 02 – Barracks Mansion / Nursing Education Office (Building 25) is listed on the Napa County Historic Property Directory. In follow-up emails, Mr. Gordon provided the Draft Environmental Impact Report for the Envision Yountville General Plan

Update prepared in November 2018 from which this information was drawn. Through additional research, JRP determined that the Napa County Historic Property Directory is based on the CHRIS Historic Property Data file, which includes information from the 1983-1984 survey by Herold Vejby and Edward Balaun. In that survey, Residence 02 – Barracks Mansion / Nursing Education Office (Building 25) was found to be eligible for listing in the NRHP as a contributor to the VHC Historic District. The two subsequent surveys—including most recently in 2014-2016 by Mead & Hunt (discussed above)—updated that assessment and concluded that the building lacks historic integrity to contribute to the historic district. On October 31, 2016, SHPO concurred in 2014-2016 Mead & Hunt conclusions for the purposes of PRC 5024. DGS responded to Mr. Gordon's letter, noting that project alternatives that did not require demolishing the historic buildings were considered, and that several mitigation measures are under consideration.

On February 19, 2020, JRP emailed Mr. Gordon a follow-up letter from Terry Ash at DGS explaining the status of the Building 25. DGS also noted that project alternatives that did not require demolishing the historic buildings were considered, and that several mitigation measures are under consideration.

On January 6, 2020, the VHC-Yountville Librarian, Jennifer Allen, requested to be contacted as part of the public outreach process. DGS transmitted a letter to Ms. Allen regarding the project and soliciting comment. On January 7, 2020, Ms. Allen sent a letter to JRP, requesting to be included on all communications and interpretations about the VHC-Yountville history. In addition, Ms. Allen requested information regarding plans for existing trees in Memorial Grove and how the history of the Memorial Grove will be captured and shared. She also noted that the importance of the Hostess House and Mary Dunaway, the World War I nurse who was integral in its development. Finally, Ms. Allen conveyed the importance of giving special consideration to the way in which the history of VHC-Yountville is presented, especially to current and future residents of the home. Specifically, she noted that printed publications or pictorial slide shows, in addition to online presentations, should be considered. DGS met with Ms. Allen on January 6, 2020 and discussed the items Ms. Allen included in her letter of the following day. DGS also sent a letter response to Ms. Allen.

On February 19, 2020, JRP emailed Mr. Gordon a follow-up letter from Terry Ash at DGS. Ms. Ash noted in the letter that DGS will continue to include Ms. Allen in the conversation regarding the potential effects to historic resources. Ms. Ash also noted that options for Memorial Grove trees are being examined as part of the environment process, and that DGS is considering a variety of mitigation measures for the potential effects to the Memorial Grove. The letter also noted that DGS is working to incorporate Ms. Allen's comment regarding making historical interpretations accessible to current and future residents of VHC-Yountville.

No other responses were received from the parties contacted.

Site Conditions

Located southwest of State Route (SR) 29 in the town of Yountville, the VHC Historic District (which incorporates much of the VHC-Yountville property) includes 91 historic-period resources, of which 76 are contributors to the historic district and 15 are noncontributors. The historic-period buildings in the historic district were constructed between 1898 and 1963, which corresponds with the period of significance for the historic district. The VHC Historic District

was formally determined eligible for listing in the NRHP and is, therefore, listed in the CRHR. The VHC Historic District is a historical resource under CEQA. The district is significant under NRHP Criterion A and CRHR Criterion 1 as the first veterans' home of its kind in California and NHRP Criterion C and CRHR Criterion 3 as a significant example of a veterans' home complex that illustrates its important development and evolution from a privately owned care home in the late nineteenth century to a state-administered facility into the mid-twentieth century. The historic district boundary generally follows the VHC-Yountville parcel line along the north, east, and south boundaries. The east mostly follows the parcel line but excludes an area of the parcel that extends into the wooded area to the southwest.

The property is accessed via the tree-lined California Drive and arranged around a Main Quad, a long rectangular landscaped area also known as The Alameda. The campus buildings feature unifying Spanish Colonial Revival architectural designs, including the large buildings that line the Main Quad. Its landscaping is characterized by mature trees set among expansive lawns within and adjacent to the Main Quad and rolling foothills to the west. Concrete pedestrian walkways connecting buildings are lined with lamp posts, and occasional benches, utility features, and markers identifying important historical or natural features.

The Project Area for the proposed new SNF is located in the southwest corner of the campus, west of the Holderman Building, (also referred to as the Holderman Hospital) which has historically served as the primary medical care building at the campus. The Project Area is characterized by its gradually rolling hills and mature trees. The Project Area includes three buildings that have been identified as contributors to the VHC Historic District, as well as contributing landscape features, such as the Memorial Grove entrance gate, stone walls, and lamp posts. These are described below. Additionally, two buildings (Residence 02 – Barracks Mansion / Nursing Education Office [Building 25] and Bandstand/Open Air Theater [Building 69], sometimes referred to as a “Bandstand”) and some landscape features are also located in the project area, but they are not considered historic or contributors to the historic district.

Additional discussion regarding significance and the character-defining features of the historic district and contributing buildings within the Project Area is provided in the Historic Resources Report in (JRP Historical Consulting, LLC. 2019)

Section L – Jefferson Hall (Building 24). Section L – Jefferson Hall is a two-story, U-plan building with stucco-clad reinforced concrete walls and Spanish tile-covered hip roof. Constructed 1937-1938 as a residential hall for nurses, it was later renovated to house couples. It has been previously described as Monterey Revival style and Spanish Colonial Revival style.

Two single-story wood-frame garage buildings are located southwest of Section L – Jefferson Hall. These structures were not separately inventoried or evaluated in previous documentation. Historical aerials demonstrate that at very least they were present by 1958, and thus built within the period of significance. As such, these buildings contribute to the significance of Section L – Jefferson Hall and, consequently, the VHC Historic District.

Hostess House (Building 26). The single-story Hostess House features a rectangular footprint and Spanish tile-covered gable roof. The building was constructed in 1951, and previous documentation does not indicate major exterior alterations.

Section K – Polk Hall (Building 27). Built in 1938, Section K – Polk Hall is a two-story L-plan building with stucco-clad reinforced concrete walls and Spanish tile-covered hip roof. An

elevator addition is attached to the south wall and features a metal door. Previous documentation noted that the building was converted in 1977 from a residential hall to a home for women veterans and married couple veterans, although no exterior alterations were noted.

Landscape Features. Several landscape features and small structures are located within the proposed project area, including some elements that were present during the period of significance. These include low stone walls located in front of and behind Section L – Jefferson Hall, the Memorial Grove entrance gate, and historic-period lamp posts located along the walkway between Residence 02 – Barracks Mansion / Nursing Education Office and Section L – Jefferson Hall.

6.3 PROJECT IMPACTS

This section identifies the impacts of the proposed project on the environment. As a joint EIR-EA, the state and federal thresholds of significance and their corresponding impact discussions are considered in separate CEQA and NEPA subsections.

6.3.1 CEQA Thresholds of Significance

Based on CEQA Guidelines Appendix G, the implementation of the project or its alternatives would have a significant environmental impact related to cultural resources or tribal cultural resources if it would:

- (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; or
- (c) Disturb any human remains, including those interred outside of formal cemeteries; or
- (d) The Project would have a significant impact on TCRs if it would cause a substantial adverse change in the significance of a TCR, 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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

CEQA requires that California public agencies identify the significant environmental impacts of their actions and either avoid or mitigate those impacts. This impacts analysis was prepared to assist the project proponent, as well as the general public, to understand the potentially significant impacts that may be caused by the project.

The California Code of Regulations, beginning with 15064.5(b), defines significant impacts for historical resources as follows:

- 1) Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.
- 2) The significance of an historical resource is materially impaired when a project:
 - a. Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or
 - b. Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
 - c. Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.
- 3) Generally, a project that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995), Weeks and Grimmer, shall be considered as mitigated to a level of less than a significant impact on the historical resource.
- 4) A lead agency shall identify potentially feasible measures to mitigate significant adverse changes in the significance of an historical resource. The lead agency shall ensure that any adopted measures to mitigate or avoid significant adverse changes are fully enforceable through permit conditions, agreements, or other measures.

6.3.2 CEQA Potential Impacts to Historical Resources

The project would potentially cause the demolition of three contributing buildings of the VHC Historic District (Jefferson Hall (with garages), Polk Hall, and Hostess House) and two non-contributing buildings (Nurses Education Building and Bandstand/Open Air Theater). It would also require the demolition or removal of landscape features including the Memorial Grove and its entrance gate, low stone walls, and lamp posts. The proposed project will cause a substantial adverse change to the historical resource by materially impairing the contributing buildings and landscape features within the APE.

Part of the project includes the addition of a new multi-story building to the VHC Historic District. The building has not been designed, although the additional of a new, multi-story would add a visual element that alters from the historical use, design, and appearance of this part of the historic district and diminishes the historic viewsheds from surrounding contributing buildings, such as Holderman Building, Annex II – Eisenhower, and Section B – McKinley Hall. Moreover, the project site topography rises in elevation from east to west. The project site elevations near the center of the site are roughly 20 feet higher than elevations immediately

adjacent to the west side of the Holderman Building. A 4-story (72-feet tall) SNF building constructed at the center of the project site (approx. 175 feet msl) would result in the SNF roofline elevation at roughly 247 feet msl. This would be roughly 35 feet taller than the highest Holderman Building roofline elevation and 47 feet taller than the McKinley Hall (Building 28). Therefore, depending on the ultimate design and height of the building, the new SNF could potentially appear taller than most other multi-story buildings in the historic district and could change the historic character of the surrounding area and historic district. As discussed in section 6.3.8 below, new construction must be consistent with SOI standards, as much as possible, and must occur in a manner that does not destroy historic materials, features and spatial relationships that characterize the property.

Demolition of 3 of the 76 contributing buildings to the VHC Historic District and demolition of the 2 non-contributing buildings would not significantly alter the eligibility of the VHC Historic District to be included in the CRHR; however, demolition of a contributing resource to a historic district would materially alter, in an adverse way, the physical characteristics which convey the historic significance of the district. Demolition of the three contributing buildings is therefore considered to be a significant impact on historical resources. Mitigation is included in Mitigation Measure CUL-1 to reduce the severity of impacts; however, the impact from the demolition of contributing resources remains significant.

Mitigation Measure CUL-1 provides ways that the historical significance of the contributing buildings can be preserved. These include: recording the buildings through photography and written records, providing interpretive signage and a website to preserve the history of, and inform others about, the buildings. Photographs and historical information of Holderman Building, Jefferson Hall, Polk Hall, and Hostess House will be placed in the new SNF to preserve the history of the district. Additionally, significant architectural features of buildings and landscape features being demolished are to be salvaged for display at public venues on VHC-Yountville or reused in historically appropriate uses within the historic district. With implementation of these measures, impacts of new construction on the historic character would be less than significant.

Because these impacts are not able to be mitigated, the proposed project would result in a ***Significant and Unavoidable Impact***.

6.3.3 CEQA Potential Impacts to Archaeological Resources

There are four known archaeological resources in the form of Native American habitation sites in the project vicinity. One (P-28-000274) is adjacent to the VHC Historic District. The NAHC indicated that the APE and vicinity is sensitive in terms of Native American cultural resources. The project vicinity was utilized by Native Americans as part of their everyday lives, which is almost certain to have included the APE.

Although parts of the project area are developed with existing buildings, other areas are predominantly undisturbed to significant depths below the surface. It is unlikely that shallowly buried archaeological resources would remain, due to previous activities on the site, however deeper buried resources could remain in undeveloped areas. Excavation and ground moving activities therefore have the potential to discover archaeological resources. Implementation of Mitigation Measure CUL-2A would reduce impacts to ***less than significant with mitigation incorporated***.

6.3.4 CEQA Potential Impacts to Human Remains

Project excavation is taking place outside the Memorial Grove cemetery, and there is no potential to discover human remains within a formal burial place. However, as above, there is the potential to discover burials associated with known Native American habitation sites during project exaction. By obeying existing codes and regulations described above in the event of unanticipated discovery, in addition to the implementation of Mitigation Measure CUL-2B impacts are considered *less than significant with mitigation incorporated*.

6.3.5 CEQA Potential Impacts to Tribal Cultural Resources

Due to the known use of the project vicinity by Native Americans and based on the NAHC's analysis of the project area, there is potential for the discovery of buried Native American tribal resources that do not meet the criteria to be considered unique archaeological resources under the normal CEQA guidelines. However, it is possible for a lead agency to determine that an artifact is considered significant to a local tribe, and thus make it a significant resource under CEQA. Mitigation Measure CUL-2A would be enacted to help protect and safeguard buried archaeological resources, including TCRs, in the case of accidental discovery. The mitigation measure includes language that all Native American tribal finds are to be considered significant until the lead agency has enough evidence to consider an artifact, or other find that is not be eligible for listing, not significant. The impact would be *less than significant with mitigation incorporated*.

6.3.6 NEPA Thresholds of Significance

According to NEPA regulations 40 CFR 1508.27(b), an agency must consider whether an action may significantly affect the quality of the human environment. The regulations direct that determining the significance or importance of likely environmental impacts is done by considering two variables: "context" and "intensity".

"Context" is the geographic, biophysical, and social context in which the effects will occur. The regulations mention society as a whole, the region, and affected interests as examples of context. Considering contexts does not mean giving greater attention to, say, effects on society as a whole than to effects on a local area. On the contrary, the importance of a small-scale impact must be considered in the context of the local area, not dismissed because it does not have impacts on larger areas.

"Intensity" refers to the severity of the impact, in whatever context(s) it occurs. The regulations require that a number of variables be addressed in measuring intensity. Impacts that may be both beneficial and adverse:

NEPA requires that a broad range of effects be considered. These include:

- Direct effects such as actually changing an ecosystem, filling a wetland, knocking down a building, or digging up an archeological site;

- Indirect effects such as causing economic change in a community that changes the environment over the long run (through development, increased taxes, etc.) or causing long-term erosion in a watershed; and

- Cumulative effects – the "straws that break the camel's back." An individual action may not have much effect, but it may be part of a pattern of actions whose effects are significant. For example, widening a bridge may not itself have much

effect, but it may be the last piece of highway improvement that allows rampant development of a pristine valley.

Cumulative effects will be considered in Chapter 15, Cumulative Effects. Both direct and indirect effects will be considered in applicable thresholds of significance.

Pertinent to historic resources, the following thresholds must be considered.

- The unique characteristics of the geographic area such as proximity to historic or cultural resources, and
- The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places.

The NEPA regulations also require that agencies shall prepare draft environmental documents concurrently with and integrated with environmental impact analyses and related surveys and studies required by the National Historic Preservation Act (40 CFR 1502.25(a)).

6.3.7 NEPA Potential Impacts to Unique Characteristics of the Geographic Area

For the purposes of this document chapter, “Unique Characteristics of the Geographic Area” will include historic resources eligible for the NRHP which is located outside of the APE, but within the general project vicinity. Outside the APE, there are five built-environment potential resources which have not been assessed for their eligibility for the NRHP, although are eligible for the CRHR. These resources would not be affected by the project, as there is no direct line of sight between the buildings and the project area. There are four known archaeological sites in the project vicinity which are not listed on the NRHP although are considered eligible for NRHP for the purposes of this document (see Section 6.2.3). These are fully outside the boundary of the APE and the area of ground disturbance. The project would not significantly change the general setting of the project vicinity, and there would be no adverse effect and no historic properties affected.

6.3.8 NEPA Potential Adverse Effects to Resources Listed in or Eligible for Listing in the National Register of Historic Places

The project would cause the physical destruction of contributing elements of the VHC Historic District and would require demolishing three contributing buildings. It would also require the demolition or removal of the landscape features, including the Memorial Grove and its entrance gate, low stone walls, and lamp posts, all of which are contributing elements to the historic district. Memorial Grove and its entrance gate are proposed for removal or relocation. If the gate is relocated, it would not result in the destruction of these contributing features. Nonetheless, these constitute alterations to the VHC Historic District that are not consistent with the SOI Standards. Specifically, the SOI Standards instruct preservation of the historic character of the property by avoiding removal of distinctive materials or altering the features, spaces, and spatial relationships that characterize the property. Demolishing contributing features to the historic district removes distinctive materials and is an alteration of spaces and spatial relationships that characterize the property.

Additionally, the project includes adding a new multi-story building to the historic district, which is an alteration that may not meet the SOI Standards for Rehabilitation. Under SOI Standard for Rehabilitation 9, new construction must be done in a manner that does not destroy historic materials, features, and spatial relationships that characterize the property. As stated, the

construction of the new SNF will require demolition of contributing buildings and landscape features that characterize the property. Moreover, demolishing contributing buildings and features do not meet the SOI Standard for Rehabilitation 10 for new construction, which must be done in a manner that if removed in the future the essential form and integrity of the historic property and its environment would be unimpaired. The building has not been designed, so it is not clear whether the building would meet the SOI Standard for Rehabilitation 9 for new work, which shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment. At very least, it can be stated a multi-story building encompassing an area larger than any of the individual buildings within the project site would not be in scale and proportion to the historic use of this part of the historic district. Because the project proposes alterations to the historic district and its contributing features that may not meet the SOI Standards for Rehabilitation, these alternatives would have an adverse effect on the historic property.

In addition, the proposed project changes the use and physical features of multiple contributing elements to the VHC Historic District. Specifically, the demolition of contributing buildings and landscape features, including Section L – Jefferson Hall, Section K – Polk Hall, Hostess House, the Memorial Grove entrance gate, stone walls, and light fixtures, changes the use of the buildings and features and changes the physical features of the historic property's setting. These changes will have an adverse effect on the historic property.

The project also proposes vacating Holderman Building and does not propose new uses for the building, which would be a change of the property's use. The building has historically been used as an in-patient medical facility for veterans. It currently serves in the same role as a SNF. When the project is complete, the SNF services will be moved to the new SNF building. The project does not propose adding new services to Holderman Building, leaving it vacant. The change in the use of Holderman Building would have an adverse effect on the historic property.

The project proposes adding a new multi-story SNF in the area west of Holderman Building that adds visual, atmospheric, and audible elements to the historic district. While the historic district includes multi-story, large-footprint buildings, including residential halls and Holderman Building, this specific area has never historically included such a building. This would add a visual element that alters from the historical use, design, and appearance of this part of the historic district and diminishes the historic viewsheds from surrounding contributing buildings, such as Holderman Building, Annex II – Eisenhower, and Section B – McKinley Hall. Moreover, the site is located at a part of the VHC-Yountville property that starts to increase in elevation. Therefore, depending on the ultimate design and height of the building, the new SNF could potentially appear taller than most other multi-story buildings in the historic district. A new multi-story SNF at this location would diminish the integrity of the historic district—although not to such a degree that the historic district does not convey its overall significance—and thus would have an adverse effect to the historic property.

The proposed project includes relocating patients from Holderman Building to the new SNF building, leaving Holderman Building vacant. The project does not propose new uses for the building, nor a plan to continue regular maintenance of the building that would occur when the building is occupied. It also does not include a plan to mothball the building in a manner consistent with the SOI Standards for Rehabilitation and National Park Service Guidelines. As such, the project does not include plans to prevent the building from deterioration as a result of neglect. Overtime, the lack of regular maintenance would result in the deterioration of important

features of the building. Absent further intervention for the maintenance of Holderman Building, the project would have an adverse effect to the historic property.

There are four known archaeological resources eligible for the NRHP in the project vicinity. One (P-28-000274) is adjacent to the APE. The NAHC indicated that the project area and vicinity is sensitive in terms of Native America cultural resources. The project vicinity was utilized by Native Americans as part of their everyday lives, which is almost certain to have included the APE.

Although parts of the project area are developed with existing buildings, other areas are predominantly undisturbed to significant depths below the surface. It is unlikely that shallowly buried archaeological resources would remain, due to previous activities on the site, however deeper buried resources could remain in undeveloped areas. Excavation and ground moving activities therefore have the potential to discover archaeological resources. Mitigation Measure CUL-2A reduces the severity of impacts and would safeguard buried historical resources if present.

The proposed project will have an adverse effect on the VHC Historic District. Mitigation is provided in Mitigation Measure CUL-1 to reduce the severity of the impacts. Pursuant to 36 CFR § 800.2(c)(4), USDVA has authorized CalVet as the state lead agency to initiate Section 106 consultation with SHPO to resolve the adverse effects to historic properties caused by the project. Section 106 consultation is in progress and will result in a Memorandum of Agreement (MOA) between the USDVA, as the federal lead agency, and SHPO. The MOA will ensure that protective measures required by SHPO will be implemented, and it will provide sufficient mitigation such that the adverse effect to historic properties under NEPA is resolved and the impact is not significant.

6.4 MITIGATION MEASURES

Impact CUL-1: Under Alternative 1, the SNF Project will require demolition of five buildings within the historic district: Section L – Jefferson Hall (Building 24) (including its carports); Nurses Education Office (Building 25); Hostess House (Building 26); Section K – Polk Hall (Building 27), and the Open Air Theater “Bandstand” (Building 69), as well as removal of Memorial Grove. Jefferson Hall, Hostess House, and Polk Hall are contributor buildings to the historic district. Contributor landscape features include the archway and entrance gate to Memorial Grove, stone walls adjacent to Jefferson Hall, and light poles along the sidewalk between Jefferson Hall and the Nurses Education Building. Memorial Grove, located northwest of Polk Hall, is considered a sensitive resource within the historic district. The Nurses Education Building and Open Air Theater “Bandstand” are not contributor buildings to the VHC Historic District.

Mitigation Measure CUL-1A: Documentation. CalVet shall ensure that prior to any alteration or demolition activities, the VHC Historic District shall be the subject of recordation by photography and written historical data following the standards of the Historic American Buildings Survey (HABS). The HABS report shall provide the greatest level of detail for those buildings and landscape features directly affected by the project, but also include the historic district in general and its landscape features as part of the district’s setting. The appropriate level of documentation is expected to be HABS Level II, which includes large-format archival photographs and written data. Documentation shall include historic plans of the affected

buildings, landscape features, and Memorial Grove. Documentation shall be completed by a qualified professional who meets the standards for History or Architectural History set forth by the Secretary of the Interior's Professional Qualification Standards (36 CFR, Part 61). The HABS documentation shall include exterior and representative interior photographs of the affected buildings, and exterior photographs only of other buildings and structures located within the historic district. The draft documentation shall be submitted to CalVet and USDVA for review and approval. The final documentation shall be distributed or offered to the California State Historic Preservation Officer (SHPO), DGS, CalVet, USDVA, and other interested parties.

Mitigation Measure CUL-1B: Interpretive Signage. CalVet shall develop and install up to three (3) interpretive signs adjacent to, or on the proposed SNF, or other appropriate locations, incorporating historical and descriptive narrative and images that relate to all demolished buildings and sensitive areas. Data for the narrative on this signage shall be culled from the HABS document or other cited sources, including the archives held at VHC-Yountville Library. The location and content of the interpretive signs shall be developed to coordinate with the existing interpretive signs on VHC-Yountville.

Mitigation Measure CUL-1C: Media Publications and Presentations. CalVet shall develop two (2) publications: one that will document with photos and text the history and evolution of Skilled Nursing and Memory Care at VHC-Yountville, and one that will document the history of Memorial Grove. The publications shall be posted by CalVet via social media. Ten (10) hard copies will be made available for use at VHC-Yountville Library, CalVet Headquarters, DGS and for other interested parties.

CalVet shall develop two (2) pictorial, history slide presentations: one that will document the history and evolution of Skilled Nursing and Memory Care at VHC-Yountville, and one that will document the history of Memorial Grove. CalVet shall post the pictorial slide shows via social media and for VHC-Yountville Library use.

CalVet shall ensure that all publication and presentation materials are ADA Section 508 accessibility compliant. Text in publications for library use shall be a minimum 14pt font size.

Mitigation Measure CUL-1D: Salvage. No less than one month prior to beginning of demolition, salvage of significant architectural features of buildings and landscape features being demolished shall occur. All building and landscape features shall be inventoried, and copies provided to CalVet and DGS. The features shall be salvaged for incorporation into the new SNF as feasible, displayed at Yountville Veteran's Home Library and public venues at VHC-Yountville, and/or reused in historically appropriate uses within the historic district.

CalVet shall salvage building features that include approximately 10% of the clay roof tiles located on Jefferson Hall, Hostess House, and Polk Hall and store them in an area designated by CalVet for incorporation into the new SNF as feasible, and/or for future repair and maintenance needs on other buildings with the same roofing materials.

All salvaged building features shall be stored together in an area designated by CalVet in a manner consistent with appropriate preservation standards.

Locations and landscape features to be salvaged include: 1) Memorial Grove - Memorial Grove archway sign with concrete pedestals and metal gates, approximately thirty (30) boulders with plaques and dedication features, three (3) tree banded tin plates; 2) Mothers of War Memorial Grove (extension of Memorial Grove) - two (2) Mothers of War Grove signs, one (1) boulder

with plaque; 3) Hostess House front wall - one (1) plaque, 4) Jefferson Hall adjacent to sidewalk: one (1) boulder with plaque; 5) Sidewalk between Jefferson Hall and Nurses Education Center: five (5) historic lamp posts (with cast concrete posts and pendant lights).

Lamp posts shall be restored and retrofitted and incorporated as feasible into the new SNF and/or other locations on campus.

All salvaged landscape features shall be stored together in an area designated by CalVet in a manner consistent with appropriate preservation standards.

CalVet shall, after the SNF design is complete, archive and/or continue to store as feasible the remaining landscape features not incorporated into the new SNF or VHC-Yountville campus.

Mitigation Measure CUL-1E: Displays in New SNF. CalVet shall prepare a minimum of one (1) high quality, display copy of historic photographs of each of the buildings impacted by the project. CalVet shall also prepare a minimum of one (1) high quality, display copy of Memorial Grove historical map that illustrates where original trees were located in the grove. Photos and maps shall be culled from the campus' library archives.

CalVet shall install display copies of historic photographs and historic Memorial Grove map in public space(s) within the new SNF. All displays shall be appropriately captioned and cited.

Mitigation Measure CUL-1F: Mothball Holderman Building. CalVet shall ensure that Holderman Building will be mothballed after it is vacated in accordance with National Park Service (NPS) Preservation Brief 31 – Mothballing Historic Buildings. For the duration that the building is vacated, CalVet shall protect the building from damage caused by pests, vandalism and break-ins, moisture intrusion and build-up, defective utilities and mechanical systems, and other factors related to its vacancy. CalVet shall install appropriate weatherization and security measures, as well as prepare and implement a maintenance and monitoring plan to protect the building from deterioration or damage.

Effectiveness: *These measures would minimize impacts to historical resources. The impact remains an adverse effect, which is significant and unavoidable under CEQA but will be reduced to less than significant under NEPA upon completion of an MOA.*

Implementation: *CalVet or its Contractor.*

Timing: *Before demolition begins, and after construction is complete.*

Monitoring: *The final documentation shall likely be distributed or offered to the California State Historic Preservation Officer (SHPO).*

Impact CUL-2: Potential disturbance of unknown prehistoric or historic cultural resources, including human remains, during project construction.

Mitigation Measure CUL-2A: Inadvertent Discovery. In the event that archaeological remains from either a historic or prehistoric period are discovered (or have been suspected to have been discovered) during project construction, all ground disturbing work within a 100' radius buffer of the discovery will cease. An archaeologist who meets the Secretary of the Interior's Standards for Archaeology will be brought in to assess the discovery before any additional ground disturbing work within the 100' buffer will be allowed to continue. No further ground disturbing work will be allowed to continue until the archaeologist has fully evaluated the find and permits

work to continue. Dependent on the evaluation by the archaeologist, archaeological excavation and recordation may be required before construction can continue. Archaeological monitoring will be enacted on the site at the discretion of the archaeologist.

Should the newly discovered artifacts be determined to be Native American in origin, Native American Tribes/Representatives will be contacted and consulted as directed by the NAHC and Native American construction monitoring will be initiated. It is possible for a lead agency to determine that an artifact is considered significant to a local tribe, and thus considered a significant resource under CEQA, even if it would not otherwise be considered significant under CEQA. As such, all Native American tribal finds are to be considered significant until CalVet has enough evidence to make a determination of significance. with the consultation of a qualified archaeologist and local tribal representative(s) as directed by the NAHC.

In the event of an archaeological discovery, CalVet shall coordinate with the archaeologist to develop an appropriate treatment plan for the resources. The plan may include implementation of archaeological data recovery excavations to address treatment of the resource along with subsequent laboratory processing and analysis. An archaeological report will be written detailing all archaeological finds and submitted to CalVet and the Northwest Information Center.

Mitigation Measure CUL-2B: Human Remains. In the event that human remains are encountered on the project site, work within 50 feet of the discovery shall be redirected and the County Coroner notified immediately consistent with the requirements of California Code of Regulations (CCR) §15064.5(e). State Health and Safety Code §7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code (PRC) §5097.98. If the remains are determined to be Native American, the County Coroner shall notify the Native American Heritage Commission (NAHC), which shall determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. The MLD recommendations may include scientific removal and nondestructive analysis of human remains and items associated with Native American burials, preservation of Native American human remains and associated items in place, relinquishment of Native American human remains and associated items to the descendants for treatment, or any other culturally appropriate treatment. Consistent with CCR §15064.5(d), if the remains are determined to be Native American and an MLD is notified, the Department of General Services (DGS) shall consult with the MLD as identified by the NAHC to develop an agreement for treatment and disposition of the remains. Prior to the issuance of grading permits, DGS or its designee shall verify that all grading plans specify the requirements of CCR §15064.5(e), State Health and Safety Code §7050.5, and PRC §5097.98, as stated above.

Effectiveness: *These measures would minimize impacts to archaeological resources.*

Implementation: *CalVet and its Contractor.*

Timing: *Prior to the start of project construction and ongoing throughout ground moving activity.*

Monitoring: *The archaeologist shall, if applicable, prepare a written record of survey results, archaeological discovery, and evaluation methodology*

to be submitted to CalVet and the Northwest Information Center. The Native American monitor shall, if applicable, record tribal resources for submittal to the Native American Heritage Commission.

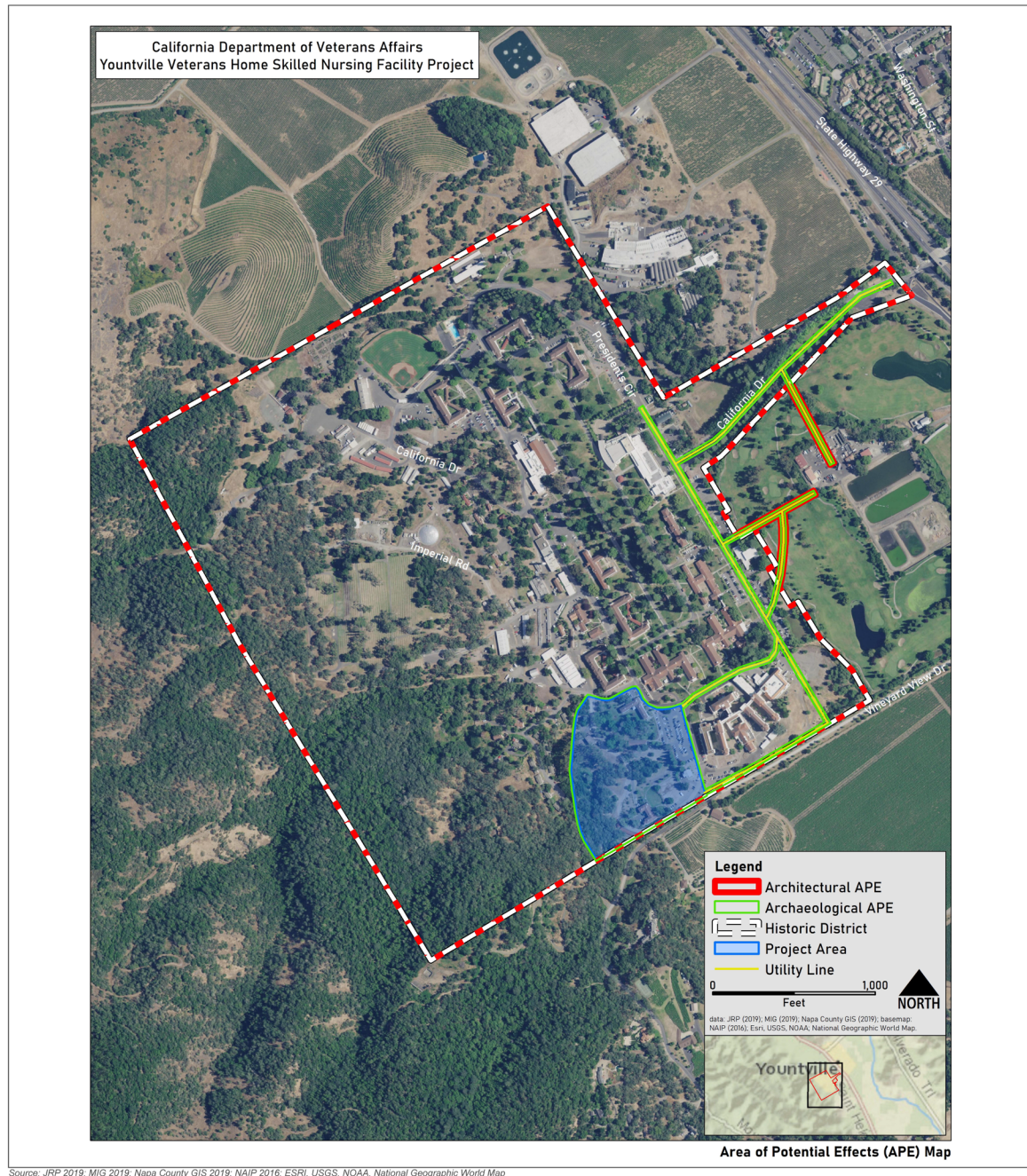
Figure 6-1. APE Map

Figure 6-1 APE Map
VHC-Yountville Skilled Nursing Facility Project

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CHAPTER 7 GEOLOGY AND SOILS

This Draft EIR/EA chapter describes the environmental setting for the proposed project, including the project site's preliminary geologic evaluation based on a recent site investigation report by Fugro dated October 9, 2019 and revised December 11, 2019 and by GEOCON Consultants, Inc. dated February 2018. This section is also based on published and unpublished geologic reports and maps from the United States Geological Survey (USGS), California Geological Survey (CGS), NRCS, County of Napa. The environmental setting also describes the project regulatory framework. Following the setting, impacts that could result from implementation of the proposed project are evaluated, and mitigation measures to reduce impacts to a less-than-significant level are included, where appropriate.

7.1 REGULATORY SETTING

7.1.1 Federal Uniform Building Code

The federal Uniform Building Code provides seismic design standards that have been established to reduce structural problems that could occur during major earthquakes. In 1998, the code was revised as follows:

- Upgrade the level of ground motion used in the seismic design of buildings

- Add site amplification factors based on local soil conditions

- Improve the way ground motion is applied in detailed design

7.1.2 Alquist-Priolo Earthquake Fault Zoning Act (1972)

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 (formerly the Special Studies Zoning Act) regulates development and construction of buildings intended for human occupancy to avoid the hazard of surface fault rupture. In accordance with this law, CGS maps active faults and designates Earthquake Fault Zones along mapped faults. Three basic types of faults exist: active, potentially active, and inactive. Historic- and Holocene-age faults are considered active, Late Quaternary- and Quaternary-age faults are considered potentially active, and pre-Quaternary-age faults are considered inactive. These classifications are qualified by the condition that a fault must be shown to be “sufficiently active” and “well defined” by detailed site-specific geologic explorations to determine that building setbacks should be established. Any project that involves the construction of buildings or structures for human occupancy is subject to review under Alquist-Priolo, and any structures for human occupancy must be located at least 50 feet from any active fault.

7.1.3 California Building Code (2016)

The State of California provides minimum standards for building design through the California Building Code (CBC). The CBC is based on the Uniform Building Code, which is used widely throughout the United States (generally adopted on a state-by-state or district-by-district basis) and has been modified for conditions unique to California. In 2016, a revised version of the CBC took effect.

7.2 ENVIRONMENTAL SETTING

7.2.1 Geology

The project site is situated in a seismically active area of Northern California. The regional seismic setting is dominated by stress associated with the collision of the Pacific tectonic plate with the North American tectonic plate. The boundary between the two tectonic plates is the San Andreas fault system, which extends nearly 700 miles along a northwest trend from Mexico to offshore northern California. The site is within the central portion of the Coast Ranges geomorphic province, a series of mountains and valleys trending subparallel with the San Andreas Fault Zone. In general, the Coast Ranges province is underlain by Upper Jurassic to Lower Cretaceous (~160-100 million years ago) Franciscan Complex bedrock with localized volcanic deposits overlying. The project site lies at the eastern foot of the Mayacamas Mountains on Tertiary-age (2.6 – 8 million years ago) andesite ash flow tuff and tuff breccias of volcanic source (Bezore et al., 2005). The geology of the site is shown on the geologic map shown in Figure 7-1.

Subsurface conditions at the site were explored by drilled borings that were logged and sampled by GEOCON (2018) and Fugro (2019a). Location of the borings and general site conditions at the site are shown on Figure 7-2. The materials encountered consist of asphalt pavement, artificial fill, soil and andesite ash flow tuff and tuff breccia. The soil and rock encountered are consistent with the geologic mapping shown on Figure 7-1. Asphalt pavement was encountered from 1 to 3 inches thick in parking areas of the site. Artificial fill was encountered in most of the borings ranging in thickness from 1.5 to 10 feet. The fill was presumably placed during original site development and /or construction of the existing buildings (GEOCON, 2018). The fill generally consists of dark gray to dark brown, soft to stiff clay, sandy clay, and sandy clay with various amounts of gravel and trace amounts of organics, mostly roots. The clay is moderately to highly expansive.

Bedrock encountered varied widely in its weathering. The andesite tuff and tuff breccia were encountered in all the borings drilled at the site. It is mapped cropping out at the surface at several locations across the site. Where slightly to moderately weathered, the volcanic rock is fine-grained, hard, moderately strong to strong and intensely fractured. The deeply weathered bedrock is very soft, friable to weak and crushed.

7.2.2 Soils

The weathering of bedrock and the growth of vegetation have resulted in the formation of relatively shallow (12 to 24 inches typical) soils on the site. According to the Soil Survey of Napa County, California (U.S. Department of Agriculture 1978), the predominant soil type on the property is the Forward series, which is a gravelly loam on 9 to 30 percent slopes (USDA, 1978). The Forward gravelly loam soil has a "severe" erosion rating, indicating that significant erosion should be expected. The soils also have a moderate to high corrosion potential for steel and concrete.

7.2.3 Topography

The site lies at the base of the east facing flank of Mt. Veeder, part of the Mayacamas Mountains. A topographic ridge trends southwest to northeast across the site and exposes slightly to moderately weathered volcanic rock, exposed in outcrops near the paved access road on the west and west of the parking lot on the east, as shown in Figure 7-2. The north flank of the ridge is

sloping at between 10 and 20 percent. Cut and fill slopes in the southwest corner of the site are inclined at 10 to 20 percent.

Parallel to the north side of a walkway connecting the Jefferson hall and Security Building is a shallow drainage ditch. Desiccation ground cracks up to one inch wide, indicative of expansive near-surface soil, were observed in dark gray clay in the drainage ditch. South of the bandstand is a wet area subject to surface seepage or spring. This seep is located within a drainage characterized by hydrophilic vegetation. The drainage continues through the southwest corner of the bandstand, then trends east continuing along the north side of Polk Hall. Part of this seepage flow is captured by a drop inlet that feeds a 24-inch-diameter stormwater drain. Flows observed through the drain grate in May of 2019 were estimated to be between 5 to 10 gallons per minute. Another smaller drainage enters the site west of Jefferson Hall, behind the parking structures on the perimeter road.

7.2.4 Groundwater

Groundwater was not encountered in any of the Fugro borings (2019a). However, GEOCON (2018) encountered groundwater at a depth of 20 feet in their boring B-3 on February 5, 2018. Hillside seepage as described above is likely generated by perched or shallow groundwater conditions.

It would be expected that perched groundwater or seepage might develop at depth and along contacts between the exist in fill and the underlying volcanic rock during seasonal wet periods. Groundwater can also occur within the volcanic rock controlled by the weathering, fracturing and foliation. Fluctuations in the groundwater level likely occur seasonally due to variations in rainfall and other factors.

7.2.5 Seismic Conditions

The severity of an earthquake is measured by magnitudes and intensities. Magnitude is a measure of the energy released by an earthquake. Intensity is a subjective measure of the perceptible effects of an earthquake at a given point and varies with distance from the epicenter and local geologic conditions. The Modified Mercalli Intensity Scale (MMI) is the most commonly used scale for measurement of the subjective effects of earthquake intensity and is shown in Table 7-1. Intensity can also be quantitatively measured using accelerometers (strong motion seismographs) that record ground acceleration at a specific location. Acceleration is measured as a fraction or percentage of the acceleration of gravity.

The entire San Francisco Bay Area is located at a tectonic plate boundary with active seismicity. The seismicity of the region is primarily related to the San Andreas Fault Zone, a complex of active faults forming the boundary between the North American and the Pacific plates. Historically, numerous moderate to strong earthquakes have been generated in northern California on several major faults and fault zones in the SAFZ system. During a major earthquake on one of the active or potentially active nearby faults, very strong to violent (MMI VIII-XII) ground shaking is expected to occur at the project site. Strong shaking can result in ground failures, such as those associated with liquefaction, settlement, lateral spreading, and cyclic soil densification.

Table 7-1. Modified Mercalli Intensity (MMI) Scale

Category	Description (Subjective Effects of Earthquake Intensity)
I	Not felt except by a very few under especially favorable circumstances.
II	Felt only by a few persons at rest, especially on upper floors of buildings. Delicately suspended objects may swing.
III	Felt quite noticeably indoors, especially on upper floors of buildings, but many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibration like passing of truck. Duration estimated.
IV	During the day felt indoors by many, outdoors by few. At night some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.
V	Felt by nearly everyone, many awakened. Some dishes, windows, etc., broken; a few instances of cracked plaster; unstable objects overturned. Disturbances of trees, poles, and other tall objects sometimes noticed. Pendulum clocks may stop.
VI	Felt by all, many frightened and run outdoors. Some heavy furniture moved; a few instances of fallen plaster or damaged chimneys. Damage slight.
VII	Everybody runs outdoors. Damage negligible in building of good design and construction; slight to moderate in well-built ordinary structures; considerable in poorly built or badly designed structures; some chimneys broken. Noticed by persons driving motor cars.
VIII	Damage slight in specially designed structures; considerable in ordinary substantial buildings, with partial collapse; great in poorly built structures. Panel walls thrown out of frame structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned. Sand and mud ejected in small amounts. Changes in well water. Persons driving motor cars disturbed.
IX	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb; great in substantial buildings, with partial collapse. Buildings shifted off foundations. Ground cracked conspicuously. Underground pipes broken.
X	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations; ground badly cracked. Rails bent. Landslides considerable from riverbanks and steep slopes. Shifted sand and mud. Water splashed (slopped) over banks.
XI	Few, if any, (masonry) structures remain standing. Bridges destroyed. Broad fissures in ground. Underground pipelines completely out of service. Earth slumps and land slips in soft ground. Rails bent greatly.
XII	Damage total. Practically all works of construction are damaged greatly or destroyed. Waves seen on ground surface. Lines of sight and level are distorted.

7.2.6 Geologic Hazards

Active Faults

The major active faults in the area are the West Napa, Hunting Creek-Berryessa, Concord/Green Valley, Rodgers Creek, San Andreas, and Hayward Faults (Figure 7-3). For each of the active faults, the distance from the site and estimated maximum Moment magnitude are summarized in Table 7-2. The site is not within an Alquist-Priolo zone, so the risk of seismically induced ground rupture is low. The site is located approximately 0.4 kilometers east of the West Napa fault, which is responsible for the recent South Napa Earthquake in 2014.

Table 7-2. Regional Faults and Seismicity

Fault Segment	Approximate Distance from Site (km)	Direction from Site	Mean Characteristic Moment Magnitude*
West Napa	0.4	East	6.5
Hunting Creek-Berryessa	16	East	6.9
Concord/Green Valley	16	East	6.7
Rodgers Creek	22	West	7.0
Total Hayward-Rodgers Creek	22	West	7.3
North Hayward	34	South	6.5
Total Hayward	34	South	6.9
Great Valley 4	35	East	6.6
Maacama-Garberville	35	Northwest	6.9
Great Valley 5	42	East	6.5
Great Valley 3	45	Northeast	6.8
Collayomi	51	Northwest	6.5
San Andreas - 1906 Rupture	53	Southwest	7.9
San Andreas- North Coast	53	Southwest	7.5
Great Valley 6	61.2	Southeast	6.7
Bartlett Springs-fault system	62	North	7.1
Mt Diablo - MTD	63.8	Southeast	6.7
South Hayward	64.0	South	6.7
Point Reyes	64.6	Southwest	6.8
San Andreas - Peninsula	70	Southwest	7.2
Total Calaveras	71	Southeast	6.9
Northern San Gregorio	73	Southwest	7.2
Total San Gregorio	73	Southwest	7.4
Greenville	73	Southeast	6.9

*Moment magnitude is an energy-based scale and provides a physically meaningful measure of the size of a faulting event. Moment magnitude is directly related to average slip and fault rupture area.

The largest historic northern California earthquake was the 1906 San Francisco earthquake ($M=7.9$), in which an estimated 270-mile-long segment of the San Andreas fault ruptured from near Fort Bragg to Hollister. That earthquake was felt from the Oregon border south to Los Angeles, and as far east as Nevada. The 1906 San Francisco earthquake had an estimated Moment Magnitude (M_w) of 7.8 and created a surface rupture along the San Andreas fault approximately 290 miles long, with a maximum horizontal surface displacement of about 21 feet. The epicenter of the 1906 event is estimated to be offshore of the San Francisco coastline near the Golden Gate, southwest of the site. Strong shaking also occurred at many sites in the East Bay and extensive damage was documented.

The 1989 Loma Prieta Earthquake (M_w 6.9) was centered on or near the San Andreas fault more than 90 miles from the site. It produced moderate ground shaking and minor damage in the Northern Bay area.

The Rodgers Creek and Hayward faults form the main subsidiary faults making up the San Andreas Fault System in the East Bay and Northern San Francisco Bay Region. These faults lie approximately 22 km from the site and can generate magnitude 7.0 to 7.3 earthquakes.

Two moderate earthquakes (Richter Magnitude 5.6 and 5.7) occurred on the Rodgers Creek fault near Santa Rosa in 1969. These earthquakes resulted in widespread minor damage and localized structural damage in Sonoma County but no significant damage in the Yountville area. A USGS earthquake search for events greater than magnitude 4.5 in the northern Bay Area shows significant earthquakes near the site since 1968.

The Yountville Earthquake of September 3, 2000 had a magnitude of 4.9 and occurred on a northwest-trending strike slip fault approximately 4.3 km west of the site. Strong shaking in Yountville and Napa during this earthquake caused significant residential damage.

West Napa Fault Zone

The West Napa fault generated a magnitude 6.0 earthquake on August 24, 2014. The epicenter of the earthquake was located to the south of Napa and to the northwest of American Canyon, approximately 20 km south of the site. Total damage in the southern Napa and Vallejo areas was in the range of 360 million to \$1 billion, with one person killed and 200 injured.

The earthquake ruptured fault segments previously unmapped and resulted in a reevaluation of the earthquake hazard associated with this fault zone (Rubin, 2018). The new Alquist Priolo Earthquake Fault Zone reflects 20 km rupture length of the 2014 earthquake and establishes new setback criteria for the fault segments. The ground rupture extended from approximately 6 km south of the Napa Airport to the vicinity of Linda Vista Street and Dry Creek Road on the northwest side of Napa.

The new zonation of the West Napa Fault extends as far as the 2014 ground rupture. However, traces of the West Napa fault north of the 2014 rupture are not currently zoned as active. The USGS Quaternary Fault and Fold Database (USGS, 2018) shows Quaternary age fault traces extending to just 0.4 km southeast of the site. No traces of the fault are mapped north or northwest of the site.

Ground Shaking

Ground shaking is a general term referring to the motion of the earth's surface resulting from an earthquake. Ground shaking is normally the major cause of damage in seismic events. The extent of ground shaking is controlled by the magnitude and intensity of an earthquake, distance from the epicenter, and local geologic conditions. The recent South Napa Earthquake (Mw 6.0) was centered on or near the West Napa fault approximately 20 kilometers from the site. It produced strong ground shaking and minor damage in the Yountville area with estimated peak ground accelerations (PGAs) of 12 to 18 percent.

The USGS and CGS have published documents categorizing historical earthquakes. Table 7-3 lists large historic earthquake events in the Greater Bay Area.

Table 7-3. Significant Historical Earthquakes in Northern California

Date	Moment Magnitude (Mw)	MMI at the site	Epicenter Latitude	Epicenter Longitude	Epicenter Distance (km)	Name or Location
1838, June	7.4	VIII	37.3	-122.15	123	San Francisco to San Juan Bautista
1858, Nov. 26	6.2	VI	37.5	-121.8	162	San Jose Region
1864, Feb. 26	6.1	V	37.2	-121.6	148	Southeast of San Jose
1864, Mar. 5	6	V	37.6	-121.855	98	East of San Francisco Bay
1865, Oct. 8	6.5	VII	37.2	-121.9	138	Santa Cruz Mountains
1868, Oct. 21	7	VII	37.7	-122.1	80	Hayward Fault
1881, Apr. 10	6.3	V	37.3	-121.3	153	Western San Joaquin Valley
1889, May 19	6	V	38.1	-121.8	59	Montezuma Hills
1892, Apr. 19	6.6	V	38.4	-122	31	Vacaville
1892, Apr. 21	6.4	II-IV	38.5	-121.9	42	Winters
1898, Mar. 31	6.4	V	38.2	-122.5	24	Mare Island
1903, Jun. 11	6.1	V	37.2	-121.8	141	San Jose
1903, Aug. 3	6.2	VI	37.3	-121.8	131	San Jose
1906, Apr. 18	7.8	XI	37.7	-122.5	78	Great 1906 EQ
1969, Oct. 1	5.6, 5.7	VII	38.467	-122.692	30	Santa Rosa
1984, Apr. 24	6.2	VIII	37.3	-121.676	135	Morgan Hill
1989, Oct. 18	6.9	IX	37	-121.877	160	Loma Prieta

Date	Moment Magnitude (Mw)	MMI at the site	Epicenter Latitude	Epicenter Longitude	Epicenter Distance (km)	Name or Location
2000, Sept. 3	5	VII	38.38	-122.41	4	West of Yountville
2014, Aug. 24	6	VIII	38.22	-122.31	20	South Napa

Source: California Geological Survey, online:

https://www.conservation.ca.gov/cgs/Pages/Earthquake's/eq_chron.aspx

The U.S. Geological Survey's 2014 Working Group on California Earthquake Probabilities (USGS Working Group, 2013) has compiled the earthquake fault research for the San Francisco Bay area in order to estimate the probability of fault segment rupture. They have determined that the overall probability of moment magnitude 6.7 or greater earthquake occurring in the San Francisco Region during the next 30 years (starting from 2014) is 72 percent. The highest probabilities are assigned to the Hayward fault, Calaveras fault, and the northern segment of the San Andreas fault. These probabilities are 14.3, 7.4, and 6.4 percent, respectively.

Liquefaction

Liquefaction is the temporary transformation of loose, saturated granular sediments from a solid state to a liquefied state as a result of seismic ground shaking. In the process, the soil undergoes a temporary loss of strength, which commonly causes ground displacement or ground failure to occur. The northeastern corner of the site lies within a low liquefaction susceptibility zone (Sowers et al., 1998). The remainder of the site is mapped with very low susceptibility to liquefaction. Furthermore, for liquefaction to occur, two criteria must be met: 1) potentially liquefiable soils must be present, and 2) those soils must be saturated or nearly saturated (i.e., high ground water levels). Most liquefaction hazards are associated with sandy soils, certain gravelly soils, and silty soils of low plasticity. Cohesive soils, like most of the non-bedrock materials encountered on the project site, and bedrock are generally not considered to be susceptible to liquefaction. Liquefaction is not a significant hazard at the project site because the geologic materials that are normally susceptible to liquefaction are not present (Fugro 2019a; GEOCON 2018).

Landslides

Considering the gentle to moderate inclinations of slopes on an adjacent to the site and the shallow depth to bedrock and slopes, the risk of landslides occurring on the site is low.

Expansive Soils

Expansive soils swell and shrink as they gain and lose moisture and lightly loaded foundations, slabs and pavements can heave and crack as a result of these movements. Cut and fill slopes in expansive soils are prone to downslope creep due to seasonal shrinking and swelling of the expansive soil. Clay mineralogy, clay content, and porosity of the soil influence the change in volume. As part of the geotechnical investigation, laboratory testing was performed on soil samples collected from the borings to qualitatively evaluate their expansion potential. The testing indicates the clay fill overlying the bedrock at the site is moderately to highly expansive. Further,

Atterberg limits tests performed on samples of deeply weathered bedrock indicate portions of the bedrock are also moderately to highly expansive.

7.3 PROJECT IMPACTS

7.3.1 Thresholds of Significance

Based on CEQA Guidelines Appendix G, the implementation of the project or its alternatives would have a significant environmental impact related to geology and soils if it would:

- (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 Special 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 wastewater disposal systems where sewers are not available for the disposal of wastewater; or
- (f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

7.3.2 Impacts Dismissed from Further Consideration

The proposed project would have no or minimal impact with regard to the following thresholds; therefore, these issues are dismissed from further discussion in the sections below:

- Based on active fault mapping by USGS and CGS, no active faults trend toward or cross the site; however, reevaluation of the West Napa fault after the 2014 earthquake resulted in rezoning the active Earthquake Alquist Priolo Zone to extend to the vicinity of Linda Vista Street and Dry Creek Road in Napa. Fault traces previously mapped north of that area have been demonstrated as Quaternary in age (11,000 to 2.2 million years ago) and not active. Since no active or potentially active faults have been identified on the project site the project would have no impact related to surface fault rupture. (Threshold a[i])
- The presence of low slopes and lack of significant relief across the site renders the potential for slope instability less than significant. (Threshold a[iv])

- The proposed project would not use septic tanks or an alternative wastewater disposal system. Therefore, the project would have no impacts to soils related to the use of septic tanks or alternative wastewater disposal systems. (Threshold e)

Seismic Shaking

All structures and improvements in the Bay Area could potentially be affected by ground shaking in the event of an earthquake on regional active faults. Ground shaking potential is estimated on a worst-case basis by assessing the maximum expected earthquakes and calculating the peak accelerations that may be generated. Due to the proximity of the project site to regional faults (including the San Andreas fault), the project may be subjected to very strong to violent ground shaking during a major earthquake. During the service life of the proposed project, the site is likely to experience at least one moderate to severe earthquake that could produce potentially damaging ground shaking.

Violent ground shaking corresponds to an MMI-IX, and typically some masonry and frame structures would be damaged, unbolted structures shifted off their foundations, and people would have difficulty standing or walking. This level of seismic shaking could cause injuries and/or fatalities and extensive structural and non-structural damage to buildings at the site. The project would not create potential for or exacerbate existing conditions related to seismic ground shaking. Compliance with the CBC and implementation of geotechnical report recommendations as required in Mitigation Measure GEO-1 would reduce the potential impacts related to seismic shaking to *less than significant with mitigation incorporated*.

Seismic-Related Ground Failure and Liquefaction

The project site is in an area mapped by the USGS and ABAG as having a low to very low susceptibility to liquefaction within most of the site. Furthermore, for liquefaction to occur, two criteria must be met: 1) potentially liquefiable soils must be present, and 2) those soils must be saturated or nearly saturated (i.e., high ground water levels). Most liquefaction hazards are associated with sandy soils, certain gravelly soils, and silty soils of low plasticity. Cohesive soils, like most of the non-bedrock materials encountered on the property, are generally not considered to be susceptible to liquefaction. Liquefaction is not a significant hazard at the project site, because the geologic materials that are normally susceptible to liquefaction are not present (Donaldson 2006). However, portions of the site adjacent to Ross Creek are illustrated as having very high susceptibility.⁶ These areas will not be developed as part of the proposed project. Therefore, the proposed project would not expose people or property to seismic-related ground failure, including liquefaction, and the project would not create potential for or exacerbate existing conditions related to seismic ground failure and liquefaction. The impacts would be *less than significant*.

Soil Erosion or Loss of Topsoil

Construction of the proposed project would disturb more than acre of soil and therefore a SWPPP will be prepared. The SWPPP would include BMPs to prevent erosion and loss of topsoil during construction. BMPs could include stormwater inlet protection, the use of fiber

⁶ ABAG, 2006. Bay Area Liquefaction Susceptibility Mapping based on USGS OFR 00-444. Accessed June 26, 2013 at <http://gis.abag.ca.gov/website/LiquefactionSusceptibility/index.html>.

rolls, protection of soil and materials stockpiles from runoff, and sandbags and earthen berms to prevent runoff water from leaving the site, among other measures during project construction.

The implementation of the SWPPP would prevent substantial erosion and loss of topsoil during construction and would protect stormwater runoff water quality. Implementation of the SWPPP is considered by water quality protection regulations sufficient to ensure the project would not exacerbate existing site erosion and soil loss conditions. The project would, therefore, have a less than-significant-impact on soils and loss of topsoil during project construction. After project construction is complete, there is no anticipated soil disturbance or potential for erosion that would occur during project operation. Therefore, the potential erosion impact or loss of topsoil would be *less than significant*.

Unstable and Expansive Soils

Unstable soils include impacts from landsliding, liquefaction, lateral spreading and collapse. Due to the low slopes, depth of ground water, and lack of a significant open cut bank (channel or other open steep slope) these potential impacts are less than significant at the site.

Expansive soils swell and shrink as they gain and lose moisture and lightly loaded foundations, slabs and pavements can heave and crack. Much of the clay fill, as well as portions of the bedrock, underlying the site are moderately to highly expansive. Expansive near-surface soil and bedrock are subject to volume changes during fluctuations in moisture content. Volume changes caused by fluctuations in moisture content of the expansive soil/bedrock can cause movement and cracking of foundations, pavements, slabs, and below-grade walls. This is a potentially significant impact.

The effects of expansive soil, including expansive bedrock that has weathered to a residual soil, can be mitigated by moisture-conditioning the expansive soil, providing select, non-expansive fill or lime-treated soil below interior and exterior slabs-on-grade, and either supporting foundations in soil and/or bedrock below the zone of severe moisture change or by providing a stiff, shallow foundation (such as a P-T slab or mat foundation) that can limit deformation of the superstructure as the underlying soil shrinks and swells. Preliminary recommendations in the report include: 1) supporting the proposed building on combination of drilled pier foundations gaining support in competent bedrock and spread footings bottomed on competent bedrock, and 2) over excavating the expansive soil below slabs-on-grade and replacing it with either chemically treated on-site soil or imported non-expansive material. Specific recommendations regarding the thickness of non-expansive material to be placed below slabs-on-grade should be provided in the final geotechnical report.

Implementation of Mitigation Measure GEO-2 would reduce the potential impacts related to unstable and expansive soils to *less than significant with mitigation incorporated*.

Unique Paleontological Resource or Unique Geologic Feature

There are no known surface paleontological resources or unique geologic features at the project site. The majority of the site is situated on andesite ash flow tuff and tuff breccia volcanic rock bedrock, associated with the Stags Leap volcanic center overlying Franciscan Complex bedrock. Volcanic bedrock does not contain fossilized remains. The andesite ash flow tuff and tuff breccia bedrock extended from its subsurface horizon to the full extent of the geotechnical investigation at approximately 31.5 feet beneath the surface (Fugro 2019a). At the eastern extent of the site, where utility lines are anticipated to be located, the underlying geology is Pleistocene

(between 2,580,000 to 11,700 years ago) fan deposits, overlying Franciscan Complex bedrock. The Pleistocene fan deposits are formed of sediment deposited by streams emanating from canyons to produce fan-shaped deposits on alluvial valley floors. Excavation for utility trenching is extremely unlikely to extend into the Franciscan Complex bedrock. Additionally, vertebrate fossils in the Franciscan Complex are extremely rare, and discovery is not anticipated. Due to the unlikelihood of significant fossil discovery, the project impact to paleontological resources or unique geologic features would be *less than significant*.

7.4 MITIGATION MEASURES

Impact GEO-1: Project construction could be impacted by seismic shaking.

Mitigation Measure GEO-1: Strong Seismic Ground Shaking. Project design and construction shall be in conformance with current best standards for earthquake-resistant construction in accordance with the current California Building Code. In addition, project design shall follow the recommendations of a site-specific final geotechnical investigation report prepared by the Design Build entity. All recommendations for seismic and geo-hazard impact mitigation provided in the final reports shall be the basis of the project design and construction of the project.

Effectiveness: *This measure would minimize and/or avoid impacts on geological hazards.*

Implementation: *By CalVet or its contractor.*

Timing: *During the design phase and throughout project construction.*

Monitoring: *CalVet.*

Impact GEO-2: Project construction could be impacted by unstable and expansive soils.

Mitigation Measure GEO-2: Unstable and Expansive Soils. Expansive soils and bedrock shall be mitigated by moisture-conditioning the expansive soil, providing select, non-expansive fill or lime-treated soil below interior and exterior slabs-on-grade, and either supporting foundations in soil and/or bedrock below the zone of severe moisture change or by providing a stiff, shallow foundation (such as a P-T slab or mat foundation) that can limit deformation of the superstructure as the underlying soil shrinks and swells. Pending completion of a final geotechnical report to be prepared by the Design Build entity, recommendations identified in the preliminary geotechnical report (Fugro 2019a and Fugro 2019b) as applicable to the final site location of the structure(s) shall be considered in addition to the findings of the final geotechnical report including:

- 1) supporting the proposed building on combination of drilled pier foundations gaining support in competent bedrock and spread footings bottomed on competent bedrock, and
- 2) over excavating the expansive soil below slabs-on-grade and replacing it with either chemically treated on-site soil or imported non-expansive material.

Specific recommendations regarding the thickness of non-expansive material to be placed below slabs-on-grade should be provided in the final geotechnical report.

Effectiveness: *This measure would minimize and/or avoid impacts on geological hazards.*

Implementation: *By CalVet or its contractor.*

Timing: *During the design phase and throughout project construction.*

Monitoring: *CalVet.*

Figure 7-1. Geologic Map of the Project Area

(Page 1 of 2)

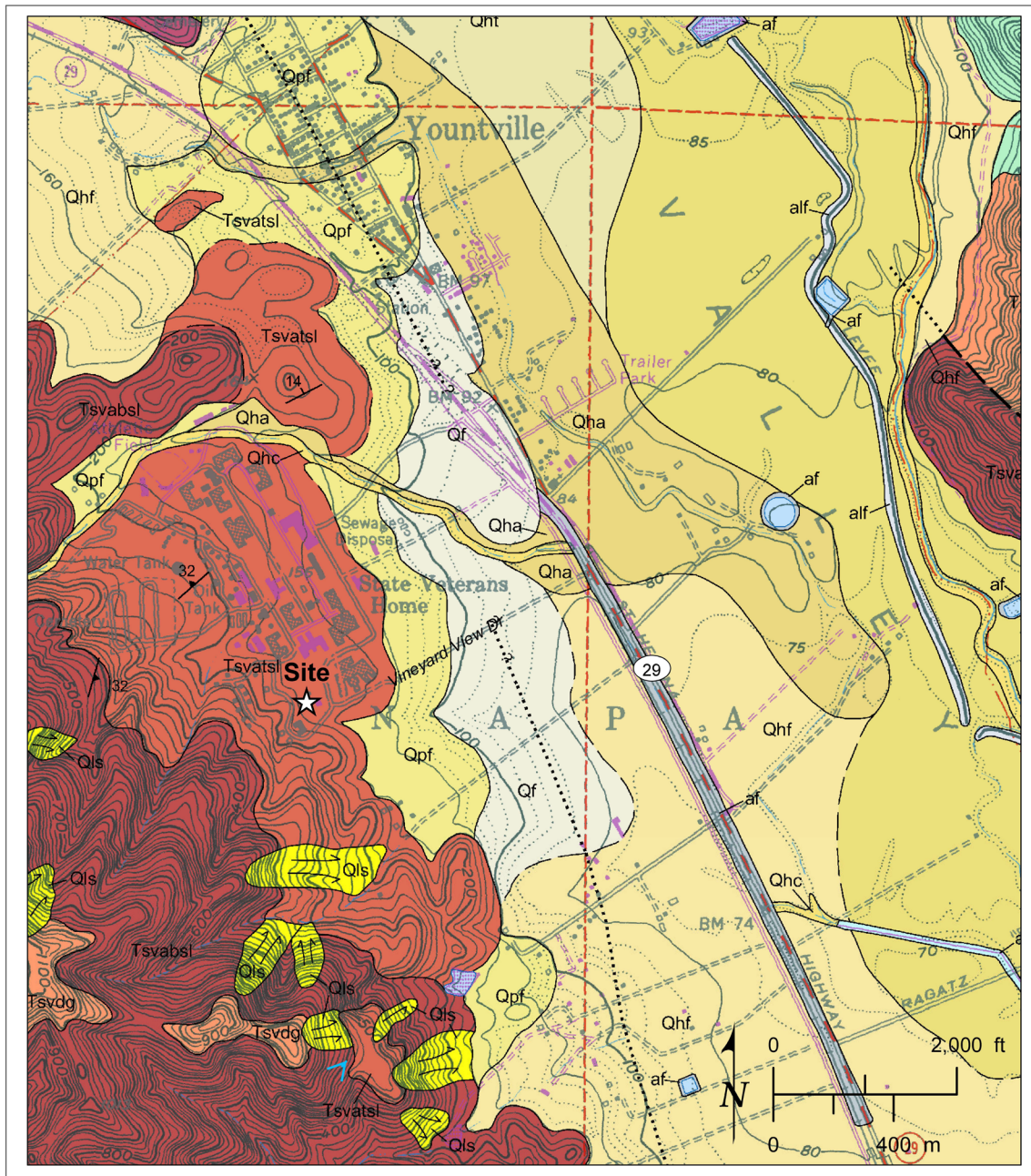
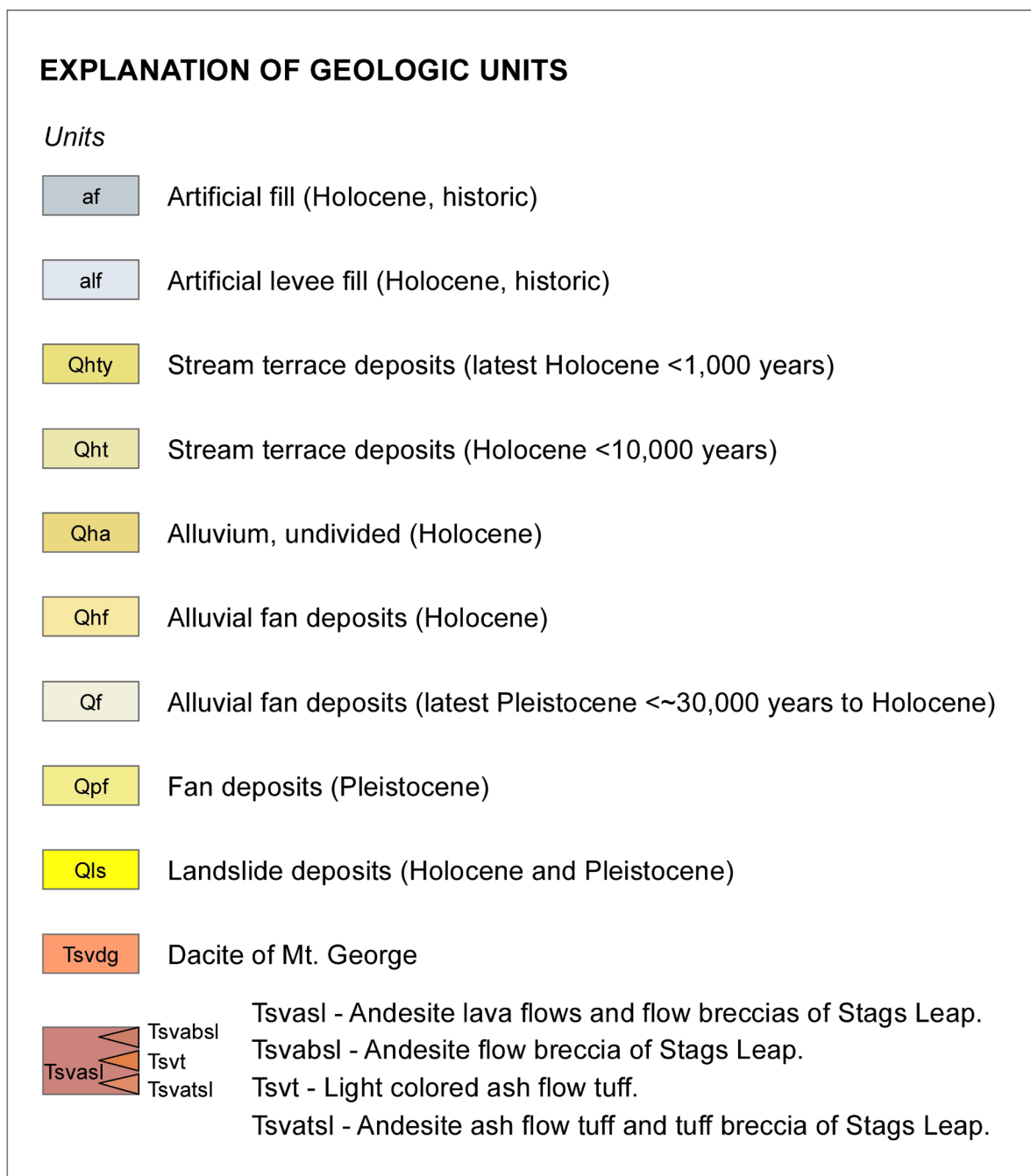
**Figure 7-1 Geologic Map of the Project Area**
VHC-Yountville Skilled Nursing Facility Project

Figure 7-1 (Continued)

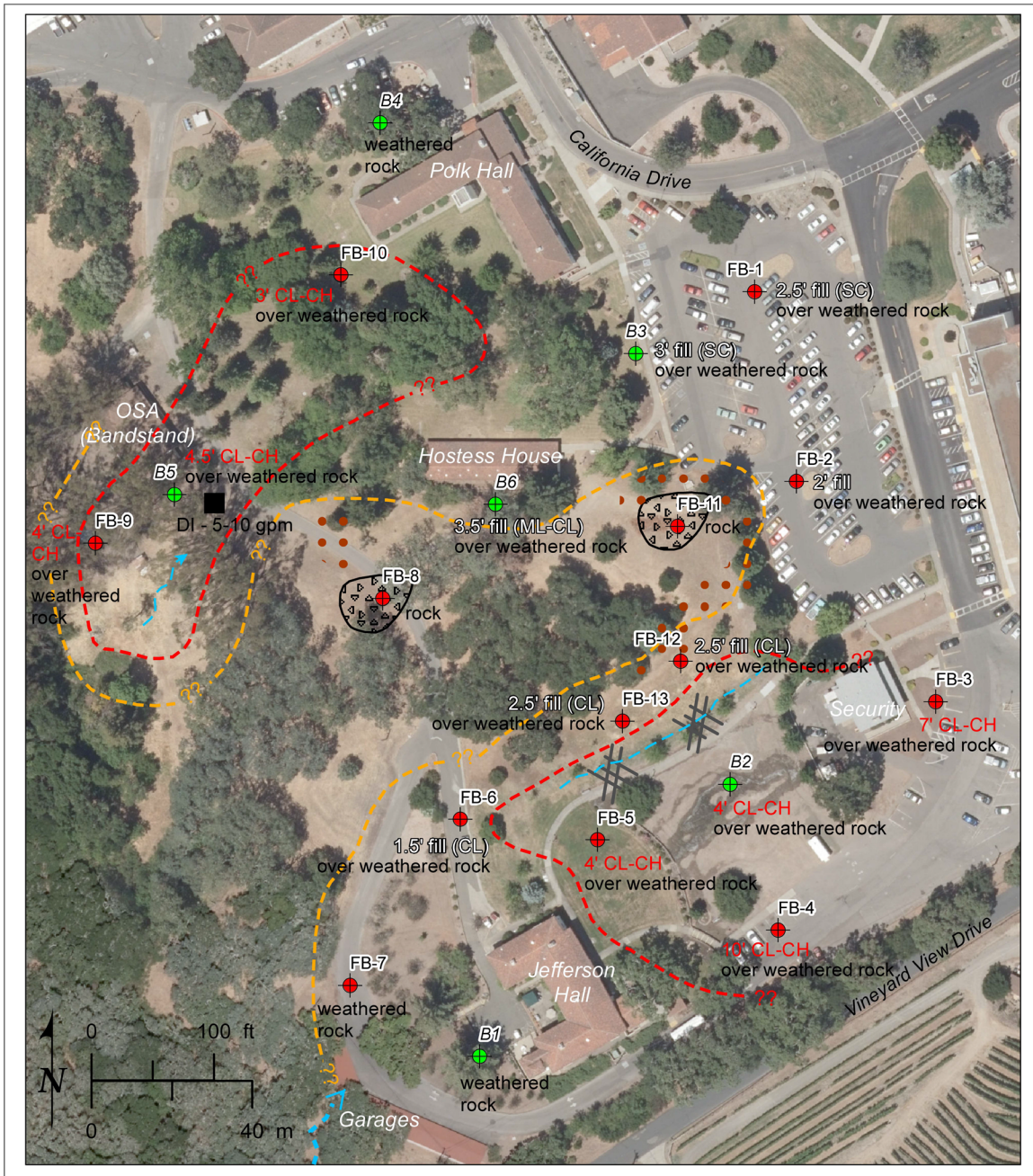


Source: Geology by Bezore et al., 2005 (CGS Preliminary Geologic Map of Yountville 7.5' Quadrangle); FUGRO 2019; MIG 2019



Figure 7-1 Geologic Map of the Project Area
VHC-Yountville Skilled Nursing Facility Project

Figure 7-2. General Geologic Site Conditions Map



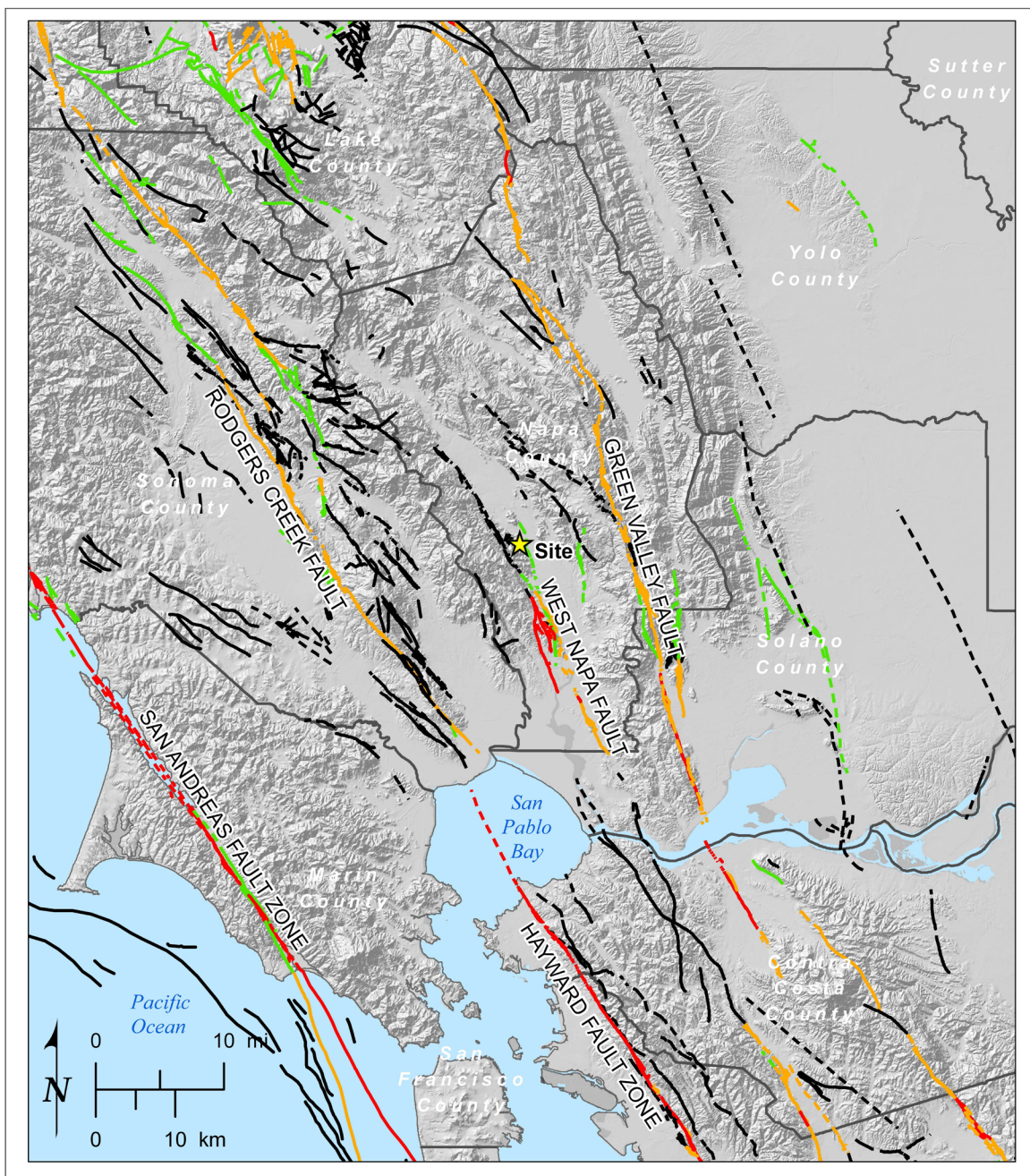
Source: Napa County 2014; FUGRO 2019; MIG 2019

- > Seep or spring indicating direction of flow
- Approximate boundary between slightly-moderately and highly weathered rock
- Approximate limit of lean to fat clay (CL-CH)
- Approximate area of colluvial rock fragments (coarse gravel and cobbles)
- Approximate area of rock outcrop

- FB-7 Fugro borings, 2019
- B2 Geocon borings, 2018 (approximate)
- Drop inlet
- # Desiccation cracks



Figure 7-2 General Geologic Site Conditions Map
 VHC-Yountville Skilled Nursing Facility Project

Figure 7-3. Regional Fault Map

Source: USGS Quaternary Fault and Fold Database 2017, FUGRO 2019, MIG 2019

(Dashed where inferred)

- Historic
- Latest Quaternary
- Late Quaternary
- Undifferentiated Quaternary



Figure 7-3 Regional Fault Map
VHC-Yountville Skilled Nursing Facility Project

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CHAPTER 8 ENERGY AND GREENHOUSE GAS EMISSIONS

This chapter provides information on the environmental and regulatory GHG and energy setting of the project and evaluates the potential amount of GHG emissions that could be generated, as well as energy that could be consumed, by construction and operation of the project. The methodologies and assumptions used in the preparation of this section follow the CEQA Guidelines developed by the BAAQMD, as revised in May 2017 (BAAQMD 2017a). Information on existing GHG emissions levels and potentially applicable federal and state regulations was obtained from the U.S. EPA, CARB, and BAAQMD. As described in this chapter, the project's GHG emissions would not exceed the CEQA significance threshold established by the BAAQMD, nor conflict with an applicable GHG-reduction plan, policy, or regulation. Therefore, the project would not result in a significant GHG-related impact. As described in this chapter, the project also would not result in the wasteful or inefficient use of energy resources, or conflict with a state or local plan for renewable energy or energy efficiency.

This GHG and energy analysis has been closely coordinated with the Air Quality analysis in Chapter 4 of this EIR/EA.

8.1 REGULATORY SETTING

Agencies at the international, national, statewide, and local levels are considering or have adopted strategies to control emissions of gases that contribute to global climate change. The agencies described below work jointly, as well as individually, to address climate change through legislation, regulations, planning, policy-making, education, and implementation programs.

8.1.1 International Agreements

In 1988, the United Nations (U.N.) established the Intergovernmental Panel on Climate Change (IPCC) to evaluate the impacts of global warming and to develop strategies that nations could implement to curtail global climate change. In 1992, the United States joined other countries around the world in signing the "United Nations' Framework Convention on Climate Change" agreement with the goal of controlling GHG emissions. This framework ultimately led to the development of the U.N.'s 1997 Kyoto Protocol. The Kyoto Protocol is an international treaty that targets reductions for four specific GHGs and two classes of GHGs:

- **Carbon Dioxide (CO₂).** CO₂ is released to the atmosphere when fossil fuels (oil, gasoline, diesel, natural gas, and coal), solid waste, and wood or wood products are burned.
- **Methane (CH₄).** CH₄ is emitted is released to the atmosphere when fossil fuels (oil, gasoline, diesel, natural gas, and coal), solid waste, and wood or wood products are burned.
- **Nitrous Oxide (N₂O).** N₂O is emitted during agricultural and industrial activities, as well as during combustion of solid waste and fossil fuels.
- **Sulfur Hexafluoride (SF₆).** SF₆ is commonly used as an electrical insulator in high voltage electrical transmission and distribution equipment such as circuit breakers, substations, and transmission switchgear. Releases of SF₆ occur during maintenance and servicing as well as from leaks of electrical equipment.

- **Hydrofluorocarbons (HFCs) and Perfluorocarbons (PFCs).** HFCs and PFCs are generated in a variety of industrial processes. Although the amount of these gases emitted into the atmosphere is small in terms of their absolute mass, they are potent agents of climate change due to their high global warming potential.

In 1997, the United States was a signatory to the Kyoto Protocol, however, the treaty was not sent to Congress for ratification. Therefore, although the United States was a signatory to the Kyoto Protocol, the United States is not an official party to this international agreement and not subject to any emissions reductions goals established pursuant to the Kyoto Protocol. Although the United States is not a party to this agreement, the GHG's targeted for reduction by the Kyoto Protocol are also targeted under federal and state GHG reporting and emissions reduction programs.

8.1.2 Federal Regulations

On December 7, 2009, the U.S. EPA issued an endangerment finding that current and projected concentrations of the six Kyoto GHGs (i.e., CO₂, CH₄, N₂O, SF₆, HFCs, and PFCs) in the atmosphere threaten the public health and welfare of current and future generations. This finding came in response to the Supreme Court ruling in *Massachusetts versus EPA*, which found that GHGs are pollutants under the federal Clean Air Act. As a result, the U.S. EPA issued its GHG Tailoring Rule in 2010, which applies to facilities that have the potential to emit more than 100,000 Metric Tons of Carbon Dioxide Equivalents⁷ (MTCO₂e). In 2014, the U.S. Supreme Court issued its decision in *Utility Air Regulatory Group versus EPA* (No. 12-1146), finding that the U.S. EPA may not treat GHGs as an air pollutant for purposes of determining whether a source is a major source required to obtain a permit pursuant to the Clean Air Act's Prevention of Significant Deterioration or Title V operating permit programs. The U.S. EPA's Greenhouse Gas Reporting Program requires facilities emitting 25,000 MTCO₂e or more of GHGs to report their GHG emissions to the U.S. EPA to inform future policy decisions.

8.1.3 State Regulations

Executive Order S-3-05

In June 2005, Governor Arnold Schwarzenegger issued Executive Order S-3-05. This order established the State's GHG emission targets for 2010 (i.e., reduce GHG emissions to 2000 levels), 2020 (i.e., reduce GHG emissions to 1990 levels), and 2050 (i.e., reduce GHG emissions to 80 percent below 1990 levels), created the Climate Action Team and directed the Secretary of the California Environmental Protection Agency to coordinate efforts with meeting the GHG targets with the heads of other state agencies.

Assembly Bill 32 (California Global Warming Solutions Act)

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Climate Solutions Act of 2006. AB 32 establishes the caps on statewide GHG emissions proclaimed in Executive Order S-3-05 and established December 31, 2020 as the date for achieving GHG reduction levels. In order to effectively implement the emissions cap, AB 32 also directed CARB

⁷ Since different GHG have varying levels of potency, gases are evaluated on their ability to retain energy in the earth's atmosphere, in relation to CO₂'s ability (e.g., CO₂ is the reference gas). For more information on the Global Warming Potential (GWP) of GHG, see Section 8.2.1.

to establish a mandatory reporting system to track and monitor GHG emissions from large stationary sources, prepare a Scoping Plan demonstrating how the 2020 deadline can be met, and develop appropriate regulations and programs to implement the plan by 2012.

Executive Order B-18-12 (“Greening” of State Buildings)

On April 25, 2012, Governor Brown issued Executive Order B-18-12, directing California state agencies and departments to take immediate steps to “green” the state’s buildings, reduce GHG emissions, and improve energy efficiency. The Executive Order includes specific requirements for new and existing state buildings. One requirement would be applicable to this project.

- New state buildings and existing state buildings undergoing major renovations, and which are larger than 10,000 square feet, obtain LEED Silver certification or higher.

Executive Order B-30-15 (2030 Carbon Target and Adaptation)

Executive Order B-30-15 establishes a GHG emissions target for 2030 (i.e., reduce GHG emissions to 40 percent below 1990 levels) and requires the State’s climate adaptation strategy to be updated every 3 years.

Senate Bill 32 and Assembly Bill 197

To reinforce the goals established through Executive Order B-30-15, Governor Jerry Brown went on to sign SB 32 and AB 197 on September 8, 2016. SB 32 made the GHG reduction target to reduce GHG emissions by 40 percent below 1990 levels by 2030 a requirement, as opposed to a goal. AB 197 gives the legislature additional authority over CARB to ensure the most successful strategies for lowering emissions are implemented and requires CARB to “protect the state’s most impacted and disadvantaged communities ...[and] consider the social costs of the emissions of greenhouse gases.”

CARB Scoping Plan

The CARB Scoping Plan is the State’s comprehensive plan for identifying how the State will reach its GHG reduction targets established by AB 32 and SB 32. CARB has prepared several iterations of the Scoping Plan. CARB adopted its initial Scoping Plan in 2008, prepared its first update to the Scoping Plan in 2014, and prepared its second update to the Scoping Plan in 2017. Per AB 32, CARB is required to update the Scoping Plan every 5 years.

CARB’s current 2017 Climate Change Scoping Plan was adopted on December 14, 2017. The primary objective of the 2017 Climate Change Scoping Plan is to identify the measures needed to achieve the State’s GHG reduction target for 2030 (to reduce emissions by 40 percent below 1990 levels; CARB 2017). To achieve this GHG reduction target, the 2017 Climate Change Scoping Plan includes a recommended plan-level efficiency threshold of 6 metric tons or less per capita by 2030 and no more than 2 metric tons by 2050. The major elements of the 2017 Climate Change Scoping Plan include:

- Implementing and/or increasing the standards of the Mobile Sources Strategy, which includes zero emissions vehicle buses and trucks;
- Low Carbon Fuel Standard (LCFS), with an increased stringency (18 percent by 2030);
- Implementation of SB 350, which expands the Renewable Portfolio Standard (RPS) to 50 percent and doubles energy efficiency savings by 2030;

- California Sustainable Freight Action Plan, which improves freight system efficiency, uses near-zero emissions technology, and deployment of zero emissions vehicle trucks;
- Implementing the proposed Short-Live Climate Pollutant Strategy, which focuses on reducing methane and hydrocarbon emissions by 40 percent and anthropogenic black carbon emissions by 50 percent by the year 2030;
- Continued implementation of SB 375;
- Post-2020 Cap-and-Trade Program that includes declining caps;
- 20 percent reduction in the GHG emissions from refineries by 2030; and
- Development of a Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Senate Bill 375 and Plan Bay Area

The Sustainable Communities and Climate Protection Act of 2008 (SB 375) was adopted to connect the GHG emissions reductions targets established in the Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce vehicle miles travelled (VMT) and vehicle trips. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 18 regions in California managed by a metropolitan planning organization (MPO). On July 18, 2013, the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG) adopted Plan Bay Area 2013. The Plan includes two main elements; the Sustainable Communities Strategy (SCS) and the Regional Transportation Plan (RTP).

An update to the plan, Plan Bay Area 2040, was jointly approved by the ABAG Executive Board and by MTC on July 26, 2017. As an update to the region's long-range RTP and SCS, Plan Bay Area 2040 projects household and employment growth in the Bay Area over the next 24 years, provides a roadmap for accommodating expected growth, and connects it all to a transportation investment strategy focused on moving the Bay Area toward key regional goals for the environment (e.g., state GHG reduction goals), economy, and social equity (ABAG/MTC 2017).

Senate Bill 350 (Clean Energy and Pollution Reduction Act) and Senate Bill 100

SB 350 was signed into Law in September 2015 and establishes tiered increases to the RPS. The Bill requires 40 percent of the state's energy supply to come from renewable sources by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures. SB 100, signed by Governor Brown on September 10, 2018, increased the RPS requirement for 2030 from 50 to 60 percent.

Low Carbon Fuel Standard Regulation

CARB initially approved the LCFS regulation in 2009, identifying it as one of the nine discrete early action measures in its original 2008 Scoping Plan to reduce California's GHG emissions. Originally, the LCFS regulation required at least a 10 percent reduction in the carbon intensity of California's transportation fuels by 2020 (compared to a 2010 baseline). On September 27, 2018, CARB approved changes to the LCFS regulation that require a 20 percent reduction in carbon

intensity by 2030. These regulatory changes exceed the assumption in CARB's 2017 Climate Change Scoping Plan, which targeted an 18 percent reduction in transportation fuel carbon intensity by 2030 as one of the primary measures for achieving the state's GHG 2030 target.

8.1.4 Local Regulations

Bay Area Air Quality Management District (Clean Air Plan)

On April 19, 2017, the BAAQMD adopted the 2017 Clean Air Plan: Spare the Air, Cool the Climate (2017 Clean Air Plan), which updated the adopted Bay Area 2010 Clean Air Plan, and continued to provide the framework for ensuring that the National Ambient Air Quality Standards and California Ambient Air Quality Standards are attained and maintained in the Bay Area (BAAQMD, 2017c). In addition to addressing criteria air pollutant concentrations and public exposure to toxic air contaminants, the 2017 Clean Air Plan lays the groundwork for a long-term effort to reduce Bay Area GHG emissions to 40 percent below 1990 levels by 2030, and to 80 percent below 1990 levels by 2050, consistent with GHG reduction targets adopted by the State of California. The 2017 Clean Air Plan includes a comprehensive, multi-pollutant control strategy that is broken up into 85 distinct measures and categorized based on the same economic sector framework used by CARB in its 2017 Climate Change Scoping Plan⁸. The 2017 Clean Air Plan's control measures support the three overarching goals of the plan, which are:

- Attain all state and national air quality standards;
- Eliminate disparities among Bay Area communities in cancer health risk from toxic air contaminants; and
- Reduce Bay Area GHG emissions to 40 percent below 1990 levels by 2030, and the 80 percent below 1990 levels by 2050.

8.2 ENVIRONMENTAL SETTING

GHGs are gases that trap heat in the atmosphere and affect regulation of Earth's temperature. Many chemical compounds found in the Earth's atmosphere exhibit the GHG property. GHGs allow sunlight to enter the atmosphere freely. When sunlight strikes Earth's surface, it is either absorbed or reflected back toward space. Earth that has absorbed sunlight warms up and emits infrared radiation toward space. GHGs absorb this infrared radiation and "trap" the energy in the Earth's atmosphere. Entrapment of too much infrared radiation produces an effect commonly referred to as global warming; however, the term "climate change" is preferred over the term global warming because climate change conveys the fact that other changes can occur beyond the average increase in temperatures near Earth's surface.

GHG that contribute to climate regulation are a different type of pollutant than criteria or hazardous air pollutants because climate regulation is global in scale, both in terms of causes and effects. Some GHG are emitted to the atmosphere naturally by biological and geological processes such as evaporation (e.g., water vapor), aerobic respiration (e.g., CO₂), and off-gassing from low oxygen environments, such as swamps or exposed permafrost (e.g., methane);

⁸ The sectors included in the 2017 Climate Change Scoping Plan Update are: stationary (industrial) sources, transportation, energy, buildings, agriculture, natural and working lands, waste management, water, and super-GHG pollutants.

however, GHG emissions from human activities such as fuel combustion (e.g., CO₂) and refrigerants use (e.g., HFCs) contribute to overall GHG concentrations in the atmosphere, climate regulation, and global climate change. Human production of GHG has increased steadily since pre-industrial times (approximately pre-1880) and atmospheric carbon dioxide concentrations have increased from a pre-industrial value of 280 parts per million (ppm) in the early 1800s to 409 ppm in September 2019 (NOAA, 2019). The effects of increased GHG concentrations in the atmosphere include climate change (i.e., increasing temperature and shifts in precipitation patterns and amounts), reduced ice and snow cover, sea level rise, and acidification of oceans. In turn, these effects will impact food and water supplies, infrastructure, ecosystems, and overall public health and welfare.

8.2.1 Global Warming Potential

GHGs can remain in the atmosphere long after they are emitted. The potential for a particular GHG to absorb and trap heat in the atmosphere is considered its GWP. The reference gas for measuring GWP is CO₂, which has a GWP of one. By comparison, CH₄ has a GWP of 25, which means that one molecule of CH₄ has 25 times the effect on global warming as one molecule of CO₂. Multiplying the estimated emissions for non-CO₂ GHGs by their GWP determines their carbon dioxide equivalent (CO₂e), which enables a project's combined global warming potential to be expressed in terms of mass CO₂ emissions. The GWPs (over a 100 year time period) for the common GHGs are shown in Table 8-1.

Table 8-1. Global Warming Potential of Common GHGs (100 Year Horizon)

GHG	GWP ^(A)	GHG	GWP ^(A)
Carbon Dioxide (CO ₂)	1	Perfluorocarbons (PFCs)	-
Methane (CH ₄)	25	CF ₄	6,500
Nitrous Oxide (N ₂ O)	298	C ₂ F ₆	9,200
Hydrofluorocarbons (HFCs)	-	C ₄ F ₁₀	7,000
HFC-23	14,800	C ₆ F ₁₄	7,400
HFC-134a	1,430	Sulfur Hexafluoride (SF ₆)	22,800
HFC-152a	140	-	-
HCFC-22	1,700	-	-

Source: CARB, 2018a

Notes:

(A) GWPs are based on the U.N. IPCC's 4th Assessment Report.

8.2.2 Climate Change in California

The 2009 California Climate Adaptation Strategy prepared by the California Natural Resources Agency (CNRA) identified anticipated impacts to California due to climate change through extensive modeling efforts. General climate changes in California indicate that:

- California is likely to get hotter and drier as climate change occurs with a reduction in winter snow, particularly in the Sierra Nevada Mountain Range.

- Some reduction in precipitation is likely by the middle of the century.
- Sea levels will rise up to an estimated 55 inches.
- Extreme events such as heat waves, wildfires, droughts, and floods will increase.
- Ecological shifts of habitat and animals are already occurring and will continue to occur (CNRA, 2009).

It should be noted that changes are based on the results of several models prepared under different climatic scenarios; therefore, discrepancies occur between the projections and the interpretation. The potential impacts of global climate change in California are detailed below.

In January 2018, the CNRA adopted Safeguarding California Plan: 2018 Update, which builds on nearly a decade of adaptation strategies to communicate current and needed actions State government should take to build climate change resiliency. It identifies hundreds of ongoing actions and next steps that State agencies are taking to safeguard Californians from climate impacts within a framework of 81 policy principles and recommendations. The 2018 update also has two new chapters and incorporates a feature showcasing the many linkages among policy areas. A new “Climate Justice” chapter highlights how equity is woven throughout the entire plan (CNRA, 2018).

8.2.3 State and Regional GHG Emissions

CARB prepares an annual statewide GHG emissions inventory using regional, state, and federal data sources, including facility-specific emissions reports prepared pursuant to the state’s Mandatory GHG Reporting Program. The statewide GHG emissions inventory helps CARB track progress towards meeting the state’s GHG emissions target of 431 million MTCO_{2e} set by AB 32 and helps to establish and understand trends in GHG emissions⁹. Statewide GHG emissions for the 2006-2017 time period are shown in Table 8-2.

As shown in Table 8-2, statewide GHG emissions have generally decreased over the last decade, with 2017 levels (424 million MTCO_{2e}) approximately 12 percent less than 2006 levels (483 million MTCO_{2e}) and below the State’s 2020 reduction target of 431 million MTCO_{2e}. The transportation sector (170 million MTCO_{2e}) accounted for more than one-third (approximately 40.1 percent) of the state’s total GHG emissions inventory (424 million MTCO_{2e}) in 2017.

Regionally, the BAAQMD estimates emissions from the nine counties that comprise the San Francisco Bay Area Air Basin. Data for the most recent inventory (2011) indicates that the Bay Area emitted a total of 86.6 million MTCO_{2e}, or approximately 20 percent of the total statewide GHG emissions in 2011 (BAAQMD, 2015)¹⁰. Similar to the state inventory, the combustion of fossil fuels in mobile sources such as cars, trucks, locomotives, ships, and boats contributed the

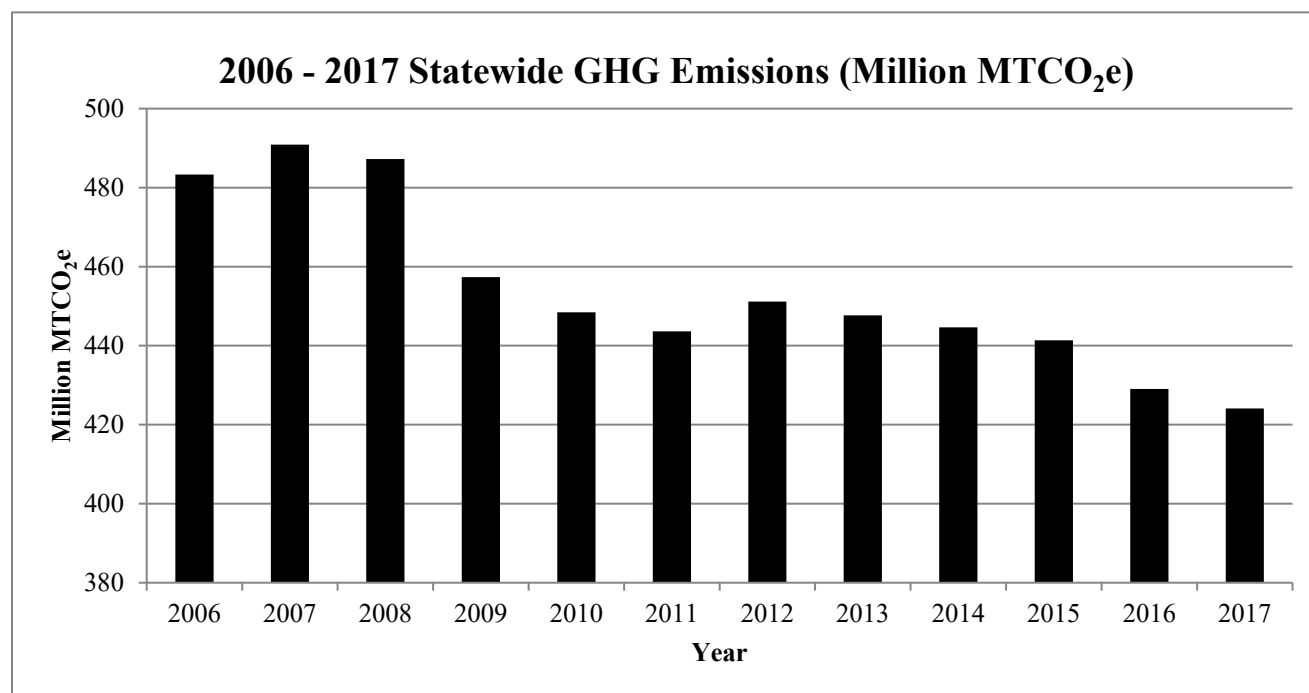
⁹ CARB approved use of 431 million MCO_{2e} as the state’s 2020 GHG emission target in May 2014. Previously, the target had been set at 427 million MCO_{2e}.

¹⁰ The BAAQMD GHG inventory is based on the U.N. IPCC’s 2nd Assessment Report, which uses different GWP values to compute carbon dioxide equivalents. The GWP values in the 2nd Assessment Report are generally lower than the values in the U.N. IPCC 4th Assessment Report, which the CARB statewide inventory uses. For example, the GWP of methane was reported as 21 in the 2nd Assessment Report and is reported as 25 in the 4th Assessment Report.

most (34.3 million MTCO₂e) toward regional GHG levels (approximately 40 percent of regional GHG emissions).

Table 8-2. 2006-2017 Statewide GHG Emissions (in Million MTCO₂e)

Scoping Plan Sector	'06	'07	'08	'09	'10	'11	'12	'13	'14	'15	'16	'17
Agriculture	35	36	36	33	34	35	36	35	36	34	34	32
Commercial/Residential	43	43	44	44	45	46	43	44	37	38	39	41
Electric Power	105	114	120	101	90	88	95	90	88	84	69	62
High GWP	10	11	12	12	14	15	16	17	18	19	20	20
Industrial	93	90	91	88	91	91	91	94	94	92	90	89
Recycling and Waste	8	8	8	8	8	8	8	9	9	9	9	9
Transportation	189	189	178	170	165	162	161	161	162	166	169	170
Total Million MTCO ₂ e ^(A)	483	490	487	457	448	444	450	448	444	441	429	424



Source: CARB, 2019b

Notes:

(A) Totals may not equal due to rounding. CARB inventory uses GWPs based on the United Nations' IPCC's 4th Assessment Report.

8.2.4 Existing Project Site GHG Emissions

The existing structures within the project site contribute to the existing Veterans Homes of California - Yountville (VHC-Yountville) campus, regional, and statewide GHG emissions. The project site's existing GHG emissions, presented below in Table 8-3, were estimated using the California Emissions Estimator Model (CalEEMod), Version 2016.3.2. GHG emissions generated at the project site primarily come from the area and energy sources described in Section 4.2.6, as well as the following, additional sources specific to GHG emissions:

- **Energy use and consumption:** Emissions generated from purchased electricity and natural gas. As estimated using CalEEMod, the existing land uses at the project site use and consume approximately 342,169 kilowatt hours (kWh) of electricity per year and 1,273,217 kilo-British Thermal Units (kBtus) of natural gas per year.
- **Solid waste disposal.** Emissions generated from the transport and disposal of waste generated by land uses. CalEEMod approximately 37 tons of solid waste are generated per year by the land uses currently at the project site.
- **Water/wastewater:** Emissions from electricity used to supply water to land uses, and treat the resulting wastewater generated. As estimated in CalEEMod, existing land uses at the project use approximately 7.5 million gallons of water per year.

The project's existing GHG emissions were estimated using default emission assumptions provided by CalEEMod, with the project-specific modification described in Section 4.2.6 and below:

- **Energy use and consumption:** In addition to natural gas usage, the existing land uses at the project site generate indirect GHG emissions from electricity use. Pacific Gas and Electric (PG&E) provides electricity service to the VHC-Yountville campus. The CalEEMod default GHG intensity values for this electricity service provider are from 2008 and do not represent existing and future reductions in GHG intensity that have been achieved under the State's RPS (see Section 8.1.3). To account for this, CalEEMod default assumptions regarding energy use were adjusted as follows:
 - The PG&E GHG intensity value was reduced based on an increase in renewable energy mix from 20% underestimated Year 2012 conditions (the CalEEMod default data year) to 33% under existing conditions (2019, based on 2017 available data from PG&E). This adjustment reduces the estimated amount of CO₂ produced by the PG&E energy mix from approximately 641 pounds/megawatt-hour (lbs/MWh) to 294 lbs/MWh (PG&E 2018).
 - Electricity generation emission factors for CH₄ (0.033 lbs/MWh) and N₂O (0.004 lbs/MWh) were obtained from the U.S. EPA's EGRID database for year 2016, the last year for which data was available at the time this EIR was prepared (U.S. EPA, 2016d).

Table 8-3. Existing GHG Emission Estimates (Metric Tons / Year) ^(A)

Source	CO ₂	CH ₄	N ₂ O	Total MTCO ₂ e
Area	5.4	<0.0	<0.0	5.6
Energy	113.6	0.1	<0.0	115.4
Mobile ^(B)	0.0	0.0	0.0	0.0
Waste	7.5	0.4	0.0	18.6
Water	6.2	0.2	<0.0	11.3
Total	132.7	0.7	<0.0	150.9

Source: MIG, 2019; See Appendix B.

Notes:

(A) Totals may not equal due to rounding. “<0.0” does not indicate the emissions are less than or equal to 0; rather, it indicates the emission is smaller than 0.1, but larger than 0.0.

(B) Mobile source emissions not estimated, since the proposed project would not affect current residents traveling to and from the site as they currently do.

8.2.5 State and Regional Energy Setting

According to the California Energy Commission’s (CEC) 2015 Integrated Energy Policy Report, Californians consumed about 280,500 gigawatt hours (GWh) of electricity in 2014, and 13,240 million Btu of natural gas in 2013. The California Energy Commission estimates that by 2025, California’s electricity consumption will reach between 297,618 GWh and 322,266 GWh, an annual average growth rate of 0.54 percent to 1.27 percent (CEC 2015), and natural gas consumption is expected to reach between 12,673 million and 13,731 million BTUs by 2024, an average annual growth rate of -0.4 percent to 0.33 percent (CEC, 2015).

Approximately 71 percent of California’s electricity is generated from power plants located in the state and from plants that are outside of the state but owned by California utilities. About 14 percent is imported from the Pacific Northwest and 16 percent from the American Southwest (CEC, 2018a). Due in part to the state’s emphasis on renewable energy, California is second in leading the nation when it comes to net electricity generation from renewable resources. A top producer of electricity from conventional hydroelectric power, California is also a leader in net electricity generation from several other renewable energy sources. In 2018, California generated approximately 97,358 GWh of renewable electricity, accounting for 34 percent of the state’s overall electricity sales (CEC, 2018b).

In 2018, total electricity use in Napa County was 1,028 million kWh, including 364 million kWh of consumption for residential land uses and 664 million kWh for non-residential land uses (CEC 2019a). Natural gas consumption was approximately 39 million therms¹¹ in 2018, including approximately 21 million therms from residential land uses and approximately 19 million therms from the non-residential land uses (CEC, 2019b).

¹¹ A therm is a unit of heat equivalent to approximately 100,000 BTUs.

According to the Board of Equalization, statewide taxable sales figures indicate a total of 15,471 million gallons of gasoline and 1,777 million gallons of diesel fuel were sold in 2018 (CEC, 2019c). Although exact estimates are not available by County, retail fuel outlet survey data indicate Napa County accounted for approximately 0.4 percent of total statewide gasoline and diesel sales (CEC, 2019c).

8.3 PROJECT IMPACTS

8.3.1 CEQA Thresholds of Significance

Based on CEQA Guidelines Appendix G, implementation of the project or its alternatives would have a significant environmental impact related to GHG emissions or energy if it would:

- (a) Generate GHG 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 purposes of reducing the emissions of GHG;
- (c) Result in a potentially significant environment impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or
- (d) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

In May 2017, the BAAQMD published a new version of the CEQA Air Quality Guidelines, which includes revisions made to address the Supreme Court's decision on the *California Building Industry Association vs BAAQMD*. The Guidelines contain the BAAQMD's recommendations to lead agencies for evaluating and assessing the significance of a project's potential GHG impacts (BAAQMD 2017a). The BAAQMD's recommended CEQA thresholds of significance are shown in Table 8-4.

Table 8-4. BAAQMD Thresholds of Significance for GHG Emissions

Pollutant	Construction Emissions Thresholds	Operational Emissions Thresholds
GHG – Non-Stationary Source	None	• Compliance with Qualified Greenhouse Gas Reduction Strategy; or • 1,100 MTCO₂e per year; or • 4.6 MTCO₂e/SP per year (residents and employees)
GHG – Stationary source	None	• 10,000 MTCO₂e per year

Source: BAAQMD, 2017a

With regard to the BAAQMD's recommended GHG thresholds of significance, DGS notes:

- The BAAQMD does not maintain a GHG significance threshold for construction related GHG emissions. Common practice for construction related GHG emissions is to estimate

the total GHG emissions that would be generated by a project and divide this estimate by the project's useful lifetime. This practice, which is recommended by other agencies such as, but not limited to: the BAAQMD, the South Coast Air Quality Management District, and the San Luis Obispo County Air Pollution Control District, averages, or normalizes, GHG emissions over the life of the project so that they can be grouped with operational emissions and compared to operational thresholds (BAAQMD, 2017e; SCAQMD, 2008; SLOAPCD 2012). This EIR applies the lifetime averaging methodology for the purpose of evaluating the project's construction GHG emission levels.

- The BAAQMD's recommended mass-based 1,100 MTCO₂e per year threshold was developed in 2012; it is intended to identify the emissions level for which a project would not be expected to substantially conflict with existing California legislation in place at the time to reduce statewide GHG emissions (e.g., AB 32). Specifically, the 1,100 MTCO₂e threshold value was designed as the threshold required to meet the AB 32 requirement of reducing GHG emissions to 1990 levels by 2020 (BAAQMD 2009).
- Since the project is anticipated to be constructed over approximately 26 months, and would be operational in a year beyond 2020, it is not necessarily appropriate to evaluate the significance of the project's GHG emissions against the BAAQMD's 1,100 MTCO₂e per year threshold; however, this threshold does provide useful context for DGS in determining the significance of the project's GHG emissions. For example, presuming a 40 percent reduction in the BAAQMD's existing CEQA thresholds is necessary to achieve the State's 2030 GHG reduction goal (which is a 40 percent reduction below 1990 GHG emissions levels), a threshold of 660 MTCO₂e per year may be more appropriate for use in evaluating the project's GHG emissions in years after 2020¹².

Given the above, DGS is electing to evaluate whether the Yountville SNF project's GHG emissions would, either directly or indirectly, result in a significant impact by combining the project's estimated average annual construction emissions with its operational emissions against the 1,100 MTCO₂e per year threshold recommended by the BAAQMD, as well as a project-specific goal of 660 MTCO₂e per year. This allows DGS to demonstrate compliance with the currently adopted BAAQMD GHG threshold, as well as future GHG emissions reduction goals required under SB 32.

8.3.2 CEQA GHG Emissions

Global climate change is the result of GHG emissions worldwide; individual projects do not generate enough GHG emissions to influence global climate change. Thus, the analysis of GHG emissions is by nature a cumulative analysis focused on whether an individual project's contribution to global climate change is cumulatively considerable.

¹² The 660 MTCO₂e per year goal was developed by taking the 1,100 MTCO₂e per year threshold, which was the threshold to reduce emissions back to 1990 level and reducing it by 40 percent (1,100 MTCO₂e per year * [1 - 0.4] = 660 MTCO₂e per year). This demonstrates the progress required under SB 32. This linear reduction approach oversimplifies the threshold development process. DGS is not adopting nor proposing to use 660 MTCO₂e as a CEQA GHG threshold for general use; rather, it is only intended as information to place the magnitude of the project's GHG emissions in further context.

The proposed project would generate GHG emissions during short-term construction and long-term operational activities. Construction activities would generate GHG emissions primarily from equipment fuel combustion. Once operational, the proposed project would generate GHG emissions from the area, energy, and mobile sources described in Section 4.3.3, as well as the following additional sources specific to GHG emissions:

- **Water use and wastewater generation.** As estimated in CalEEMod, the proposed project is estimated to consume approximately 28.1 million of gallons per year. This estimate is likely to be higher than what the actual water consumption would be, since the project would be implement water reduction strategies beyond those identified in the 2019 Title 24 CalGreen Code to meet LEED Gold certification.^{13, 14}
- **Solid waste generation.** The proposed SNF would generate solid waste that requires landfilling. As estimated in CalEEMod, the total solid waste generated by the project would be approximately 219 tons per year.

GHG emissions from construction and operation of the proposed project were estimated in CalEEMod, version 2016.3.2. The emission estimates are based on the default data assumptions described contained in CalEEMod, as well as the following adjustments to default model assumptions:

- **Mobile Sources.** As described in Section 4.3.3.2, the default trip generation rate and distance for the proposed project was replaced with a rate to reflect 100 new trips to the site per day and a one-way trip distance of 19.7 miles, consistent with the information contained in the Transportation Impact Analysis (TIA) prepared for the project by Fehr and Peers (Fehr and Peers 2019). CalEEMod does not estimate N₂O emissions from on-road vehicle travel. CalEEMod also does not take into account GHG reductions that will occur under the State's LCFS program (see Section 8.1.3). To account for this, CalEEMod emission estimates were adjusted as follows:
 - N₂O emissions were estimated for the project by comparing the ratio of CO₂ and N₂O emissions for the on-road sector contained in the State's most recent GHG inventory (CARB 2019b). In 2017, statewide CO₂ and N₂O emissions estimates for the on-road transportation sector were 152.4 and 0.011 million metric tons,

¹³ The CalEEMod estimate of water consumption (i.e., 28.1 million gallons per year) is slightly greater than the annual water consumption if estimated using the values contained Table 2-1 (i.e., approximately 26.8 million gallons; 73,364 gallons per day x 365 days = approximately 26.8 million gallons). This over estimation in CalEEMod provides a conservative assessment of emissions associated with water transport, conveyance, distribution, and treatment associated with the proposed project.

¹⁴ The LEED Green Building Rating System is a voluntary, consensus-based, market-driven building rating system based on existing, proven technology. It evaluates environmental performance from a whole-building perspective over the building's life cycle. LEED is comprised of various assessment types depending on the type of development. The most widely used assessment type is LEED for Building Design and Construction (LEED BD+C). The most current LEED BD+C rating system is version 4.1, or "LEED v4.1 BD+C." The assessment categories for LEED v4.1 BD+C are: Integrative Process; Location and Transportation; Sustainable Site; Water Efficiency; Energy and Atmosphere; Material and Resources; Indoor Environmental Quality; Innovation; and Regional Priority.

respectively (N₂O emissions are therefore equal to 0.007% of CO₂ emissions for this sector).

- The CalEEMod estimate of CO₂ emissions was reduced by 10 percent to reflect the reduction in carbon intensity that would be achieved under the LCFS program by the year 2023.
- **Energy use and consumption.** In addition to natural gas usage, operation of the proposed project would generate GHG emissions from electricity use. CalEEMod contains default energy efficiency values that are based on the 2016 CalGreen Code. To account for more efficient energy use that would occur under the 2019 Title 24 CalGreen Code, CalEEMod default assumptions were adjusted as follows:
 - The CalEEMod default light energy intensity value for the SNF was adjusted downwards by a factor of 0.7 to reflect increased lighting efficiency in the 2019 energy code. In addition, the proposed project was modeled to surpass the Title 24 building code (i.e., CALGreen Code energy efficiencies) by 15 percent to reflect project-specific conditions (DGS 2019).

Table 8-5 below presents the project's potential GHG emissions from construction and operation of the proposed project.

Table 8-5. Project Construction and Operational GHG Emissions (Metric Tons / Year) ^(A)

Source	CO ₂	CH ₄	N ₂ O	Total MTCO ₂ e
Construction				
Total Construction GHG	2,058.6	0.3	0.0	2,065.0
Construction 30-Year Average	68.6	<0.0	0.0	68.8
Operational				
Area	18.4	<0.0	<0.0	19.1
Energy	215.2	<0.0	<0.0	216.9
Mobile	244.3	<0.0	<0.0	250.1
Waste	44.5	2.6	<0.0	110.1
Water	18.2	0.3	<0.0	37.4
Total Project GHG Emissions	609.1	3.3	<0.0	702.4
Existing GHG Emissions^(B)	132.7	0.7	<0.0	150.9
Net Project GHG Emissions	476.4	2.6	<0.0	551.5
BAAQMD Threshold				1,100
Exceeds Threshold?				No

Source: MIG, 2019. See Appendix B

Notes:

(A) Totals may not equal due to rounding. "<0.0" does not indicate the emissions are less than or equal to 0; rather, it indicates the emission is smaller than 0.1, but larger than 0.0

(B) See Table 8-3

As shown in Table 8-5, construction and operation of the proposed project would not exceed the BAAQMD's 1,100 MTCO₂e threshold of significance for non-stationary source GHG emissions. The magnitude of the project's GHG emissions primarily come from the project's energy and mobile source emissions, approximately 31 and 36 percent of the total project GHG emissions, respectively.

Table 8-5 evaluates and compares the proposed project's emissions against the BAAQMD's 1,100 MTCO₂e threshold of significance for land use projects, because this threshold is the only applicable threshold recommended for use by CEQA lead agencies by the BAAQMD. The 1,100 MTCO₂e threshold was developed in the early-2010s, and is intended to identify the emissions level for which a project would not be expected to substantially conflict with existing California legislation adopted to reduce statewide GHG emissions (e.g., AB 32, SB 375, etc.).

Since the proposed project's GHG emission would be below the BAAQMD's established 1,100 MTCO₂e threshold and the project-specific goal of 660 MTCO₂e per year, the proposed project would not generate emissions at a level that would have a significant impact on the environment. This impact would be *less than significant*.

8.3.3 CEQA Plan, Policy, and Regulation GHG Reduction Consistency

As described below, the project would not conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing GHG emissions, including CARB's 2017 Climate Change Scoping Plan, Executive Order B-18-12, and the BAAQMD 2017 Clean Air Plan.

CARB Scoping Plan and Executive Order B-18-12

The 2017 Climate Change Scoping Plan is CARB's primary document used to ensure State GHG reduction goals are met. The plan identifies an increasing need for coordination among state, regional, and local governments to achieve the GHG emissions reductions that can be gained from local land use planning and decisions. Nearly all of the specific measures identified in the 2017 Climate Change Scoping Plan would be implemented at the state level, with CARB and/or another state or regional agency having the primary responsibility for achieving required GHG reductions. These include programs like the State's Mobile Source Strategy, LCFS, and Sustainable Freight Action Plan, which are likely to reduce tailpipe GHG emissions from project GHG sources without any specific action taken by DGS.

The 2017 Climate Change Scoping Plan identifies Executive Order B-18-12 and the CalGreen Code as "key state initiatives supporting emissions reductions associated with buildings" (CARB 2017a). The proposed project would comply with the only applicable goal outlined in Executive Order B-18-12, which is that, "new state buildings must obtain LEED Silver certification or higher." The proposed project would be designed to LEED Gold certification standards, and would exceed the applicable CalGreen Code by 15% or more.¹⁵ In addition, as indicated in the

¹⁵ The LEED Green Building Rating System is a voluntary, consensus-based, market-driven building rating system based on existing, proven technology. It evaluates environmental performance from a whole-building perspective over the building's life cycle. LEED is comprised of various assessment types depending on the type of development. The most widely used assessment type is LEED for Building Design and Construction (LEED BD+C). The most current LEED BD+C rating system is version 4.1, or "LEED v4.1 BD+C." The assessment

draft LEED scorecard prepared for the proposed project, the SNF would implement indoor and outdoor water reduction strategies, which would go beyond those required by the 2019 CalGreen Code and help the project meet state agency water use reduction goals.

As discussed above, the proposed project would implement green building measures and utilizes an energy efficient design. As such, the proposed project supports the goals of Executive Order B-18-12 and therefore CARB's 2017 Climate Change Scoping Plan, which is designed to reduce statewide GHG emissions to 40 percent below 1990 levels by 2030. The project would not conflict with the 2017 Climate Change Scoping Plan nor Executive Order B-18-12.

Plan Bay Area 2040

As described in Section 8.1.3, Plan Bay Area 2040 is a long-range planning document developed by ABAG and MTC to reduce GHG emissions from land use and transportation. The project site currently consists of Jefferson Hall, Polk Hall, the Hostess House, Nurses Education Building, garages, and the band stage. These land uses have conservatively been assumed to not generate trips. Upon project operation, the proposed SNF would generate approximately 100 new trips per day associated with new employees traveling to and from the site. This represents an approximately 12 percent increase in vehicle trips and associated VMT from the VHC-Yountville campus (Fehr and Peers 2019).

Plan Bay Area 2040's strategy for reducing per-capita CO₂ emissions from cars and light-duty trucks by 15 percent is primarily based on locating new residential and commercial development in proximity to high-quality regional transit, such as Caltrain and BART. The proposed project is not located near any high-quality regional transit options, and the additional employee trips that would result from project implementation are a necessary component of SNF operations. Since the proposed project is not located near high-quality transit and does not consist of residential or commercial development, it would not conflict with the land use strategies identified in Plan Bay Area 2040 for reducing per-capita CO₂ emissions from cars and light-duty trucks by 15 percent. The State does, however, provide incentive for ride share, which would reduce per-capita CO₂ emissions from cars and light-duty trucks associated with the proposed project. As such, the proposed project would not conflict with Plan Bay Area 2040.

BAAQMD 2017 Clean Air Plan

The project would not conflict with or obstruct implementation of the BAAQMD's 2017 Clean Air Plan. The 2017 Clean Air Plan includes GHG emissions from construction and operational GHG emissions sources in its emissions inventories and plans for achieving Clean Air Plan goals. As discussed in Section 4.3.2, the proposed project would be consistent with the control measures identified in the Clean Air Plan. In addition, the proposed project would not exceed the BAAQMD's established 1,100 MTCO_{2e} threshold or the project-specific 660 MTCO_{2e} used to demonstrate progress toward the State's 2030 GHG emission reduction goal. Accordingly, the proposed project would not conflict with the 2017 Clean Air Plan.

categories for LEED v4.1 BD+C are: Integrative Process; Location and Transportation; Sustainable Site; Water Efficiency; Energy and Atmosphere; Material and Resources; Indoor Environmental Quality; Innovation; and Regional Priority.

8.3.4 CEQA Wasteful, Inefficient, or Unnecessary Consumption of Energy

Implementation of the proposed Project would increase the demand for electricity, natural gas, and gasoline and diesel consumption in the region during construction and operation.

Electricity and Natural Gas

Construction Use

Temporary electric power would be required at the project site to power lighting and electronic equipment (e.g., computers) located in trailers used by construction crews, and by small, off-road equipment (e.g., compressors) used during construction activities. However, the electricity used for such activities would be temporary and would have a negligible contribution to the overall energy consumption at the campus and regionally.

Substantial natural gas consumption is not anticipated to occur during Project construction activities. Fuels used for construction would generally consist of diesel and gasoline, which are discussed in the next subsection. Potential natural gas use during construction activities would not substantially contribute to overall energy consumption at the VHC-Yountville campus, and would not be unnecessary, inefficiency, or wasteful.

Operational Use

Once operational, the project would require electricity and natural gas for multiple uses, including, but not limited to building heating and cooling, lighting, appliance use (e.g., washer, dryer, microwave), and other electronics (e.g., televisions).

As described in Section 8.3.2, CalEEMod was used to estimate project emissions from energy uses. Electricity and natural gas consumption were estimated in CalEEMod by adjusting the CalEEMod default values to reflect compliance with the 2008 Title 24 Building Code for existing (i.e., 2019) conditions, and the 2019 Title Building Code for project operation in 2023. Table 8-6 summarizes changes in electricity and natural gas consumption between the existing land uses at the site in 2019 and consumption during operation of the SNF in 2023.

Table 8-6. Estimated Operational Change in Electricity and Natural Gas Consumption

Metric	2019	2023	Change
Total Electricity Consumption (kWh)	342,169	1,080,506	216%
Total Natural Gas Consumption (kBtu)	1,273,217	2,137,741	68%

Source: MIG, 2019 (see Appendix B)

As shown in Table 8-6, electricity and natural gas consumption at the project site is expected to increase by approximately 216 and 68 percent, respectively, under buildout of the project; however, these estimated changes in consumption do not capture the energy reductions that would occur at Holderman Building once skilled nursing functions have shifted to the new SNF. The proposed project would shift skilled nursing functions from a less energy efficient building to a more energy efficient building. As such, the electricity and natural gas that would be consumed by the project are not considered unnecessary, inefficient, or wasteful.

Diesel and Gasoline Fuel

Construction Use

Diesel and gasoline fuels, also referred to as petroleum in this subsection, would be consumed during construction activities. Fuel use by construction equipment would be the primary energy resource consumed during development activities, and VMT associated with the transportation of construction materials (e.g., deliveries) and worker trips would also result in petroleum consumption. Whereas on-site, heavy-duty construction equipment and delivery trucks would predominantly use diesel fuel, construction workers would generally rely on gasoline-powered vehicles to travel to and from construction sites. State regulations such as the LCFS would reduce the carbon intensity of transportation-related fuels, and all construction projects would be required to comply with CARB's Airborne Toxic Control Measures, which restrict heavy-duty diesel vehicle idling to five minutes. In addition, the proposed project may utilize renewable diesel fuel, if available for on-site delivery, which reduces the overall energy intensity needed to refine crude oil. The operation of construction equipment would be a necessary component of developing the project. Therefore, it would not be unnecessary, wasteful, or inefficient. The impact is *less than significant*.

Operational Use

Once operational, the proposed project would consume gasoline from additional employees traveling to and from the project site. Using CARB's EMFAC2017 web database, it is estimated the average fuel efficiency was for gasoline vehicles operating in Napa County during the 2023 calendar year is 27.3 miles per gallon. Based on the project's annual VMT estimate contained in the CalEEMod appendix, 722,817 annual VMT, it is estimated new employees at the project site will consume approximately 26,477 gallons of gasoline on an annual basis. This consumption increase would be nominal on a local and regional basis and would be required for employees to go to work. As such, fuel consumption during operation of the proposed project would not be unnecessary, inefficient, or wasteful.

The proposed project would not use energy in a wasteful, inefficient, or unnecessary manner. This impact would be *less than significant*.

8.3.5 CEQA Conflict with a State or Local Plan for Renewable Energy or Energy Efficiency

As discussed under Section 8.3.3, the proposed project would surpass the 2019 CalGreen efficiency standards by a minimum of 15 percent, and would meet LEED Gold standards. In addition, once operational, the existing skilled nursing operations at Holderman Building would be transferred to the new facility, which would be considerably more efficient. The project would be designed to meet LEED Gold certification standards and would not conflict with a state or local plan for renewable energy or energy efficiency. See Section 8.3.3 for a discussion of project consistency with applicable GHG plans, policies, and regulations (e.g., the CARB 2017 Climate Change Scoping Plan and Executive Order B-18-12), which are inherently tied to reducing energy consumption. This impact would be less than significant.

8.3.6 NEPA Thresholds of Significance

For the purposes of the NEPA analysis, the project would be found to have a significant effect on the environment if it generates GHG emissions in excess of 25,000 MTCO_{2e} on an annual basis. This is consistent with the U.S. EPA's Greenhouse Gas Reporting Program, which requires

facilities emitting 25,000 MTCO₂e or more of GHGs to report their GHG emissions to the U.S. EPA to inform future policy decisions.

8.3.7 NEPA GHG Analysis

As shown in Table 8-6 the proposed project is anticipated to result in the next generation of approximately 557.2 MTCO₂e during its first full year of operation. This is substantially below the 25,000 MTCO₂e threshold. As such, this impact would be *less than significant*.

8.4 MITIGATION MEASURES

There are no potentially significant air quality impacts requiring mitigation.

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CHAPTER 9 HAZARDS AND HAZARDOUS MATERIALS

This EIR Chapter describes hazards and hazardous materials in the project area. The Chapter includes an evaluation of potential impacts resulting from project implementation and discusses recommended mitigation measures as needed to reduce potentially significant impacts.

9.1 REGULATORY SETTING

Hazardous materials encompass a wide range of substances, some of which are naturally occurring and some of which are man-made. Examples include pesticides, herbicides, petroleum products, metals (e.g., lead, mercury, arsenic), asbestos, and chemical compounds used in manufacturing. Determining if such substances are present on or near project sites is important because exposure to hazardous materials above regulatory thresholds can result in adverse health effects on humans, as well as harm plant and wildlife ecology.

Due to the fact that these substances have properties that are toxic to humans and/or the ecosystem, there are multiple regulatory programs in place that are designed to minimize the chance for unintended releases and/or exposures to occur. Table 9-1 summarizes these regulations.

Table 9-1. Regulations of Hazardous Materials

Agency	Responsibilities
U.S. Environmental Protection Agency	Oversees Superfund sites; evaluates remediation technologies; develops standards for hazmat disposal & cleanup of contamination; implements Clean Air & Clean Water Acts, including the National Emission Standard for Hazardous Pollutants for Asbestos.
U.S. Department of Transportation	Regulates and oversees the transportation of hazardous materials.
U.S. Occupational Safety & Health Administration	Implements federal regulations and develops protocol regarding the handling of hazmat for the protection of workers.
CA Department of Toxic Substances Control	Authorized by EPA to implement & enforce various federal hazmat laws & regulations; implements state hazmat regulations; oversees remediation of contamination at various sites.
CA Occupational Safety & Health	Implements state regulations and develops protocols regarding the handling of hazmat for the protection of workers.
CA Air Resources Board / Bay Area Air Quality Management District	Regulates emissions of toxic air contaminants & requires public dissemination information regarding the risk of such emissions.
CA Water Resources Control Board / Regional Water Quality Control Board	Regulates the discharge of hazmat to surface and ground waters; oversees remediation of contamination at various sites.

Agency	Responsibilities
CA Department of Public Health	Regulates abatement of lead-based paint; requires accredited training for workers and supervisors; provides certification of workers and supervisors performing abatement; mandates lead abatement be performed in accordance with United States Department of Housing and Urban Development (US HUD) guidelines.
Consumer Product Safety Commission	Prohibits the manufacturing of paint that contains more than 90 ppm of lead.

9.1.1 Federal Toxic Substances Control Act and Related Toxic Regulations

The Toxic Substances Control Act (TSCA) of 1976 gives the U.S. EPA authority to require reporting, record-keeping, and testing requirements relating to chemical substances and/or mixtures. TSCA addresses the importation, disposal, use, and production of specific chemicals, including polychlorinated biphenyls (PCBs), asbestos, and lead-based paints (EPA 2012).

TSCA bans the manufacture, processing, use, and distribution in commerce of PCBs. TSCA gives the EPA the authority to develop, implement, and enforce regulations concerning the use, manufacture, cleanup, and disposal of PCBs. Section 40 of the Code of Federal Regulations 761 (40 CFR 761) focuses predominately on the management, clean up, and disposal of PCB-containing materials and equipment that are still in use.

The EPA regulates asbestos through TSCA, the Asbestos Hazard Emergency Response Act, the Asbestos Information Act, and the National Emission Standards for Hazardous Air Pollutants (NESHAP). NESHAP's are rules promulgated by the EPA under the Clean Air Act (40 CFR Section 61.140, et. seq.). Section 61.145 of the asbestos NESHAP regulation, 40 CFR, Subpart M, requires building owners to inspect buildings for asbestos-containing material prior to renovation, remodeling or demolition and to provide written notification of demolition or renovation operations. The EPA defines a material that contains more than 1 percent friable asbestos as a regulated asbestos-containing material (ACM).

The U.S. EPA monitors compliance with lead-based paint program regulations under TSCA Subchapter IV and Residential Lead-Based Paint Hazard Reduction Act of 1992. The U.S. EPA considers deteriorated, chipping or chalking paint at or above 0.5 percent to be a lead hazard. The EPA's 2008 Lead-Based Paint Renovation, Repair and Painting Rule (as amended in 2010 and 2011) requires that firms performing renovation, repair, and painting projects that disturb lead-based paint in homes, child care facilities, and pre-schools built before 1978 be certified by the EPA or an authorized state agency, use certified renovators who are trained by U.S. EPA-approved training providers, and follow safe work practices. The U.S. EPA also bans consumer products intended for use by children from having more than 0.009 percent lead paint when children or consumers will have direct access to the painted surface.

9.1.2 CARB Air Toxics Hot Spots (AB2588)

The CARB Air Toxics Hot Spots Program, enacted in 1987, requires stationary sources to report the types and quantities of certain substances routinely released into the air, including substances identified by the EPA and the CARB as hazardous air pollutants (HAPs) and TACs, respectively,

including asbestos and DPM. The goals of the Hot Spots program are to collect emission data, to identify facilities having localized impacts, to ascertain health risks, to notify nearby residents of significant risks, and to reduce those significant risks to acceptable levels. As part of the program, the Office of Environmental Health Hazard Assessment (OEHHA) has prepared a guidance manual, the Air Toxics Hot Spots Program Guidance Manual, for use in quantifying and evaluating health risks associated with emissions of Hazardous Air Pollutants and Toxic Air Contaminants (OEHHA 2015).

9.1.3 Bay Area Air Quality Management District

BAAQMD Regulation 11, Hazardous Air Pollutants, Rule 2, Asbestos Demolition, Renovation, and Manufacturing, is intended to control emissions of asbestos to the atmosphere during demolition activities. The rule requires the inspection for, and removal of, ACMs prior to demolition and to implement procedures for preventing emissions of asbestos for ACMs that cannot be removed (e.g., asbestos-containing concrete).

9.1.4 California Occupational Safety and Health Administration

Federal Occupational Safety and Health Administrations (OSHA) regulations, locally enforced by Cal/OSHA, define ACM as substances that contain greater than 1% asbestos. Cal/OSHA also mandates special training, medical exams, personal protective equipment and record keeping for employees working with asbestos-containing construction materials (ACCM), or materials that contain less than 0.1 percent asbestos. If a material contains less than 1 percent asbestos but more than 0.1 percent asbestos, the material may be disposed of as non-ACM, but the Cal/OSHA requirements would still have to be followed regarding workers' protection and Contractor licensing. "Trace" materials (i.e., materials <1 percent asbestos) are currently regulated in California and require the following:

- Removal using wet methods;
- Prohibition of removal using abrasive saws or methods which would aerosolize the material;
- Prompt clean-up of the impacted zone, using HEPA-filtered vacuums, as applicable;
- Employer registration by Cal/OSHA for removal quantities exceeding 100 sq. ft. per year; and
- Cal/OSHA Carcinogen Registration by the Demolition or Abatement Contractor impacting such materials.

Lead exposures in the workplace are also regulated by Cal/OSHA, which has certain regulatory requirements for identifying and controlling potential lead exposures. Currently applicable regulations for the construction industry have been adopted by Cal/OSHA (8 CCR 1532.1) from the Federal OSHA regulations. The current OSHA 8- hour Permissible Exposure Level (PEL) for lead is 50 µg/m³.

9.1.5 Lead-based Paint Disposal Requirements

Current EPA and Cal/EPA regulations do not require lead-based paint (LBP) to be removed prior to demolition, unless loose and peeling. Provided that the paints are securely adhered to the substrates (i.e., non-flaking or non-peeling), disposal of intact demolition debris can generally be handled in California as non-hazardous and non-RCRA waste. In California, loose and peeling lead-based paint (LBP) or other wastes require characterization and testing for leachability to determine if the materials would be classified as a RCRA or California hazardous waste.

9.1.6 Napa County Operational Area Hazard Mitigation Plan

The Napa County Operational Area Hazard Mitigation Plan is a federally mandated planning document created by local governments, including the Town of Yountville. The plan allows the Town to work hand in hand with other first responders and citizens to address key concerns in the drafting of a plan that reflects local resident interests in a manner which is consistent with Federal Emergency Management Agency (FEMA) requirements. The plan includes action items and goals that promote safety from flooding, earthquakes, and fire.

9.2 ENVIRONMENTAL SETTING

A Phase I Environmental Site Assessment (ESA) was completed for the Project area (Geocon Consultants Inc., 2019). AECOM Technical Services, Inc. (AECOM) then prepared an executive summary of a Hazardous Materials Survey Report (AECOM 2019).

9.2.1 History of Uses within the Project Area

The project site has been used as a veteran's home since 1884, and prior to that date the site was likely used for agricultural purposes, such as orchards or vineyards, or undeveloped (CalVet 2012). The Phase I ESA addresses 194-acres of the VHC-Yountville campus comprising dormitories, nursing facilities, a theater, baseball stadium, cafeteria, library, asphalt-paved roads and parking lots, maintenance shops, and recreational amenities. The site is surrounded by agricultural (vineyards) to the north and south, undeveloped parcel(s) in the Napa Valley foothills within the Coast Ranges of California to the west, and Vintner's Golf Course and Club and the Yountville wastewater treatment plant to the east.

The proposed project would replace six existing structures, which include two independent living facilities (Polk Hall and Jefferson Hall), carport garages, the Hostess House, the Nurses Education Building, and Bandstand.

9.2.2 Hazardous Materials and Hazardous Waste

The U.S. EPA defines hazardous materials as materials that may be dangerous or potentially harmful to human health, or the environment. Hazardous materials are often by-products of manufacturing uses or waste from commercial products such as cleaning fluids or pesticides. The U.S. EPA and other federal, state, and county regulatory agencies closely monitor manufacturing and commercial uses, and the disposition of hazardous materials. Hazardous materials require special methods of storage and treatment that common sewage and drainage systems are not capable of handling. Improper disposal can harm the environment and people who work in the waste management industry.

Phase I Environmental Site Assessment

A Phase I ESA is the initial investigation phase of a process established by the American Society for Testing and Materials (ASTM) Standards (ASTM E 1527-13), cited by the Superfund Clean-Up Act of 1998, as adequate due diligence by new purchasers of properties or their lenders prior to site development. Phase I ESAs are completed prior to property development by private parties to establish that the buyer has exercised due diligence in purchasing the site. If a Phase I ESA indicates evidence of site contamination, a Phase II ESA is typically required prior to site development to further investigate the potential for contamination of that project's site. A Phase II ESA typically involves collection of samples of soil, groundwater, air, and/or building materials to measure and analyze quantities of various contaminants. The most frequent

substances tested for include petroleum hydrocarbons, heavy metals, pesticides, solvents, asbestos, lead-based paint, and mold. Appropriate cleanup levels for each contaminant are determined by lead jurisdictional agencies.

A Phase 1 ESA was performed on approximately 194 acres of the VHC-Yountville campus (Geocon Consultants, Inc. 2019). The Phase 1 ESA conducted a record search of federal, state, and local environmental databases and identified multiple potential releases of hazardous substances or recognized environmental conditions (RECs) pursuant to ASTM E 1527-13.

The Phase 1 ESA identifies two RECs adjacent to the proposed SNF project site. The presence of gasoline and related chemical components in soil and groundwater in the immediate vicinity of the maintenance shop and an inground lift inside the maintenance shop are REC. The petroleum in groundwater from a leaking underground storage tank (LUST) is being investigated and monitored by Alisto with NCEHD oversight. The LUST clean-up site (T0605500293; RB case 28-0339) is under active verification monitoring (SWRCB, 2019). Based on available soil and groundwater data, excavation work in front of the maintenance shop is unlikely to encounter petroleum-impacted soil or groundwater. If any apparent contamination (i.e. staining, odors, buried debris, asbestos pipe, etc.) is encountered during excavations, the affected area would require proper handling and disposal in accordance with regulatory requirements.

The existing land uses on the proposed VHC-Yountville SNF project site do not involve the use of underground storage tanks or other large-scale use or storage of hazardous materials that could result in their inadvertent release into the environment. Hazardous materials used and stored on the project site are limited to small amounts used in medical supplies, cleaning supplies and in fuels and fluids for vehicles and equipment. According to the GeoTracker and EnviroStor websites, there are no hazardous material or land disposal clean-up sites within 1,000 feet of the project site (SWRB, 2019).

Asbestos and Soil Contaminant Survey

Vista Environmental Consulting prepared a soil assessment in 2016 for renovation of a steam distribution line project on the Veterans Home campus. The assessment evaluated the path of construction for asbestos containing materials (ACM) and Title 22 metals and organochlorine pesticides (OCPs). Vista collected surface (0 to 6 inches) and subsurface (12 to 18 inches) soil samples from ten locations (20 samples total) within eight sections of the path of construction and having those samples analyzed for metals by USEPA Test Method 6010B and OCPs by USEPA Test Method 8081A. The findings of Vista's ACM survey and soil assessment are summarized in the Phase 1 ESA report (Geocon Consultants, Inc. 2019) as presented below.

Metals

Laboratory chemical analysis detected several metals in the soil samples including arsenic, barium, beryllium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, vanadium, and zinc. Vista specifically noted arsenic, chromium, lead, and mercury as having been detected at concentrations of concern. Following are summaries of those metals' concentrations, how they compare to various health risk-based regulatory screening levels, and if mitigation to protect site residents and workers appears to be warranted or not.

Arsenic

Arsenic was detected in Vista's soil samples at concentrations ranging from 3.4 to 18 milligrams per kilogram (mg/kg) with concentrations in 19 of 20 samples ranging from 3.4 to

8.3 mg/kg making the 18 mg/kg a statistical outlier for this data set. Vista cites these concentrations as exceeding the San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) for arsenic in soil in a residential setting, commercial/industrial setting, and for construction worker exposure. Although various man-made sources of arsenic exist such as arsenical herbicides and pesticides, arsenic is also a naturally occurring metallic element in rock and soil and its naturally occurring (or “background”) concentrations in soil can range up to 12 mg/kg (Duverge, 2011 and Bradford et al, 1996) and higher depending on the mineralogy of the soil’s parent material. In some geologic settings in California, naturally occurring arsenic can exceed 100 mg/kg or higher. There are no readily (publicly) available Napa County-specific studies regarding naturally occurring arsenic in soil. However, at a former industrial property in Napa where Vista oversaw construction excavation for redevelopment of that property, existing soil investigation data showed that arsenic concentrations in shallow soil there ranged from less than 3.3 to 12 mg/kg.

Because of the ubiquitous nature of naturally occurring arsenic in California rock and soil, California regulatory agencies such as the Department of Toxic Substances Control (DTSC) typically allow comparison of arsenic levels in soil to naturally occurring background concentrations as opposed to health risk-based screening levels such as ESLs. With the exception of one reported arsenic concentration of 18 mg/kg from Vista’s assessment, the arsenic concentrations in the soil samples were within the range of naturally occurring background arsenic levels for California, the San Francisco Bay Area, and Napa County. The 18 mg/kg may also be reflective of naturally occurring arsenic or could be due to a man-made source such as termiticides (see OCPs below), but it is statistically not significant and does not indicate the presence of significant man-made arsenic impacts to soil in the path of construction.

Chromium

Chromium concentrations in Vista’s soil samples ranged from 20 to 120 mg/kg, with concentrations in 19 of the samples ranging from 20 to 65 mg/kg. Chromium, like arsenic, is a naturally occurring mineralogic component of rock and soil and its naturally occurring concentrations in California range from 23 to well over 1,000 mg/kg (Bradford, et al) depending on the geologic setting. In particular, the mafic geologic formations in the northern Coast Ranges (in which Napa County is located) commonly have higher naturally occurring chromium, nickel, and magnesium concentrations. Vista compared the reported chromium concentrations for their soil samples to the ESLs for hexavalent chromium (Cr VI) a more toxic form of chromium that is less-common in soil under most natural geochemical conditions. Hexavalent chromium is typically found in groundwater from industrial sources where certain geochemical conditions can oxidize trivalent chromium (Cr III) to Cr VI. The laboratory analysis results are for total chromium and should be compared to ESLs for the more-common total chromium or Cr III. None of the reported chromium concentrations exceed the ESLs for Cr III in a residential, commercial/industrial, or construction worker exposure scenario.

Lead

Lead was detected at concentrations ranging from 13 to 390 mg/kg. Six of the reported lead concentrations exceed the ESL for lead in residential soil of 80 mg/kg and two exceed the ESL for construction worker exposure of 160 mg/kg as well as the ESL for lead in commercial/industrial soil of 320 mg/kg.

Mercury

Mercury was detected at concentrations ranging from 0.027 to 19 mg/kg. Concentrations reported for 19 of the 20 soil samples ranged from 0.027 to 2 mg/kg making the 19 mg/kg concentration a statistical outlier for this data set. The mercury concentration of 19 mg/kg exceeds the ESL for mercury in residential soil of 13 mg/kg, but not the commercial/industrial or construction worker exposure ESLs.

Organochlorine Pesticides (OCPs)

OCPs and their degradation products including 4,4-DDD, 4,4-DDE, 4,4-DDT, heptachlor, heptachlor epoxide, chlordane, and dieldrin were detected in some of Vista's soil samples. These OCPs are likely present in soil from application of termiticides around site structures. Heptachlor epoxide was detected in one soil sample at a concentration of 0.098 mg/kg, which exceeds the ESL for heptachlor epoxide in residential soil of 0.062 mg/kg, but not the commercial/industrial or construction worker exposure ESLs for heptachlor epoxide. Chlordane was detected in two soil samples at concentrations of 11.3 and 1.56 mg/kg, both of which exceed the ESL for chlordane in residential soil of 0.48 mg/kg and one of which exceeds the ESL for commercial/industrial soil of 2.2 mg/kg, but neither concentration exceeds the construction worker exposure ESL for chlordane of 14 mg/kg.

Hazardous Building Materials

AECOM (2019) conducted a hazardous materials investigation of the existing structures on the project site. The survey was limited to the interior and exterior areas of the existing two independent living facilities (Polk Hall and Jefferson Hall), Bandstand Building, Hostess House, the Nurses Education (Security) Building, and the carport garages near Jefferson Hall. The results of the survey are summarized in the sections below.

Asbestos Containing Materials

AECOM (2019) performed a hazardous materials survey to identify ACMs, ACCMs, lead-containing materials (LCM) and other hazardous materials and/or universal wastes (e.g. PCB, Mercury, etc.) in support of the planned renovation/demolition project.

ACM were detected in several of the buildings surveyed. Table 9-2 provides a summary of ACM identified within the buildings surveyed.

Table 9-2. Asbestos Findings in Hazardous Materials Survey

Building	Location	Material	Approximate Area
Bandstand Building	Exterior windows	Window Putty (<1.0%)	10 Windows
Bandstand Building	Interior – Lobby Area	Red/Orange 1-foot by 1-foot Floor Tile (+) with Mastic (-)	30 square feet
Bandstand Building	Interior – Administration Office	Dark Gray 1-foot by 1-foot Floor Tile (+) with Mastic (+)	16 square feet
Bandstand Building	Interior – Administration Office	Light Blue 1-foot by 1-foot Floor Tile (+) with Mastic (-)	90 square feet
Hostess House	Under carpet in each all eight apartments	Gray 9-inch by 9-inch Floor Tile (+) with Mastic (-)	2,065 square feet
Hostess House	Maintenance Room	Thermal System Insulation	10 linear feet
Hostess House	Maintenance Room	Transite Piping	10 linear feet
Security House	First Floor – Dining Room/Kitchen	Brown Linoleum Flooring (-) with Backing (+)	200 square feet
Security House	First Floor – Fire Fighters Room	Brown 1-foot by 1-foot floor tile (<1.0%) Under Carpet	400 square feet
Security House	Exterior of the house	Exterior Stucco (+)	4,000 square feet

Source: AECOM, 2019.

Notes:

(+) = Positive for asbestos fibers.

(-) = No asbestos detected by the laboratory.

Lead Containing Materials

A Thermo NITON XL2 980 GOLDD XRF instrument was used to evaluate painted surfaces for lead content in the Buildings. If the painted surface(s) was identified as loose and flaky, paint chip sample(s) were collected for laboratory analysis. Table 9-3 lists results from paint chip analysis.

Table 9-3. Lead Findings in Hazardous Materials Survey

Building	Location	Pain Color/Substrate	Results (% by weight/ppm)
Bandstand Building	East Side Underneath Awning	Light blue/wood	18,000
Bandstand Building	Women's Restroom	Brown/wood	51,000
Bandstand Building	Women's Restroom	Brown blue/wood	210,000
Bandstand Building	East Side Handrail	Brown/metal	33,000
Hostess House	Southern Parking Garage	Brown/Wood	350,000
Hostess House	Southern Parking Garage	White/Wood	340,000
Hostess House	Northern Parking Garage	Brown/Wood	260,000
Security House	Exterior – Entrance Door	Red and Light Blue/Wood	180,000
Security House	Exterior – Entrance Door Frame	Brown/Wood	110,000
Security House	Exterior – South Side Window Frame	Blue/Wood	260,000
Security House	Exterior – North Side Door	White/Wood	150,000

Source: AECOM, 2019

Polychlorinated Biphenyls (PCBs) & Mercury-Containing Items

The Hazardous Materials Survey Report identified a potential for mercury- and PCB-containing light ballasts and fluorescent tubes (AECOM 2019).

9.3 PROJECT IMPACTS

9.3.1 Thresholds of Significance

Based on CEQA Guidelines Appendix G, the implementation of the project or its alternatives would have a significant environmental impact related to hazards and hazardous materials if it would:

- (a) Create a significant hazard to the public or the 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 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, 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.

9.3.2 Impacts Dismissed from Further Consideration

The proposed project would have no or minimal impact with regard to the following thresholds; therefore, these issues are dismissed from further discussion in the sections below:

- The nearest school is Yountville Elementary School, approximately 0.7 miles to the north west of the project site, which would not be at risk from potential emissions from the project. (Threshold c)
- The project site is not within an airport land use plan or within two miles of a public airport or public use airport. The closest public airport to the project site is Sonoma Skypark, approximately 10 miles southwest of the site. Therefore, the project would not result in a safety hazard for people residing or working in the project area. (Threshold e)
- The proposed project would not impair implementation of or physically interfere with the Napa County Operational Area Hazard Mitigation Plan (2013) or any County evacuation plans. Access roads at the site would be wide enough to allow for emergency vehicle access as well as evacuation procedures during an emergency. (Threshold f)

9.3.3 Routine Transport, Use or Disposal of Hazardous Materials

Construction Impacts

Transport and Disposal

There are a number of hazardous materials that would be transported and disposed of from the project site during demolition, as well as use of hazardous materials during all phases of project construction. Hazardous materials that could be transported and disposed of includes lead-based paint, mercury, asbestos, and PCBs. Various types of fuels, oils, and lubricants associated with construction vehicles would be used throughout the project. Paints, thinners, adhesives, solvents, and other such materials are anticipated to be used during construction of the new facility. Mitigation Measures HAZ-1A, HAZ-1B, and HAZ-1C contain requirements to identify the presence of hazardous materials in differing types of construction materials to be used for the project and to dispose of any materials identified as hazardous in an appropriate way. Implementation of Mitigation Measures HAZ-1A through HAZ-1C and the identification of hazardous materials and following existing codes and regulations, such as the Toxic Substances Control Act, in regards to transport and disposal would reduce potential impacts from the routine transport and disposal of hazardous materials to *less than significant with mitigation incorporated*.

Use

Routine construction control measures and BMPs regarding use of hazardous materials such as fuels, oils, and lubricants would be sufficient to keep potential impacts from the use of hazardous materials at a *less-than-significant* level.

Fugitive Dust

As discussed above in section 9.3.3, an Asbestos and Soil Contaminant Survey (Vista 2016) evaluated portions of the VHC-Yountville campus soils for the presence of Title 22 metals and organochlorine pesticides (OCPs). The potential for project impacts related to these compounds are discussed below.

Arsenic and Chromium. Arsenic and chromium were found at naturally occurring at background levels consistent for the region. No additional action to assess the nature and extent of arsenic in soil at the Yountville SNF site appears to be warranted. Measures to address potential exposures to lead concentrations in soil would also minimize exposures to other soil constituents, including naturally occurring arsenic and chromium.

Lead. Most of the reported lead concentrations in soil are less than the residential ESL (80 mg/kg). However, lead exceeding residential ESL, construction worker ESL (160 mg/kg), and commercial/industrial ESL (320 mg/kg) is present in some areas of the campus and if present at the SNF project site, ground-disturbing project construction activities could result in airborne dust (particulates) containing these hazardous levels of lead. Due to the known presence of lead exceeding ESL levels, protective measures are warranted to reduce exposure of residents and workers. Mitigation should include water spray to minimize generation of airborne dust (particulates) during soil-disturbing activities (i.e., excavation and backfilling), short-term particulate/air monitoring during the first day or two of construction activities to confirm the effectiveness of dust control and establish that negative exposure conditions exist (i.e., lead not detected or detected at low concentrations in airborne particulate samples), and lead-awareness training for construction workers. Lead awareness training would consist of notifying workers of the presence of lead at elevated concentrations in soil in some portions of the path of construction, proper use of personal protective equipment (Level D protection), health and safety precautions (washing hands before eating, drinking, or smoking), and the results of particulate/air monitoring. Soil testing is required in Mitigation Measure HAZ-2A to evaluate the presence of metals in project soils. Protective measures to control exposure to lead are included in Mitigation Measure HAZ-2B. Implementation of these measures would mitigate potential exposure to airborne particulates from contaminated soil. The impact is *less than significant with mitigation incorporated*.

Mercury. Mercury was detected at higher concentrations exceeding ESLs in a residential setting, in one sample indicating some potential for these metals to be present at the proposed SNF project site. The report concluded that the single detection of elevated mercury suggests that additional action to assess the nature and extent of mercury in soil at the SNF project site is not warranted. Soil testing and remediation for metals is required in Mitigation Measure HAZ-2A. Protective measures of water spray for fugitive dust control, particulate/air monitoring, and worker exposure training identified in Mitigation Measure HAZ-2B would further reduce potential exposure to mercury in airborne particulates. The impact is *less than significant*.

OCPs. Organochlorine pesticides and their degradation products were detected, including 4,4-DDD, 4,4-DDE, 4,4-DDT, heptachlor, heptachlor epoxide, chlordane, and dieldrin. Heptachlor epoxide was detected in one sample at a level exceeding the residential ESL (0.062 mg/kg). One Chlordane sample exceeded the residential ESL (0.48 mg/kg) and one exceeding the commercial/industrial ESL (2.2 mg/kg). The construction worker ESL was not exceeded. Onsite soil sampling would be conducted at the SNF project site to test for OCPs and remediate as appropriate before it would be acceptable for use as a SNF residential facility. Mitigation Measure HAZ-2A would implement soil testing to determine if OCPs are present at the SNF site and remediation as appropriate to achieve compliance with regulatory requirements. The impact is *less than significant with mitigation incorporated*.

Operation Impacts

Operation of the new SNF once completed would continue to use applicable BMPs and obey existing regulations relating to the routine use of hazardous materials, such as cleaning solvents. No new hazardous materials would be introduced to the SNF as a result of this project. The impact is *less than significant*.

9.3.4 Accidental Release of Hazardous Materials

Construction Impacts

There is potential for accidental release of hazardous materials that would be transported, used, and disposed of during project demolition and construction. Mitigation Measures HAZ-1A through HAZ-1C contain requirements to identify the presence of hazardous materials in differing types of construction materials present in the project site buildings to be demolished, and to dispose of any materials identified as hazardous in an appropriate way. The identification of hazardous materials, following existing codes and regulations such as the Toxic Substances Control Act, and implementation of Mitigation Measures HAZ-1A through HAZ-1C would reduce potential impacts from the use of hazardous materials to a less-than-significant level. The impact is *less than significant with mitigation incorporated*.

Aboveground Fuel Tank

The proposed SNF project includes a 5,000 gallon above ground diesel fuel tank to supply an emergency generator (96-hr, 1500kv). Diesel fuel is a hazardous material. This tank would be doubled walled to minimize the potential for leaks and installed on a concrete containment pad. The above ground location allows for visual inspection of the tank for leaks. Fuel leaks would be contained on the concrete pad to avoid soil contamination. The tank would be installed per permit requirements. The risk of accidental release of fuel during upset conditions is low and the impact is *less than significant*.

9.3.5 Project Site on Hazardous Materials List pursuant to Government Code Section 65962.5 (Cortese List)

As described in Section 9.2.2 above, no known hazardous material clean-up sites are located on the project site proposed for development. Two RECs are identified at the maintenance shop located adjacent to the project site. These RECs are located at least 1,000 feet from the SNF development site and are not anticipated to impact the SNF project. Project site excavation is unlikely to encounter petroleum-impacted soil or groundwater caused by the RECs located at the maintenance shop. If any apparent contamination (i.e. staining, odors, buried debris, asbestos pipe, etc.) is encountered during project excavations, the affected area would require proper

handling and disposal in accordance with regulatory requirements per the Phase 1 ESA recommendations (Geocon Consultants 2019). Mitigation Measure HAZ-2 requires materials showing evidence of contamination would be assessed for presence of hazardous materials and handled for disposal according to regulatory requirements. The impact is *less than significant with mitigation incorporated*.

9.3.6 Significant Risk of Loss, Injury, or Death Involving Wildland Fires

Wildfire risk is discussed in Chapter 14. The project site is located near but not within a high fire hazard area. The project itself would not exacerbate the risk of wildfire. Defensible space would be established around the project structures in accordance with CalFire recommendations. As a result, the project would not cause a significant risk of loss, injury, or death involving wildland fires. The impact is *less than significant*.

9.4 MITIGATION MEASURES

Impact HAZ-1: Demolition, removal, and transport of building materials containing lead, asbestos containing material (ACM), PCBs, mercury, could result in airborne emissions of lead or ACM resulting in exposure of workers or the environment to a hazardous material.

Mitigation Measure HAZ-1A: Demolition Debris Management and Disposal Plan. CalVet or its Contractor shall develop and implement a demolition debris management and disposal plan for the non-RCRA hazardous materials that are to be removed from the project site. The plan shall be designed to prevent releases of hazardous materials in quantities that could pose a risk to human health and the environment, as determined using appropriate BAAQMD, RWQCB, DTSC, and/or other appropriate agency screening thresholds.

The plan shall identify the receiving qualified landfill and present proof of waste acceptance. The plan shall specify measures to minimize airborne dust during building deconstruction and soil movement to protect construction workers and neighboring residents from exposure to hazardous material emissions. The plan shall address protection of worker exposure to airborne lead paint particulates through use of personal protective gear, clear identification of the location of hazardous materials, and removal by properly trained/certified workers, and proper cover and transport of hazardous materials, etc.

Mitigation Measure HAZ-1B: Hazardous Materials Handling During Demolition.

Consistent with the Hazardous Materials Survey Report prepared for the project (AECOM 2019):

- Remove and dispose of ACM prior to demolition using a licensed abatement contractor in accordance with Federal, State, and local regulations and ordinances.
- Prepare documents and specifications for the demolition project to control the project and ensure lawful removal techniques are used.
- Have a third-party asbestos consultant provide demolition oversight to document that the contractor complies with the specifications, proper protective equipment is used, and proper disposal procedures are followed.
- Follow Federal, State and local regulations for proper abatement and disposal of ACM.
- Notify Bay Area Air Quality Management District with an asbestos notification form prior to demolition activities of the tanks and asbestos containing piping.

- Lead based paint (LBP) should be removed and stabilized by a licensed lead abatement contractor and disposed following Federal, State, and local regulations. LBP may be disposed as construction debris if it remains on the substrate pending sample results of lead waste characterization.
- The demolition contractor should implement precautions to comply with OSHA 29 CFR 1926.62, Lead in Construction.
- Prior to demolition or renovation activities, all UHM identified within the Buildings e.g. potential PCB containing light ballasts and fluorescent tubes should be removed and properly recycled or disposed of by a licensed contractor according to all federal, state and local regulations. All light fixtures should be visually inspected prior to disposal to determine if they contain PCBs (check for “No PCB” or “PCB Free” labels). Also, mercury containing ballasts or thermometers should be recycled for their mercury contents.

Mitigation Measure HAZ-1C: PCBs and Mercury-containing Materials Disposal. PCBs and mercury-containing materials in the existing buildings to be demolished shall be disposed of in accordance with Cal/EPA regulations prior to building demolition. Disposal methods may include those suggested in the Hazardous Materials Survey Report (AECOM 2019).

Effectiveness: *These measures would avoid exposure of workers and the environment to hazardous materials during construction.*

Implementation: *CalVet or its Contractor.*

Timing: *Prior to (Mitigation Measure HAZ-1A) and during (Mitigation Measures HAZ-1B, HAZ-1C and HAZ-1D) construction.*

Monitoring: *Compliance with the demolition debris management and disposal plan and the Hazardous Materials Survey Report during demolition and construction shall be documented and submitted to CalVet.*

Impact HAZ-2: Presence of soils containing elevated metals, ACMs, or OCPs could expose future residents of the SNF to a hazardous material. Excavation or transport of project soils containing elevated metals, ACMs, or OCPs could result in airborne emissions of lead or ACM resulting in exposure of workers or the environment to a hazardous material. Excavation of project soils could encounter contamination from adjacent recognized environmental conditions (RECs).

Mitigation Measure HAZ-2A: Project Soils Testing. CalVet shall conduct soil testing to evaluate the project site for presence of metals and organochlorine pesticides (OCPs) in project soils. If present at levels exceeding residential ESLs, site remediation shall occur by removal of the OCPs contaminants to a suitable hazardous waste disposal facility or by other standard practice to achieve compliance with regulatory requirements.

Mitigation Measure HAZ-2B: Soil Management During Construction. The following measures shall be implemented during soil disturbance activities:

- Water spray to minimize generation of airborne dust (particulates) during soil-disturbing activities (that is, excavation and backfilling).
- Short-term particulate/air monitoring during the first day or two of construction activities to confirm the effectiveness of dust control and establish that negative exposure

conditions exist (that is, lead/mercury/organochlorine pesticides not detected or detected at low concentrations in airborne particulate samples).

- Contaminant-awareness training for construction workers that would consist of notifying workers of the presence of lead, mercury, and organochlorine pesticides at elevated concentrations in soil in some portions of the path of construction, proper use of personal protective equipment (Level D protection), health and safety precautions (washing hands before eating, drinking, or smoking), and the results of particulate/air monitoring.

The facility shall consider further precautions of managing air intake sources and limiting open air ventilation (open windows) at adjacent buildings occupied by residents or staff during soil-disturbing activities.

Mitigation Measure HAZ-2C: Hazardous Materials Encountered During Construction. If any apparent contamination (i.e. staining, odors, buried debris, asbestos pipe, etc.) is encountered during excavations, the affected area materials shall be evaluated for presence of hazardous materials. All materials shall be assessed and handled for disposal in accordance with regulatory requirements.

Effectiveness: *These measures would avoid contamination from project soils containing hazardous materials.*

Implementation: *CalVet or its Contractor.*

Timing: *Excavations during construction.*

Monitoring: *Assessment and disposal of hazardous materials encountered during excavation activities shall be documented and submitted to CalVet.*

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CHAPTER 10 HYDROLOGY/WATER QUALITY

10.1 REGULATORY SETTING

This section describes the federal, state, and local regulatory context to be considered for the proposed project, and addresses hydrology and water quality concerns, including development strategies, stormwater pollution prevention plans, and stormwater management practices.

10.1.1 Federal Regulations

Section 402 of the Clean Water Act

The Clean Water Act (CWA) authorizes the U.S. Environmental Protection Agency to regulate water quality in California by controlling the discharge of pollutants to water bodies from point and non-point sources through the National Pollution Discharge Elimination System (NPDES).

In Napa County, as with the rest of the Bay Area, NPDES permits are administered by the San Francisco Bay RWQCB, a division of the SWRCB. Phase I of the NPDES program covered discharges from industrial sites, construction sites larger than five acres, and municipal separate storm sewer systems (MS4s) serving populations of more than 100,000 people. The Phase II expansion of the MS4 program in 1999 expanded its coverage to include “Small” MS4s that serve:

- Urbanized areas as defined by the U.S. Census;
- Areas of high growth or high growth potential;
- Areas that discharge to sensitive water bodies or another regulated MS4; and,
- Areas that make a significant contribution to pollution of waters of the U.S.

Stormwater discharges in the Town of Yountville, as with all of Napa County, are permitted under the NPDES requirements for Small MS4s (Phase II). The SWRCB has established a general permit process that allows the RWQCB to more efficiently regulate stormwater discharges from Small MS4s. The current general permit is the SWRCB-adopted *General Permit for the Discharge of Storm Water from Small MS4s* (Water Quality Order No. 2013-0001-DWQ, NPDES General Permit No. CAS000004) and all eligible MS4s are required to comply with its provisions, which include construction- and post-construction-phase stormwater runoff controls and water quality BMPs for new and re-development.

Small MS4 owners/operators must reduce pollutants in stormwater to the maximum extent practicable (MEP) to protect water quality. The regulations specify that compliance with the MEP requirement can be attained by developing a stormwater management plan that addresses the six minimum control measures described in the stormwater regulations.

The general permit provisions include post-construction provisions to prevent non-stormwater discharges, minimize the discharge of pollutants in stormwater runoff, and prevent a development-caused worsening of stream channel erosion and sediment deposition resulting from hydromodification of a watershed. In order to minimize pollutant discharges, projects must provide the capacity to either infiltrate or evapotranspire all runoff generated by the 85th

percentile storm event,¹⁶ typically through the application of low impact development (LID) design principles that seek to minimize the amount of land covered by impervious surfaces and maximize opportunities for infiltration. Treatment measures must be provided for runoff that cannot be diverted from the site's stormwater discharges in this way, using specified BMPs that are able to remove or otherwise neutralize identified pollutants. High flow rates that cannot be sufficiently reduced by site design strategies must be controlled through the provision of detention storage or through stabilization of downstream conveyances that would be adversely affected. Because these required treatment and detention facilities will require maintenance for the life of a development project, developers must also establish a dedicated funding responsibility for either the future owners of the land or a designated public entity. The DGS Project Director is required to enforce these site design and water quality protection measures for all new and redevelopment state projects within its jurisdiction during project construction. Yountville participates in the Napa Countywide Stormwater Pollution Prevention Program (NCSPPP), which is a joint effort with the other municipalities in the County to prevent stormwater pollution, protect and enhance water quality in creeks and wetlands, preserve beneficial uses of local waterways, and comply with State and Federal regulations.

Construction Sites

The SWRCB administers the NPDES General Permit for Discharges of Stormwater Runoff Associated with Construction Activity (General Construction Permit). In order to cover a construction project disturbing one acre or more of land under the General Construction Permit, a facility must submit a Notice of Intent to the SWRCB prior to the beginning of construction. Effective July 1, 2010, all dischargers are required to obtain coverage under the Construction General Permit Order 2009-0009-DWQ adopted on September 2, 2009. The General Construction Permit requires that projects develop and implement a Stormwater Pollution Prevention Plan (SWPPP), identifying potential sources of pollution and specifying runoff controls during construction for the purpose of minimizing the discharge of pollutants in stormwater from the construction area. The SWPPP should contain a site map which shows the construction site perimeter, existing and proposed buildings, lots, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the project. The SWPPP must list BMPs the discharger will use to protect stormwater runoff and the placement of those BMPs. Additionally, the SWPPP must contain a visual monitoring program; a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment.

The permit also includes post-construction standards with the requirement for all construction sites to match pre-project hydrology to ensure that the physical and biological integrity of aquatic ecosystems is maintained. This "runoff reduction" approach is analogous in principle to LID and serves to protect related watersheds and water bodies from both hydrologic-based and pollution impacts associated with the post-construction landscape.

¹⁶ The 85th percentile storm represents a specific intensity for which all storms of lesser or equal intensity generate 85 percent of the total annual rainfall, while more intense storms only generate 15 percent of the total. Consequently, treatment facilities designed to accommodate runoff from the 85th percentile storm have sufficient capacity to treat 85 percent of total annual runoff.

10.1.2 State Regulations

California Porter-Cologne Act

The Porter-Cologne Act requires "any person discharging waste, or proposing to discharge waste, within any region that could affect the waters of the State (any surface water or groundwater, including saline waters) to file a report of discharge" with the local RWQCB by submitting an application for waste discharge. The RWQCB determines if a project should be regulated pursuant to this act based on the likelihood that it would pose any "threat" to water quality. The San Francisco Bay RWQCB considers the placement of clean fill in waters of the State to constitute "pollution," because it can potentially alter existing water quality, which may adversely affect its beneficial uses.

Sustainable Groundwater Management Act

In 2014, a new law was signed intended to create a framework for sustainable management of groundwater resources in California. The law, called the Sustainable Groundwater Management Act, requires governments and water agencies with management responsibilities in medium- and high-priority subbasins to halt groundwater overdraft through development of a Groundwater Sustainability Plan (GSP). In 2016, Napa County submitted an Alternative GSP (Luhdorff and Scalmanini, 2016), intended to show current and on-going efforts for sustainable management of the Napa Valley subbasin in a manner consistent with the GSP requirements.

10.1.3 Local Regulations

Napa Countywide Stormwater Pollution Prevention Program

As noted above, the operators of municipal storm sewer systems must comply with the permitting provisions of the NPDES. NCSPPP is a joint effort of Napa County, the cities of American Canyon, Napa, St. Helena, and Calistoga, and the Town of Yountville for managing conditions of the NPDES permit and to address potential stormwater quality concerns. Though the entities of the NCSPPP carry out their own individual stormwater pollution prevention programs, the NCSPPP provides for the coordination and consistency of approaches between the individual participants and documents their efforts in annual reports.

NCSPPP has developed several resources as guidance for projects toward various requirements of the NPDES permit. Of key importance are the documents outlining requirements and practices for erosion and sediment control (NCSPPP, 2014), which includes construction-phase BMPs, and a similar document for post-construction runoff management (Napa County, 2008). Additional resources have been the Bay Area Stormwater Management Agencies Association, of which NCSPPP is a member, that further details NPDES compliance procedures for small MS4s in the North Bay (BASMAA, 2019).

10.2 ENVIRONMENTAL SETTING

10.2.1 Regional Hydrology

The project is located along the flanks of the Napa Valley, within the Hinman Creek watershed (also known as Veteran's Creek), which is ultimately a tributary of the Napa River. The Hinman Creek watershed, in total, encompasses an area of approximately 2,700 acres, which encompass the entire VHC-Yountville complex, forest and open space areas in the ridge to the west, and predominantly vineyard cultivated areas in the lower, flatland portions of the watershed.

Elevations within the watershed vary between about 1,000 feet above sea level (asl) along the ridge to the west that serves to divide the watershed from the Dry and Hopper Creek watersheds, to an elevation of 70 feet asl at the confluence with the Hopper Creek watershed within the Napa River Valley.

Average annual rainfall in the Hinman watershed is approximately 35 inches, with higher rainfall occurring along the ridge to the west and lower amounts falling on the lower portion of the watershed within the Napa Valley itself. Nearly 95 percent of this precipitation falls during the winter rainy season, October through April, with the heaviest rainfall typically occurring in December, January, and February.

10.2.2 Project Site Hydrology

The project site is located near the headwaters of Hinman Creek, in the northwestern portion of the watershed, at an elevation of about 180 feet asl. The site lies at the base of the ridge that makes up the western boundary of the watershed, at the transition between the steep terrain of the metavolcanic rocks that compose the ridge, and the terrace and alluvial deposits that fill Napa Valley itself. Stormwater runoff from the project site drains to a series of storm drains and culverts (further described below) that discharge to small tributaries of Hinman Creek, then into Hopper Creek, Dry Creek, and ultimately the Napa River.

The project site is occupied by five existing buildings (Hostess House, Jefferson Hall and garages, Polk Hall, and a Nurses Education building), a parking lot, and several access roads and paved walkways. In total, those existing facilities cover 2.8 acres of the approximate 11.7-acre project site, resulting in an existing imperviousness of about 24 percent. Runoff from these surfaces (as well as overland flow from the landscaped and non-impervious surfaces), drains to two different water courses. The northern portion of the site, including Hostess House, Polk Hall, and much of the parking area, drains to a 4-foot box culvert located north of Polk Hall that runs underground to the east, between Holderman Building and Eisenhower/Roosevelt Halls, and discharges to an open channel south of the Chapel adjacent to Valley View Pond (Figure 10-1). That channel then flows southeast along the edge of the neighboring golf course then turns to flow northeast along the north side of Vineyard View Drive to the confluence with the Hinman Creek at Solano Avenue. At the culvert outfall adjacent to Valley View Pond, the channel is incised about 1-1.5 feet (likely confined, at least in part, by the construction of the adjacent pond to the north, and the gravel pad to the south), and there is evidence of active bank erosion at this location. Channel conditions further downstream are less confined, and bank erosion does not appear to be as prominent a concern.

The southern portion of the project site, including Jefferson Hall, the Nurses Building, and a portion of the parking area, flows into a 24-inch culvert that runs along the southern boundary of the site. At the southeast corner of the project site, the culvert crosses under Vineyard View Drive, and discharges to an open channel/ditch that runs along the south side of Vineyard View Drive and ultimately to Hinman Creek at Solano Avenue.

10.2.3 Downstream Hydrology

Downstream of the project site, Hinman Creek flows parallel to Sonoma Avenue and State Route 29 for approximately 0.75 miles, where it crosses underneath the highway to join Hopper Creek on the other side. Roughly 1.6 miles further downstream, Hopper Creek joins Dry Creek just upstream of the confluence with the Napa River. The lower portions of the Hinman, Hopper, and

Dry Creek watersheds flow primarily through vineyard agricultural areas, all within the Napa River floodplain and within the FEMA defined 100-year flood zone.

The Town of Yountville has identified the potential for flooding to occur where Hinman Creek crosses under Solano Avenue, downstream of the project site¹⁷. Past flooding has also been noted by Veterans Home staff behind Holderman Building, where the drainage crosses under the access road to the neighboring winery¹⁸. In addition, there was evidence observed, during a site visit conducted on March 5, 2019, that Hinman Creek had recently topped its bank near the California Avenue entrance road, as had the channel at the main stormwater outlet south of Valley View Pond.

10.2.4 Project Soils and Groundwater

Soils beneath the project site are classified as Sobrante fine loam, though portions of the area under and near the existing infrastructure have been heavily disturbed by past construction activities. Infiltration rates in this type of soil are moderate to low, and it is classified as Hydrologic Group C (moderate to high runoff potential).

The project site overlies the Napa Valley subbasin of the Napa-Sonoma groundwater basin, as defined by the California Department of Water Resources (DWR; Subbasin 2-002.01 in DWR, 2013). The area is also described by Napa County as the Yountville subarea of the Napa Valley Floor groundwater area (Luhdorff & Scalmanini, 2016). The Napa Valley subbasin is composed of recent and old surficial alluvial deposits, underlain to varying degrees by Tertiary volcanics, including basalt/rhyolite/andesite flows, tuff deposits, and volcanic conglomerate/breccia. Groundwater from the subbasin is used for both agricultural irrigation and municipal supply.

Recharge to the aquifer is primarily a result of direct precipitation on the alluvial plan, though runoff from the adjacent hills contributes as well.

The Napa Valley sub basin was recently re-prioritized (as part of DWR's 2019 update) to a high priority ranking, from the medium priority status held as part of the 2014 classification. The change from medium priority to high priority does not affect current requirements for the Napa Valley sub basin under Sustainable Groundwater Management Act.

10.3 PROJECT IMPACTS

10.3.1 Thresholds of Significance

Based on Appendix G of the CEQA Guidelines, the implementation of the project or its alternatives on hydrology and water quality would be considered significant if it would:

- (a) violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality;
- (b) substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;

¹⁷ <http://www.townofyountville.com/departments-services/emergency-preparedness/flooding>

¹⁸ Oral communication during site visit conducted on March 5, 2019.

- (c) substantially alter the existing drainage pattern of 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 that 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 that would result in flooding on or off-site;
 - (iii) create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems, or provide substantial additional sources of polluted runoff; or
- (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;

10.3.2 Impacts Dismissed from Further Consideration

The proposed project would have no or minimal impact with regard to the following thresholds; therefore, these issues are dismissed from further discussion in the sections below:

- The project does not propose discharge of wastewater to land, therefore, waste discharge requirements do not apply to this project. Water quality standards pertaining to stormwater runoff are discussed below. (Threshold a)
- The project area is located along the fringes of the Napa Valley, at an elevation of about 175 feet amsl, with no potential for inundation as a result of a flood, tsunami or seiche. There is no FEMA-designated 100-year flood zone within the proposed project (the project site is well above the elevation where flooding in the Napa River would be a concern) and is similarly outside the potential areas of dam breach inundation that affect the Napa River. There are no levees or dams on or upstream of the project site that would pose a risk to the site as a result of a breach. (Threshold d)

10.3.3 Water Quality Standards, Surface and Groundwater Quality

Stormwater contaminants from the site may be present in the runoff that is discharged from both the construction and post-construction phase of the proposed project. The potential for site runoff to affect water quality and/or hydromodification is evaluated below.

Surface Water Quality

Construction Phase

During construction, clearing, grading and other activities would increase the potential for on-site erosion, potentially leading to increased turbidity and sedimentation in Hinman Creek and the lower reaches of Hopper Creek, Dry Creek, and ultimately the Napa River. Sedimentation may degrade in-stream habitat and reduce flow capacity at downstream culverts and open channels, potentially inducing or exacerbating flooding. Other pollutants that might impact surface water quality during project construction include petroleum products (gasoline, diesel, kerosene, oil and grease), hydrocarbons from asphalt paving, paints, solvents, and litter.

Because the project would disturb more than one acre of land, the applicant is required to prepare a SWPPP, per NPDES general construction permit requirements through the State Water

Resources Control Board (SWRCB). The SWPPP would address potential erosion and sedimentation issues through a project-specific erosion control plan, as well as other BMPs to reduce the potential for spills and other contamination from on-site construction activities. Appropriate measures for control of sediment and other pollutants from construction sites are included in the “Construction Handbook of Best Management Practices” (CASQA 2015). The project SWPPP is likely to include, but is not limited to, the following BMPs related to construction water-quality impacts:

- If the entire site is not graded in a single operation, leave existing vegetated areas undisturbed until construction of improvements on each portion of the development site is ready to begin;
- Immediately re-vegetate or otherwise protect all disturbed areas from both wind and water erosion upon completion of grading;
- Collect stormwater runoff into stable drainage channels and/or small drainage basins to prevent the buildup of large, potentially erosive stormwater flows;
- Direct runoff away from all areas disturbed by construction;
- Use sediment ponds or siltation basins to trap eroded soils before runoff is discharged into on-site or off-site drainage culverts and channels;
- Install straw rolls, hay bales or other approved materials below all disturbed areas adjacent to drainages and drainage inlets to prevent eroded soils from entering the stream channel. Maintain these facilities until all disturbed upslope areas are fully stabilized;
- To the extent possible, schedule major site development work involving excavation and earthmoving for construction during the dry season;
- Develop and implement a program for the handling, storage, use, and disposal of fuels and hazardous materials. The program shall also include a contingency plan covering accidental hazardous material spill;
- Avoid cleaning, fueling, or maintaining vehicles on-site, except in an area designated to contain and treat runoff; and
- After construction is completed, inspect all drainage facilities immediately downstream of the grading site for accumulated sediment, and clear these facilities of debris and sediment as necessary.

In compliance with the requirements of the statewide NPDES Construction General Permit, the County or its qualified SWPPP developer will prepare a SWPPP for submittal with a Notice of Intent to the RWQCB prior to the start of construction. The SWPPP would specify BMPs to be employed during the construction phase to control sediment loads and pollutants. The SWPPP shall include the minimum BMPs required for the identified Risk Level of the project and receiving waters.¹⁹ BMP implementation shall be consistent with the BMP requirements in the most recent version of the California Stormwater Quality Association (CASQA) Stormwater

¹⁹ Risk Level is determined by looking at two different factors: the potential rate and amount of sediment produced at the project site during construction (factoring rainfall/runoff, soil erodibility, and slope length), and the sensitivity to excess sediment of downstream receiving waters. The combination of these factors determines whether projects will fall into Risk Level 1, 2, or 3, as outlined in the statewide NPDES Construction General Permit.

Best Management Handbook-Construction or the Caltrans Stormwater Quality Handbook Construction Site BMPs Manual. Proper implementation of the project-specific SWPPP would reduce the potential construction-related water quality impacts to a *less-than-significant* level. No further mitigation is required.

Operational Phase

The proposed SNF Project would replace and increase the impervious surfaces within the Hinman Creek watershed, including a new building with a net increase in footprint area, new/realigned access roads, driveways, parking areas, and walkways. Roads and parking lots are prone to contributing oil, grease, metal brake dust, and trash to stormwater runoff. While roof runoff does not typically contribute stormwater contaminants at levels as high as from parking areas, driveways, and access roads, there is still some contribution from airborne deposition of particulate matter. In addition, the driveways, roads, and associated stormwater drainage system provide an efficient conveyance system for other potential contaminants, including fertilizers and pesticides, to the receiving stream. Untreated, the above contaminant sources are likely to adversely impact water quality in Hinman Creek and downstream water bodies, including the Napa River.

Stormwater runoff within the existing facility predominantly drains directly to the existing site storm drain system and then to Hinman Creek, with effectively no facilities specifically intended for stormwater quality treatment²⁰. Under post-project conditions, all stormwater discharge from impervious surfaces, including roof, roadway, sidewalk and hardscape would be treated in facilities (biofiltration basins, flow-through planters, or bioswales, for example) that meet Napa County (NCSPPP) water quality treatment requirements. Stormwater treatment facilities would need to be worked into the landscaped areas surrounding the proposed buildings, parking areas, roads, and related impervious infrastructure. Under post-project conditions, the project site would include at least 4.7 acres of landscaped areas (approximately 40 percent of the 11.7-acre project site; see Table 2-2). Given the space available, it does not appear that stormwater BMPs would be significantly constrained to prevent incorporation into the project site.

Increased runoff generated on the project site in response to the increase in impervious surfaces would have the potential to result in ‘hydromodification’ in Hinman Creek and drainages downstream of the project site. Hydromodification is defined as the change in the natural hydrologic processes and runoff characteristics (i.e., interception, infiltration, overland flow, interflow and groundwater flow) caused by urbanization or other land use changes that result in increased erosive flows and changes in sediment transport, and thereby could result in water quality impacts.

The proposed project is required to comply with provisions of the NPDES Phase II Stormwater Permit for post-construction BMPs, following design guidance in the latest guidebook prepared by the Bay Area Stormwater Management Agencies Association (BASMAA, 2019), and incorporate LID concepts into the project design in order to reduce post project runoff (and associated non-point-source contaminant transport) to receiving waters.

²⁰ Some paved surfaces, such as walkways and small rooftops may drain to vegetated areas that serve some water quality treatment function, but these were not likely explicitly designed as water quality BMPs at the time of facility construction.

Proper design, sizing, and implementation of bioretention features, as outlined in the BASMAA manual, would effectively address both water quality and hydromodification concerns (Dubin Environmental, 2014). Documentation is required once final designs are completed in order to verify compliance with the water quality and hydromodification provisions. Implementation of stormwater control plan, in compliance with the NPDES Phase II permit, would reduce potential stormwater quality and hydromodification impacts to a *less-than-significant* level. No further mitigation is required.

Groundwater Quality

The stormwater treatment BMPs discussed above are intended to maximize infiltration, assuming infiltration rates are sufficient and that depth to the seasonal groundwater peak elevation meets the performance/design standards of the BMPs. If not, underdrains may be required. Under either scenario, the BMPs are expected to meet water quality treatment standards as required under Provision C.3 of the NPDES Phase II permit.

In addition, there are no known sources of potential groundwater contamination at the site that would be at risk of increased rate of mobilization through concentrated recharge of stormwater. As such potential impact to groundwater quality as a result of the proposed project would be *less-than-significant*.

10.3.4 Groundwater Supplies and Recharge

Water supply for the VHC-Yountville campus is obtained from the Rector Reservoir, which is owned and operated by the CalVet. As such, the proposed project would not pump groundwater at the project site or otherwise use groundwater for supply, and therefore would not deplete local groundwater supplies.

Existing impervious area on the project site is 2.8 acres. The proposed project would increase impervious surfaces by as much as 4.1 acres (up to a maximum of 7.0 acres; see Table 10-1. Comparison of Pre- and Post-Project Peak Runoff (for the 100-Year Event) for the Proposed SNF Project at the VHC-Yountville Campus, Napa County, California). The new impervious surface could divert more rainfall to surface runoff, with a corresponding decrease in the amount of water that is recharged to the underlying aquifer. The Yountville subarea covers a ground surface area of approximately 13,000 acres, much of which is overlain by vineyards and other pervious surfaces which readily allow infiltration of heavy rainfall events to groundwater recharge. Thus, the additional 4.1 acres of project impervious surfaces is not a significant change relative to the recharge area of the Yountville subarea (or the larger Napa Valley groundwater sub basin). In addition, the proposed project would incorporate on-site stormwater BMPs to treat runoff, designed (in part) to encourage infiltration of stormwater in order to limit hydromodification effects in the receiving streams downstream of the project. Because these BMPs would be incorporated for both new *and existing* impervious surfaces, infiltration to near-surface groundwater may actually increase under post-project conditions. As a result, the potential impact to groundwater recharge is considered *less-than-significant*.

10.3.5 Altered Drainage Patterns

Erosion or Siltation On- or Off-Site

Construction

Construction-related impacts relating to erosion or siltation both on and off-site are discussed in section 10.3.2 above. Implementation of the project specific SWPPP in compliance with RWQCB General Construction NPDES permit regulations would reduce erosion and siltation during project construction. The resulting impact would be ***less than significant***.

Operation

With regard to runoff generated by the new impervious surfaces added by the project to the project site, as discussed above, compliance with the NPDES Phase II Permit would limit post-construction hydromodification effects that could induce in-stream erosion and cause siltation in downstream reaches. The impact related to potential hydromodification effects would be ***less than significant***.

New Outfall

The proposed project may include a new outfall associated with a potential new storm drain constructed to alleviate storm drain capacity issues within the VHC-Yountville facility (see discussion in section 10.3.4 below). The outfall would likely discharge to the open drainage channel located just south of Valley View Pond. This channel already shows signs of erosion under existing conditions (Photo 10-1) and lacks significant bank vegetation to buffer against erosion. High flows from the new stormwater outfall could cause or exacerbate erosion of the banks, if appropriate energy dissipation or protection not incorporated. This would represent a potentially significant impact. Mitigation Measure HYD-2 would guide the design of the stormwater outfall to reduce this potential impact to a less-than-significant level. This impact is ***less than significant with mitigation incorporated***.

Photo 10-1: Existing condition of drainage channel located just south of Valley View Pond (pond is just off-camera to the left of the frame) flowing east toward Vintner's Golf Course property boundary. Without proper energy dissipation or erosion protection, a new outfall at this location (if included as part of the project) may induce or exacerbate erosion, contributing to siltation or sedimentation in downstream reaches.



Flooding On or Off-Site

The proposed project would increase impervious surfaces within the project site by as much as 4.7 acres and would adapt the existing storm drain network within the project site to be consistent with the new project configuration. Though a drainage plan has not yet been finalized (given the design-build nature of the project), preliminary plans indicate that most stormwater runoff from the site would be consolidated into a new and/or upgraded culvert that routes most of the runoff along the south (back) side of Holderman Building, and discharge to the open channel adjacent to the golf course near Valley View Pond (Figure 10-2). This is the same location as the point-of-discharge of the existing culvert that drains the northern portion of the project site, in addition to other areas of the Veterans Home complex near Eisenhower and Roosevelt Halls. Because the drainage structure for the project site is being completely rebuilt, the receiving storm drains would be designed with a capacity specific to meet the needs of the project site, and thus potential flooding concerns on the project site are less-than-significant.

As discussed in the Environmental Setting section, flooding has occurred at several locations downstream of the project site, and the Hinman Creek culvert under Solano Avenue was identified by the Town of Yountville as an area of potential flooding. As such, increases in peak flow from the project site have the potential to exacerbate flooding in these areas. A preliminary hydrologic analysis provided by DGS shows that peak flow from the project site could increase by as much as 8 cubic feet per second for the 100-year event (Table 10-1).

Table 10-1. Comparison of Pre- and Post-Project Peak Runoff (for the 100-Year Event) for the Proposed SNF Project at the VHC-Yountville Campus, Napa County, California

Land Cover Type	Existing Area (acres)	Existing Peak flow (cfs)	Post-Project Area (acres)	Post-Project Peak flow (cfs)	Post-Project Change in Area (acres)	Post-Project Change in Peak flow (cfs)
Impervious cover	2.8	6.7	7	16.8	4.2	10.1
Pervious cover	8.9	4.5	4.7	2.4	-4.2	-2.1
Total peak runoff		11.2		19.2		8.0

The proposed project includes preliminary stormwater detention concepts that would alleviate flooding in these areas and/or otherwise prevent significant impacts to flooding. First, the area behind Holderman Building would be diverted to a new storm drain built to accommodate flow from the project site (described above). This would alleviate flooding toward the neighboring vineyard and divert that flow to a new outfall near Valley View Pond. Second, the proposed project would incorporate detention storage, likely in the form of oversized pipes or stormwater vaults buried underneath the parking area and access road, or under open landscaped area within the project site. These features would detain increases in runoff as a result of the project or potentially over-detain to alleviate existing flooding concerns in the downstream receiving water. Sized appropriately, this detention storage would reduce the potential for increases in flooding downstream of the site to a less-than-significant level. However, because the standards for such detention have not been set, Mitigation Measures HYD-1 and HYD-2 have been included to guide design of the detention and reduce the potential for flooding impacts downstream of the project. This impact is *less than significant with mitigation incorporated*.

10.4 MITIGATION MEASURES

Impact HYD-1: The proposed project could potentially alter the existing drainage pattern of the site or area in a manner that would substantially increase the rate or amount of surface runoff that would result in flooding off-site.

Mitigation Measure HYD-1A: On-Site Stormwater Detention. CalVet or its Contractor shall incorporate on-site detention storage into the final project design, sized to reduce increases in flood peaks at the site as a result of increased impervious area and/or increased consolidation of impervious surfaces. CalVet shall complete a hydrologic study to show that, at a minimum, peak flow from the project site does not increase for the 10-, 50-, and 100-year storm events with the incorporation of detention structures (in combination with other stormwater BMPs).

Mitigation Measure HYD-1B: Maintenance of Detention Facilities. CalVet shall be responsible to continuously provide the required volume storage in a 10-, 50-, 100-year storm, throughout the life of the project, and shall ensure that the required maintenance will be performed. The maintenance plan shall include provisions for removal of sediment and other debris from underground storage pipes or vaults (if used) to reduce the potential for loss of detention capacity.

Effectiveness: *These measures would prevent an increase in the rate or amount of surface runoff and would avoid flooding off-site.*

Implementation: *CalVet or its Contractor.*

Timing: *During site design (design of detention facilities), construction (construction of detention facilities) and following construction (maintenance of detention facilities).*

Monitoring: *On-site stormwater detention shall be included in final project design plans.*

Impact HYD-2: The proposed new stormwater outfall near Valley View Pond could potentially induce bed or bank scour within the receiving channel, contributing to siltation and sedimentation in downstream reaches.

Mitigation Measure HYD-2: Stormwater Outfall Design. The stormwater outfalls to the open drainage channel south of Valley View Pond (if included in final project plans) shall be designed to reduce the potential to cause bank and bed instability. Appropriate energy dissipation shall be incorporated to reduce the potential to cause erosion. Alternatively, distributed outfalls may be used to reduce concentration of high flows in any one location, a planting plan may be established to increase the channel's resistance to bank erosion, and/or an in-line basin may be incorporated to slow discharges before they enter the receiving channel.

Effectiveness: *This measure would prevent siltation and sedimentation downstream of the proposed new stormwater outfall near Valley View Pond.*

Implementation: *CalVet or its Contractor.*

Timing: *During site design and construction.*

Monitoring: *A stormwater outfall design consistent with this measure shall be included in final project design plans.*

Figure 10-1. Generalized Flow Patterns and Receiving Storm Drains for the Yountville SNF Project – Existing Conditions.



Figure 10-1 Generalized Flow Patterns and Receiving Storm Drains - Existing Conditions



VHC-Yountville Skilled Nursing Facility Project

Figure 10-2. Simplified Conceptual Storm Drain Plan for the SNF Project – Post-Project Conditions.

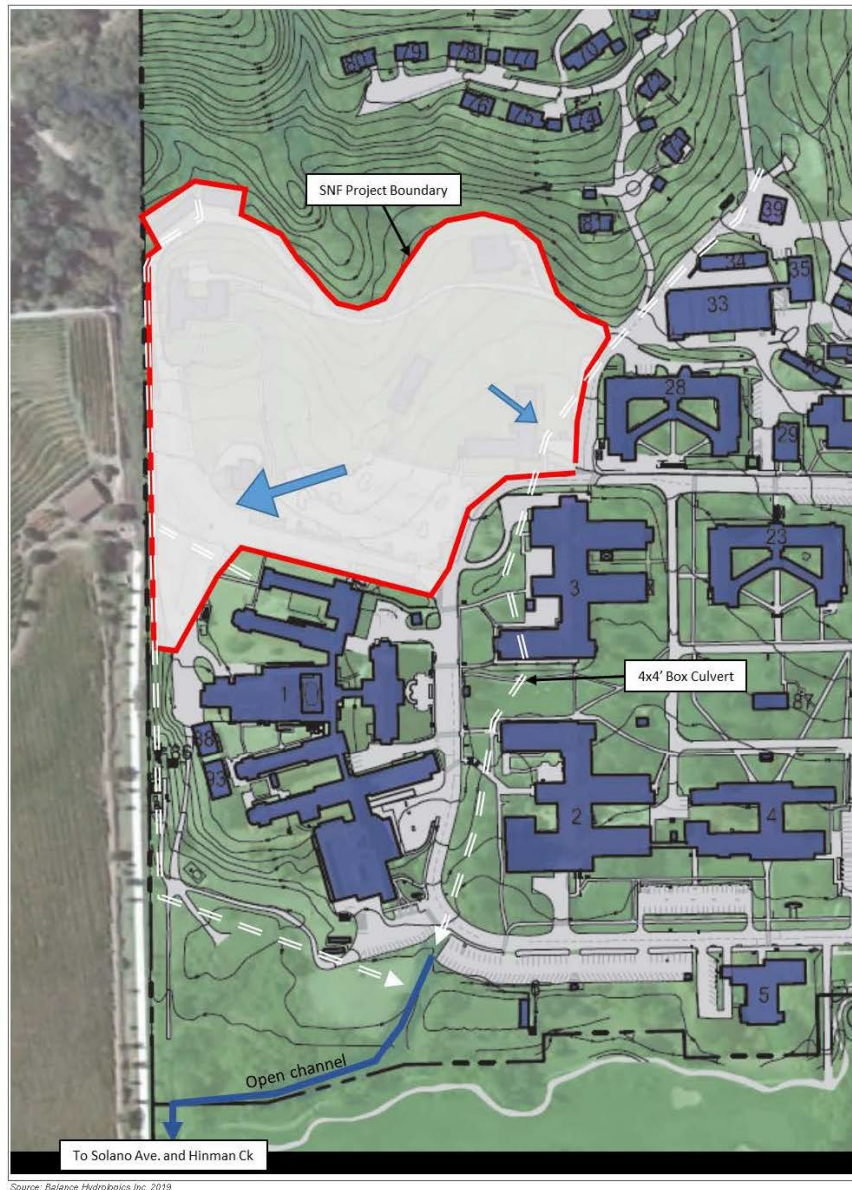


Figure 10-2 Simplified Conceptual Storm Drain Plan - Post-Project Conditions

VHC-Yountville Skilled Nursing Facility Project



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CHAPTER 11 NOISE

This EIR chapter provides pertinent background information on the nature of sound and vibration transmission; summarizes applicable noise and vibration guidelines, standards, and regulations; describes the existing noise and vibration environment at and near the Veterans Home California Yountville (VHC Yountville); and evaluates the potential noise and vibration impacts associated with the proposed Yountville Skilled Nursing Facility (SNF) Project.

The methodologies used to quantify potential construction noise and vibration levels are consistent with guidance and recommendations provided by the California Department of Transportation (Caltrans) and the Federal Highway Administration (FHWA) for the purposes of estimating construction-related noise and vibration impacts.

11.1 REGULATORY SETTING

11.1.1 Federal Regulations

Originally passed in 1972, the Noise Control Act gave the United States Environmental Protection Agency the authority to regulate noise pollution and minimize the annoyance of noise affecting the general public. In 1981, the Administration decided noise pollution is best regulated on a local level, and Federal funding for the Noise Control Act ceased, thus stagnating the law. As described in Sections 11.1.2 and 11.1.3, the State of California, County of Napa, and Town of Yountville regulate noise on the state and local level, respectively.

Federal Transit Administration

No federal regulations apply to noise or vibration from the proposed project, but the Federal Transit Administration's (FTA's) 2018 *Transit Noise and Vibration Impact Assessment Manual* document sets ground-borne vibration annoyance criteria for general assessments. The criteria vary by the type of building being subjected to the vibrations, and the overall number of vibration events occurring each day. Category 1 buildings are considered buildings where vibration would interfere with operation, even at levels that are below human detection. These include buildings with sensitive equipment, such as research facilities and recording studios. Category 2 buildings include residential lands and buildings where people sleep, such as hotels and hospitals (this would include the proposed project). Category 3 buildings consist of institutional land uses with primarily daytime uses. The FTA standards vary for "frequent" events (occurring more than 70 times per day, such as a rapid transit project), "occasional" events (occurring between 30 to 70 times per day), and "infrequent" events (occurring less than 30 times per day). The FTA's vibration annoyance criteria are summarized in Table 11-1.

Table 11-1. FTA Ground-Borne Vibration Impact Criteria for General Assessment

Vibration Land Use Category/Type ^(A)	Frequent Events	Occasional Events	Infrequent Events
Category 1 – Buildings with sensitive equipment	65 VdB	65 VdB	65 VdB
Category 2 – Buildings where people sleep	72 VdB	75 VdB	80 VdB
Category 3 – Institutional buildings	75 VdB	78 VdB	83 VdB

Source: FTA, 2018

Notes:

- (A) The proposed project is considered a Category 2 building type. “VdB” is velocity decibels (see Section 11.2.5).

11.1.2 State Regulations

California Building Standards Code

The California Building Standards Code is contained in Title 24 of the California Code of Regulations and consists of 11 different parts that sets forth various construction and building requirements. Part 2, California Building Code, Section 1207, Sound Transmission, establishes sound transmission standards for interior walls, partitions, and floor/ceiling assemblies. Specifically, Section 1207.4 establishes that interior noise levels attributable to exterior noise sources shall not exceed 45 A-weighted decibel (dBA) day/night average sound level (DNL) or community noise equivalent level (CNEL), as set by the local General Plan, in any habitable room.

California Green Building Standards Code

The California Green Building Standards Code is Part 11 of the California Building Standards Code. Chapter 5, Nonresidential Mandatory Standards, Section 5.507 establishes the following requirements for nonresidential development that may be applicable to the Project.

- Section 5.507.4.1.1 sets forth that buildings exposed to an hourly noise level of 65 dBA continuous equivalent noise level (L_{eq}) during any hour of operation shall have exterior wall and roof-ceiling assemblies exposed to the noise source meeting a composting sound transmission class (STC) rating of at least 45 (or an outdoor indoor transmission class [OITC] of 35), with exterior windows of a minimum STC of 40.
- Section 5.507.4.2 sets forth that wall and roof assemblies for buildings exposed to a 65 dBA L_{eq} pursuant to Section 5.507.4.1.1 shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed 50 dBA L_{eq} in occupied areas during any hour of operation. This requirement shall be documented by an acoustical analysis documenting interior sound levels prepared by personnel approved by the architect or engineer of record.

Caltrans

The California Department of Transportation’s (Caltrans) *Transportation and Construction Vibration Guidance Manual* provides a summary of vibration criteria that have been reported by researchers, organizations, and governmental agencies (Caltrans 2013). Chapters Six and Seven of this manual summarizes vibration detection and annoyance criteria from various agencies and provide Caltrans’ recommended guidelines and thresholds for evaluating potential vibration impacts on buildings and humans from transportation and construction projects. These thresholds are summarized in Table 11-2 and Table 11-3.

Table 11-2. Caltrans' Vibration Threshold Criteria for Building Damage

Structural Integrity^(A)	Maximum PPV (in/sec)^(B) Transient	Maximum PPV (in/sec)^(B) Continuous
Extremely fragile buildings, ruins, monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some older buildings	0.50	0.25
Older residential structures	0.50	0.30
New residential structures	1.00	0.50
Modern industrial and commercial structures	2.00	0.50

Source: Caltrans, 2013a

Notes:

(A) For the purposes of this EIR, Caltrans' historic structural integrity vibration threshold criteria are considered to apply to the Holderman Building and other older buildings at the VHC-Yountville Campus due to their historic status.

(B) "PPV" is peak particle velocity, in units of inches per second (in/sec; (see Section 11.2.5).

Table 11-3. Caltrans' Vibration Threshold Criteria for Human Response

Human Response	Maximum PPV (in/sec)^(A) Transient	Maximum PPV (in/sec)^(A) Continuous
Barely perceptible	0.035	0.012
Distinctly perceptible	0.24	0.035
Strongly perceptible	0.90	0.10
Severely perceptible	2.00	0.40

Source: Caltrans 2013a

Notes:

(A) "PPV" is peak particle velocity, in units of inches per second (in/sec; (see Section 11.2.5).

11.1.3 Local Regulations

As described in more detail in Section 11.3.1, CalVet is not directly subject to local noise standards maintained by the Town of Yountville and Napa County; however the local standards provide specific context for evaluating the project's potential construction noise and vibration impacts under CEQA and NEPA and, therefore, are provided below for information purposes as it relates to the evaluation of potential construction noise impacts. The local standards provide an appropriate standard for evaluating the project's potential operational noise impacts and, therefore, are used to evaluation operational impacts under CEQA and NEPA.

Town of Yountville General Plan

Chapter 10 the Town of Yountville's General Plan, Noise, addresses noise in the community. The following goal, policies, and programs identified in the Noise Chapter may be applicable to construction and operational noise generated by the proposed project.

- **Goal NS-1:** Maintain a quiet community.
 - **Policy NS-1.2 Noise Impacts of Development.** Prevent land uses and new development that increase noise levels above acceptable standards as feasible.
 - *Program NS-1.2a Land Use Compatibility Standards.* Apply the Land Use Compatibility Standards in Table NS-3 in locating and designing new development.
 - *Program NS-1.2f Construction Best Practices.* During review of development, infrastructure, and other projects involving construction activities, determine if proposed construction projects could exceed the Town's Noise Ordinance standards at nearby residences and sensitive receptors and, if necessary, require mitigation measures in addition to the standard best practice controls.
 - **Policy NS-1.3. Vibration Impacts of Development.** Reduce vibration impacts from demolition and construction projects.
 - *Program NS-1.3a Vibration Mitigation.* Require new development to minimize vibration impacts to adjacent uses during demolition and construction. For sensitive historic structures, a vibration limit of 0.08 in/sec PPV (peak particle velocity) will be used to minimize the potential for cosmetic damage to the building. A vibration limit of 0.30 in/sec PPV will be used to minimize the potential for cosmetic damage at buildings of normal conventional construction.

The Town's land use compatibility standards contained in General Plan Table NS-3 and referenced in Program NS-1.2a are reproduced in Table 11-4 below.

Table 11-4. Yountville Noise/Land Use Compatibility Guidelines

Land Use Category	Normally Acceptable	Conditionally Acceptable	Unacceptable
Residential and hotels	45-60	60-75	75-85
Outdoor sports and recreation, neighborhood parks and playgrounds, golf courses, cemeteries	45-65	65-80	80-85
Schools, libraries, churches, hospitals, nursing homes, museums, meeting halls	45-60	60-75	75-85

Land Use Category	Normally Acceptable	Conditionally Acceptable	Unacceptable
Office buildings, business commercial and professional	45-70	75-85	N/A
Industrial, manufacturing, utilities, agriculture	45-70	70-85	N/A
Auditoriums, concert halls, amphitheaters, sports arenas	N/A	45-70	70-85

Source: Town of Yountville, 2019a, modified by MIG

Town of Yountville Municipal Code

Chapter 8.04 of the Town of Yountville's Municipal Code prohibits excessive or annoying noise or vibration to residential and commercial properties in the Town. Table 8-04-1, contained in Section 8.04.026 of the Municipal Code, establishes exterior noise standards and provides for adjustments to address high ambient noise levels and continuous intruding noise sources. Table 8-04-1 is reproduced as Table 11-5 and Table 11-6 below.

Table 11-5. Town of Yountville Noise Standards for Hospital, Library, Religious Institution, Residential, or School Land Uses

Cumulative Number of Minutes in Any Hour	Daytime Noise Standard (8AM – 9PM; dBA) ^(A)	Nighttime Noise Standard (9PM – 8AM; dBA) ^(A)
30 ^(B)	55	50
15	60	55
5	65	60
1	70	65
0	75	70

Source: Town of Yountville, 2019, modified by MIG

Notes:

- (A) The start of day hours shall be 8AM unless otherwise specified in Chapter 8.04 of the Municipal Code; the start of night hours shall be seasonally adjusted in summer months past sunset but not later than 10PM.
- (B) For example, this means the measured noise level may not exceed 55 dBA for more than 30 minutes out of anyone-hour time period.

Table 11-6. Town of Yountville Noise Standards for Commercial Land Uses

Cumulative Number of Minutes in Any Hour	Daytime Noise Standard (8AM – 9PM; dBA)^(A)	Nighttime Noise Standard (9PM – 8AM; dBA)^(A)
30	65	60
15	70	65
5	75	70
1	80	75
0	85	80

Source: Town of Yountville, 2019, modified by MIG

Notes:

- (A) The start of day hours shall be 8AM unless otherwise specified in Chapter 8.04 of the Municipal Code; the start of night hours shall be seasonally adjusted in summer months past sunset but not later than 10PM.
- (B) For example, this means the measured noise level may not exceed 55 dBA for more than 30 minutes out of anyone-hour time period.

Section 8.04.040(F)(10) of Yountville’s Municipal Code exempts noise generated by construction work performed by the Town, the State, Federally regulated activities, and/or public utilities, and their respective agents or contracts, for maintenance, repair, or construction projects or activities regulated or exempted by the afore mentioned agencies or activities that cannot be performed within the defined construction hours.

Section 8.040.30(B) stipulates no person engaged in work as a contracted service shall create intrusive noise across a residential or commercial real property boundary except between the hours of 9AM and 6PM, Monday through Friday (excluding holidays); 9AM and 12PM on Saturdays; and any other time outside a permit issued for a special circumstance.

Napa County General Plan

The Community Character Element of the Napa County General Plan includes the following policies that may be relevant to noise generated by the proposed project:

- **Policy CC-49:** Consistent with the County’s Noise Ordinance, ensure that reasonable measures are taken such that temporary and intermittent noise associated with construction and other activities does not become intolerable to those in the area. Construction hours shall be limited per the requirements of the Noise Ordinance.
- **Policy CC-50:** The County shall cooperate with the cities and town to resolve mutual noise problems.

County of Napa Code

Title 8, Health and Safety, Chapter 8.16, Noise Control Regulations, of the Napa County Code prohibits loud, unnecessary, and unusual noise which disturbs the peace and quiet of any neighborhood or which causes any discomfort or annoyance to any reasonable person of normal sensitiveness residing in the area. The Code also sets forth the following requirements:

- Section 8.16.080, Specific Types of Noise Prohibited, sets forth that operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration, or demolition work between the hours of 7 PM and 7 AM such that the sound therefrom creates a noise disturbance across a residential or commercial real property line unless a variance is issued for the work. This section also sets forth that, where technically and economically feasible, construction activities shall be conducted so that maximum noise levels at affect properties do not exceed the limits in County Code Table 8.16.080, which is reproduced in this EIR as Table 11-7.

Table 11-7. Napa County Noise Limits for Construction Activities

Land Use Category	Residential	Commercial	Industrial
Daily: 7 AM to 7 PM	75 dBA	80 dBA	85 dBA
Daily: 7 PM to 7 AM	60 dBA	65 dBA	70 dBA

Source: Napa County Code, Table 8.16.080

11.2 ENVIRONMENTAL SETTING

11.2.1 Fundamentals of Environmental Acoustics

Noise is generally defined as unwanted sound and is widely recognized as a form of environmental degradation. Airborne sound is the rapid fluctuation of air pressure above and below atmospheric pressure. The frequency (pitch), amplitude (intensity or loudness), and duration of a sound all contribute to the effect on a listener, or receptor, and whether or not the receptor perceives the sound as “noisy” or annoying.

Pitch is the height or depth of a tone or sound and depends on the frequency of the vibrations by which it is produced. Sound frequency is expressed in terms of cycles per second, or Hertz (Hz). Humans generally hear sounds with frequencies between 20 and 20,000 Hz and perceive higher frequency sounds, or high pitch noise, as louder than low-frequency sound or sounds low in pitch. Sound intensity or loudness is a function of the amplitude of the pressure wave generated by a noise source combined with the reception characteristics of the human ear. Atmospheric factors and obstructions between the noise source and receptor also affect the loudness perceived by the receptor. Sound pressure levels are typically expressed on a logarithmic scale in terms of decibels (dB). A dB is a unit of measurement that indicates the relative amplitude (i.e., intensity or loudness) of a sound, with 0 dB corresponding roughly to the threshold of hearing for the healthy, unimpaired human ear.

Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 dBs represents a ten-fold increase in acoustic energy, while 20 dBs is 100 times more intense, 30 dBs is 1,000 times more intense, and so on. In general, there is a relationship between the subjective noisiness or loudness of a sound and its intensity, with each 10 dB increase in sound level perceived as approximately a doubling of loudness. Due to the logarithmic basis, decibels cannot be directly added or subtracted together using common arithmetic operations:

$$50 \text{ decibels} + 50 \text{ decibels} \neq 100 \text{ decibels}$$

Instead, the combined sound level from two or more sources must be combined logarithmically. For example, if one noise source produces a sound power level of 50 dBA, two of the same sources would combine to produce 53 dB as shown below.

$$10 * 10 \log \left(10^{\left(\frac{50}{10}\right)} + 10^{\left(\frac{50}{10}\right)} \right) = 53 \text{ decibels}$$

In general, when one source is 10 dB higher than another source, the quieter source does not add to the sound levels produced by the louder source because the louder source contains ten times more sound energy than the quieter source.

11.2.2 Sound Characterization

Although humans generally can hear sounds with frequencies between 20 and 20,000 Hz, most of the sound's humans are normally exposed to do not consist of a single frequency, but rather a broad range of frequencies perceived differently by the human ear. In general, humans are most sensitive to the frequency range of 1,000–8,000 Hz and perceive sounds within that range better than sounds of the same amplitude in higher or lower frequencies. Instruments used to measure sound, therefore, include an electrical filter that enables the instrument's detectors to replicate human hearing. This filter, known as the "A-weighting" or "A-weighted sound level," filters low and very high frequencies, giving greater weight to the frequencies of sound to which the human ear is typically most sensitive. Most environmental measurements are reported in dBA, meaning decibels on the A-scale. See Table 11-8 for a list common noise sources and their A-weighted noise levels.

Table 11-8. Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110	Rock Band
Jet flyover at 1,000 feet	105	
	100	
Gas lawn mower at 3 feet	95	
	90	
Diesel truck at 50 feet at 50 mph	85	Food blender at 3 feet
	80	Garbage disposal at 3 feet
Noise urban area, daytime	75	
Gas lawnmower, 100 feet	70	Vacuum cleaner at 10 feet
Commercial area	65	Normal speech at 3 feet
Heavy traffic at 300 feet	60	
	55	Large business office
Quiet urban daytime	50	Dishwasher next room
	45	
Quiet urban nighttime	40	Theater, large conference room

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
Quiet suburban nighttime	35	
	30	Library
Quite rural nighttime	25	Bedroom at night
	20	
	15	Broadcast/recording studio
	10	
	5	
Typical threshold of human hearing	0	Typical threshold of human hearing

Source: Caltrans, 2013b

Sound levels are usually not steady and vary over time. Therefore, a method for describing either the average character of the sound or the statistical behavior of the variations over a period of time is necessary. The L_{eq} descriptor is used to represent the average character of the sound over a period of time. The L_{eq} represents the level of steady-state noise that would have the same acoustical energy as the time-varying noise measured over a given time period. L_{eq} is useful for evaluating shorter time periods over the course of a day. The most common L_{eq} averaging period is hourly, but L_{eq} can describe any series of noise events over a given time period.

Variable noise levels are the values that are exceeded for a portion of the measured time period. Thus, the L_{01} , L_{10} , L_{50} , and L_{90} descriptors represent the sound levels exceeded 1%, 10%, 50%, and 90% of the time the measurement was performed. The L_{90} value usually corresponds to the background sound level at the measurement location.

When considering environmental noise, it is important to account for the different responses people have to daytime and nighttime noise. In general, during the nighttime, background noise levels are generally quieter than during the daytime but also more noticeable due to the fact that household noise has decreased as people begin to retire and sleep. Noise exposure over the course of an entire day is described by the day/night average sound level, DNL (or L_{dn}), and the community noise equivalent level, or CNEL, descriptors. Both descriptors represent the 24-hour noise exposure in a community or area. For DNL, the 24-hour day is divided into a 15-hour daytime period (7 AM to 10 PM) and a 9-hour nighttime period (10 PM to 7 AM), and a 10-dB “penalty” is added to measure nighttime noise levels when calculating the 24-hour average noise level. For example, a 45-dBA nighttime sound level would contribute as much to the overall day-night average as a 55-dBA daytime sound level. The CNEL descriptor is similar to DNL, except that it includes an additional 5-dBA penalty for noise events that occur during the evening time period (7 PM to 10 PM). The artificial penalties imposed during DNL and CNEL calculations are intended to account for a receptor’s increased sensitivity to noise levels during quieter nighttime periods.

11.2.3 Sound Propagation

The energy contained in a sound pressure wave dissipates and is absorbed by the surrounding environment as the sound wave spreads out and travels away from the noise-generating source. The strength of the source is often characterized by its “sound power level.” Sound power level

is independent of the distance a receiver is from the source and is a property of the source alone. Knowing the sound power level of an idealized source and its distance from a receiver, the sound pressure level at a specific point (e.g., a property line or a receiver) can be calculated based on geometrical spreading and attenuation (noise reduction) as a result of distance and environmental factors, such as ground cover (asphalt vs. grass or trees), atmospheric absorption, and shielding by terrain or barriers.

For an ideal “point” source of sound, such as mechanical equipment, the energy contained in a sound pressure wave dissipates and is absorbed by the surrounding environment as the sound wave spreads out in a spherical pattern and travels away from the point source. Theoretically, the sound level attenuates, or decreases, by 6 dB with each doubling of distance from the point source. In contrast, a “line” source of sound, such as roadway traffic or a rail line, spreads out in a cylindrical pattern and theoretically attenuates by 3 dB with each doubling of distance from the line source; however, the sound level at a receptor location can be modified further by additional factors. The first is the presence of a reflecting plane such as the ground. For hard ground, a reflecting plane typically increases A-weighted sound pressure levels by 3 dB. If some of the reflected sound is absorbed by the surface, this increase will be less than 3 dB. Other factors affecting the predicted sound pressure level are often lumped together into a term called “excess attenuation.” Excess attenuation is the amount of additional attenuation that occurs beyond simple spherical or cylindrical spreading. For sound propagation outdoors, there is almost always excess attenuation, producing lower levels than what would be predicted by spherical or cylindrical spreading. Some examples include attenuation by sound absorption in air; attenuation by barriers; attenuation by rain, sleet, snow, or fog; attenuation by grass, shrubbery, and trees; and attenuation from shadow zones created by wind and temperature gradients. Under certain meteorological conditions, like fog and low-level clouds, some of these excess attenuation mechanisms are reduced or eliminated due to noise reflection.

11.2.4 Noise Effects

Noise effects on human beings are generally categorized as:

- Subjective effects of annoyance, nuisance, and/or dissatisfaction
- Interference with activities such as speech, sleep, learning, or relaxing
- Physiological effects such as startling and hearing loss

Most environmental noise levels produce subjective or interference effects; physiological effects are usually limited to prolonged exposure to high noise environments (e.g., 85 dBA or higher) such as industrial facilities or airports.

Predicting the subjective and interference effects of noise is difficult due to the wide variation in individual thresholds of annoyance and past experiences with noise; however, an accepted method to determine a person’s subjective reaction to a new noise source is to compare it with the existing environment without the noise source, or the “ambient” noise environment. In general, the more a new noise source exceeds the ambient noise level, the more likely it is to be considered annoying and to disturb normal activities.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear is able to discern 1 dB changes in sound levels when exposed to steady, single frequency (“pure tone”) signals in the mid-frequency (1,000–8,000 Hz) range. In typical noisy environments, changes in

noise of 1 to 2 dB are generally not perceptible. However, it is widely accepted that people are able to begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5-dB increase is generally perceived as a distinctly noticeable increase, and a 10-dB increase is generally perceived as a doubling of loudness that would almost certainly cause an adverse response from community noise receptors.

11.2.5 Ground-borne Vibration and Noise

Vibration is the movement of particles within a medium or object such as the ground or a building. Vibration may be caused by natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or humans (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources are usually characterized as continuous, such as factory machinery, or transient, such as explosions.

As is the case with airborne sound, ground-borne vibrations may be described by amplitude and frequency; however, unlike airborne sound, there is no standard way of measuring and reporting amplitude. Vibration amplitudes can be expressed in terms of velocity (inches per second) or discussed in dB units in order to compress the range of numbers required to describe vibration. Vibration impacts to buildings are usually discussed in terms of peak particle velocity (PPV) in inches per second (in/sec). PPV represents the maximum instantaneous positive or negative peak of a vibration signal and is most appropriate for evaluating the potential for building damage. Vibration can impact people, structures, and sensitive equipment. The primary concern related to vibration and people is the potential to annoy those working and residing in the area. Vibration with high enough amplitudes can damage structures (such as crack plaster or destroy windows). Ground-borne vibration can also disrupt the use of sensitive medical and scientific instruments, such as electron microscopes.

Common sources of vibration within communities include construction activities and railroads. Ground-borne vibration generated by construction projects is usually highest during pile driving, rock blasting, soil compacting, jack hammering, and demolition-related activities. Next to pile driving, grading activity has the greatest potential for vibration impacts if large bulldozers, large trucks, or other heavy equipment are used.

Ground-borne noise is noise generated by vibrating building surfaces such as floors, walls, and ceilings that radiate noise inside buildings subjected to an external source of vibration. The vibration level, the acoustic radiation of the vibrating element, and the acoustical absorption of the room are all factors that affect potential ground-borne noise generation.

11.2.6 Existing Noise Environment

The Town of Yountville's General Plan Noise Element identifies vehicle traffic from State Route 29 (SR 29) and major roadways as the primary source of noise in Yountville. Additional noise sources include the Napa Valley Wine Train, as well as tourist activity, special events, recreation, construction, landscaping equipment, and truck loading and unloading.

The principal noise source at the project site is from vehicular traffic. The level of noise generated by vehicular traffic generally varies according to the volume of traffic, the percentage of trucks, and average traffic speed. The southern and southeastern portions of the Veterans Homes of California Yountville (VHC-Yountville) campus are closest to the main roadways used to access the site (e.g., SR 29, Solano Avenue, California Drive) and thus receive the most, albeit limited, traffic noise. Short-term ambient noise monitoring conducted for the Yountville

General Plan in 2017 at corner of Presidents Circle and California Drive recorded noise levels of 53 dBA L_{eq} (Town of Yountville, 2019). The project site is located on the southwest portion of the VHC-Yountville campus away from roads used to access the site (e.g., the project site is more than 2,500 feet from SR 29) and, therefore, receives less vehicle-related traffic noise than the areas monitored for the Yountville General Plan EIR (see Table 11-9).

Natural and agricultural (winery) sounds are also part of the ambient noise environment. Wildlife (e.g., birds) contributes to the noise environment, particularly in areas that are densely populated with trees, and agricultural equipment and other harvesting activities associated with winery operations also generate noise.

Measured Ambient Noise Levels

The existing, ambient noise levels at and in proximity to the project site were monitored in March 2019 (MIG, 2019b; see Appendix E). Ambient noise levels were measured with one Larson Davis Soundtrack LxT Type 1 sound level meter. Ambient noise measurements were collected in 10-minute intervals. Conditions during the monitoring were generally clear and sunny during the daytime, with a daily high of approximately 65 degrees. Winds were light and variable.

The ambient noise monitoring conducted for this EIR/EA included two short-term (ST) measurements at locations selected to:

- Provide direct observations of existing noise sources in and in the vicinity of the project site;
- Determine ambient noise levels in and in proximity of the project site; and
- Evaluate potential project noise levels at nearby sensitive receptors (see Section 11.2.7).

The ambient noise monitoring locations are described below.

- **Location ST-1** was located approximately 250 feet west of Polk Hall. The sound levels monitored at this location are representative of daytime ambient conditions on the interior of the project site. The noise environment at ST-1 is generally influenced by wildlife (e.g., birds chirping), occasional vehicular activity on the roadways at and within the project site, and small aircraft overhead.
- **Location ST-2** was located on the southwestern corner of Holderman Building. The noise environment at this location was primarily influenced by vehicular activity (e.g., cars and trucks driving, doors shutting, radios playing, etc.) in the parking lot west of ST-2 and building operations (e.g., windows closing). Noise levels at location ST-2 are representative of daytime ambient conditions at the building's western and southern facades.

Based on observations made during the ambient noise monitoring, the existing noise environment at the project site consists primarily of localized transportation noise sources (i.e., cars and trucks on local roads) and birds chirping. Table 11-9 summarizes the results of the ambient noise monitoring conducted for this EIR/EA.

Table 11-9. Existing Ambient Noise Levels (dBA) at the Project Site

Monitoring Site	Time and Duration	L_{eq} (dBA)	L_{max} (dBA)	Observed Noise Sources
ST-1 (Near Center of Project Site)	12:25 PM to 12:35 PM (10 Minutes)	46.1	59.7	Wildlife, vehicles
ST-2 (Southwest Corner of Holderman Building)	12:50 PM to 1:00 PM 10 Minutes	47.3	60.0	Vehicles, building operations

Source: MIG, 2019b (see Appendix E)

As shown in Table 11-9, short-term ambient noise levels at and in the vicinity of the project site were generally low, less than 50 dBA, with maximum noise levels associated with vehicular activity.

11.2.7 Noise-Sensitive Receptors

Noise-sensitive receptors are buildings or areas where unwanted sound or increases in sound may have an adverse effect on people or land uses. Residential areas, motels and hotels, hospitals and health care facilities, school facilities, and parks are examples of noise receptors that could be sensitive to changes in existing environmental noise levels. In general, the noise-sensitive receptors in proximity to the project area include:

- On-site (i.e., at the VHC-Yountville Campus) residents, patients, and other potential noise-sensitive receptors that may be affected by high noise levels (e.g., visitors and/or medical staff caring for residents or patients), including:
 - Independent living facilities, such as Kennedy Hall, which is located near the eastern part of the campus, along potential soil hauling and utility trenching routes;
 - Licensed care facilities, such as Holderman Building and Eisenhower Hall, which are located adjacent to the northern part of the project area; and
 - Staff housing buildings 70 to 81, located approximately 600 to 750 feet west of the center of the project area.
 - The Napa Valley Museum located on Presidents Circle, north of California Drive.
- Off-site residential receptors accessed via Vineyard View Drive. These residences are located within unincorporated Napa County, approximately 500 feet from the project area boundary and 965 feet from the center of the project area.
- Off-site land uses that may be potentially sensitive to changes in noise levels, such as Vintner's Golf Club on California Drive (within the Town of Yountville) and Chanticleer Winery on Vineyard View Drive (within unincorporated Napa County).

11.3 PROJECT IMPACTS

11.3.1 Thresholds of Significance

Based on CEQA Guidelines Appendix G, the implementation of the project or its alternatives would have a significant environmental impact related to noise if it would:

- (a) Generate 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) Generate excessive ground-borne vibration or ground-borne noise levels; or
- (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, expose people residing or working in the project area to excessive noise levels.

With regards to criterion a), potential noise levels generated by the construction and operational equipment on state-owned land is not legally required to comply with Town of Yountville or Napa County noise ordinance restrictions, including allowable construction hours and noise standards; however, since CalVet does not have established noise standards, the following analysis utilizes the Town's and the County's construction-related noise standards as a general guideline and reference to place the magnitude of the project's potential off-site construction noise levels in context, as well as to evaluate how the proposed project's construction activities could change the existing on-site noise environment at and around work areas. But, for the purposes of determining the significance of potential construction noise impacts, CalVet has determined the proposed project would have a significant environmental impact related to on-site construction noise levels if it would:

- Substantially interfere with VHC-Yountville resident use, care, and well-being²¹

CalVet considered the use of a specific value (e.g., 70 dBA), such as those enumerated in the Town and County Code, to provide a numeric context for whether or not the potential change to on-site noise levels is substantial during construction; however, a single numeric value fails to appropriately account for project context (i.e., improving resident-care) and the ability of CalVet to address and work with VHC-Yountville residents to provide outstanding resident care programs. Therefore, a numeric threshold of significance was not considered appropriate for the project's construction noise levels.

The following analysis also utilizes the Town's operation-related noise standards to evaluate the significance of the project's operational noise levels. Compliance with these standards would also ensure the project does not generate off-site noise levels at receptors in unincorporated Napa County that are above the County's operational noise limits.

²¹ CalVet is not proposing to adopt or use this qualitative metric as a threshold for general use; rather it is a project-specific threshold based on evidence including the existing nature of the VHC-Yountville facility, its resident care programs and services, and the mission of CalVet.

11.3.2 Impacts Dismissed from Further Consideration

The proposed project would have no or minimal impact with regard to the following thresholds; therefore, these issues are dismissed from further discussion in the sections below:

- The VHC-Yountville Campus is not located within 2 miles of any public or private airport or airstrip, or a planning area associated with an existing airport land use plan. The closest airports to the VHC-Yountville Campus are Angwin-Virgil O Parrett Field, located approximately 13.2 miles to the northwest, and Napa County Airport, located approximately 13.4 miles to the southeast. Although noise generated from aircraft fly overs may contribute to the local, ambient noise environment it is not excessive. The project, therefore, would not expose people working or residing at the site area to excessive airport-related noise levels. (Threshold c)

11.3.3 Temporary Noise and Vibration Impacts

As explained in EIR Section 2.3.6, current residents of the VHC-Yountville Campus would remain in existing campus facilities while the new SNF Building and associated site improvements are constructed. Following construction, residents would be transferred to the new facilities. After all patients and staff are relocated, the existing Holderman Building would be vacated indefinitely. VHC-Yountville residents, as well as nearby residences in unincorporated Napa County, would be exposed to construction noise and vibration during all phases of construction.

The following analysis evaluates the potential for project construction to result in noise or vibration levels that exceed applicable standards or otherwise result in significant noise or vibration impacts (refer to Section 11.3.4 for an evaluation of potential operational noise and vibration impacts). The magnitude of potential construction-related noise and vibration impacts on existing VHC-Yountville and County noise-sensitive receptors would be dependent upon a number of project-specific factors that are not known at this time, including:

- The exact proximity of work activities to specific receptors;
- The time of day construction activities occur and the length of time construction activities would occur in a given area;
- Construction intensity, means, and methods (e.g., number and type of construction equipment that is operating simultaneously);
- The presence of intervening topography, buildings, or other structures (e.g., construction trailers, parked equipment, etc.); and
- The sensitivity of individual receptors to increased noise levels.

Since project-specific information is not available at this time, potential temporary, construction-related noise and vibration impacts can only be evaluated for construction activities that are anticipated to occur based on the current information regarding site conditions (e.g., soils information), design-build criteria, and estimated project utility demand. Potential construction equipment noise and vibration levels are evaluated based on methodologies, reference noise levels, and equipment usage and other operating factors documented and contained in the Federal Highway Administration's (FHWA) Construction Noise Handbook, Federal Transit Administration's (FTA) Transit Noise and Vibration Impact Assessment document, and

Caltrans' Transportation and Construction Vibration Guidance Manual (FHWA, 2017; FTA, 2018; and Caltrans, 2013a).²²

Construction Noise Impacts

As described in Section 2.4, the proposed project is anticipated to be constructed over an approximately 26- to 29-month period beginning in 2021. The project would require demolition of approximately 43,560 square feet of existing building footprint and site clearing (1 month), grading and other earthwork resulting in the export and import of up to 80,000 cubic yards and 15,000 cubic yards of rock and soil (approximately 5 months) respectively, trenching (12 months), building foundation/concrete work (4 months), vertical building construction activities such as framing, finishing, etc. (16 months), architectural coating (1 month), and paving and landscaping (3 months).²³ These types of construction activities would generate noise and vibration from the following sources:

- Heavy equipment operations at different work areas and in different phases of construction (e.g., grading, trenching, building construction). Some heavy equipment would consist of mobile equipment such as an excavator, loader, or roller that would move around work areas; other equipment would consist of stationary equipment such as pumps or air compressors that would generally operate in a fixed location until work activities are complete. Heavy equipment generates noise from engine operation, mechanical systems and components (e.g., fans, gears, propulsion of wheels or tracks), and other sources such as back-up alarms. Mobile equipment generally operates at different loads, or power outputs, and produces higher or lower noise levels depending on the operating load. Stationary equipment generally operates at a steady power output that produces a constant noise level.
- Vehicle trips, including worker, vendor, and haul truck trips. These trips would occur on SR 29, California Avenue, and on-site roads such as President's Circle.

According to the CalEEMod equipment list (see Chapter 4 and Appendix B), bulldozers, excavators, graders, and scrapers would be the largest pieces of equipment used during construction. In general, construction noise levels would be highest during demolition, grading and earthwork, and foundation work phases; the grading phase, requiring up to approximately 7 total pieces of heavy duty construction equipment, is assumed to be the construction phase that is capable of producing the highest overall construction noise levels. In addition, some construction activities may occur into the evening (7 p.m. to 10 p.m.) or nighttime (10 p.m. to 7 a.m.) time periods. Such work may be necessary to meet engineering design standards (e.g., a continuous concrete pour); however, evening and nighttime work would not be as intensive as daytime work and is not anticipated to result in above average construction activities. Table 11-10 summarizes the hourly L_{eq} noise levels that would be generated by the operation of the typical construction

²² Reference noise and vibration levels are noise and vibration levels for specific equipment types or activities that are well documented and commonly applied for the purposes of evaluating construction noise and vibration impacts.

²³ All timeframes are approximate but consistent with the project's air quality impact analysis assumptions (see Chapter 4). Building construction assumes 240 beds / 285,000 square feet of building space consistent with air quality impact analysis assumptions. Although trenching would occur for approximately 12 months in total, trenching activities would move linearly along the utility line route and are anticipated to impact any one receptor for no more than 1 month (e.g., buildings such as Kennedy Hall) or 2 months (e.g., Vintner's Golf Club).

equipment that would be present on site at different distances.²⁴ Construction equipment noise levels are provided at various distances using Caltrans and FHWA published noise data.

Table 11-10. Typical Construction Equipment Noise Levels (dBA)

Equipment	L_{max}^(A) at 50 Feet	Usage Factor (%)^(B)	L_{eq}^(C) at 50 Feet	L_{eq}^(C) at 100 Feet	L_{eq}^(C) at 150 Feet	L_{eq}^(C) at 200 Feet	L_{eq}^(C) at 300 Feet	L_{eq}^(C) at 500 Feet
Bulldozer	85	40	81	75	71	69	65	61
Backhoe	80	40	76	70	66	64	60	56
Compact Roller	80	20	73	67	63	61	57	53
Concrete Mixer	85	40	81	75	71	69	65	61
Crane	85	16	77	71	67	65	61	57
Excavator	85	40	81	75	71	69	65	61
Generator	82	50	79	73	69	67	63	59
Grader	85	40	81	75	71	69	65	61
Pneumatic tools	85	50	82	76	72	70	66	62
Scraper	85	40	81	75	71	69	65	61
Delivery Truck	85	40	81	75	71	69	65	61
Vibratory Roller	80	20	73	67	63	61	57	53

Sources: Caltrans, 2013b, FHWA, 2017, and MIG, 2019b

(a) Reference Noise Level (L_{max}) noise levels based on manufacturer's specifications

(b) Usage factors to the amount of time the equipment produces noise over the time period

(c) Theoretical Noise Levels (L_{eq}) estimate does not account for any atmospheric or ground attenuation factors, nor potential reflection from hard surfaces. Calculated noise levels based on Caltrans, 2013b: $L_{eq} \text{ (hourly)} = L_{max} \text{ at 50 feet} - 20\log(D/50) + 10\log(UF)$, where: L_{max} = reference L_{max} from manufacturer or other source; D = distance of interest; UF = usage fraction or fraction of time period of interest equipment is in use.

As shown in Table 11-10, worst-case construction equipment noise levels are predicted to be approximately 81 dBA L_{eq} at a distance of 50 feet from the equipment operating area.²⁵ At an active construction site, it is not uncommon for two or more pieces of construction equipment to operate at the same time. At a distance of 50 feet, the concurrent operation of two or three pieces of construction equipment would result in noise levels of approximately 84 dBA L_{eq} and 86 dBA

²⁴ The equipment presented is not meant to be exhaustive or list every potential piece of construction equipment that may be present during project construction. Rather, it is meant to provide noise levels associated with the types of construction equipment that are typically used during one or more phases of construction.

²⁵ L_{max} noise levels would be approximately 3 dBA higher than predicted L_{eq} noise levels but would not be sustained or prolonged during work activities.

L_{eq} , respectively.²⁶ The predicted average and worst-case noise levels at specific sensitive noise receptor locations are listed in Table 11-11 and Table 11-12. Average noise levels are based on equipment operations at the center of the main work area, while worst-case noise levels are based on the closest possible construction activity/equipment operation. The noise levels are estimates of average hourly noise assuming two pieces of concurrent equipment operation. All noise levels are estimated at the closest exterior building façade/use area (for buildings) or property line (for potential sensitive land uses).²⁷

Table 11-11. On-Site Receptors Predicted Construction Equipment Noise Levels (dBA Hourly L_{eq})

Receptor	Receptor Type	Distance to Closest Construction Activity ^(A)	Exterior Average Noise Levels (dBA L_{eq}) ^(B)	Interior ^(E) Average Noise Levels (dBA L_{eq}) ^(B)	Exterior Worst-Case Noise Levels (dBA L_{eq}) ^(C)	Interior ^(E) Worst-Case Noise Levels (dBA L_{eq}) ^(C)	Duration of Worst-Case Impact ^(D)
Holderman Building	Licensed Care Facility	315 Feet	63 - 68	38 - 43	80 - 84	55 - 59	10 Months
Roosevelt Hall	Licensed Care Facility	665 Feet	59 - 64	34 - 39	65 - 70	40 - 45	10 Months
Eisenhower Hall	Licensed Care Facility	390 Feet	62 - 67	37 - 42	80 - 84	55 - 59	10 Months
Kennedy Hall	Independent Living	160 Feet	69 - 74	44 - 49	69 - 74	44 - 49	5 Months
Lincoln Hall	Independent Living	710 Feet	59 - 64	34 - 39	65 - 70	40 - 45	10 Months
Staff Housing	Resident	550 Feet	59 - 64	34 - 39	67 - 72	42 - 47	10 Months
Napa Valley Museum	Institutional	205 Feet	67 - 72	42 - 47	67 - 72	42 - 47	5 Months

Notes:

²⁶ As shown in Table 11-10, a single bulldozer provides a sound level of 81 dBA L_{eq} at a distance of 50 feet; when two identical sound levels are combined, the noise level increases to 84 dBA L_{eq} and when three identical sound levels are combined, the noise level increases to 86 dBA L_{eq} . These estimates assume no shielding or other noise control measures are in place at or near the work areas.

²⁷ The estimates in Table 11-11 and Table 11-12 reflect the best possible estimate of potential average and worst-case noise levels associated with project construction activities. Construction activities are dynamic in nature and may generate short-term increases in L_{max} or L_{eq} that are different than estimated in Table 11-11 and Table 11-12. It is not possible to estimate with 100% certainty what actual construction noise levels would be because actual construction noise levels would be contingent on factors that are not known at this time, such as specific equipment models and construction activities. The estimates in Table 11-11 and Table 11-12, therefore, are considered the best representative of project noise levels given currently available information.

- (A) Distances are approximate, as measured from the center of the project area to the closest building façade or property line location. In the case of Kennedy Hall, Napa Valley Museum, and Vintner's Golf Club, the distance is as measured between the receptor and trenching locations or the center of the adjacent roadway for soil hauling activities (i.e., either President's Circle or California Drive).
- (B) Average noise levels are approximate and are based on the predicted noise levels in Table 11-11 plus 3 dBA (to approximate multiple equipment operations), as measured from the center of the site and based on the noise level for the closest distance rounded down (e.g., 500-foot noise levels are used for a receptor 550 feet away). See Appendix E for predicted noise levels not contained in Table 11-11. Average noise levels are based on bulldozer noise levels for demolition/grading/foundation work, crane noise levels building construction work, backhoe noise levels for trenching and paving work, and delivery truck noise levels for hauling truck trips.
- (C) Worst-case noise levels are approximate and are based on closest construction activity (e.g., grading, paving, trenching, truck hauling, etc.) to the receptor location.
- (D) See Table 4-12. Duration reflects the longest potential amount of time the highest worst-case noise level would occur. In actuality, worst-case noise levels may last less than the listed time.
- (E) Calculated by subtracting 20 and 25 dB from exterior noise levels for standard residential and VHC-Yountville buildings, respectively.

Table 11-12. Off-Site Receptors Predicted Construction Equipment Noise Levels (dBA Hourly Leq)

Receptor	Receptor Type	Distance to Closest Construction Activity ^(A)	Exterior Average Noise Levels (dBA Leq) ^(B)	Interior ^(E) Average Noise Levels (dBA Leq) ^(B)	Exterior Worst-Case Noise Levels (dBA Leq) ^(C)	Interior ^(E) Worst-Case Noise Levels (dBA Leq) ^(C)	Duration of Worst-Case Impact ^(D)
Chanticleer Winery ^(F)	Agricultural Winery	450 Feet	60 - 65	NA	79 - 84	NA	10 Months
Vineyard View Dr. Residents ^(F)	Agricultural Resident	1,010 Feet	53 - 58	33 - 38	59 - 64	39 - 44	10 Months
Vintner's Golf Club	Passive Recreation	75 Feet	79 - 84	NA	79 - 84	NA	5 Months

Notes:

- (A) Distances are approximate, as measured from the center of the project area to the closest building façade or property line location. In the case of Kennedy Hall, Napa Valley Museum, and Vintner's Golf Club, the distance is as measured between the receptor and trenching locations or the center of the adjacent roadway for soil hauling activities (i.e., either President's Circle or California Drive).
- (B) Average noise levels are approximate and are based on the predicted noise levels in Table 11-11 plus 3 dBA (to approximate multiple equipment operations), as measured from the

center of the site and based on the noise level for the closest distance rounded down (e.g., 500-foot noise levels are used for a receptor 550 feet away). See Appendix E for predicted noise levels not contained in Table 11-11. Average noise levels are based on bulldozer noise levels for demolition/grading/foundation work, crane noise levels building construction work, backhoe noise levels for trenching and paving work, and delivery truck noise levels for hauling truck trips.

- (C) Worst-case noise levels are approximate and are based on closest construction activity (e.g., grading, paving, trenching, truck hauling, etc.) to the receptor location.
- (D) See Table 4-12. Duration reflects the longest potential amount of time the highest worst-case noise level would occur. In actuality, worst-case noise levels may last less than the listed time.
- (E) Calculated by subtracting 20 and 25 dB from exterior noise levels for standard residential and VHC-Yountville buildings, respectively.
- (F) Receptor is located in unincorporated Napa County.

As shown in Table 11-11 and Table 11-12, the project's construction noise levels are, in general:

- Predicted to reach 84 dBA at the exterior of Holderman Building and Eisenhower Hall, which are located adjacent to the SNF site (where most grading and new building construction activities would occur). These facilities would be exposed to this worst-case noise level for up to approximately 10 months during demolition, grading, and foundation activities. Other construction activities would, on average, produce exterior noise levels from 63 to 68 dBA at these facilities. Exterior construction noise levels would be approximately 16 dB to 21 dBA on average, and as much as 37 dBA at worst-case, higher than exterior ambient noise levels at these facilities (based on monitoring at ST-2, see Table 11-11). In addition, construction activities could result in interior facility noise levels of approximately 38 to 43 dBA on average and 59 dBA at worst case for rooms fronting construction work areas.²⁸
- Predicted to reach 74 dBA at the exterior of Kennedy Hall, which is located adjacent to the soil hauling route and potential utility trenching areas. This facility would be exposed to this worst-case noise level for a period of up to approximately 5 months during soil-hauling activities associated with site grading. Other construction activities would, on average, produce exterior noise levels from 69 to 74 dBA at this facility. Exterior construction noise levels would be approximately 16 dB to 21 dBA higher than exterior ambient noise levels at this facility (based on monitoring at conducted for the Yountville General Plan, see Section 11.2.6). In addition, construction activities could result in

²⁸ The U.S. Department of Housing and Urban Development (HUD) Noise Guidebook and supplement (2009a, 2009b) includes information on noise attenuation provided by building materials and different construction techniques. As a reference, a standard exterior wall consisting of 4-inch face brick, 3/4-inch sheathing, two by four wall studs on 16-inch centers, fiberglass insulation, , and 1/2-inch gypsum wall board with a 6-foot by 5-foot single paned windows provides approximately 39 dBs of attenuation between exterior and interior noise levels. Increasing window space may also decrease attenuation, with a reduction of 10 dBs possible if windows occupy 30% of the exterior wall façade. As a conservative assumption, interior noise level estimates assume existing VHC-Yountville buildings provide 25 dB of exterior to interior attenuation, while standard residential construction (which does not include brick façades) provide 20 dB of exterior to interior attenuation.

interior facility noise levels of approximately 44 to 49 dBA for rooms fronting construction work areas.

- Predicted to reach up to 72 dBA at the exterior of the staff housing to the north of the SNF site. These facilities would be exposed to this worst-case noise level for up to approximately 10 months during demolition, grading, and foundation activities. Other construction activities would, on average, produce exterior noise levels from 59 to 64 dBA. Exterior construction noise levels would be approximately 13 dB to 18 dBA on average, and as much as 26 dBA at worst-case, higher than exterior ambient noise levels at these facilities (based on monitoring at ST-1, see Table 11-11). In addition, construction activities could result in interior facility noise levels of approximately 34 to 39 dBA on average and 47 dBA at worst case for rooms fronting construction work areas.
- Predicted to reach 70 dBA at the exterior of Roosevelt Hall and Lincoln Hall, which are located 650 feet or more from the SNF site. These facilities would be exposed to this worst-case noise level for up to approximately 10 months during demolition, grading, and foundation activities. Other construction activities would, on average, produce exterior noise levels from 59 to 67 dBA at these facilities. Exterior construction noise levels would be approximately 12 dB to 20 dBA on average, and as much as 23 dBA at worst-case, higher than exterior ambient noise levels at these facilities (based on monitoring at ST-2, see Table 11-11). In addition, construction activities could result in interior facility noise levels of approximately 34 to 42 dBA on average and 45 dBA at worst case for rooms fronting construction work areas.
- Predicted to reach 72 dBA at the exterior of the Napa Valley Museum, which is located east of the soil hauling route and potential utility trenching areas. This facility would be exposed to this worst-case noise level for a period of up to approximately 5 months during soil-hauling activities associated with site grading. Other construction activities would, on average, produce exterior noise levels from 67 to 72 dBA at this facility. Exterior construction noise levels would be approximately 14 dB to 19 dBA higher than exterior ambient noise levels at this facility (based on monitoring at conducted for the Yountville General Plan, see Section 11.2.6). In addition, construction activities could result in interior facility noise levels of approximately 47 dBA inside the museum.
- Predicted to reach 84 dBA at the property line of the Chanticleer Winery (for a period of up to approximately 10 months during demolition, grading, and foundation work). Other construction activities would, on average, produce exterior noise levels from 60 to 65 dBA at the Chanticleer Winery property line. Exterior construction noise levels would be approximately 14 dB to 19 dBA on average, and as much as 38 dBA at worst-case, higher than exterior ambient noise levels at this property line (based on at ST-1, see Table 11-12).
- Predicted to reach 84 dBA at the property line of the Vintner's Golf Club (for a period of up to approximately 5 months during soil-hauling activities associated with site grading). Other construction activities would, on average, produce exterior noise levels from 79 – 84 dBA at the Vintner's Golf Club property line. Exterior construction noise levels would be approximately 26 dB to 29 dBA higher than exterior ambient noise levels at this property line (based on monitoring at conducted for the Yountville General Plan, see Section 11.2.6).

- Predicted to reach 64 dBA at scattered rural residences accessed via Vintage View Drive. These facilities would be exposed to this worst-case noise level for up to approximately 10 months during demolition, grading, and foundation activities. Other construction activities would, on average, produce exterior noise levels from 53 to 58 dBA at these receptors. Exterior construction noise levels would be approximately 7 dB to 11 dBA on average, and as much as 18 dBA at worst-case, higher than exterior ambient noise levels at these facilities (based on monitoring at ST-1, see Table 11-12). In addition, construction activities could result in interior facility noise levels of approximately 33 to 38 dBA on average and 44 dBA at worst case for rooms fronting construction work areas.

Table 11-13 summarizes the project's potential construction noise level increases at nearby noise-sensitive receptor locations.

Table 11-13. Summary of Potential Construction Noise Level Increases (dBA Hourly Leq)

Receptor Location	Receptor	Measured Exterior Ambient Noise Level ^(A)	Average Exterior Construction Noise Level Increase ^(B)	Worst-Case Exterior Construction Noise Level Increase ^(C)
VHC-Yountville	Holderman Building	47 dBA	16 - 21 dBA	37 dBA
VHC-Yountville	Roosevelt Hall	47 dBA	12 - 20 dBA	23 dBA
VHC-Yountville	Eisenhower Hall	47 dBA	16 - 21 dBA	37 dBA
VHC-Yountville	Kennedy Hall	53 dBA	16 - 21 dBA	21 dBA
VHC-Yountville	Lincoln Hall	47 dBA	12 - 20 dBA	23 dBA
VHC-Yountville	Staff Housing	46 dBA	13 - 18 dBA	26 dBA
Town of Yountville	Napa Valley Museum	53 dBA	14 - 19 dBA	21 dBA
Napa County	Chanticleer Winery ^(G)	46 dBA	14 - 19 dBA	38 dBA
Napa County	Vineyard View Drive Residents ^(G)	46 dBA	7 - 11 dBA	18 dBA
Town of Yountville	Vintner's Golf Club	53 dBA	26 - 29 dBA	29 dBA

Source: MIG, 2019

Notes:

(A) See Section 11.2.6 and Table 11-11 and Table 11-12.

(B) Calculated by subtracting the ambient noise level in column 1 from the average exterior construction noise level Table 11-9, column 4.

(C) Calculated by subtracting the ambient noise level in column 1 from the worst-case exterior construction noise level in Table 11-11, column 6 and Table 11-12, column 6.

Discussion and Significance Conclusion

The magnitude of the project's temporary increase in ambient noise levels during construction would be dependent on the existing ambient noise levels, the nature of the construction activity (i.e., demolition or building construction) the distance between the construction activity and the

sensitive receptor / outdoor area, and the individual receptor's response to the construction noise level.

As shown in Table 11-13:

- The proposed project's average and worst-case noise levels at on-site and off-site receptor locations within the Town of Yountville would be substantially above the Town's daytime (55 dBA L_{50} and 75 dBA L_{max}) and nighttime (50 dBA L_{50} and 70 dBA L_{max}) noise standards for hospital, institution, residential, and commercial land uses set forth in Section 8.04.026 of the Municipal Code (see Table 11-9); however, the project is exempt from these standards pursuant to Municipal Code Section 8.40.040(F)(10) (see Town of Yountville Municipal Code).
- The proposed project's average noise levels at off-site residential receptor locations within unincorporated Napa County (Vintage View Drive residences) would be below the County's daytime (75 dBA) and nighttime (60 dBA) standards contained in Section 8.16.080 of the County Code (see Table 11-9). In addition, worst-case noise levels at these receptor locations would be below County daytime standards. Nighttime construction activities, if they occur, are expected to be similar to average construction noise levels and would be below the County's nighttime standards.
- The proposed project's average noise levels at off-site commercial receptor locations within unincorporated Napa County (Chanticleer Winery) would be below the County's daytime (80 dBA) and nighttime (65 dBA) standards contained in Section 8.16.080 of the County Code (see Table 11-9). Worst-case noise levels at these receptor locations would also be below County daytime standards. Nighttime construction activities, if they occur, are expected to be similar to average construction noise levels and would be below the County's nighttime standards.

Furthermore, as shown in Table 11-13, project construction could:

- Increase exterior ambient noise levels at on-site sensitive receptor locations by 10 to 20 dB or more on average and between 21 and 37 dBA at worst case, which would represent more than a quadrupling in perceived noise levels by the human ear.
- Increase exterior ambient noise levels at off-site sensitive receptor locations by 7 to 29 dBA on average and between 18 to 38 dBA at worst case, which would also represent more than a quadrupling of perceived noise levels at these locations.

During active construction, VHC-Yountville residents and staff would not have access to areas near equipment operations, demolition activities, etc. and, therefore, would not be exposed to the highest potential construction noise levels occurring at the site. In addition, most outdoor use areas associated with existing VHC-Yountville buildings such as Holderman Building, and Eisenhower Hall are contained in courtyards or located behind building wings that would shield these areas from exterior construction noise levels. Nonetheless, although CalVet and the VHC-Yountville campus is not regulated by or directly subject to the noise control provisions adopted by the Town of Yountville or Napa County, the project's overall increase in average and worst-case noise levels would be above Town standards and substantially higher than the existing ambient noise environment. In particular, as shown in Table 11-13, the project is anticipated to result in at least a 10 dB increase in ambient noise levels for a temporary but prolonged period of time at the VHC-Yountville campus.

The VHC-Yountville Campus provides rehabilitative, residential, and medical care and services for the state's aged (55+) or disabled veterans. While it is possible a subset of the VHC-Yountville resident population may experience natural age-related hearing loss, which impairs the ability to hear higher frequency noise levels, the quiet environment of the campus and the nature of the rehabilitative and residential medical care and services provided is more likely than not to increase the potential sensitivity of on-site receptors to the high noise levels estimated to occur during project construction, regardless of the net long-term benefit to resident care that would be achieved through project construction. It is important to note that while noise levels generated by construction equipment may exceed the Town's standards and potentially result in a substantial, temporary increase in noise levels, they would not be loud enough to cause physical harm to a receptor (i.e., at a level that would cause hearing loss or permanent hearing damage). Such physiological effects occur when the human ear is subjected to prolonged exposure to high noise environments. For example, to protect workers from noise-induced hearing loss, the U.S. Occupational Safety and Health Administration (OSHA) limits worker noise exposure to 90 dBA as averaged over an 8-hour time period (29 CFR 1910.95). Similarly, the National Institute for Occupational Safety and Health (NIOSH) recommends workers limit noise exposure to no more than 85 dBA over an 8-hour period to protect against noise-induced hearing loss (NIOSH, 1998). Therefore, at worst case, noise from construction activities may pose a temporary interference or annoyance effect on nearby sensitive receptors but would not result in physical harm.

In addition to increases in exterior noise levels, project construction is estimated to have the potential to noticeably increase noise levels in rooms in Holderman Building, Eisenhower Hall, Kennedy Hall, and staff housing that front construction work areas. California code generally establishes 45 dBA as the interior noise standard for habitable rooms. Although the specific interior noise levels within the buildings listed above is not known, the low ambient noise level at the site indicates interior noise environments are not currently impacted by exterior noise sources. Interior noise levels are, therefore, assumed to be in the range of 25 to 45 dBA (see Table 11-10). As shown in Table 11-11, interior noise levels during construction are anticipated to be 47 dBA in staff housing, 49 dBA in Kennedy Hall, and 59 dBA in Holderman Building and Eisenhower Hall. Interior noise levels above 45 dBA are generally considered to be intrusive and to have the potential to interfere with normal residential activities, quiet repose, and sleep or rest.

As demonstrated above, project construction would generate noise levels that would be above Town standards by as much as 9 dBA and the existing ambient noise environment by as much as 38 dBA, as well as result in interior noise levels that may interfere with normal resident activities, quiet repose, and sleep or rest. This is considered a potentially significant impact.

To reduce the potential for construction activities to generate noise levels above Town standards and interfere with VHC-Yountville resident use, care and well-being, CalVet has incorporated Mitigation Measure NOI-1 into the project, which requires CalVet to take additional action to control noise levels documented as interfering with resident care and well-being. With the incorporation of this adaptive management approach to construction noise levels, this impact would be *less than significant with mitigation incorporated*.

Construction Vibration Impacts

Construction activities have the potential to result in varying degrees of ground vibration, depending on the specific construction equipment used and activities involved. Vibration

generated by construction equipment spreads through the ground and diminishes with increases in distance. The effects of ground vibration may be imperceptible at low levels, result in low rumbling sounds and detectable vibrations at moderate levels, and can disturb human activities such as sleep and vibration-sensitive equipment at high levels. Ground vibration can also potentially damage the foundations and exteriors of existing structures even if it does not result in a negative human response.

The project construction work areas are, in general, located in close proximity to existing VHC-Yountville facilities, including Holderman Building, Eisenhower Hall, and McKinley Hall. Each of these facilities is within approximately 50 feet of potential work areas. The ground-borne vibration levels generated by the type of equipment that would be used to construct the project are shown in Table 11-14. Potential construction source vibration levels were using reference vibration levels documented and contained in the FTA's Transit Noise and Vibration Impact Assessment document and Caltrans' Transportation and Construction Vibration Guidance Manual (Caltrans 2013a and FTA 2018).

Table 11-14. Summary of Potential Construction Vibration Levels, Peak Particle Velocity (in/sec)^{(A)(B)}

Equipment	25 feet	50 feet	67 feet	75 feet	100 feet	150 feet	250 feet
Small Bulldozer	0.003	0.001	0.001	0.001	0.001	0.000	0.000
Jackhammer	<i>0.035</i>	0.016	0.012	0.010	0.008	0.005	0.003
Loaded Truck	<i>0.076</i>	<i>0.035</i>	0.026	0.023	0.017	0.011	0.006
Large Bulldozer	<i>0.089</i>	<i>0.042</i>	0.030	0.027	0.019	0.012	0.007
Caisson Drilling	<i>0.089</i>	<i>0.042</i>	0.030	0.027	0.019	0.012	0.007
Hoe Ram	<i>0.089</i>	<i>0.042</i>	0.030	0.027	0.019	0.012	0.007
Vibratory Roller	<i>0.210</i>	<i>0.098</i>	<i>0.071</i>	<i>0.063</i>	<i>0.046</i>	0.029	0.017
Impact Pile Driver (Typical)	<i>0.644</i>	<i>0.300</i>	<i>0.218</i>	<i>0.192</i>	<i>0.140</i>	<i>0.090</i>	<i>0.051</i>
Impact Pile Driver (Max)	<i>1.518</i>	<i>0.708</i>	<i>0.513</i>	<i>0.453</i>	<i>0.330</i>	<i>0.211</i>	<i>0.121</i>
Sonic Pile Driver (Typical)	<i>0.170</i>	<i>0.079</i>	<i>0.057</i>	<i>0.051</i>	<i>0.037</i>	0.024	0.014
Sonic Pile Driver (Max)	<i>0.734</i>	<i>0.342</i>	<i>0.248</i>	<i>0.219</i>	<i>0.160</i>	<i>0.102</i>	<i>0.058</i>

Source: Caltrans, 2013a; FTA, 2018; and MIG, 2019

Notes:

(A) Values for 25 feet are reference values contained in Caltrans, 2013a and FTA, 2018.

Estimated PPV calculated at other distances as follows: $PPV(D) = PPV(ref) * (25/D)^{1.1}$ where $PPV(D)$ = Estimated PPV at distance; PPV_{ref} = Reference PPV at 25 ft; D = Distance from equipment to receiver; and n = ground attenuation rate (1.1 for dense compacted hard soils). All distances are lateral distances and do not consider changes in topography.

(B) Text in **bold** font indicates construction vibration levels would exceed Caltrans vibration criteria for potential building damage in historic and older structures of 0.25 in/sec (see Table 11-2. Caltrans' Vibration Threshold Criteria for Building Damage). Text in *italicized* font indicates construction vibration level would exceed Caltrans' "distinctly perceptible" threshold value of 0.035 in/sec for human responses (see Table 11-3. Caltrans' Vibration Threshold Criteria for Human Response).

As shown in Table 11-14, specific vibration levels associated with construction equipment are highly dependent on the type of equipment used. Most typical construction equipment (e.g., large bulldozer, hoe ram, drill rig) has the potential to generate ground-borne vibration levels that exceed Caltrans' threshold for a distinctly perceptible human response (0.035 in/sec for normal human sensitivity and continuous vibration exposure, see Table 11-5) at a distance of up to approximately 60 feet. The conceptual site plan shown in Figure 2-7 indicates equipment such as bulldozers would operate within 60 feet of Holderman Building and Eisenhower Hall during demolition/site clearing, grading, and paving and landscaping equipment at a minimum and, therefore, would have the potential to annoy or interfere with residents occupying ground floor units of these facilities. Typical construction equipment, however, would not generate vibration levels that have the potential to damage Holderman Building, Eisenhower Hall, or other buildings.

Specific impact- and vibration-generating construction equipment such as a vibratory roller, impact pile driver, or a sonic pile driver would have the potential to generate ground-borne vibration levels that exceed Caltrans' threshold for a distinctly perceptible human response (0.035 in/sec, see Table 11-5) at distances of up to 130 feet (for a vibratory roller), 400 feet (for a sonic pile driver under maximum vibration generation conditions), and 780 feet (for an impact pile driver under maximum vibration generation conditions). The conceptual site plan shown in Figure 2-7 indicates vibratory rollers could be used within 100 feet of Holderman Building and Eisenhower Hall during grading and paving operations. In addition, although the use of impact or sonic pile drivers in building construction is not certain at this time, the conceptual site plan shown in Figure 2-7 indicates pile drivers could be used within 780 feet of Holderman Building, Eisenhower Hall, staff housing, and other buildings on campus. Therefore, the use of vibratory rollers and pile driver equipment in the project area would have the potential to annoy or interfere with residents occupying ground floor units of Holderman Building, Eisenhower Hall, and/or staff housing. Vibration-generating construction equipment would also be capable of generating vibration levels that have the potential to result in damage to VHC-Yountville buildings, which are contributors to the historic district, located within approximately 20 feet of vibratory roller operations, 67 feet of sonic pile driver operations, and 130 feet of impact pile driver operations.

As demonstrated above, construction-related ground-borne vibration may be perceptible at ground floor units in Holderman Building, Eisenhower Hall, and staff housing during demolition/site clearing, grading, building construction (if pile drivers are used), and paving activities. Although this impact would be intermittent (it would not occur every day), limited in duration (lasting a few hours or days since equipment would move around the site and would not operate in the same location for a prolonged amount of time), occur during the daytime only (when receptors would not be sleeping and, therefore, are considered less sensitive to vibration levels), vibratory roller and pile driving activities may be distinctly or even strongly perceptible up to several hundred feet away and could result in structural or cosmetic damage if operated close enough to buildings. This is considered a potentially significant impact.

To reduce the potential for construction activities to generate excessive vibration levels that could and interfere with VHC-Yountville resident use, care and well-being, or result in structural damage to existing buildings, CalVet has incorporated Mitigation Measures NOI-1 and NOI-2 into the project, which requires CalVet to take additional action to control vibration levels documented as interfering with resident care and well-being. With the incorporation of this

adaptive management approach to construction vibration levels, this impact would be *less than significant with mitigation incorporated*.

11.3.4 Permanent Noise and Vibration Impacts

The proposed project would generate long-term noise from on-site noise sources (e.g., heating, ventilation, and air conditioning (HVAC) equipment, emergency back-up generator, cooling towers, boilers, etc.) and off-site operational noise sources (i.e., vehicles). Typical noise levels associated with these activities and their potential to affect the ambient noise environment at sensitive receptor locations are described below.

On-Site Operational Noise Impacts

Long-term, on-site operational noise sources associated with the proposed project may include:

- HVAC operation on top of the SNF building;
- Equipment operation at the central plant building, which includes boilers, chillers, pumps, and two-20-foot-tall cooling towers, located in the service yard; and
- A pump located near the water tank.

In addition to the boilers, chillers, and pumps at the central plant building, an emergency backup generator would run occasionally during regular, monthly testing and during the event of a power outage.

Operational Noise from SNF HVAC Equipment

The proposed SNF would have HVAC units installed on the rooftop of the structure or in a separate ground enclosure. At a distance of 100 feet, HVAC units typically produce noise levels of 55 dB. The nearest sensitive receptor in proximity of the SNF facility, Eisenhower Hall, is located approximately 225 feet from the nearest building façade associated with conceptual site plan shown in Figure 2-7. At this distance, and assuming a direct line of sight with Eisenhower Hall, the HVAC equipment would have an approximate noise level of 49 dBA. In actuality, this noise level would be lower, since 1) the project site is at a higher elevation than nearby structures, including Eisenhower Hall, 2) this difference in topography and typical locations of HVAC equipment means this source of noise would be well shielded by the SNF's rooftop or other enclosure/building shielding (if on the ground), and 3) the proposed SNF would feature an 8-foot parapet at the roof, which would further shield noise from adjacent buildings. Given the above, the HVAC equipment on top of the SNF would have a negligible contribution to ambient noise levels at nearby sensitive receptor locations, including Eisenhower Hall.

Operational Noise from the Central Plant and Water Tank Pump

The 8,000 gross square foot central plant building would be located approximately 100 feet from Eisenhower Hall. Boilers, chillers, pumps, and an emergency generator would be contained in the central plant building, and two 20-foot-tall cooling towers, transformer boxes, and a fuel tank would be located in the service yard of the central plant. An approximately 12-foot-high wall would be constructed around the central plant and the service yard; however, design specifications for this wall are known at this time. Although the specific design of the Central Plant Building and surrounding wall, as well as the make, model, and noise-generating characteristics of the equipment to be located at the Central Plant, are not known, it is assumed operation of an approximately 125 brake horsepower (bhp) to 800 bhp boiler in the central plant

room would generate noise levels of 84 dBA to 90 dBA, respectively, at a distance of 3 feet (Cleaver Brooks, 2011).²⁹ In addition to the boiler, operation of the chiller and pumps would also contribute to noise levels within the central plant, though the specific noise levels associated with these pieces of equipment are unknown at this time, too. For the purposes of this analysis, it is assumed the operation of equipment inside the Central Plant could generate noise levels of approximately 93 dBA, which accounts for potential reverberation that could occur within the structure. Assuming the design of the Central Plant building would reduce the interior noise levels by approximately 25 dBA, the exterior noise level, at a distance of 5 feet from the central plant's building façade, is estimated to be approximately 68 dBA.

Exterior noise levels from the central plant building would combine with noise generated by the two, 20-foot-tall cooling towers and travel to sensitive receptor locations (e.g., Eisenhower Hall). Though noise levels from the Central Plant building and cooling towers would be partially blocked by the approximately 12-foot-tall wall that would be constructed around the Central Plant building and service yard, it is unknown at this time if the resulting noise increase would be below Town noise standards (see Table 11-8). Accordingly, CalVet would implement Mitigation Measure NOI-3, which requires the preparation of an acoustical analysis once the final site design, and specifications for the Central Plant equipment are known. In addition to assessing noise from the central plant and cooling towers, Mitigation Measure NOI-3 requires the acoustical analysis to assess and make recommendations with regard to an appropriate muffler system for the emergency back-up generator and water tank pump, such that combined noise levels associated with the proposed project do not exceed Town standards. Thus, on-site operational noise levels would be *less than significant with mitigation incorporated*.

Off-Site Operational Noise Impacts

The Traffic Impact Analysis (TIA) prepared for the project by Fehr and Peers indicates the new SNF would generate up to 100 new trips daily associated with new employees needed to staff the facility. All new trips associated with the project would be required to travel along California Avenue before turning onto Presidents Circle and reaching the project site. As indicated under Section 1.6 of the TIA, "the average weekday traffic volume entering and existing the site is 2,721 vehicles, and the average weekend traffic volume is 1,945 vehicles." Once operational, the project's contribution to weekday and weekend traffic volumes entering and exiting the site would be 3.5% and 4.9%, respectively.³⁰ As shown through the equations presented in Section 11.2.1, a doubling of a noise source results in an increase of 3 dBA. Since project-related vehicle trips would not approach the existing, hourly and daily traffic volumes on roadways in the project vicinity, traffic noise would not increase by 3 dBA. A change in environmental noise levels of less than 3 dBA would not be perceptible to the typical human ear in an outdoor environment. This impact would be considered *less than significant*.

²⁹ This is based on typical boiler operations. In actuality, this noise level could be higher or lower based on the size, make, and model of the boiler(s) selected for the proposed facility.

³⁰ These traffic volumes reflect existing conditions. During future conditions more cars would be on the roadway and the project's contribution to overall traffic volumes would be even less than the listed percentages.

Operational Vibration Impacts

Once constructed, the proposed project would consist of the operation of a new SNF. The SNF would not have any large sources of vibration associated with it. This impact would be less than significant.

11.3.5 NEPA Noise and Vibration Analysis

This section evaluates the project's potential to generate excess noise and vibration impacts pursuant to NEPA.

NEPA Thresholds of Significance

The U.S. Department of Veterans Affairs NEPA Interim Guidance for Projects states (Part 3, pg. 8), "Originally passed in 1972, NCA gave EPA the authority to regulate noise pollution and minimize the annoyance of noise affecting the general public. In 1981, the Administration decided that noise pollution is best regulated on a local level, and Federal funding for the NCA ceased thus stagnating the law. Many states and local municipalities regulate noise, though, especially for building projects for structures such as hospitals and office buildings. Noise impacts should be considered in VA's NEPA analyses for both construction and long-term operations aspects of the proposed action."

The VA does not maintain specific thresholds or guidance for evaluating the impact of excess noise. Accordingly, this analysis applies the thresholds described in Section 11.3.1 for evaluating excess noise levels.

The VA also does not maintain specific thresholds or guidance for evaluating excess vibration impacts. Accordingly, this NEPA analysis applies the FTA's recommended ground-borne vibration impact criteria for category 2 building for occasional events (75 VdB, see Table 11-1) to assess human response and annoyance potential, as well as the FTA's recommended ground-borne vibration building damage criteria for engineered concrete and masonry buildings (0.3 PPV in/sec), which is less stringent than the Caltrans' threshold applied in the CEQA analysis (0.25 PPV in/sec, see Construction Vibration).

Construction Noise

As explained in Sections 11.3.1 and Town of Yountville General Plan, project construction noise is exempt from the local noise standards contained in the Town of Yountville municipal code, and CalVet has determined proposed project would have a significant environmental impact related to on-site construction noise levels if it would substantially interfere with VHC-Yountville resident use, care, and well-being. The analysis presented in Construction Noise Impacts considers the magnitude of the project's potential noise levels against this standard and concludes the incorporation of Mitigation Measure NOI-1 would reduce construction noise levels to a less-than-significant impact. Thus, the project would not result in adverse excess construction-related noise at on-site receptor locations. As demonstrated in the analysis in Construction Noise Impacts, the proposed project would not result in construction-related noise levels that exceed applicable Napa County construction noise standards at off-site County receptors and, therefore, would not result in adverse construction-related noise impacts at these locations.

Operational Noise

The analysis presented in Construction Noise Impacts considers the magnitude of the project's operational noise levels against Town of Yountville noise standards and concludes the incorporation of Mitigation Measure NOI-3 would reduce operational noise levels to a less-than-significant impact. Thus, the project would not result in adverse excess operations-related noise at on- or off-site site receptor locations.

Ground-borne Vibration

As explained in Construction Vibration, construction activities have the potential to result in varying degrees of ground vibration, depending on the specific construction equipment used and activities involved. Vibration generated by construction equipment spreads through the ground and diminishes with increases in distance. The ground-borne vibration levels generated by the type of equipment that would be used to construct the project, in units of VdB, are shown in Table 11-15.

Table 11-15. Summary of Potential Construction Vibration Levels (NEPA), Velocity Decibels (VdB)^{(A)(B)}

Equipment	25 feet	50 feet	67 feet	75 feet	100 feet	150 feet	250 feet
Small Bulldozer	58.0	49.0	45.2	43.7	39.9	34.7	28.0
Jackhammer	79.0	70.0	66.2	64.7	60.9	55.7	49.0
Loaded Truck	86.0	77.0	73.2	71.7	67.9	62.7	56.0
Large Bulldozer	87.0	78.0	74.2	72.7	68.9	63.7	57.0
Caisson Drilling	87.0	78.0	74.2	72.7	68.9	63.7	57.0
Hoe Ram	87.0	78.0	74.2	72.7	68.9	63.7	57.0
Vibratory Roller	94.0	85.0	81.2	79.7	75.9	70.7	64.0
Impact Pile Driver (Typical)	104.0	95	91.2	89.7	85.9	80.7	74.0
Impact Pile Driver (Max)	112.0	103	99.2	97.7	93.9	88.7	82.0 ^(C)
Sonic Pile Driver (Typical)	93.0	84.0	80.2	78.7	74.9	69.7	63.0
Sonic Pile Driver (Max)	105.0	96.0	92.2	90.7	86.9	81.7	75.0

Source: Caltrans, 2013a; FTA, 2018; and MIG, 2019b

Notes:

- (A) Values for 25 feet are reference values contained in Caltrans, 2013a and FTA, 2018. Estimated L_y calculated as: $L_y(D) = L_y(25 \text{ feet}) - 30 \log(D/25)$ where $L_y(D)$ = estimated velocity level in decibels at distance, $L_y(25 \text{ feet})$ = RMS velocity amplitude at 25 f; and D = distance from equipment to receiver. All distances are lateral distances and do not consider changes in topography.
- (B) Text **bold** font indicates construction vibration levels would exceed FTA for potential building damage in engineered concrete and masonry buildings of 0.3 in/sec, or 98 VdB (FTA, 2018). Text in *italicized* font indicates construction vibration level would exceed FTA thresholds for human annoyance in category 2 buildings with occasional exposure to vibration (75 VdB, see Table 11-1)

(C) Impact pile driver vibration levels would drop to 74.9 VdB at a distance of 430 feet.

As shown in Table 11-15, the proposed project's construction vibration levels could exceed FTA-recommended criteria for human annoyance and response (75 VdB) in certain situations, namely when equipment is operated within approximately 75 feet (for typical equipment), 100 feet (for a vibratory roller), or 250 feet (for a sonic pile driver) and 430 feet (for an impact pile driver) of occupied buildings. Therefore, construction-related ground-borne vibration may be perceptible at ground floor units in Holderman Building, Eisenhower Hall, and staff housing during project construction. Vibration-generating construction equipment would also be capable of generating vibration levels that have the potential to result in damage to VHC-Yountville buildings located within approximately 25 feet of sonic pile driver operations and 75 feet of impact pile driver operations.

The analysis presented in Construction Vibration Impacts considers the magnitude of the project's construction vibration levels against Caltrans standards (which are equivalent to FTA recommendations for human annoyance and more stringent than FTA recommendations for building damage) and concludes the incorporation of Mitigation Measures NOI-1 and NOI-2 would reduce construction vibration levels to a less-than-significant impact. Thus, the project would not result in excessive ground-borne vibration levels.

Once operational, the proposed project would not result in activities that would generate excessive or adverse ground-borne vibrations.

11.4 MITIGATION MEASURES

Impact NOI-1: Project construction would occur in close proximity to occupied VHC-Yountville Facilities and near other noise-sensitive receptors. These activities could generate temporary construction noise levels that: 1) Would be substantially above the existing ambient noise environment at the and in the vicinity of the VHC-Yountville Campus; 2) Would be above Town of Yountville's standards; and 3) May interfere with resident use, care, and well-being in Holderman Building, Eisenhower Hall, Kennedy Hall, and staff housing.

Mitigation Measure NOI-1: Construction Noise and Vibration. To reduce potential construction noise and vibration impacts on resident services, CalVet and/or its designated project contractors or other representatives shall:

- 1) Establish a construction superintendent or other point of contact that would, throughout the entire project construction, communicate on a regular basis (e.g., daily, weekly, etc.) with CalVet, VYC-Yountville Home Administrator, public information officer, and any other necessary and appropriate on-site resident care providers to provide information regarding the project's schedule, key milestone dates, the safety and security program in place to prevent unattended site access, and the logistics and impacts of the project's construction activities.
- 2) Provide residents and resident care providers occupying a room that fronts or otherwise has a line of sight to the project area a notice of planned construction activities which identifies:
 - a) Daily construction start and end times;

- b) Work activities that have the potential to generate intrusive noise levels, including any evening (after 7 p.m.) or night (after 10 p.m.) work, and excessive vibration levels (see item 2 in Mitigation Measure NOI-2);
 - c) Exterior areas to avoid (e.g., parking areas or entrances near major construction work activities) and alternative outdoor use areas / points of access (e.g., entrances to buildings away from construction work areas);
 - d) Measures that would be deployed to reduce construction noise and vibration levels; and
 - e) The name and contact information (title, address, phone number, and email address) for the person to contact regarding a noise or vibration complaint. This notice shall be provided by the construction superintendent or other representative established pursuant to item 1).
- 3) Restrict construction activities, including deliveries and soil hauling trips, to the hours of 7:30 AM to 4:30 PM Monday thru Friday. Overtime and weekend or holiday hours may occur on an as-needed basis with prior notice pursuant to item 2) above.
- 4) Implement the following construction equipment care, siting, and design measures during construction activities, which would dampen or otherwise reduce the transmission of noise from the source to the receptor:
- a) Heavy equipment shall be equipped with standard noise suppression devices such as mufflers, engine covers, and engine/mechanical isolators, mounts, etc. These devices shall be maintained in accordance with manufacturer's recommendations.
 - b) Pneumatic tools shall include a noise suppression device on the compressed air exhaust.
 - c) CalVet shall, if available and feasible, connect to existing electrical service at the site to avoid the use of stationary, diesel- or other alternatively fueled power generators.
 - d) All stationary or portable noise generating equipment such as pumps, compressors, or welding machines shall be shielded and located as far from sensitive receptor locations as practical. Shielding may consist of existing structures or walls, plywood, or other barriers provided the barriers break the line of sight between the equipment and the receptor and provides for proper ventilation and equipment operations.
 - e) No radios or other amplified sound devices shall be audible beyond work areas.
- 5) Establish a designated delivery route for construction truck traffic, including soil hauling, equipment deliveries, concrete deliveries, and other vendor deliveries. The truck speed limit along designated on-site delivery routes shall be no more than 15 miles per hour.
- 6) Prior to the start of construction, prepare a Construction Noise Complaint Plan which:
- a) Identifies the name and/or title and contact information (including phone number and email) of the designated CalVet and/or contractor representative(s) responsible for addressing construction related issues.
 - b) Identifies noisy construction activities and a tentative schedule of these activities.
 - c) Includes procedures describing how the designated representative will receive, respond, and resolve to construction noise complaints.
 - d) At a minimum, upon receipt of a noise complaint, the Contractor and/or CalVet representative described in the first sub-bullet above shall identify the noise source generating the complaint, determine the cause of the complaint, and take steps to resolve the complaint.
 - e) Potential steps to resolve complaints or other concerns (raised during the regular communication process established by item 1) above) may include, but is not limited to, the installation of temporary and reversible enclosures (e.g., three sided enclosure for

stationary equipment), noise barriers, commercially available acoustic panels, or other products installed between work areas and receptors or on building envelopes, and the use of smaller equipment, electric equipment, or construction activity management techniques that limit daily construction activities and/or concurrent equipment operations. The final type, placement, and design of the project's temporary and reversible noise barrier(s) shall be reviewed by a qualified acoustical consultant prior to installation to ensure proper function and performance.

- f) As an alternative to the installation of physical barriers, CalVet may also consider the temporary relocation of impacted residents and resident-care givers to facilities that would not be impacted by project construction noise levels. Relocation of impacted residents may occur at the discretion of CalVet.

Effectiveness: *The implementation of these measures would limit construction activities and require the implementation of noise suppression and control devices that would reduce predicted noise and vibration levels as much as feasible.*

Implementation: *CalVet shall incorporate this mitigation measure into all appropriate engineering and site plan (e.g., building, grading, etc.) documents.*

Timing: *During construction activities.*

Monitoring: *CalVet shall review all engineering and site plan documents for inclusion of this requirement.*

Impact NOI-2: Project construction would occur in close proximity to occupied VHC-Yountville Facilities and near other noise-sensitive receptors. These activities could generate temporary construction vibration levels that: 1) May be perceptible in buildings near the project area; 2) May interfere with resident use, care, and well-being in Holderman Building, Eisenhower Hall, Kennedy Hall, staff housing, and other buildings; and 3) May result in damage to buildings and structures located near the project area.

Mitigation Measure NOI-2: Construction Vibration. To reduce potential construction vibration impacts on resident services and VHC-Yountville structures, CalVet and/or its designated project contractors or other representatives shall:

- 1) Prohibit the use of vibratory rollers and pile driving equipment in the project area, if feasible, given site-specific considerations and building construction needs. Plate compactors are acceptable. Piers, piles, caissons, or other foundation support structures shall be augur drilled, if feasible.
- 2) Prior to the start of construction activity, prepare a Construction Vibration Mitigation Plan for the project which:
 - a) Identifies the name and/or title and contact information (including phone number and email) of the designated CalVet and/or contractor representative(s) responsible for addressing construction-related vibration issues.
 - b) Contains a detailed construction schedule for the following construction activities:
 - i) The use of vibratory rollers within 20 feet of any existing building and 130 feet of any resident-occupied facilities (i.e. not clerical or administrative services only).
 - ii) The use of sonic pile drivers within 70 feet of any building and 400 feet of any resident-occupied facilities.

- iii) The use of impact pile drivers within 130 feet of any building and 780 feet of any resident-occupied facilities.
- c) Includes procedures describing how the designated representative will receive, respond, and resolve to construction vibration complaints. At a minimum, upon receipt of a vibration complaint, the Contractor and/or CalVet representative described in the first sub-bullet above shall identify the activity generating the complaint, determine the cause of the complaint, and take steps to resolve the complaint. Such measures may include the use of non-impact drivers, use of rubber-tired equipment instead of track equipment, temporary relocation of impacted residents and resident-care givers, or other measures that limit annoyance from ground-borne vibration levels.
- d) Include procedures that describe how project construction would avoid generating ground-borne vibration levels that could result in damage to existing buildings or structures (consider to be a vibration level above 0.25 inches per second on a peak particle velocity basis). These procedures shall only be required if it is not feasible to prohibit the use of vibratory rollers (20 feet), sonic pile drivers (70 feet) and impact pile drivers (130 feet) near buildings. Such measures may include the use of non-impact drivers, use of rubber-tired equipment instead of track equipment, installation of wave barriers (if feasible), monitoring of vibration levels during construction activities, and monitoring for damage to building and structures.

Effectiveness: *The implementation of these measures would limit construction activities and require the implementation of vibration suppression and control measures that would reduce predicted vibration levels as much as feasible.*

Implementation: *CalVet shall incorporate this mitigation measure into all appropriate engineering and site plan (e.g., building, grading, etc.) documents.*

Timing: *During construction activities.*

Monitoring: *CalVet shall review all engineering and site plan documents for inclusion of this requirement.*

Impact NOI-3: The project would result in stationary equipment operations in close proximity to occupied VHC-Yountville Facilities. These activities could generate operational noise levels that: 1) Would be substantially above the existing ambient noise environment at and in the vicinity of the VHC-Yountville campus; and 2) Would be above Town of Yountville's standards.

Mitigation Measure NOI-3: Stationary Equipment Operations. Prior to the start of building construction activities, CalVet shall have an acoustical analysis prepared by a qualified acoustical consultant that demonstrates the proposed project's equipment noise levels would not exceed the Town of Yountville standards set forth in Chapter 8.04 of the Town's Municipal Code at on-site sensitive receptor locations. The acoustical analysis shall be based on the final project design, reflect the actual equipment type and location at the project site, and the actual noise enclosures, shielding, or other attenuation measures included in the final project design.

Effectiveness: *The implementation of this measure would ensure operational noise levels meet Town standards and do not result in substantial, permanent increase in ambient noise levels.*

Implementation: *CalVet shall incorporate this mitigation measure into all appropriate engineering and site plan (e.g., building, grading, etc.) documents.*

Timing: *Prior to the start of building construction activities.*

Monitoring: *CalVet shall review all engineering and site plan documents for inclusion of this requirement.*

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CHAPTER 12 TRANSPORTATION

This chapter describes the transportation and roadway system in the vicinity of the proposed SNF project, summarizes applicable regulations and policies, and evaluates potential impacts on the roadway system, public transit, pedestrian and bicycle facilities. The evaluation of the project's potential effects is primarily based on a Transportation Impact Analysis (TIA) prepared by Fehr & Peers, a qualified traffic engineering firm (Fehr & Peers, 2019). This chapter summarizes existing conditions and key findings described in the analysis.

12.1 REGULATORY SETTING

State and local agency policy goals, guidelines, and objectives relevant to the Yountville SNF project are provided below.

As discussed in Section 12.3.4, LOS is no longer permitted to be used as a CEQA threshold for transportation impacts. For informational purposes, information about LOS is presented in Appendix F.

12.1.1 Regional

The Metropolitan Transportation Commission (MTC) serves as the transportation planning, coordinating, and financing agency for the nine-county San Francisco Bay Area. The MTC is responsible for updating the regional transportation plan at least every four years to reflect new funding forecasts and adjust to new growth issues. Plan Bay Area 2040 is the current version of the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), adopted in 2017. Plan Bay Area 2040 is an updated version of Plan Bay Area, the region's integrated transportation and land use plan adopted in 2013. The Plan Bay Area 2040 Final Plan features a project database that includes transit, road, and other projects funded by, and included in, the Final Plan. The project database in the Plan Bay Area 2040 Final Plan does not include any improvements to SR 29 in the study area.

12.1.2 Local

Napa Valley Transit Authority

The Napa Valley Transit Authority (NVTA) serves as the countywide transportation planning body for the incorporated and unincorporated areas of Napa County. Because the County does not have a congestion management agency, NVTA works with the MTC to prepare the Napa County portion of the RTP, which is a long-range development plan to allocate state and federal transportation funds. In 2015, the NVTA adopted a countywide transportation plan called Vision 2040: Moving Napa Forward, which the NVTA intends to be a long-range guide for decision making and funding of Napa County roadways, transit, and bicycle facilities. The Vision 2040 plan includes the following goals:

- Reduce/restrain growth of automobile VMT;
- Spread the load from peak times to non-peak times;
- Improve the quality and safety of streets and road infrastructure;
- Shift travel from Single Occupancy Vehicles to other modes; and
- Reduce overall energy use and GHG emissions.

The countywide transportation plan includes a Project and Program List that details planned roadway and transportation related improvements countywide. The list includes one project that falls within the study area: the construction of an interchange at the existing Madison Street and SR 29 intersection. The list provides an estimated project start year of 2030, although it does not list any source of funding for the project, and states that the improvement is not included in the Regional Transportation Plan, Plan Bay Area. Additionally, the improvement was not included in Yountville's recent 2018 General Plan Update. For these reasons, the interchange was not included as an assumed improvement in the cumulative year forecasting and analysis for the proposed project.

Napa County General Plan

The Napa County General Plan provides existing and proposed maps of the County's transit network, vehicular circulation network, and bicycle/pedestrian circulation network. The 2008 Napa County General Plan outlines three goals that address circulation and land use, state highway routes and county roads, transit services, air transportation, rail service, navigable waterways, and non-motorized transportation:

- The County's transportation system shall be correlated with the policies of the Agricultural Preservation & Land Use Element and protective of the County's rural character;
- The County's transportation system shall provide for safe and efficient movement on well-maintained roads throughout the County, meeting the needs of Napa County residents, businesses, employees, visitors, special needs populations, and the elderly; and
- The County's transportation system shall encompass the use of private vehicles, transit, paratransit, walking, bicycling, air travel, rail, and water transport.

Town of Yountville

The Town of Yountville General Plan along with a variety of regional, state and federal plans, legislation, and policy directives provide guidelines for the safe operation of streets and transportation facilities in the Town of Yountville. While the Town of Yountville has primary responsibility for the maintenance and operation of transportation facilities within the Town, Yountville staff works on a continual basis with responsible regional, state, and federal agencies including the Napa County Transportation and Planning Agency (NCTPA), the County of Napa, the Metropolitan Transportation Commission (MTC), California Department of Transportation (Caltrans), and Federal Highway Administration, as well as others, to maintain, improve, and balance the competing transportation needs of the community and the region (Yountville General Plan Circulation Element, 2015).

The Town's General Plan Circulation Element has the following policies and action items regarding the Veterans Home.

- Policy C 2.9 Enhance the safety of any pedestrian crossings in the Town.
 Action C 18: Review the pedestrian route between the Veterans Home and downtown Yountville to determine if any enhancements such as sidewalks/walkways, higher visibility crosswalks, pedestrian warning signs at crosswalks and traffic calming elements are needed to increase the safety for pedestrians.

- Policy C 2.16 The Town shall maintain the trolley system to serve local transit needs. Action C 23: Discuss the need to consolidate bus stops on Washington Street with NCTPA and consider the potential impact to users, especially residents of the Veterans Home.
- Policy C 2.20 Continue to cooperate with the Veterans Home of California to provide public transportation to residential neighborhoods and the business district.

12.2 ENVIRONMENTAL SETTING

12.2.1 Existing Roadway System

Regional access to the project site is provided by State Route 29, while local access is provided via California Road. The following describes the roadway system adjacent and providing access to the project site (Figure 12-1).

State Route 29 (SR 29) is a north-south highway traversing Solano and Napa Counties. SR 29 begins in southern Vallejo, at the Sonoma Boulevard ramps with Interstate 80, and serves the cities of Vallejo, American Canyon, and Napa. The highway generally has two lanes in each direction south of Yountville, and one lane north of Yountville. There is a lane drop after the California Drive exit heading north, and a lane addition before the California Drive exit heading south. SR 29 continues north past Yountville until it terminates in St. Helena. Within the TIA study area limits, SR 29 has a posted speed limit of 50 mph.

California Drive is an east-west roadway with one lane in each direction, connecting Washington Street to VHC-Yountville. California Drive is the main access road to the VHC-Yountville campus, and also provides access to the adjacent Domaine Chandon Winery via Domaine Chandon Road. California Drive provides access to SR 29 via northbound and southbound ramp intersections. There is a railroad grade crossing of California Drive between Solano Way and the SR 29 southbound ramps. Class II bicycle lanes are provided between the SR 29 southbound ramps intersection and Washington Street. The posted speed limit is 20 mph.

Solano Avenue is a north-south two-lane roadway paralleling SR 29 to the west. Solano Avenue connects California Drive in Yountville with West F Street in Napa. Solano Avenue has a speed limit of 35 mph in the study area; the speed limit increases south of the city limits. The Napa Valley Vine Trail, a paved Class I bike path and pedestrian walkway, is located on the west side of the roadway, extending from California Avenue to a staging area just north of the SR 29/Redwood Road interchange in Napa. Napa County Fire Station #12 is located on Solano Avenue south of California Drive.

Washington Street is a two-lane roadway extending from Vineyard Lane in the south to its intersection with SR 29 just north of Madison Street. It serves as a main corridor through the town's center. South of the town limits, it parallels SR 29 to the east until its terminus with Vineyard Lane. Both sides of the roadway offer on-street parking along most of the corridor.

There are several sections of sidewalk along the roadway providing access to adjacent land use; however, there is no continuous pedestrian facility or bicycle facility present along the street. There is a 25-mph speed limit along Washington Street.

Madison Street extends from Yount Street to the Domaine Chandon Winery property, at the signalized study intersection of SR 29. It is a two-lane roadway with a northwest/southeast

orientation. The Class I multi-use path, known as the “Vine Trail,” joins Madison Street at the SR 29 intersection and extends northwest to Washington Street. Class II bike lanes are provided along the rest of the corridor. Apart from the short section of the Vine Trail, no pedestrian facilities are present along Madison Street. There is a 25-mph speed limit.

Domaine Chandon Road is a small, two-lane access road paralleling California Drive to the north. It serves as the main access to Domaine Chandon Winery. It has a primarily east-west orientation but makes a quick 90-degree turn to form an intersection with California Drive at Solano Avenue. As a private access road, it has an assumed speed limit of 25 mph. There are no bicycle or pedestrian facilities present on Domaine Chandon Road.

12.2.2 Existing Bicycle Facilities

Information in this section is based on the Yountville General Plan, adopted in May 2019. Bicycle facilities are typically classified into four categories as described below:

- **Bicycle paths (Class I)** provide a completely separate right-of-way and are designated for the exclusive use bicycles and pedestrians with vehicle cross-flow minimized.
- **Bicycle lanes (Class II)** provide a restricted right-of-way and are designated for the use of bicycles for one-way travel with a striped lane on a street or highway. Bicycle lanes are generally a minimum of five feet wide. Vehicle parking and vehicle/pedestrian cross-flow are permitted.
- **Bicycle routes (Class III)** provide right-of-way designated by signs or pavement markings for shared use with motor vehicles. These include sharrows or “shared-lane markings” to highlight the presence of bicyclists.
- **Cycle Tracks (Class IV)** or “separated” bikeways provide a right-of-way designated exclusively for bicycle travel within a roadway and are protected from other vehicle traffic by physical barriers, including, but not limited to, grade separation, flexible posts, inflexible vertical barriers such as raised curbs, or parked cars.

Within the study area, bicycle facilities consist of the following (Figure 12-2):

- A Class I multi-use path, the Napa Valley Vine Trail, is provided along the east side of the railroad tracks north of California Avenue, transitioning to the west side of the railroad tracks south of California Avenue.
- Class II bicycle lanes are provided on Yountville Cross Road, Yount Street, Solano Avenue, California Drive, Finnell Road, and Madison Street.
- There is a Class III bike route designated on Yount Street.
- A portion of the Hopper Creek Path north of Finnell Road is considered a Class I path, but other portions of the path are too narrow to accommodate multiple types of users. There is an additional planned portion of the trail that will begin on Yount Street at Hopper Creek and continue to the southern town limits. Details of an estimated build year were not provided.

12.2.3 Existing Pedestrian Facilities

The study area is served by a network of sidewalks and pedestrian paths set back from the street. Along California Avenue, paths and sidewalks are provided only on the north side of the roadway between the SR 29 Northbound ramps intersection and the VHC; east of this

intersection, sidewalks/paths are provided on both sides of the roadway. No sidewalks or crosswalks are provided at the intersection of SR 29 and Madison Street. However, the Napa Valley Vine Trail serves pedestrians traveling along the east side of SR 29 south of this intersection and provides a connection into the Town of Yountville east of the intersection. The Vine Trail continues south to California Drive, where it crosses to Solano Avenue and continues south.

12.2.4 Existing Transit Services

The Napa Valley Transportation Authority (NVRTA) operates the Yountville trolley and the VINE bus service that serves the greater Napa Valley area, with stops in Yountville. The following bus stops are located within reasonable proximity to the project site and study intersections, as shown in Figure 12-3.

- Washington Street at Madison Street (SE)
- Washington Street at Madison Street (NW)
- Washington Street at Humboldt Street (SE)
- Washington Street at Mulberry Street (SE)
- Washington Street at Mulberry Street (NW)
- Washington Street at Mission Street (SE)
- Washington Street at Mission Street (NW)
- Yountville Veterans Home
- California Drive at Solano Avenue

The NVRTA VINE Bus Service provides service to the town of Yountville with Route 10, which runs along Highway 29 with service from Napa Valley College to the city of Calistoga. Yountville has bus stops serviced by Route 10 at four locations: Washington Street's Mulberry Street, Mission Street, and Madison Street intersections, as well as VHC-Yountville.

The Yountville Trolley Service is operated by the NVRTA as a smaller scale service for town residents and visitors. It is a free on-demand service that operates within the town limits and offers service to and from VHC- Yountville. Users can request a ride by telephone, or online using either the "Ride the Vine" app, or VINE Transit's website. Hours of operation are Monday – Saturday, 10 AM to 11 PM and Sunday, 10 AM to 7 PM.

12.2.5 Traffic Counts

Counts were conducted of vehicles, bicycles, and pedestrians at the study intersections for the weekday morning (7:00 – 9:00 AM), weekday afternoon (4:00 – 6:00 PM) and Saturday mid-day (11:00 AM – 1:00 PM) two-hour peak periods in February 2019. The peak hours for vehicle trips are 8-9 AM and 4-5 PM. A seven-day count of the site's access road, California Drive (west of its intersection with Domain Chandon), was also conducted to provide a baseline for the site's current average daily traffic (ADT) volumes. The average weekday traffic volume entering and exiting the site is 2,721 vehicles, and the average weekend traffic volume is 1,945 vehicles.

12.3 PROJECT IMPACTS

12.3.1 Thresholds of Significance

Based on CEQA Guidelines Appendix G, the implementation of the project or its alternatives would have a significant environmental impact related to transportation if it would:

- (a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. For the purposes of this EIR/EA, the following criteria are applied.
Transit Impacts. The project would have a significant impact on the transit system if it would disrupt existing transit services or facilities, interfere with planned transit services or facilities, or conflict with adopted transit system plans.
Roadway Impacts. The project would have a significant impact on the roadway system if it would disrupt existing roadway facilities, interfere with planned roadway facilities, or conflict with adopted roadway system plans.
Bicycle Impacts. The project would have a significant impact on the bicycle network if it would disrupt existing bicycle facilities, interfere with planned bicycle facilities, or conflict with adopted bicycle system plans.
Pedestrian Impacts. The project would have a significant impact on the pedestrian network if it would disrupt existing pedestrian facilities, interfere with planned pedestrian facilities, or conflict with adopted pedestrian system plans.
- (b) Conflict or be inconsistent with CEQA Guidelines section 15064.3 subdivision (b) (see section 12.3.4).
- (c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses. For the purposes of this impact evaluation, an impact would be significant if the project design does not provide adequate sight distance and does not conform to the relevant design guidelines set forth by the California Department of the State Architect, Caltrans, and Town of Yountville standards, as applicable, as well as the Americans With Disabilities Act Accessibility Standards.
- (d) Result in inadequate emergency access. For the purposes of this impact evaluation, an impact would be significant if the project design impedes emergency access within the study area.

12.3.2 Impacts Dismissed from Further Consideration

The proposed project would have no or minimal impact with regard to the following thresholds; therefore, these issues are dismissed from further discussion in the sections below:

- The proposed project would not disrupt existing transit services or facilities, interfere with planned transit services or facilities, or conflict with adopted transit system plans because the project does not propose any changes to transit service or infrastructure. The project may result in additional ridership on local transit routes, including NVRTA Vine route 10 and the Yountville Trolley. Additional ridership is not a significant impact based on the significance criteria. The proposed project would not disrupt existing pedestrian or bicycle facilities, interfere with planned pedestrian or bicycle facilities, or conflict with adopted pedestrian or bicycle system plans because the project does not propose any infrastructure changes outside

the VHC-Yountville campus (Threshold a). Disruption of roadway impacts are discussed below.

12.3.3 Disruption of Roadway Facilities

Project construction is expected to take approximately 26 months, and would include construction employee vehicles, materials delivery vehicles, and heavy vehicles (for excavation, concrete pours, etc.) for periods throughout the construction schedule. It is estimated that the construction workforce would average about 100 workers. These workers are expected to travel primarily by car (drive-alone and carpooling) to the worksite; some workers may take Vine route 10 to the site. The normal work hours for construction are planned to be 7:30 AM to 4:30 PM. The actual peak hours for vehicle trips are 8-9 AM and 4-5 PM, based on the traffic counts. Therefore, construction workforce trips through the study area would occur largely outside the peak traffic hours, with most workers arriving prior to the start of the AM peak hour and some likely departing after the end of the PM peak hour.

The early construction phases – demolition and site clearing, earthwork and underground utilities, and foundations and slabs – are expected to require the largest number of heavy vehicles. Daily vehicle estimates are not available. These phases are projected to last for a combined ten months.

Based on the geographic context of the project site, it is expected that most construction workers and other construction vehicles would approach and depart the site via State Route 29 to the south. All vehicles would use California Drive to access the construction site. Therefore, it is expected that the construction vehicles would primarily utilize the SR 29 ramp intersections with California Drive and the California Drive/Solano Way/Domaine Chandon Road intersections.

Haul truck traffic on the VHC-Yountville campus and at local intersections could be disruptive to traffic flow and introduce vehicle and pedestrian safety concerns. With implementation of Mitigation Measure TRA-1, construction traffic safety impacts would be reduced to a less-than-significant level. This impact is *less than significant with mitigation incorporated*.

12.3.4 Consistency with CEQA Guidelines Section 15064.3(b)

In response to Senate Bill 743 (SB 743), the Governor's Office of Planning and Research (OPR) updated CEQA Guidelines to include new transportation-related evaluation metrics, releasing final amended Guidelines and a Technical Advisory on Evaluating Transportation Impacts in CEQA in December 2018.

Specific to SB 743, CEQA Guidelines section 15064.3(c) states, "A lead agency may elect to be governed by the provisions of this section immediately. Beginning on July 1, 2020, the provisions of this section shall apply statewide." Section 21099 subdivision (b)(2) of the Public Resources Code notes that, "Upon certification of the guidelines by the Secretary of the Natural Resources Agency pursuant to this section, automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment...."

In December of 2019, the 3rd District Court of Appeals in *Citizens for Positive Growth & Preservation v. City of Sacramento* found that vehicle delay (e.g., level of service [LOS]) cannot be used to define a CEQA impact. The key excerpt from the discussion is shown below:

Although CEQA Guidelines section 15064.3 applies prospectively, Section 21099, subdivision (b)(2) provides that, “[u]pon certification of the guidelines by the Secretary of the Natural Resources Agency pursuant to this section, automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any.”

As noted by the Court, the Secretary of the Natural Resources Agency certified the CEQA Guidelines, including section 15064.3, in December 2018. The 3rd District Court of Appeals ruling provided clarity for CEQA documents, finding that, because the guidelines have been certified, vehicle delay (LOS) cannot be used to define CEQA impacts for land use projects such as the proposed SNF.

VMT and the CEQA Guidelines

Per CEQA Guidelines section 15064.3(a), VMT is the most appropriate measure of transportation impacts. VMT refers to the amount and distance of the automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel. Except as provided in subdivision (b)(2) (regarding roadway capacity projects) a project’s effect on automobile delay shall not constitute a significant environmental effect. As clarified by the 3rd District Court of Appeals, the prohibition of using vehicle delay as a CEQA impact became effective upon the date of the Guidelines adoption in late 2018. As a result, LOS is not included in the environmental impact analysis of the Yountville SNF project.

Per CEQA Guidelines section 15064.3(b) Criteria for Analyzing Transportation Impacts:

- (1) Land Use Projects. Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be considered to have a less than significant transportation impact.
- 4) Methodology. A lead agency has discretion to choose the most appropriate methodology to evaluate a project’s vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project’s vehicle miles traveled and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicles miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in 15151 shall apply to the analysis described in this section.

Section 15064.3(b) of the CEQA Guidelines codifies the transition from LOS to VMT as a metric for transportation impact analysis. Section 15064.3 does not become applicable statewide until July 1, 2020. Until that time, pursuant to section 15064.3(c), agencies are not required to use VMT as the basis for evaluation of traffic impacts and also may elect to use Section 15064.3 immediately.

OPR has established proposed thresholds that may be used by jurisdictions for the evaluation of VMT impacts for different land use types. For residential or employment (non-retail) uses, new developments that have an estimated vehicle miles of travel 15 percent below existing regional home-based VMT per resident or commute VMT per employee, respectively, would be considered less than significant. Individual agencies may adopt their own thresholds for evaluating VMT. At this time, neither CalVet, Napa County, nor the Town of Yountville have adopted VMT assessment methodologies or significance thresholds.

At the present time, no VMT standards apply to the Yountville SNF project. The VMT analysis provided below is not yet required by CEQA Guidelines and is therefore presented for information purposes only; it is not used for impact assessment.

VMT Assessment

A VMT analysis was conducted for the Yountville Veterans Home both as it exists today, and with the completion of the proposed SNF project. Given that the proposed project adds staff, but not residents, employee-based VMT was chosen as the best metric for the analysis.

Using a provided listing of existing employee residences by city and zip code, trip lengths were assigned to each employee in order to generate an estimate of commute VMT/day/worker. By summing these estimates, a total commute VMT/day estimate generated by Yountville Veterans Home employees was generated.

Assuming a proportional distribution of employee residential information for the 100 new staff proposed as part of the SNF Project, an estimate was prepared in similar fashion for the commute VMT/day/worker to be added by the Project. Adding this result with the existing commute VMT generated by the Project site provides an Existing with Project estimate of employee-based VMT. Results of this analysis are presented in Table 12-1.

Table 12-1. VMT Analysis Results

Scenario	No. Employees ^(A)	Average Trip Length (miles) ^(B)	VMT per Worker	Total VMT
Existing Yountville Veterans Home Campus	815	19.7	39.4	32,155
New Skilled Nursing Facility (net new employees)	100	19.7	39.4	3,945
Total with Project	915	19.7	39.4	36,100

Source: Fehr & Peers, 2020

Notes:

- (A) The number of employees for the existing Yountville Veterans Home campus was provided by the Veterans Home, along with a listing of existing employee residences by city and zip code.
- (B) Average trip length is a weighted average of all employee trip lengths, calculated using the residence data.

The proposed SNF would serve existing VHC-Yountville residents and would not increase the residential population or residential capacity of the campus. The SNF would increase the number of campus employees by 100 resulting in new commute trips. For the purposes of VMT evaluation, the proposed SNF is most closely akin to an office use, due to the increase in employment associated with the project and no increase in residential use.

Based on an evaluation of home address zip code data from 815 campus employees, the average trip length for employees commuting to campus is 19.7 miles, resulting in a 39.4 daily VMT per worker for a round-trip commute (Table 12-1).

The existing VHC-Yountville commute VMT per employee is substantially higher than the Napa County commute VMT per employee (19.2) and the Bay Area commute per employee (16.6).³¹ This reflects the VHC-Yountville's geographic location in a rural area of Napa County and the resulting distances workers need to drive from their homes or the workplace, as compared to more dense and mixed-use areas like the City of Napa (in Napa County) and inner Bay Area cities like San Francisco, Oakland, and Berkeley.

The commute distance for new employees is expected to be similar to the commute distance of existing employees, as new employees would originate from an array of residences similar to the existing staff. The SNF would increase the estimated daily VMT generated by the campus by 12 percent, from 32,155 vehicle miles of travel per day to 36,100 vehicle miles of travel per day. The new employees associated with the SNF would likely be existing commuters from other health care jobs at other locations, so the net effect of the SNF on regional VMT is unknown. The VMT per new worker for the SNF project is unlikely to be 15 percent below regional averages for Napa County or the Bay Area as recommended by the OPR. However, the VMT would be generated at the same rate as presently occurring at the campus from existing employees and thus would not increase the baseline VMT generation rate of the VHC-Yountville campus.

The VMT generation associated with the Yountville SNF should be placed within the context of the purpose of the project, the geographical location of the project, and the potential outcomes of not building the project.

The purpose of the Yountville SNF is to modernize existing facilities providing services to California veterans that already occur on the VHC-Yountville campus. The project is considered infill on an existing developed campus. If the Yountville SNF were not built at this VHC campus, similar facilities would need to be constructed on other state property. Due to the demand for SNF services and the deteriorated condition of the existing SNF facilities, VHC-Yountville residents needing skilled nursing services in the future would need to be transferred to the alternative site for the duration of their stays (including multiple stays) without the proposed construction of the new SNF. Constructing a SNF at an alternate VHC campus location would not necessarily reduce regional VMT nor the VMT of the VHC-Yountville campus. Also, staff beyond SNF employees may be needed to support a SNF facility in a new location (e.g., building maintenance, landscaping infrastructure, and administration) that already exist at VHC-

³¹ These values are from the 2014 Regional Transportation Commission's Travel Model 1. An updated version of the model consistent with the 2017 Regional Transportation Plan is available, but the VMT metrics from that model were not available at the time this document was prepared.

Yountville. The additional staff needed to support a SNF at a new location would increase VMT. In addition, it would negatively affect the quality of service to the current veteran residents and their families. The proposed SNF provides a beneficial service and necessity to VHC-Yountville residents.

The proposed SNF would replace aged facilities with modernized space and equipment. The existing SNF facilities are largely double occupancy rooms in crowded space. The new rooms would mostly be single occupancy in larger rooms. The existing SNF facility operates with staffing levels based on space constraints as permitted by Department of Health licensing. The new SNF requires higher staffing levels to serve the same patient count, to comply with current health care worker-to-patient ratios. Thus, the project VMT associated with the 100 new SNF employees is a necessary outcome of compliance with applicable laws.

Given the location of the facility, staffing requirements for work hours spread across three shifts (day, swing, and midnight), and the limited high-quality mass transit service in the VHC-Yountville campus, there are limited opportunities to reduce the project VMT. The State implements an incentive program for its employees to reduce VMT and associated GHG emissions. The program encourages employees to use alternate modes of transportation (e.g., bus, rail, vanpool) by providing up to \$65 per month in commuter funding. The monthly credit for transportation passes will increase to \$100 in July 2020.

Considering the new VMT from the proposed SNF is associated with development at an existing VHC campus and is consistent with the VMT baseline pattern of its current employees in a rural area, the project not creating substantial VMT change.

12.3.5 Increase Hazards Due to a Geometric Design Feature or Incompatible Uses Features

The proposed project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses because project design will provide adequate sight distance and conform the relevant design guidelines set forth by the California Department of the State Architect, Caltrans, and Town of Yountville standards, as applicable, as well as the Americans With Disabilities Act Accessibility Standards. The project design has not been developed in enough detail to review the design of the facilities serving vehicular, pedestrian and bicycle access; however, because CalVet retains the design review and permitting authority for the project, it can be reasonably expected that the final site design will conform to all applicable design standards for roadways, pedestrian facilities, bicycle facilities, and parking lot layout. Therefore, this impact is considered *less than significant*.

12.3.6 Emergency Access

The proposed project would not result in inadequate emergency access. Based on the small number of additional trips added to the roadway network by the project, emergency vehicle response times would not be expected to increase with the project. In addition, it can be reasonably expected that direct emergency access to the project site would not be impeded by the project design. The impact is considered *less than significant*.

12.4 MITIGATION MEASURES

Impact TRA-1: Project construction would result in temporary impacts on traffic congestion at the study intersections, primarily the SR 29 ramp intersections with California Drive and the

California Drive/Solano Avenue/Domain Chandon Road intersection. The congestion and movements of heavy haul trucks could impact the safety of vehicle and pedestrian movements.

Mitigation Measure TRA-1: Traffic Construction Management Plan. CalVet shall prepare a detailed construction traffic management plan (CTMP) to address traffic conditions throughout the construction period. As part of the plan development, CalVet and its construction contractors shall meet with appropriate Town of Yountville and Caltrans departments to determine traffic management strategies to reduce, to the maximum extent feasible, safety effects on off-campus roads during construction of the project. CalVet shall develop the plans for review and approval by the appropriate Town and Caltrans departments. The plans shall include at least the following items and requirements:

- A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic hours, detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes.
- Location of construction staging areas for materials, equipment, and vehicles at approved off site locations (if needed).
- A process for responding to, and tracking, complaints pertaining to construction activity, including identification of an on-site complaint manager. The manager shall determine the cause of the complaints and shall take prompt action to correct the problem.
- Provision for accommodation of pedestrians and bicyclists in the construction area.
- Provision for parking management and spaces on the project site for all construction workers to ensure construction workers do not park off-site on Town of Yountville neighborhood streets.
- Photo documentation of pre-project pavement conditions on Highway 29 north and southbound lanes one-half mile from California Drive including ramps at California Drive. A plan for restoration of on-site pavement and Highway 29 pavement within photo documented limit to pre-construction conditions after completion of all construction.
- Other items deemed necessary by the Town and Caltrans during preparation of the CMP.

Effectiveness: *This measure would avoid or minimize traffic congestion during project construction.*

Implementation: *CalVet or its Contractor.*

Timing: *Prior to (preparation of construction traffic management plan) and during construction (implementation of the plan).*

Monitoring: *The construction traffic management plan shall be included in final project design and construction documents, and CalVet or its designee shall oversee its implementation.*

Figure 12-1. Roadway Network in the Project Area and TIA Study Area

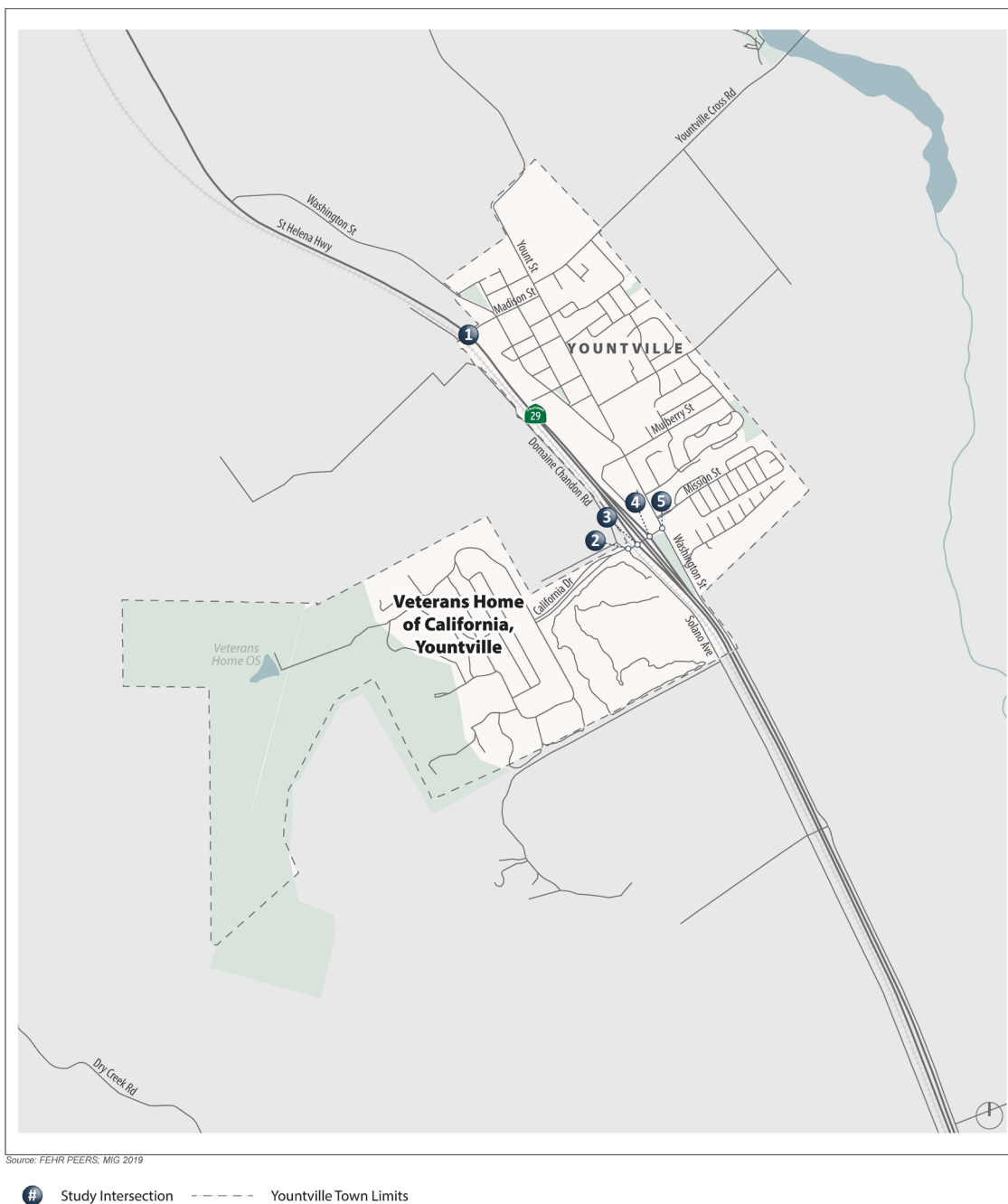


Figure 12-1 Roadway Network in the Project Area and TIA Study Area

VHC-Yountville Skilled Nursing Facility Project



Figure 12-2. Existing and Proposed Bicycle Facilities in the Project Area**Figure 12-2 Existing and Proposed Bicycle Facilities in the Project Area**

VHC-Yountville Skilled Nursing Facility Project



Figure 12-3. Existing Transit Facilities in the Project Area



Figure 12-3 Existing Transit Facilities in the Project Area

VHC-Yountville Skilled Nursing Facility Project



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CHAPTER 13 UTILITIES AND SERVICE SYSTEMS

This EIR Chapter describes the existing setting for water supply, wastewater facilities, and solid waste management in the Project area. The Chapter includes the regulatory framework necessary to evaluate potential environmental impacts resulting from the Project, describes potential impacts that could result from the Project, and includes mitigation measures that would avoid or reduce those potential impacts.

The analysis in this chapter is based upon a Phase I Environmental Site Assessment by Geocon Consultants, and the Veterans Home FMPE.

13.1 REGULATORY SETTING

13.1.1 California Department of Resources Recycling and Recovery (CalRecycle; formerly the California Integrated Waste Management Board)

CalRecycle oversees, manages, and monitors waste generated in California. It provides limited grants and loans to help California cities, counties, businesses, and organizations meet the State waste reduction, reuse, and recycling goals. CalRecycle develops, manages, and enforces waste disposal and recycling regulations, including AB 939 and SB 1016.

13.1.2 Assembly Bill (AB) 939.

AB 939 (Public Resources Code 41780) requires cities and counties to prepare Integrated Waste Management Plans (IWMPs) and to divert 50 percent of solid waste from landfills beginning in calendar year 2000 and each year thereafter. AB 939 also requires cities and counties to prepare Source Reduction and Recycling Elements (SRRE) as part of their IWMPs. These Elements are designed to develop recycling services to achieve diversion goals, stimulate local recycling in manufacturing, and stimulate the purchase of recycled products.

13.1.3 Senate Bill (SB) 1016.

SB 1016 requires that the 50 percent solid waste diversion requirement established by AB 939 be expressed in pounds per person per day. SB 1016 also changed the CalRecycle review process for each municipality's IWMP. The CalRecycle Board reviews a jurisdiction's compliance with diversion rate targets in accordance with a specified schedule. Beginning January 1, 2018, the Board will be required to review a jurisdiction's source Reduction and Recycling Element and Hazardous Waste Element every two years.

13.1.4 Department of Water Resources.

The California Department of Water Resources (DWR) is responsible for the management and regulation of water usage, including the delivery of water to two-thirds of California's population through the nation's largest State-built water development and conveyance system, the State Water Project. Working with other agencies and the public, DWR develops strategic goals and near-term and long-term actions to conserve, manage, develop, and sustain California's watersheds, water resources, and water management systems. DWR also works to prevent and respond to floods, droughts, and catastrophic events that would threaten public safety, water resources and management systems, the environment, and property.

13.1.5 California Safe Drinking Water Act.

The Safe Drinking Water Act (SDWA), administered by the U.S. EPA in coordination with the California Department of Public Health (CDPH), is the main Federal law that ensures the quality of drinking water. Under SDWA, EPA sets standards for drinking water quality and oversees water suppliers who implement those standards.

13.1.6 Senate Bills 610 and 221, Water Supply Assessment and Verification

SB 610 and 221 amended State law to improve the link between the information on water supply availability and certain land use decisions made by cities and counties. Both statutes require detailed information regarding water availability (i.e., a Water Supply Assessment or WSA) to be provided to city and county decision-makers prior to approval of development projects involving greater than 500 dwelling units. Both statutes require this detailed information to be included in the administrative record. Under SB 610, WSAs must be furnished to local governments for inclusion in any environmental document for certain projects as defined in Water Code 10912 subject to CEQA. Under SB 221 approval by a city or county of certain residential subdivisions requires an affirmative written verification of sufficient water supply.

13.1.7 Statewide Water Conservation Act of 2009 (Senate Bill X7-7).

In November 2009, the California State legislature passed SB X7-7 addressing water conservation. In general, SB X7-7 requires a 20 percent reduction in per capita urban water use by 2020, with an interim target of 10 percent in 2015. The legislation requires urban water users to develop consistent water use targets and to use those targets in their urban water management plans (UWMPs).

13.1.8 Assembly Bill (AB) 1668 and Senate Bill (SB) 606.

AB 1668 and SB 606 build on Governor Brown's ongoing efforts to make water conservation a way of life in California and create a new foundation for long-term improvements in water conservation and drought planning. SB 606 and AB 1668 establish guidelines for efficient water use and a framework for the implementation and oversight of the new standards, which must be in place by 2022. The two bills strengthen the state's water resiliency in the face of future droughts with provisions that include:

- Establishing water use objectives and long-term standards for efficient water use that apply to urban retail water suppliers; comprised of indoor residential water use, outdoor residential water use, commercial, industrial and institutional (CII) irrigation with dedicated meters, water loss, and other unique local uses.
- Providing incentives for water suppliers to recycle water.
- Identifying small water suppliers and rural communities that may be at risk of drought and water shortage vulnerability and provide recommendations for drought planning.
- Requiring both urban and agricultural water suppliers to set annual water budgets and prepare for drought.

13.2 ENVIRONMENTAL SETTING

13.2.1 Existing Water System

The project area is within the Napa Valley Groundwater Sub-basin, which is the primary source of water for the Town of Yountville. However, potable water service is provided to the Project site by CalVet via Rector Reservoir, located on state property northeast of the proposed SNF site, with treatment at the Rector Water Treatment Plant. Rector Reservoir is located on Rector Creek, a tributary to the Napa River. The Reservoir has a capacity of about 4,500 acre-feet and serves VHC-Yountville, the Town of Yountville, California Department of Fish and Wildlife, and Napa State Hospital. The average water demand for Yountville Veterans Home between 2004 and 2018 has been calculated to be approximately 600 acre-feet per year. A 6-inch water main serves Polk Hall and Jefferson Hall adjacent to the project site.

13.2.2 Existing Wastewater Service System

The Town of Yountville's wastewater system consists of the following features (Napa LAFCO 2017):

- 8.5 miles of sewer collection piping (primarily gravity fed)
- Approximately 772 sewer lateral connections, which includes 695 residential service connections, 77 commercial service connections, and one connection to the Veterans Home.
- 0.75 miles of force main from the pump station to the Joint Wastewater Treatment Plant (JWTP), which is located at 7501 Solano Avenue within the Vintner's Golf Club property adjacent to the VHC-Yountville campus
- 1.5 miles of gravity discharge piping from the JWTP to the Napa River
- 5.5 miles of recycled water force main lines to vineyard customers.
- A duplex (two pumps) wastewater pump station and associated level control and other equipment.

NPDES Permit No. CA0038121 (Order No. R2-2015-0029) issued in June 2015 permits the Town's discharge to the Napa River. Advanced secondary treatment is provided at the JWTP. The advanced secondary treatment consists of filtration following regular secondary treatment. During the winter and spring, the effluent is discharged to the Napa River when river flows are sufficiently high. The JWTP can accept up to 2.8 mgd through its primary system during peak wet weather conditions. Flows in excess of the JWTP's secondary treatment capacity are stored in a 3.8-million-gallon pond for later treatment. The average dry weather flow for 2011 to 2014 was 0.332 million gallons per day (mgd). For 2015, the peak flow reached 1.013 mgd. The JWTP has a dry weather capacity of 0.55 mgd and a peak flow capacity of 2.00 mgd (Napa LAFCO 2017).

The majority of the State of California Veterans Home's wastewater flows are conveyed to an 8-inch trunk sewer line that runs behind the Holderman Building east of the project site. The 8-inch trunk sewer line is operated by Yountville's Public Works Department and has a capacity of 0.55 mgd.

13.2.3 Existing Storm Drain System

The Town of Yountville participates in the Napa County Stormwater Pollution Prevention Program (NCSPPP), which is a joint effort with the other municipalities in Napa County to prevent stormwater pollution, protect and enhance water quality in creeks and wetlands, preserve beneficial uses of local waterways, and comply with State and federal regulations. The NCSPPP is funded by the member agencies and is administered by the Napa County Flood Control and Water Conservation District's Stormwater Program Manager.

Stormwater from the project site flows into Hinman Creek which discharges to the Napa River, an Impaired Waterway under Section 303(d) of the Federal Clean Water Act. Of the 615-acre VHC-Yountville property, only ten percent is comprised of impermeable material relative to what is permeable and vegetated. However, of the main campus area (approximately 200 acres), 30 percent is impermeable material (CalVet 2013).

13.2.4 Existing Solid Waste System

Garbage and recycling collection services are provided to the site by Upper Valley Disposal Service (UVDS), contracted through the Town of Yountville. Yountville's garbage and recycling are processed at Clover Flat Resource Recovery Park, which features the nearest landfill. The solid waste facility has a total permitted capacity of 4,560,000 cubic yards, with a remaining capacity of 2,870,000 cubic yards (62.9 percent) as of 2012. The estimated closure date of the landfill is 2047 (CalRecycle 2019). Recycling is handled through the Upper Valley Materials Recovery Facility, located south of St. Helena (Town of Yountville 2019).

13.2.5 Existing Gas and Electrical Systems

Gas and electricity are provided to the site by the Pacific Gas and Electric Company (PG&E). The majority of the natural gas piping for the existing project site building is above the ceiling or concealed and not visible. The only visible piping is limited to what is visible in the existing boiler room on the ground floor. There are two gas meters and regulators for the building. One gas regulator/meter is for the kitchen. The second regulator/meter is for the mechanical equipment.

Electricity for the existing SNF building is derived from a duct bank with a 5 kilovolt (kv) cable, installed circa 2016. The building is served by a main switchboard located in the main electrical room adjacent to the PG&E's vault.

13.3 PROJECT IMPACTS

13.3.1 Thresholds of Significance

Based on CEQA Guidelines Appendix G, the implementation of the project or its alternatives would have a significant environmental impact related to utilities and service systems if it would:

- (a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;
- (b) Have insufficient 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 does not have 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; or
- (e) Conflict with federal, state, and local management and reduction statutes and regulations related to solid waste.

13.3.2 Impacts Dismissed from Further Consideration

The proposed project would have no or minimal impact with regard to the following thresholds; therefore, these issues are dismissed from further discussion in the sections below:

- The project would comply with all applicable laws and regulations pertaining to solid waste. There would be no impact. (Threshold e)

13.3.3 Relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities

Water Facilities

The VHC-Yountville campus is served by water from the Rector Reservoir located on VHC property northeast of the proposed SNF site. A 6-inch water main serves Polk Hall and Jefferson Hall adjacent to the project site. The new 12-inch water would be constructed along the perimeter of the project site to serve the SNF. The new water line would connect to the existing 6-inch water line east of the project site and south of the maintenance buildings. The existing water line serving Polk Hall and Jefferson Hall would remain in operation during both construction and post development. The new water line would assist in meeting the project water facilities requirements. A 300,000-gallon water tank would be constructed above ground within the project boundary to provide adequate fire protection supplies and tie into existing hydrant lines. The location and size of the water tank would be confirmed during the design development phase.

Although the proposed project would include new water lines to serve the new SNF, the new utility line would run parallel to the existing underground water line, which is primarily in existing internal roads on the VHC-Yountville Campus. Therefore, potential impacts related to new water infrastructure would be *less than significant*.

Stormwater Drainage

Project development would increase impervious surfaces (i.e., rooftops, pavement, walkways) by roughly 5 acres compared to existing conditions (see Table 2-2 of the Project Description). The change in impervious and pervious surface areas would increase the runoff volume from the site from 11.2 to 19.2 cfs. The stormwater drainage control plan and Mitigation Measure HYD-1 and Measure HYD-2 would ensure the project meets SWRCB NPDES stormwater treatment requirements. A stormwater control plan would be prepared at the time of project design. Stormwater controls would be designed based on SWRCB requirements. Following construction, adherence to the stormwater control plan would ensure that water quality is kept at acceptable levels during project operations. Environmental impacts from the construction of new storm drainage infrastructure would be *less than significant with mitigation incorporated*.

Electric Power and Communications

Existing telecommunication and electric lines would serve the project, although there may be minor electrical upgrades. The new SNF will require its own new electrical service and generator system designed to keep the facility running (40% of the connected load) during power outages. A new power system and electrical lines would be constructed to serve the project to meet the new estimated power demand of roughly 3,840,000 kwh-yr. This would use the existing electrical line, and no offsite upgrades would be required for the power grid system, which would have a *less-than-significant* impact on the environment.

Natural Gas

Gas connection will be made to the VHC-Yountville campus' existing high-pressure gas service. A new 2-inch gas line would be installed running north from the project site in the main campus circulation road, between McKinley and Lincoln Halls. The new line would connect to the existing 2-inch gas line north of the Creative Arts Center and southwest of Madison Hall. The new SNF would have an estimated gas demand of 6,500 BTU-yr. The construction of the new gas line and any increase in gas demand would have a *less-than-significant* impact on the environment.

13.3.4 Sufficient Water Supplies

The proposed SNF would increase facility staff by 100 full-time equivalents. In addition, new landscaping would be installed with irrigation (See Table 2-1 of Chapter 2, Project Description). A new irrigation service would be required for the facility and would connect to the domestic line on-site. The location of the service point of connection and irrigation controller would be determined during the design development phase.

A new 12-inch water line would be constructed along the perimeter of the project site to serve the SNF. The new water line would connect to an existing 6-inch water line east of the project site and south of the maintenance buildings. A 300,000-gallon water tank would be constructed above ground within the project boundary to provide fire protection supplies and tie into existing hydrant lines. The location of the water tank would be determined during the design development phase.

The project would have an estimated water demand of 82,000 gpd. The new SNF would replace existing operations in the Holderman Building and reduce SNF operations in Eisenhower and Roosevelt buildings. There is no separate water meter reading for these buildings so the exact water use from existing SNF operations is not known. It is anticipated that the new SNF building would operate more efficiently compared to the older systems in these buildings. The new SNF would have 100 new employees which would increase the number of water users; however, it is anticipated that the efficiencies of the new building and the discontinued use in vacated building space would be offsetting. The CalVet water supply from Rector Reservoir has sufficient capacities to serve the new SNF and to provide the additional fire flows associated with the new water tank (CalVet 2019). Therefore, there would be a *less-than-significant* impact to water supplies.

13.3.5 Wastewater Treatment Capacity

A new sanitary sewer collection system would be installed connecting the new SNF building to the wastewater treatment plant operated by the Town of Yountville. The project would increase the number of employees at the facility by 100 full-time equivalents. Wastewater generation

would be similar to the water use demand (82,000 gpd) described above. The new SNF would replace existing operations in the Holderman Building and reduce SNF operations in Eisenhower and Roosevelt buildings. Wastewater generation would no longer occur from four buildings to be demolished (Jefferson Hall, Polk Hall, Hostess House, and Nurses Education Building). It is anticipated that the new SNF building would operate more efficiently compared to the older systems in these buildings. The new SNF employees would increase the number of staff generating wastewater; however, it is anticipated that the efficiencies of the new building and the discontinued use in vacated building space would be offsetting. The project would not, therefore, substantially increase the demand for wastewater treatment at the Yountville wastewater treatment plant or impact plant capacity. The Town of Yountville has issued a “will serve” letter stating its wastewater treatment plan has capacity to serve the new SNF (Town of Yountville 2020). There would be a ***less-than-significant*** impact to wastewater.

13.3.6 Generation of Solid Waste

The project site is served by Clover Flat Resource Recovery Park, which has an estimated remaining capacity of approximately 2.8 million cubic yards. The anticipated closure date (based on existing rates of disposal, density, and cover usage) is 2047 (CalRecycle 2019). CalVet would implement a Waste Management Plan consistent with LEED Gold certification requirements and for compliance with the CalGreen Code regarding salvage, reuse, or recycle of inert solids and construction and demolition debris created by the project. The impact on solid waste is ***less than significant***.

13.4 MITIGATION MEASURES

No utility impacts are identified. No mitigation is required.

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CHAPTER 14 WILDFIRE

14.1 REGULATORY SETTING

14.1.1 California Department of Forestry and Fire Protection

The California Department of Forestry and Fire Protection (CalFire) has mapped fire threat potential throughout California. Cal Fire ranks fire threat based on the availability of fuel and the likelihood of an area burning (based on topography, fire history, and climate). The rankings include no fire threat and moderate, high, and very high fire threat. Additionally, CalFire produced a 2010 Strategic Fire Plan for California that contains goals, objectives, and policies to prepare for and mitigate the effects of fire on California's natural and built environments. CalFire's Office of the State Fire Marshal provides oversight of enforcement of the California Fire Code (CFC) as well as overseeing hazardous liquid pipeline safety.

14.1.2 California Fire Code

The CFC is Part 9 of Title 24. Updated every three years, the CFC includes provisions and standards for emergency planning and preparedness, fire service features, fire protection systems, hazardous materials, fire flow requirements, fire hydrant locations and distribution, and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildlife hazard areas.

14.1.3 California Public Resources Code

The California PRC, Section 4291, states that a building or structure in, or adjoining a mountainous area, forest-covered lands, brush-covered lands, grass-covered lands, or land that is covered with flammable material, shall maintain at all times 100 feet of defensible space from each side and from the front and rear of the structure, but not beyond the property line unless modified by local regulations. The amount of fuel modification necessary to create defensible space shall take into account the flammability of the structure as affected by building material, building standards, location, and type of vegetation. Fuels shall be maintained in a condition so that a wildfire burning under average weather conditions would be unlikely to ignite the structure. This regulation does not apply to single specimens of trees or other vegetation that are well-pruned and maintained so as to effectively manage fuels and not form a means of rapidly transmitting fire from other nearby vegetation to a structure or from a structure to other nearby vegetation. The intensity of fuels management may vary within the 100-foot perimeter of the structure, the most intense being within the first 30 feet around the structure. Consistent with fuels management objectives, steps should be taken to minimize erosion.

14.1.4 Cal Fire Defensive Zones

Cal Fire describes defensible space as the buffer you create by removing dead plants, grass and weeds. In order to do so, Cal Fire provides recommendations for creating a defensible space. The 100-foot radius as required by the PRC is split into two zones within the radius. These zones are described below and shown within the project site boundary in Figure 14-1.

Zone 1 extends 30 feet out from buildings, structures, etc. The following activities should be performed in Zone 1:

- Remove all dead plants, grass and weeds (vegetation).

- Remove dead or dry leaves and pine needles from your yard, roof and rain gutters.
- Trim trees regularly to keep branches a minimum of 10 feet from other trees.
- Remove branches that hang over the roof and keep dead branches 10 feet away from the chimney.
- Relocate wood piles into Zone 2.
- Remove or prune flammable plants and shrubs near windows.
- Remove vegetation and items that could catch fire from around and under decks.
- Create a separation between trees, shrubs and items that could catch fire, such as patio furniture, wood piles, swing sets, etc.

Zone 2 extends 100 feet out from buildings, structures, decks, etc. The following activities should be performed in Zone 2:

- Cut or mow annual grass down to a maximum height of 4 inches.
- Create horizontal spacing between shrubs and trees.
- Create vertical spacing between grass, shrubs and trees.
- Remove fallen leaves, needles, twigs, bark, cones, and small branches. However, they may be permitted to a depth of 3 inches.

14.2 ENVIRONMENTAL SETTING

14.2.1 Wildfire Risk

Regional Wildfire Risk

Climate and landscape characteristics are among the most important factors influencing wildfire hazard levels. Weather characteristics such as wind, temperature, humidity and fuel moisture content affect the potential for fire. Of these four, wind is the dominant factor in spreading fire since burning embers can easily be carried with the wind to adjacent exposed areas, starting additional fires (Napa County, 2005).

Landscape characteristics such as steep slopes also contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult. Vegetation type influences wildfire hazard levels as well. For example, landscapes dominated by chaparral are more flammable than other vegetation types. The combination of highly flammable vegetation, steep inaccessible wildlands, and high levels of recreational use can result in wildfire risk and hazards of major proportions (Napa County, 2005).

Napa County is characterized by narrow valleys surrounded by steep, hilly terrain. With its long, dry summers and rugged topography, Napa County has a high wildland fire potential. In the last several decades the combination of firefighting technology, fire suppression policy, environmental regulations and developmental trends has led to increasing fuel loads, greater occupancy of remote wildlands and greater potential for catastrophic wildfire. While the County has a characteristic southerly wind that originates from the San Francisco Bay (which becomes a factor in fire suppression), during the dry season the County experiences an occasional strong

north wind that is recognized as a significant factor in the spread of wildland fires (City of Napa, 2004).

Project Site Wildfire Risk

Although the project site is developed and regularly mowed, there are vegetated hills (oak woodland) immediately west of the site which could put the site at risk from wildfires. The project site itself is not in a fire hazard area, but the areas to the west and south of the site are in a high fire severity zone according to the California Department of Forestry and Fire Protection (Cal Fire, 2007). Wildfire hazard zones in the project area are shown in Figure 14-2.

14.2.2 Recent Wildfires in the Project Area

According to the Napa County Baseline Report (Napa County, 2005), Napa County has a long and active wildfire history. In the last thirty years wildfires have burned 232,000 acres of land in or directly adjacent to Napa County; a County of approximately 482,000 acres. Historically, fires in the project area have occurred mainly to the east and west of the site in the hillside areas. The devastating wildfires of October 2017 largely conformed to this historic pattern, with the Nuns Fire located in the hills to the west of project site and the Atlas Fire to the east of the site, as shown in Figure 14-3.

Defensive positions and significant fire resources deployed at Mt. Veeder Road and Dry Creek Road to the west of the VHC-Yountville campus and at the Silverado Trail to the east of the campus spared VHC-Yountville from direct impacts of the fires. The project area was never under a mandatory evacuation order, although CalVet opted to move residents from the existing SNF on the second day of the fires. Heavy smoke resulted in poor air quality in project area, and residents with respiratory concerns were encouraged to leave the area (Town of Yountville, 2019).

More information on the October 2017 wildfires is below, taken from the Yountville General Plan (Town of Yountville, 2019).

Atlas Fire. The Atlas Fire started on October 8, 2017. By the time it was fully contained on October 27th, the fire had burned 51,624 acres in Napa and Solano counties and destroyed 783 structures. There were six civilian fatalities. Cal Fire determined the fire started in two locations from a large tree limb and a tree that fell on PG&E power lines.

The Atlas Fire encompassed a north-south trending ridge that is roughly bounded by Napa Valley to the west, Highway 128 to the north, Capell Valley Road to the northeast, Wooden Valley Road to the southeast, and Highway 12 and Green Valley road to the South. The closest the Atlas Fire got to the project site was at the Silverado Trail, about 2 miles to the east of the site. The burn area ranged from about 200 feet above mean sea level west of Napa to Atlas Peak at 2,663 feet and comprised grassland, chaparral, and oak woodland. The area within the Atlas Fire perimeter had an active fire history, with approximately 58 percent of the area having been previously burned since 1980.

Nuns Fire. The Nuns Fire also started on October 8, 2017, and, according to Cal Fire, was caused by a broken top of a tree coming into contact with a PG&E power line. The Nuns Fire was part of series of fires that merged in Napa and Sonoma counties. These fires burned a total of 56,556 acres, destroyed 1,355 buildings, and resulted in three civilian fatalities. The fire was fully contained on October 31, 2017.

The fire area was located on the western and eastern flanks of the Mayacamas Mountains and extended into Sonoma County's Highway 12 Corridor and Bennet Valley. The closest the Nuns Fire got to the project site was Dry Creek Road, about 1.7 miles west of the site. The burn area ranged in elevation from about 200 feet along Sonoma Creek to 2,730 feet at Hood Mountain. Vegetation was largely comprised of oak woodland, chaparral, mixed hardwood/conifer forest, grassland, and vineyards. Approximately 27 percent of the area had been previously burned since 1951.

14.2.3 Wildfire Management and Response

Cal Fire/County Fire

VHC-Yountville contracts for fire protection services with the Napa County Fire Department (County Fire). County Fire, in turn, contracts with CalFire. Countywide, CalFire provides administrative support and coordination with five full-time paid stations and nine volunteer fire companies operating under a County Fire Plan, which is approved by the Napa County Board of Supervisors. The Napa County Fire Chief is responsible for the direction and coordination of fire protection services by these organizations on a countywide basis.

The closest station to the project site is Fire Station 12, located at 7401 Solano Avenue in Yountville, about 0.5 mile east of the site adjacent to Highway 29. A three-way cost sharing arrangement between Napa County, the Town of Yountville, and VHC-Yountville funds operation of Station 12. County Fire/Cal Fire services in the project area include staffing the fire station and providing structure fire protection, wildland fire protection, emergency medical response, technical rescue/extrication, hazardous materials, water supply, dispatch, training, fire safety education, fire (arson) investigation, fire prevention, vegetation management, and Fire Marshal (code enforcement) services. The Yountville Fire Station 12 responded to 1,716 calls during 2016. A large majority of these calls were for medical aid response.

County Fire/Cal Fire's average response time is three minutes. The goal is to be at the scene within four minutes, 90 percent of the time. The response time includes the 911 call, dispatching, turnout time, and response time to the scene.

Napa County Office of Emergency Services

Napa County Office of Emergency Services (OES) works with County departments, state agencies, and community groups to handle major disasters that affect County residents. The Director of Emergency Services is the City Manager. In the event of a disaster, an Emergency Operations Center (EOC) is setup and staffed with trained professionals who coordinate all communications, logistics, resources, and recovery programs. The Public Information Center becomes active along with the EOC and relays all information from the EOC to citizens. Napa County OES maintains a website which provides a variety of information on emergency response plans, emergency preparedness, current hazardous conditions, and other services (Napa County, 2005).

Designated evacuation shelters in Napa County include the Napa County Fairgrounds in Calistoga, St. Helena High School in St. Helena, and Yountville Community Hall in Yountville. The closest one to the project site is the Yountville Community Hall, about 0.8 miles northeast of the site.

VHC-Yountville Fire Management

CalVet has an annual contract with Napa County for fire protection and emergency medical response. CalVet does not have a specific plan for brush clearing or trimming tree branches away from power lines, etc.

14.3 PROJECT IMPACTS

14.3.1 Thresholds of Significance

Based on CEQA Guidelines Appendix G, the implementation of the project or its alternatives would have a significant environmental impact related to wildfire if it would:

- (a) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires; or
- (b) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:
 - i. Substantially impair an adopted emergency response plan or emergency evacuation plan;
 - (ii) 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;
 - (iii) 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; or
 - (iv) 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.

14.3.2 Impacts Dismissed from Further Consideration

The proposed project would have no or minimal impact with regard to the following thresholds; therefore, these issues are dismissed from further discussion in the sections below:

- The project would not impair an adopted emergency response plan or emergency evacuation plan because the project: (1) would be located on an existing developed site; (2) would not change the land use of the site or area (to serve senior and disabled veterans); (3) would not increase the number of SNF residents on the VHC-Yountville campus; and (4) would include adequate on-site emergency access and evacuation routes (Threshold b[i]).
- The project would not exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire because the project: (1) would not be located on a slope, an area of prevailing winds, or other factors which would exacerbate wildfire risk; (2) would be on an already developed site; and (3) would be designed and constructed according to the current California Fire Code and other applicable regulations to minimize wildfire risk (Threshold b[ii]).

- Although the project would require the installation of new water, sewer, and storm drain lines to serve the new SNF, and a new fire road around the perimeter of the site, the new infrastructure is not expected to exacerbate fire risk or result in temporary or ongoing impacts to the environment because: (1) all new utility lines would be installed underground parallel to existing underground utility lines; (2) no ongoing impacts to the environment from the new infrastructure are anticipated; and (3) temporary construction-related impacts of installing the new infrastructure would be avoided or minimized by BMPs incorporated in the project (see Chapter 2 Project Description, Section 2.5) and Mitigation Measures included in this document (Threshold b[iii]).

These issues are not discussed further. The project's potentially significant impacts regarding wildfire hazards are discussed in the following section.

14.3.3 Wildland Fire Risks

The proposed SNF would be located near land mapped by CalFire as a high fire severity zone (Figure 14-2) in an area that has experienced recent major wildfires (see Section 14.1.2 and Figure 14-3). As such, the project could expose the new SNF buildings and its occupants to wildfire hazards. The existing SNF is adjacent to the project site to the east, and thus, the existing SNF buildings, residents, and staff are already exposed to wildland fire risks from nearby vegetated slopes. Although the new SNF would be about 0.1 mile closer to the vegetated slopes than the existing SNF, the project would not substantially increase the risks and would be designed and constructed according to applicable regulations to minimize wildfire hazards.

The proposed SNF would be built according to the current California Fire Code and would adhere to Cal Fire defensive zones described in Section 14.2.4. The existing loop road around the perimeter of the project site would be improved or reconstructed as needed to ensure adequate access to the site by emergency vehicles. The project includes fire protection measures as such as use of fire-retardant building materials, building fire sprinklers, and adequate fire protection water supply. Mitigation Measure WFR-1 would further reduce potential hazards to the proposed SNF from wildfires to less-than-significant levels by implementing defensible space zones. With implementation of Measure WFR-1, the project would not exacerbate risk of wildfire conditions and the impact is *less than significant with mitigation incorporated*.

14.3.4 Post-Fire Hazards

The project site is adjacent to vegetated hills (oak woodland) immediately west of the site. A wildfire in the hills adjacent to the site could result in slope instability in the vicinity of the site which could pose a hazard to the new SNF buildings, residents, and staff. Slopes with burned vegetation could have exposed and unstable soils, potentially resulting in landslides or excessive stormwater runoff from denuded slopes affecting the site. The SNF buildings would be setback at least 100 feet from the vegetated hills consistent with Cal Fire's Defensive Zones requirements (see Section 13.1 and Figure 14-1). The project site is mildly sloped with managed landscaping and does not contain drainages. As such, it would not exacerbate post-fire hazards of slope instability or flooding from denuded slopes or drainage changes.

Risks of flooding or landslides unrelated to wildfires are addressed in Chapter 7 Geology and Soils, and Chapter 10 Hydrology and Water Quality, respectively.

14.4 MITIGATION MEASURES

Impact WFR-1: The project could expose the new SNF buildings, residents, and staff to risk of loss, injury, or death involving wildland fires.

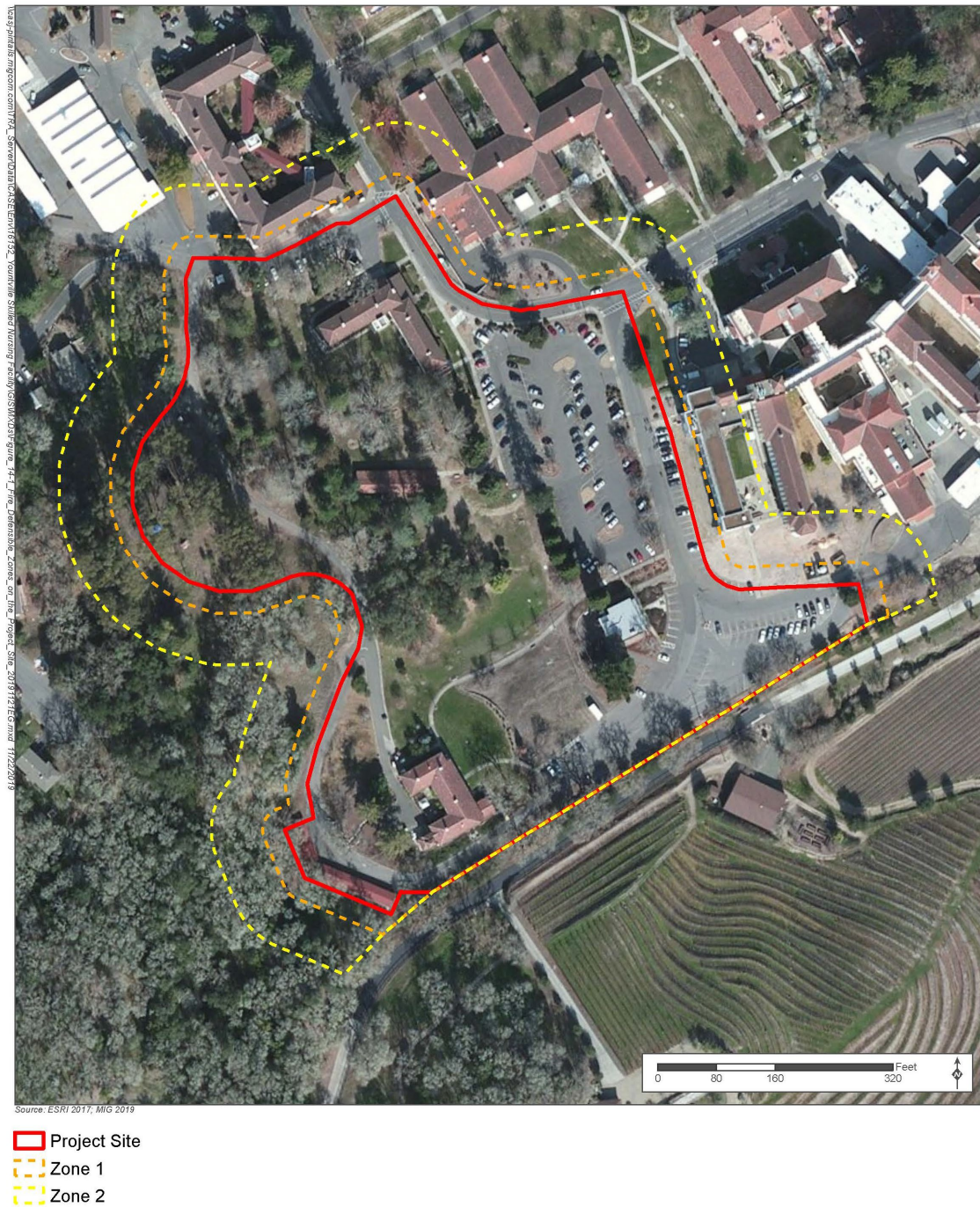
Mitigation Measure WFR-1: Defensible Space Management Plan. Cal Vet shall prepare and implement a Defensible Space Management Plan to identify specific site treatment activities designed to reduce fuel load. The plan shall identify actions specific to 30-foot and 100-foot defensible space zones pursuant to Cal Fire recommendations. Actions within the defensible space are expected to include, but not be limited to, trimming of trees and other woody vegetation, removal of debris or ground litter, mowing ground-level vegetation, and general maintenance of the defensible space zone. The Plan shall specify the frequency of site inspections and vegetation management activities.

Effectiveness: *Defensible space management would reduce fuel loads surrounding the new SNF.*

Implementation: *CalVet*

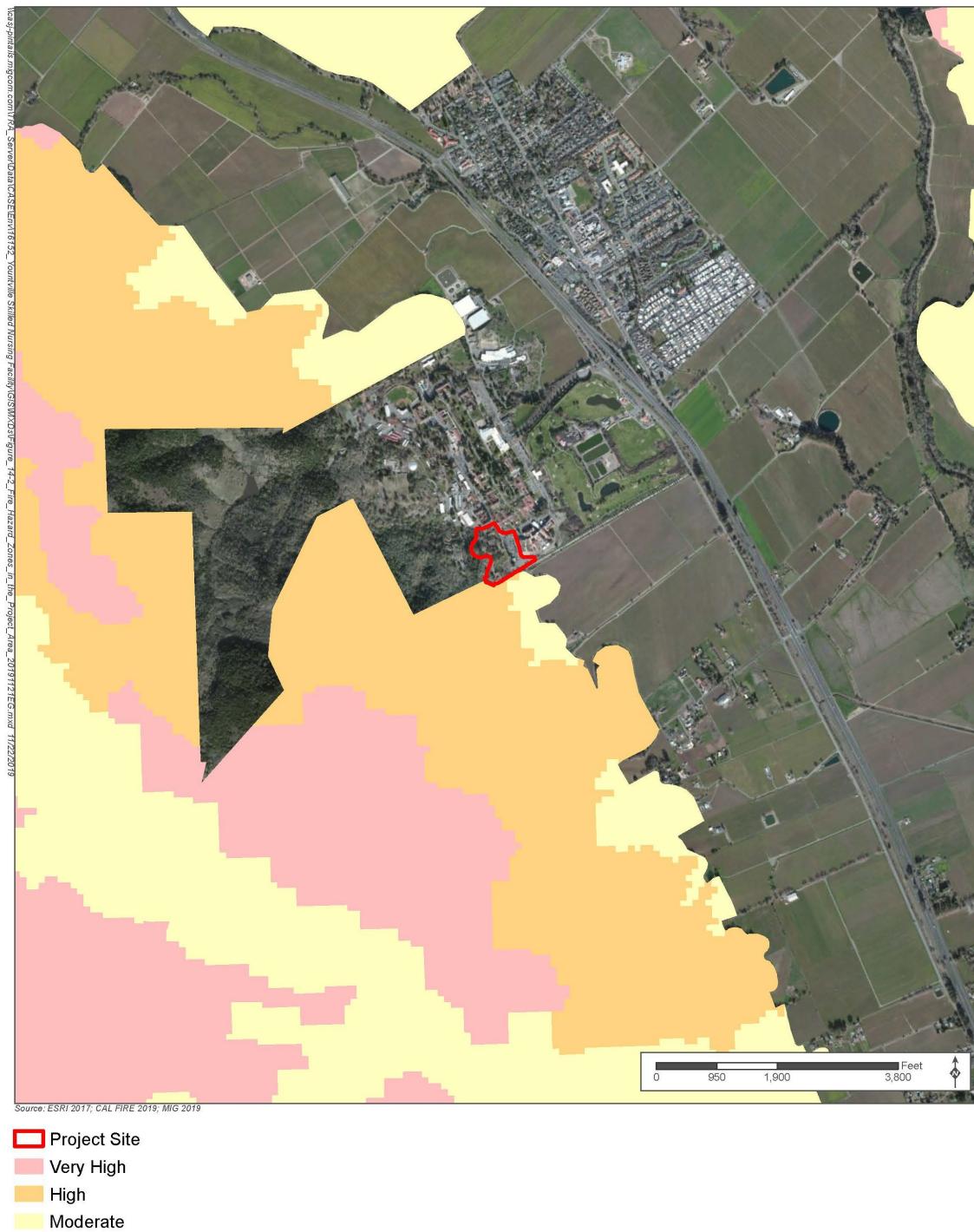
Timing: *Prior to project occupancy*

Monitoring: *Cal Vet shall submit Defensible Space Management Plan to Cal Fire for review and approval. Cal Vet shall be responsible for implementing fuel reduction treatments.*

Figure 14-1. Fire Defensible Zones on the Project Site**Figure 14-1 Fire Defensible Zones on the Project Site**

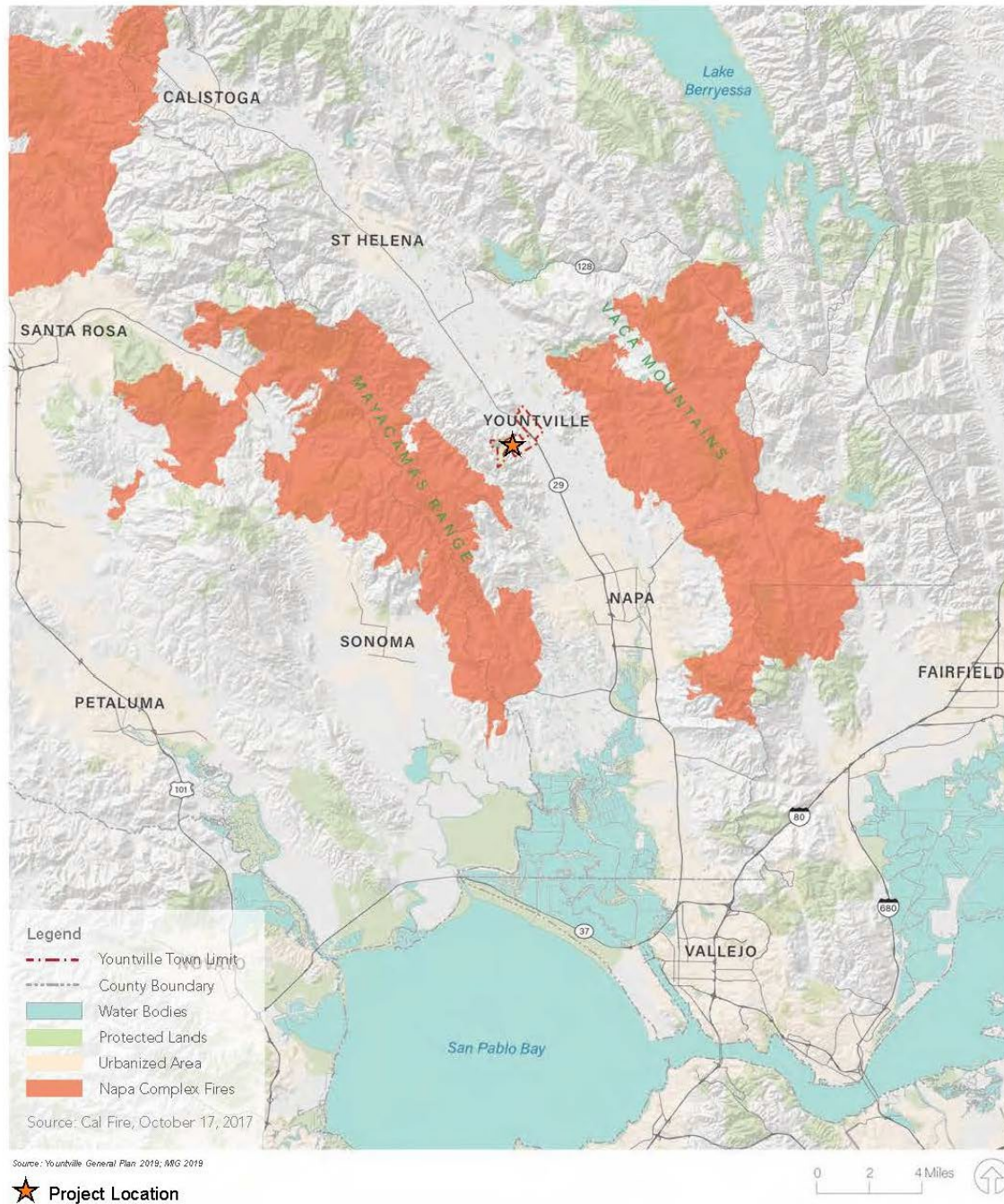
VHC-Yountville Skilled Nursing Facility Project



Figure 14-2. Fire Hazard Zones in the Project Area**Figure 14-2 Fire Hazard Zones in the Project Area**

VHC-Yountville Skilled Nursing Facility Project



Figure 14-3. Recent Wildfires in the Project Area**Figure 14-3 Recent Wildfires in the Project Area**

VHC-Yountville Skilled Nursing Facility Project

CHAPTER 15 CUMULATIVE IMPACTS

This chapter discusses the anticipated cumulative impacts of the proposed project and its alternatives. Impacts of past projects are incorporated into the description of the baseline, or the environmental setting, in the resource chapters (Chapters 4 through 14). Present and reasonably foreseeable future projects are identified in this section and form the basis for the cumulative impact analysis.

An EIR is required to include an assessment of cumulative impacts when the proposed project's incremental impacts would be cumulatively considerable (CEQA Guidelines section 15130). The assessment involves examining project-related impacts on the environment in the context of similar projects that have been caused by past or existing projects and that would be caused by reasonably foreseeable future projects. A cumulative impact is defined as "two or more individual impacts, which, when considered together, are considerable or which compound or increase other environmental impacts" (CEQA Guidelines section 15355). A project's incremental impacts are cumulatively considerable if the impacts are significant when considered in connection with other related projects.

15.1 CEQA AND NEPA REQUIREMENTS

Cumulative impacts are defined as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts" (CEQA Guidelines section 15355). Cumulative impacts can result from individually minor, but collectively significant, actions when added to those of other closely related past, present, or reasonably foreseeable future projects. Guidance for cumulative impact analysis is provided in Section 15130 of the CEQA Guidelines:

- a. An EIR shall discuss cumulative impacts of a project when the project's incremental effect is "cumulatively considerable" (i.e., the incremental effects of an individual project are considerable when viewed in connection with the effects of past, current, and probable future projects, including those outside the control of the agency, if necessary).
- b. An EIR should not discuss impacts that do not result in part from the project evaluated in the EIR. Thus, where the impacts of a proposed project are beneficial rather than adverse, the EIR need not address adverse effects that might arise due to other projects in the vicinity of the project at issue.
- c. A project's contribution is less than cumulatively considerable, and thus not significant, if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact.
- d. The discussion of impact severity and likelihood of occurrence need not be as detailed as for effects attributable to the project alone.
- e. The focus of analysis should be on the cumulative impact to which the identified other projects contribute, rather than on attributes of the other projects that do not contribute to the cumulative impact.

CEQA further stipulates that the discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence; however, the level of detail concerning cumulative impacts is not required to be as great as is provided for the effects attributed to the project

(CEQA Guidelines section 15130(b)). Moreover, CEQA Guidelines section 15130(b)(3) further requires that the “geographic scope of the area affected by the cumulative effect” is defined and that the analysis should “provide a reasonable explanation for the geographic limitation used.”

NEPA requires Federal agencies to consider the effects of cumulative actions and cumulative impacts (40 CFR 1508.25 and 1508.7). CEQ’s NEPA Regulations 40 CFR 1508.7 defines a cumulative impact as an “impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.” Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. Cumulative actions are those which when “viewed with other proposed actions have cumulatively significant impacts” and should be discussed in the impact statement (40 CFR 1508.25(a)(2)). In order to assist Federal agencies in assessing the extent of potential cumulative effects under NEPA, the CEQ developed a handbook entitled *Considering Cumulative Effects under the National Environmental Policy Act* (CEQ, 1997b). The analysis contained in this EIR/EA follows the guidelines contained in that document to determine whether the proposed project or alternatives would, when combined with past, present, or reasonably foreseeable projects, cumulatively result in environmental effects.

15.2 APPROACH TO CUMULATIVE IMPACT ANALYSIS

CEQA Guidelines section 15130(b)(1) describes two methods for evaluating potential cumulative impacts: a list approach or projection approach. The list approach typically identifies all of the past, present, and probable future actions that may contribute to a cumulative impact, including those projects outside of the control of the agency. Alternatively, the cumulative impact analysis may rely on a summary of projections of future development described in local, regional, or statewide plans, or other similarly related planning documents, which describes or evaluates conditions contributing to cumulative effects. It is also common for the cumulative analysis to rely on a combined approach.

This EIR/EA relies on a combined approach of relying on planning documents from the CalVet, the Town of Yountville, and Napa County, as well as referring to lists and maps of planned projects from the Town’s and County’s websites.

Similar Environmental Impacts. Projects that are relevant to the cumulative impact analysis include projects that could contribute incremental environmental effects on the same resources as, and would have similar impacts to, those discussed in this EIR/EA applicable to the proposed project.

Geographic Scope and Location. Projects that are relevant to the cumulative analysis include those that are within the defined geographic scope for the cumulative effect. The defined geographic scope is dependent on the environmental resource affected. Generally, the geographic scope includes the area within and adjacent to the project component site. However, for certain environmental resource topics the geographic scope extends farther, such as the regional roadway network or regional air basin. The geographic scope is described by resource topic in the section below.

Timing and Duration of Implementation. Projects that are relevant to the cumulative analysis include projects that could contribute impacts that coincide with proposed project impacts during construction (short-term) or operation (long-term). For temporal impacts such as air pollutant

emissions, and increased noise levels and traffic during construction, cumulative effects could overlap with those of the proposed project and would affect the same environmental resources.

15.3 PLANNED DEVELOPMENT IN THE PROJECT AREA

The following sections describe planned and potential future development on the VHC-Yountville Campus, in the nearby Town of Yountville, and in Napa County (projects within one mile of the site).

15.3.1 Yountville-VHC Campus

The FMPE (CalVet, 2012) identifies numerous potential future projects on the VHC-Yountville Campus, including the replacement of the existing SNF as the highest priority (proposed project), upgrades or replacements of the existing residential buildings on the campus, and possible future private-public partnerships to upgrade or redevelop facilities on the outer portions of the campus. However, none of the projects identified in the FMPE are currently proposed except for the proposed project, and it is unknown whether or when these potential projects will take place in the future. Therefore, they are not considered “reasonably foreseeable” and are not included in this analysis. If any of them are later proposed, the potential impacts (including cumulative impacts) would be considered in separate environmental review process.

The only currently proposed development other than the proposed project at the VHC-Yountville campus are the replacement of existing chilled water system, boilers and steam lines for the HVAC system on the campus.

15.3.2 Town of Yountville

The Town of Yountville is mostly built out; there are only three remaining large parcels of undeveloped land in Yountville according to the Yountville General Plan (2019). A 30-acre agricultural parcel at the north end of town on Yountville Cross Road is currently planted with vineyards and is expected to remain in agricultural use. The other two parcels are also in agricultural use but will likely be developed according to General Plan land use designations that have been in place for some time. The 3-acre French Laundry garden site is designated for commercial development, and the 17-acre St. Joan of Arc Catholic Church site is designated for mixed residential development.

The Yountville General Plan also identifies four “change areas” with potential for new commercial, mixed-use or residential development. These include :1) West Side of Washington Street: opportunities for additional commercial, office, and housing development; 2) Humboldt Street: two vacant lots could be developed with commercial and residential uses; 3) North Washington Street: new mixed uses could be allowed in existing structures or redeveloped buildings; and 4) Vista Condominiums: there may be a Master Plan amendment to allow a second story on 70 existing condominiums.

Development projections for the General Plan are determined by analyzing vacant and underutilized parcels within the Town and the development potential that is allowed under the applicable land use designation. The General Plan estimates a maximum increase of 155 single family and mobile home units (an increase from 1,097 to 1,252), 197 multi-family units (an increase from 76 to 273), and 169,555 square feet of new commercial development (an increase from 489,103 square feet to 658, 658 square feet). These projections are theoretical in nature, as it is unlikely that every parcel in Yountville will be developed to its maximum potential during

the life of the General Plan. Actual future development would depend on future market conditions, property owner preferences, site-specific constraints, and other factors.

Current planned development in Yountville is shown on interactive Development Maps on the Town's Planning and Building Department (Town of Yountville, 2019b), and Public Works Department (Town of Yountville, 2019c) websites and is shown in Figure 15-1 and summarized in Table 15-1 below. Planned development in Yountville consists mostly of modifications to existing residences and commercial structures such as additions or remodels, and new in-fill development consisting of one or two new residences or a new small business. Infrastructure projects consist mostly of repair or replacement of existing facilities (mostly utility lines or pavement repairs), with a few minor new projects such as solar panels at an existing parking lot, a new shelter on an existing trail, and a new bridge connecting two existing trails.

Table 15-1. Summary of Planned Development in Yountville (2014-2019)

Development Type	Number
<i>Total Single Family Residential</i>	<i>19</i>
Existing Residence Modifications	12
Replace Existing Residence- 1 or 2	3
New Single-Family Residence(s)- 1 or 2	4
<i>Total Commercial (Mostly Wine Cellars, Hotels & Restaurants)</i>	<i>16</i>
Existing Facility Modifications	14
New Development (Infill)	2
<i>Total Infrastructure (Water & Sewer, Streets, Electric, Recreation, & Public Buildings)</i>	<i>12</i>
Repair, Replacement or Relocation	7
Minor Addition or Alteration	5

15.3.3 Napa County

The Napa County General Plan states that:

“Well into the future, Napa County will be a place where agriculture is the primary land use, and where a vast majority of the county is open space, and where residential and employment growth is concentrated in the incorporated cities and town and existing urbanized areas of the county.”

Thus, residential or commercial development is expected to be minimal on lands under the County's jurisdiction.

Most of the planned projects in the County consist of the expansion or modification of existing vineyards and wineries, or new proposed vineyards or wineries. According to the County's list of

major projects and current projects interactive map (Napa County, 2019), almost all the planned projects in the County are not near the project site (more than a mile to many miles away).

There is one project less than a mile from the site: the Keever Winery Major Modification approximately 0.25 mile south of the site, consisting of the modification of an existing 10,000-gallon winery to allow an increase in employment, visitation, and marketing (Figure 15-1). The visitation hours would be increased, and the wastewater system expanded but the buildings would not be modified, and no new buildings are proposed.

15.4 CUMULATIVE IMPACTS ANALYSIS

The cumulative impact analysis considers the combined impacts of the proposed project and the past, present, and probable future projects described in Section 15.3 and shown in Figure 15-1. In accordance with CEQA Guidelines section 15130(b), the discussion of cumulative impacts describes the likelihood and severity of impacts associated with the projects described in Section 15.3 and shown in Figure 15-1 and in accordance with CEQA Guidelines 15130(a), determines whether the project's incremental effect is cumulatively considerable when assessed in conjunction with these other projects. In addition, as stated in CEQA Guidelines, it should be noted that:

“The mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable (14 CCR §15064(h)(4)).”

Impacts that are individually or incrementally minor may become significant when combined with impacts associated with past and present approved projects and other anticipated future projects. The potential cumulative impacts in each resource area of concern are described below.

15.4.1 Aesthetics

The proposed project was found to have less than significant aesthetic impacts and no mitigation is required (see 17.6.1 Aesthetics). Therefore, the project would not contribute to cumulative aesthetics impacts. None of the planned projects in the project area are within the viewshed of the project site except for possibly the on-campus steam pipe replacements which would be visible only temporarily and periodically from the site when pipeline replacement occurs nearby. The site is not visible from any of the off-campus project locations. Thus, the proposed project does not have the potential to result in combined aesthetic impacts with any of the planned projects in the area. In addition, land surrounding the project site is already occupied by VHC-Yountville campus facilities, existing vineyards, and steep vegetated slopes; therefore, substantial future development within the viewshed of the project site is unlikely. Therefore, cumulative impacts to aesthetics would be *less than significant*.

15.4.2 Agriculture and Forestry Resources

Implementation of the proposed project would have *no impact* to agriculture and forestry resources (see Section 17.6.2 Agricultural and Forest Resources) and, therefore, would not contribute to cumulative impacts on these resources.

15.4.3 Air Quality

The San Francisco Bay Area Air Basin is an area of non-attainment for national and state ozone, state PM₁₀, and national and state PM_{2.5} air quality standards (see Table 4-3). Regarding

cumulative impacts, the BAAQMD's CEQA Air Quality Guidelines state (BAAQMD 2017a, pg. 2-1):

“SFBAAB's non-attainment status is attributed to the region's development history. Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. Therefore, additional analysis to assess cumulative impacts is unnecessary.”

As described in EIR Sections 4.3.2 and 4.3.3, the proposed project does not conflict with the BAAQMD's 2017 Clean Air Plan and would not result in construction or operational emissions that exceed BAAQMD construction or operational screening criteria. Since the proposed project would not individually exceed any BAAQMD CEQA significance thresholds, the project's cumulative air quality impact would be *less than significant*.

15.4.4 Biological Resources

All potential project-related impacts to biological resources are less than significant or less than significant with mitigation (see Chapter 5 Biological Resources). The project would not: impact riparian habitat or sensitive natural communities; impact State or Federally protected wetlands; substantially interfere with the movement of native fish or wildlife species or established wildlife corridors or impede the use of native wildlife nursery sites; conflict with a local policy or ordinance protecting biological resources; or conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Potential impacts to FYLF frog, white-tailed kite and other nesting birds, roosting bats, wildlife habitat and oak woodland would be less than significant with implementation of Mitigation Measures BIO-1 through BIO-4.

Other planned development in the project area is not expected to have significant impacts to biological resources that could result in cumulatively considerable impacts when combined with the proposed project. All of the planned development in the project area is infill development, the expansion or modification of existing structures, or infrastructure projects mostly consisting of repair, replacement or minor additions. None of these projects is expected to result in significant impacts to special-status species, nesting birds, roosting bats, or wildlife habitat. With the exception of the on-campus steam pipe replacement project, all planned development is a minimum of 0.25 mile from the project site (Figure 15-1). The proposed project would include preconstruction surveys for and measures to protect FYLF (Mitigation Measures BIO-1A and 1B), measures to protect nesting birds (Mitigation Measures BIO-2A and 2B), and roosting bats (Mitigation Measures BIO-3A through 3D), and measures to protect and replace trees on the site (Mitigation Measures BIO-4A and 4B). With implementation of Mitigation Measures BIO-1 through BIO-4 and compliance with all applicable biological resources' regulations, the

proposed project's contribution to biological resources impacts would not be cumulatively considerable. Therefore, cumulative impacts to biological resources would be ***less than significant***.

15.4.5 Cultural / Tribal Cultural Resources

Historic Resources

As described in Chapter 6, under CEQA, the proposed project would have significant and unavoidable impacts on historic resources through the demolition of three contributing buildings to the VHC Historic District. (Impact CUL-1). Under CEQA, Mitigation Measure CUL-1 would help to lessen Impact CUL-1, but it would still remain a significant and unavoidable impact. on the historical significance of the VHC Historic District.

As described in Chapter 6, under NEPA, the project would have an adverse effect on historic resources and assessment of effects is being considered through Section 106 of the NHPA. Impacts on historic resources are considered fully mitigated through implementation of the Section 106 MOA, which is expected to include measures to avoid, minimize, and mitigate the adverse effect. The MOA will be executed at the completion of the Section 106 process and the adverse effect to historic resources under NEPA would be sufficiently mitigated and resolved.

None of the cumulative projects shown in Figure 15-1 would have significant and unavoidable impacts to historic resources, and all potential impacts to historic resources from those projects are expected to be less than significant. The majority of the projects listed in the table are expansion or renovation projects on existing developed lots and are located away from the VHC Historic District. All of the planned development in the project area is infill development, the expansion or modification of existing structures, or infrastructure projects mostly consisting of repair, replacement or minor additions (see Figure 15-1 and Section 15.3). With the exception of the on-campus steam pipe replacement project, all planned development is a minimum of 0.25 mile from the project site (Figure 15-1).

Although the proposed project would have a significant and unavoidable impact on historical resources under CEQA (but less than significant impact under NEPA), no other planned development would impact either a historic district or individual contributors therein. Therefore, because the project's impacts would not combine with other projects there is ***no cumulative impact*** to historic resources.

Archaeological Resources, Tribal Resources and Human Remains

There are four known archaeological resources in the project vicinity, one of which is adjacent to the VHC Historic District. Furthermore, the NAHC indicated that the project site and vicinity is sensitive in terms of Native America cultural resources. Although parts of the project area are developed with existing buildings, other areas are predominantly undisturbed to significant depths below the surface. Excavation and ground moving activities therefore have the potential to discover archaeological resources. However, the potential construction-related impacts to unrecorded historical, archaeological, and tribal cultural resources and/or unrecorded human remains (Impact CUL-2) would be reduced to a less-than-significant level with implementation of Mitigation Measure CUL-2A and CUL-2B (see Chapter 6 Cultural Resources).

The projects shown in Figure 15-1 could have potentially significant impacts to unrecorded historical, archaeological, and tribal cultural resources and/or unrecorded human remains similar to the proposed project, which could result in cumulative impacts to such resources when

combined with the proposed project. However, these projects also have or will have CEQA documents with mitigation measures to protect undiscovered cultural resources similar to the proposed project. Therefore, the proposed project is not expected to result in cumulatively considerable impacts to undiscovered cultural resources when combined with other projects in the area. This impact is *less than significant*.

15.4.6 Energy and Greenhouse Gas Emissions

As stated in EIR/EA Section 8.3.2, global climate change is the result of GHG emissions worldwide; individual projects do not generate enough GHG emissions to influence global climate change. Thus, the analysis of GHG emissions is by nature a cumulative analysis focused on whether an individual project's contribution to global climate change is cumulatively considerable. As described in EIR/EA Section 8.3.2, the proposed project's unmitigated GHG emissions would be below BAAQMD thresholds and in line with future GHG reduction goals. The project's cumulative impact on GHG emissions would be less than significant.

The proposed project, as well as other on-going and planned projects in the San Francisco Bay Area, are well supplied by energy resources, including petroleum, electricity, and natural gas. As described under EIR Section 8.3.3, the proposed project would meet LEED Gold certification and implement numerous green building features that would reduce operational energy consumption. The project's cumulative impact on energy resources would be *less than significant*.

15.4.7 Environmental Justice

All potential project-related impacts to environmental justice would be less than significant (see Section 17.6.3 Environmental Justice). The proposed new SNF would benefit the elderly and/or disabled veterans who reside in the existing SNF at the VHC-Yountville campus, including minority and/or low-income residents, by providing them with an upgraded facility designed according to current building codes for health and safety, and according to current USDVA standards of care. Temporary impacts to residents of the existing SNF and nearby residential buildings from construction dust or noise are expected to be less than significant with operating restrictions in place as identified in BMPs and mitigation incorporated. The project would require residents of the Polk Hall and Jefferson Hall (which may include elderly, minority and/or low-income residents), to be relocated; however, they would be relocated within the VHC-Yountville campus and thus would not be substantially impacted. As such, the proposed project would not have any impacts to environmental justice that could be cumulatively considerable.

Other planned development in the project area is not expected to have significant impacts to environmental justice that could result in cumulative impacts when combined with the proposed project. All of the planned development in the project area is infill development, the expansion or modification of existing structures, or infrastructure projects mostly consisting of repair, replacement or minor additions (see Figure 15-1 and Section 15.3). None of these projects are expected to disproportionately affect low income or minority populations. Therefore, cumulative impacts to environmental justice would be *less than significant*.

15.4.8 Geology and Soils

The potential cumulative impacts for geology, soils, and seismicity do not extend far beyond a project's boundaries, since geological impacts are confined to discrete spatial locations and do not generally combine to create a cumulative impact condition. The exception to this would

occur where a large geologic feature (e.g., fault zone, massive landslide) might affect an extensive area, or where the development effects from the project could affect the geology of an off-site location. These circumstances are not presented as a result of implementation of the proposed project, and so do not apply. Conformance with the CBC and the mitigation measures described above would reduce project-related geohazard impacts to a less-than-significant level. Therefore, cumulative geotechnical impacts would be *less than significant*.

15.4.9 Hazards and Hazardous Materials

All potential project-related impacts to hazards and hazardous materials are less than significant or less than significant with mitigation (see Chapter 9 Hazards and Hazardous Materials). The proposed project would not result in any new transport, use, storage or disposal of hazardous materials after completion; the project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5; the site is not within ¼ mile of an existing school or within 2 miles of a public or private airport; and the project would not impair implementation of or physically interfere with the Napa County Operational Area Hazard Mitigation Plan (2013) or any County evacuation plans.

The project could result in the accidental release of construction fuels or fluids and/or exposure of workers or the environment to hazardous building materials such as asbestos containing materials and lead-based paint; however, these impacts would be reduced to less-than-significant levels with implementation of Mitigation Measures HAZ-1A through 1C. A demolition debris management and disposal plan for the non-RCRA hazardous materials will be developed and implemented for the project (Mitigation Measure HAZ-1A), all recommendations in the Phase I ESA prepared for the project will be implemented (Mitigation Measure HAZ-1B), and PCBs and mercury-containing materials will be disposed of in accordance with Cal/EPA regulations (Mitigation Measure HAZ-1C).

Project soils will be tested for the presence of metals and organochloride pesticides (OCPs) and remediated as necessary for compliance with regulatory requirements compliance to ensure site soils are suitable for residential use as a SNF (Mitigation Measure HAZ-2A). Soils will be managed to control fugitive dust and minimize exposure of construction workers to potential contaminants (Mitigation Measure HAZ-2B). Any other hazardous materials encountered during construction would also be evaluated and remediated as necessary (Mitigation Measure HAZ-2C).

None of the planned projects in the project area are expected to result in accidental releases of hazardous materials or other hazards or hazardous materials impacts that could combine with the proposed project to create cumulatively considerable hazard impacts. All of the planned development in the project area is infill development, the expansion or modification of existing structures, or infrastructure projects mostly consisting of repair, replacement or minor additions (see Figure 15-1 and Section 15.3). With the exception of the on-campus steam pipe replacement project, all planned development is a minimum of 0.25 mile from the project site (Figure 15-1). With implementation of Mitigation Measures HAZ-1A through 1C and Mitigation Measures HAZ-2A through 2C and compliance with all applicable hazardous materials regulations, the proposed project's contribution to hazards and hazardous materials impacts would not be cumulatively considerable. Therefore, cumulative impacts to hazards and hazardous materials would be *less than significant*.

15.4.10 Hydrology and Water Quality

The cumulative context to assess project impacts includes development within the Hinman Creek watershed in the vicinity of the project site (Yountville subarea), and potential impacts to downstream watercourses, such as the Napa River. The watershed is used as the geographic unit for cumulative analysis based on the concept that many water quality problems, like the accumulation of pollutants or nonpoint source pollution, are best addressed at the watershed level. In addition, California's regulatory framework for protection of water quality focusses on the watershed. While the Hinman and Napa River watersheds are generally sparsely urbanized (especially outside the valley floor), much of the watershed area is under agricultural cultivation, and potential cumulative effects are assessed within this framework.

Water Quality

The proposed project could, in conjunction with other projects within the watershed, contribute urban runoff pollutants to downstream receiving waters, resulting in degradation of water quality in Hinman Creek, and the Napa River. The proposed project would incorporate LID and stormwater treatment measures, per NPDES requirements, to control and/or treat stormwater runoff. Similarly, other developments within the watershed would be required to comply with these regulations. Because the existing facility includes no such stormwater treatment measures, the proposed project would likely improve stormwater quality relative to existing conditions, even with the proposed small increases in impervious area relative to the watershed areas. As such the cumulative impact of the project related to water quality is considered ***less than significant***.

Flooding

Increases in impervious area at the proposed project site could incrementally increase stormwater flows which, combined with similar increases due to other potential future projects within the watershed, could cumulatively impact flooding in downstream reaches. The proposed project will incorporate stormwater detention to provide no net increase in peak flows for the 50- and 100-year storm events, and will ensure that detention areas in the final design are sized to account for the increase in capacity proposed for the mainline culvert that carries Cordilleras Creek flow underneath the project site. In addition, as part of the project's compliance with the NPDES stormwater permit, the project will incorporate LID and stormwater treatment measures designed to maximize infiltration and evapotranspiration of stormwater runoff, minimizing increases in runoff for smaller storms. As such the project would result in a ***less-than-significant*** cumulative impact related to flooding.

Groundwater

Increases in impervious area at the proposed project site could incrementally decrease stormwater recharge which, combined with similar increases due to other potential future projects within the watershed, could cumulatively impact recharge to the underlying Napa Valley aquifer. Much of the land area overlying the Yountville subarea and the Napa Valley groundwater sub-basin as a whole is under active vineyard (and other) cultivation, and thus allows for recharge over a broad area of the underlying aquifer. Given the prominence and importance of agriculture to the region, these areas are unlikely to see a significant cumulative increase in impervious area over the sub-basin as a whole, and thus the small increase in

impervious cover at the project site is unlikely to cumulatively impact recharge to a significant degree.

In addition, as part of the project's compliance with the NPDES stormwater permit, the project will incorporate LID and stormwater treatment measures designed to maximize infiltration and evapotranspiration of stormwater runoff, minimizing the potential impact to groundwater recharge. As such the project would result in a *less-than-significant* cumulative impact related to groundwater recharge.

15.4.11 Land Use and Planning

All potential project-related impacts to land use and planning would be less than significant (see Section 17.6.5 Land Use and Planning). The FMPE identifies a new SNF as the highest priority project for the VHC-Yountville campus. The proposed project would not conflict with the zoning or General Plan land use designations for the site. The proposed project would not physically divide an established community. As such, the proposed project would not have any impacts to land use and planning that could be cumulatively considerable. Therefore, cumulative impacts to land use and planning would be *less than significant*.

15.4.12 Mineral Resources

Implementation of the proposed project would have *no impact* to mineral resources (see Section 17.6.6 Mineral Resources) and, therefore, would not contribute to cumulative impacts on these resources.

15.4.13 Noise

For purposes of this analysis, the geographic context is limited to the extent the potential noise impacts caused by the proposed project that could combine with other relevant cumulative developments. Although construction and operational noise may, theoretically, be audible far from the source, in practice ambient noise from wind and other land uses is substantially louder than construction equipment operating ¼ mile away (1,320 feet) or further thousands of feet away. Therefore, the geographic context is limited to the area within ¼ mile of the proposed construction work areas and SNF site (once operational). The primary roads (SR-29, California Drive) used to access the VHC-Yountville Campus are also included in the geographic context for cumulative noise impacts.

The project would result in potentially significant construction noise impacts requiring mitigation to ensure construction noise levels do not interfere with VHC-Yountville resident use, care and well-being (Impact NOI-1); construction noise levels would be less than significant at off-site receptor locations. There are three small public infrastructure projects that could combine with project construction noise levels. One is located on-site. The project consists of steam pipe replacement near the proposed SNF site. This activity would involve minor equipment use to excavate the pipeline, remove the existing pipes, install the new pipes, and backfill the trench. Pipe replacement would proceed linearly along the pipeline route and would not result in sustained noise levels in any one location that substantially change the on-site noise level estimates presented in Chapter 11. The remaining two infrastructure projects off-site (within the Vintner's Golf Club and at the intersection of California Drive and Solano Avenue) and could combine with project construction noise levels from trenching and vehicle travel on California Drive; however, the magnitude of any potential combined noise levels along California drive is unlikely to be substantially different than estimated for the project (84 dBA at worst case)

because small public infrastructure projects do not require substantial equipment use and the proposed project's construction activities would not occur in the same area as the small public infrastructure projects (see Figure 15-1), meaning construction noise levels would attenuate with distance and be lower than estimated for the proposed project. This impact is considered less than significant. The Keever Winery Major Modification Project, located approximately 0.25 miles south of the site, would not combine with project construction noise levels due to topography and soft ground cover (which attenuates noise levels) present between the winery and the VHC-Yountville Campus.

The project may result in on-site operational noise levels that exceed Town standards. The one public infrastructure project located on the VHC-Yountville Campus is not anticipated to result in operational noise levels. Thus, there is no potential for combined operational impacts to occur and ***no cumulative impact*** would occur.

The project would produce off-site noise levels from vehicle trip travel on California Drive and SR 29. As described in Chapter 11, the project would not result in a significant increase in traffic noise levels because the project would not result in a doubling of traffic. The project's contribution to cumulative increases in trip rates on California Drive and SR 29 would not be cumulatively considerable because project related traffic (100 trips per day) would not result in 1 dB increase on roadways used to access the project site. This impact is considered ***less than significant***.

The project would result in potentially significant construction vibration impacts requiring mitigation to ensure construction vibration levels do not interfere with VHC-Yountville resident use, care and well-being or damage existing buildings or structures (Impact NOI-2); construction vibration levels would be less than significant at off-site receptor locations. Vibration impacts are primarily localized impacts. As described in Chapter 11, the proposed project would not generate operational vibrations, and construction vibrations would be less than significant with mitigation. The minor equipment uses to replace on-site steam pipes would not generate vibration levels that are likely to combine with potential ground-borne vibrations from project construction due to the rapid attenuation of ground-borne vibrations (typical equipment vibrations are not perceptible at a distance of approximately 150 feet. Thus, this cumulative impact would be ***less than significant***.

15.4.14 Population and Housing

All potential project-related impacts to population and housing would be less than significant (see Section 17.6. Population and Housing). The project would include the demolition of two residential buildings- Polk Hall and Jefferson Hall- and would require residents of these buildings to be relocated. However, displaced residents would be relocated to other existing residential buildings within the VHC-Yountville campus. Thus, no replacement housing would be required, and the residents would not be permanently displaced. The project is not expected to be growth-inducing (see Section 17.1).

Planned development in the project area is not expected to displace people or housing or cause substantial growth that could be cumulatively considerable when combined with the proposed project. All of the planned development in the project area is infill development, the expansion or modification of existing structures, or infrastructure projects mostly consisting of repair, replacement or minor additions (see Figure 15-1 and Section 15.3). A few of these projects include the replacement of one or two single-family residents on-site, but none require off-site

replacement of housing or result in the permanent displacement of people. Therefore, cumulative impacts to population and housing would be *less than significant*.

15.4.15 Public Services

All project-related impacts to public services would be less than significant (see Section 17.6.7 Public Services). All residents of the new SNF would be current residents of VHC-Yountville, and the staff increase of 100 employees at the new SNF is not expected to significantly impact existing public services that serve the site. The project is not expected to result in a substantial increase in calls for emergency medical, fire suppression or police services, or create a need for new or physically altered facilities to maintain adequate service ratios, response times, or other performance objectives. There are no school-aged residents at the existing SNF and there would be none at the proposed SNF, and the increase in staff at the new SNF is not expected to substantially increase enrollment and impact schools. The project is not expected to create a demand for new parks or other community facilities. As such, the proposed project would not have any impacts to public services that could be cumulatively considerable.

Planned development in the project area is not expected to result in substantial increases in demand for public services that could be cumulatively considerable when combined with the proposed project. All of the planned development in the project area is infill development, the expansion or modification of existing structures, or infrastructure projects mostly consisting of repair, replacement or minor additions (see Figure 15-1 and Section 15.3). None of these projects are expected to significantly increase demand for public services or impact public facilities. Therefore, cumulative impacts to public services would be *less than significant*.

15.4.16 Recreation

The proposed project would not increase the use of recreational facilities or create new demand for recreational facilities (see Section 17.6.8 Recreation). The proposed SNF would not increase the campus population, and SNF residents have limited mobility and do not generally create demand for park facilities. As such, the proposed project would not have any impacts to recreation that could be cumulatively considerable.

Planned development in the project area is not expected to result in substantial increases in demand for recreational facilities or creation of new recreational facilities that could be cumulatively considerable when combined with the proposed project. All of the planned development in the project area is infill development, the expansion or modification of existing structures, or infrastructure projects mostly consisting of repair, replacement or minor additions (see Figure 15-1 and Section 15.3). None of these projects include new recreational facilities (although two are small additions to existing recreational facilities) or are expected to significantly increase demand for recreational facilities. Therefore, cumulative impacts to recreation would be *less than significant*.

15.4.17 Socioeconomics

The project would not have potentially significant socioeconomics impacts (see Section 17.6.9 Socioeconomics). The proposed project would not impact nearby businesses or industries or affect property values in the project area or the local tax base. The new SNF would provide 100 new permanent jobs to the project region in order to adequately staff the new facility, as well as temporary jobs during project construction. As such, the proposed project would not have any impacts to socioeconomics that could be cumulatively considerable.

Planned development in the project area is not expected to result in socioeconomic impacts that could cause cumulative impacts when combined with the proposed project. All of the planned development in the project area is infill development, the expansion or modification of existing structures, or infrastructure projects mostly consisting of repair, replacement or minor additions (see Figure 15-1 and Section 15.3). None of these projects is expected to result in significant socioeconomic impacts. Therefore, cumulative impacts to socioeconomic would be ***less than significant***.

15.4.18 Transportation

As described in Chapter 12 Transportation, the majority of the transportation impacts of the proposed project are less than significant or less than significant with mitigation incorporated. The project would not: disrupt existing transit, bicycle, or pedestrian facilities; conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b); substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses; or result in inadequate emergency access. According to the intersection impact analysis in the TIA, the project would not significantly impact existing intersection level of service in the project area under existing with project conditions or near-term with project conditions. Construction traffic disruption of roadways would be less than significant with preparation and implementation of a construction traffic management plan (Mitigation Measure TRA-1). Thus, transportation impacts of the project are not generally expected to be cumulatively considerable.

15.4.19 Utilities and Service Systems

All potential project-related impacts to utilities and service systems would be less than significant (see Chapter 13 Utilities and Service Systems). The project would include new water, sewer, and stormwater lines to serve the site that would run parallel to existing underground utility lines in campus roads. All potential impacts associated with installing these new lines would be less than significant. The project is expected to have sufficient water supplies and wastewater treatment capacity to serve the site, is not expected to generate solid waste that exceeds the capacity of Clover Flat Resource Recovery Park and would comply with all applicable laws and regulations pertaining to solid waste.

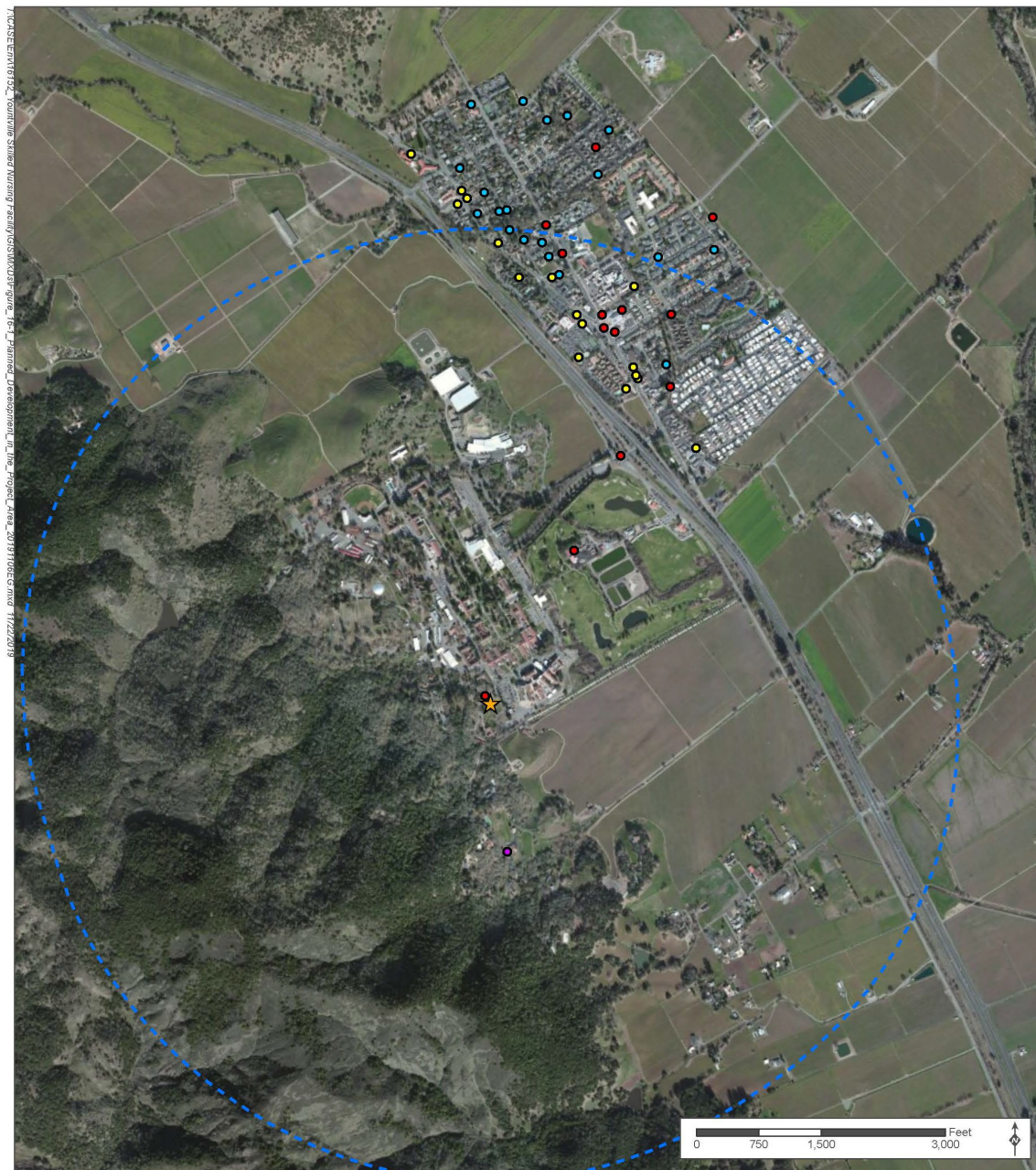
Planned development in the project area is not expected to result in substantial increases in demand for utilities or service systems or creation of new utility lines or service systems that could be cumulatively considerable when combined with the proposed project. All of the planned development in the project area is infill development, the expansion or modification of existing structures, or infrastructure projects mostly consisting of repair, replacement or minor additions (see Figure 15-1 and Section 15.3). Therefore, cumulative impacts to utilities and service systems would be ***less than significant***.

15.4.20 Wildfire

All potential impacts related to wildfire hazards would be less than significant or less than significant with mitigation (see Chapter 14 Wildfire). Although the proposed SNF would be located near land mapped by Cal Fire as a high fire severity zone in an area that has experienced recent major wildfires, all wildfire related hazards to the project would be reduced to less-than-significant levels with compliance with applicable regulations and implementation of Mitigation

Measures WFR-1 and WFR-2. As such, the proposed project would not have any impacts to wildfire that could be cumulatively considerable.

Planned development in the project area is not expected to result in cumulative wildfire impacts when combined with the proposed project. All of the planned development in the project area is infill development, the expansion or modification of existing structures, or infrastructure projects mostly consisting of repair, replacement or minor additions (see Figure 15-1 and Section 15.3). Most of these projects are in developed areas (Town of Yountville and VHC-Yountville campus) and none of these projects are on or adjacent to wildfire hazard areas. Therefore, cumulative impacts to wildfire would be *less than significant*.

Figure 15-1. Planned Development in the Project Area

- ★ Project Location
- - 1 Mile Buffer
- Types of Development**
- Commercial
- Public Infrastructure
- Single Family Residential
- Winery/Vineyard

**Figure 15-1 Planned Development in the Project Area**

VHC-Yountville Skilled Nursing Facility Project

CHAPTER 16 PROJECT ALTERNATIVES

16.1 DEVELOPMENT OF ALTERNATIVES

16.1.1 CEQA and NEPA Requirements

CEQA and NEPA require the evaluation of a reasonable range of alternatives to the proposed project that could accomplish the lead agency's purpose and need, including the no action/no project alternative. An EIR must consider a reasonable range of alternatives for analysis. The alternatives considered under CEQA must meet the basic project objectives, be feasible, and should not result in greater impacts on the environment than those of the proposed project. In the determination whether certain alternatives are feasible, the lead agency is guided by the general definition of feasibility found in CEQA Guidelines section 15364: capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors." The lead agency should consider site suitability, economic viability, availability of infrastructure, general plan consistency, other regulatory limitations, jurisdictional boundaries, and the proponent's control over alternative sites in determining the range of alternatives to be considered in an EIR (CEQA Guidelines section 15126.6[f][1]). An EIR must briefly describe the rationale for selection and rejection of alternatives and the information the lead agency relied upon in making the selection. It should also identify any alternatives that the lead agency considered but rejected as infeasible during the scoping process and briefly explain the reason for their exclusion (CEQA Guidelines section 15126.6[c]). Under CEQA, an EIR is required to analyze the no project alternative. CEQA Guidelines section 15126.6 (e)(2) states that the no project analysis shall discuss the existing conditions at the time the NOP is published, or if no NOP is published, at the time environmental analysis is commenced. The no project conditions may also include some reasonably foreseeable changes in the existing conditions and changes that would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.

Under NEPA, CEQ Regulations, and 38 CFR 26 require that all reasonable alternatives to be vigorously explored and objectively evaluated. Alternatives that are eliminated from detailed study must be identified along with a brief discussion of the reasons for eliminating them (40 CFR, Part 1502, Section 14 [40 CFR 1502.14]). NEPA allows the elimination of alternatives that are not reasonable or feasible or do not meet the purpose and need of the proposed project. For the purposes of NEPA, "reasonable" means those alternatives which may be feasibly carried out based on technical, economic, environmental, and other factors. NEPA also requires detailed analysis of the impacts of the No Action alternative. The purpose of describing and analyzing a no action alternative is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project.

For the purposes of this EIR/EA, the term "No Project Alternative" is used as the title for an alternative that fulfills both the no project alternative of CEQA and no action alternative requirement of NEPA.

Alternatives for analysis in this EIR/EA were considered in the context of the CEQA/NEPA regulations and guidelines described above. For the purposes of analyzing the proposed project, reasonability is based on the following criteria:

- Alternatives should generally fulfill the objectives under CEQA and purpose and need under NEPA.
- Alternatives should be feasible and reasonable in terms of economic, environmental, legal, social, and technological factors.
- Alternatives should avoid or substantially reduce one or more significant impacts of the proposed project.

16.1.2 Alternatives Considered in Detail

Two alternatives were found to generally meet purpose/need and objectives of the proposed project, be feasible or potentially feasible, and have some potential to avoid or substantially reduce one or more significant impacts of the proposed project, and, therefore, are considered for in detail in the following sections of this EIR/EA. In addition, the No Project/No Action alternative is discussed as required by CEQA and NEPA.

- Alternative 1: Proposed Project/Proposed Action
- Alternative 2: West of Ballpark Location
- Alternative 3: Northeast Campus Location
- Alternative 4: No Project/No Action Alternative

16.2 ALTERNATIVE 1: PROPOSED PROJECT/PROPOSED ACTION

16.2.1 Alternative Description

This alternative is described in Chapter 2 Proposed Project. CalVet proposes authorization of State funds to build an approximately 285,000-gsf SNF on 11.7 acres west of the Holderman Building on the VHC-Yountville campus (Site 1; Figure 16-1). The facility would provide 240 beds for long-term care services, including skilled nursing/memory care for resident veterans. The building would be designed with a maximum height of four stories. The building footprint and hardscape surfaces (i.e., parking, access road, and walkways) would cover approximately 7 acres. This alternative requires demolition of six existing site structures which include Jefferson Hall and carports, Polk Hall, Nurses Education Building, Hostess House, and Bandstand. The project includes a central plant building, a 300,000-gallon water tank to provide fire flow supply, and new utility lines.

16.3 ENVIRONMENTAL ANALYSIS

See Chapters 4 through 14 for environmental analysis discussion of the proposed project.

16.3.1 Lead Agency Consideration of Alternative

This alternative fully meets the project objectives by allowing construction of the SNF facility with its proposed capacity and program elements. This alternative has similar or less impact to historic resources than other alternative sites considered and does not have the environmental constraint of sensitive creek habitat that could trigger permit requirements from resource agencies. A new SNF in this location is consistent with the FMPE goals to reinforce the existing general use districts and to cluster buildings with similar uses together, and past program decisions to consolidate or co-locate medical services at south end of campus near the

Holderman Building. Therefore, this alternative has been selected by CalVet as the preferred alternative for proposed action.

CalVet has applied for federal grant funding of the project under the State Homes Construction Program. The USDVA proposed action subject to NEPA is to award grant funding under the State Homes Construction Program to CalVet for the Yountville SNF project.

16.4 ALTERNATIVE 2: WEST OF BALLPARK LOCATION

16.4.1 Alternative Description

Under this alternative, CalVet would utilize State funds to construct the proposed SNF on an approximately 13-acre site located on the north end of campus west of the ball field and community garden (Site 2; Figure 16-1). The purpose of this alternative would be to develop the SNF in a location that avoids demolition of residential buildings. A portion of this site is identified in the FMPE as a Public Private Partnership (PPP) development zone and a possible location for senior market housing. The site was formerly an RV park and is currently occupied by the picnic grounds and stage, several storage buildings, an auto hobby shop, access roads, parking, and trees and landscaped areas. Under this alternative, existing uses would be removed to create development space for the new SNF. Primary access to the site is currently from Presidents Circle through the ballpark access road and parking area.

16.4.2 Environmental Analysis

Air Quality. Air quality impacts would be similar to the proposed project, with short-term emissions associated with construction and long-term emissions associated with staff and visitor trips to and from the SNF. However, air quality impacts to sensitive receptors would be avoided because this site is farther from the existing SNF and other residential land uses.

Biological Resources. This alternative site is primarily disturbed, but there is a tributary to Hopper Creek transecting the northern third of this site. Development of this alternative site could have a greater chance of aquatic special status species dispersing throughout the site if they are present in the tributary. This alternative location would likely require tree removal similar to the proposed project, although there appears to be fewer native trees on this site. If the project site boundary was shifted west toward the hills in order to reduce impact on existing developed uses, the tree removal impact could increase. This location would have similar potential impacts to nesting birds and roosting bats at the proposed project.

Cultural, Historical, and Tribal Resources. This alternative site is located within the Historic District and contains several structures contributing to the historic district. These structures include the picnic area stage (Building 64) and three storage buildings (Buildings 61, 62, and 63). Other buildings potentially impacted are non-contributors to the historic district (Buildings 59, 94). There would still be potential to impact undiscovered cultural resources during construction.

Energy/Greenhouse Gases. Greenhouse gas emission impacts would be similar to the proposed project, with short-term emissions associated with construction and long-term emissions associated with staff and visitor trips to and from the SNF and energy use in the new buildings.

Environmental Justice. This alternative would avoid the relocation of residents of Polk Hall and Jefferson Hall, all of whom are senior citizens, and some of whom may be minorities and/or low income. Thus, this alternative would reduce adverse project effects related to environmental

justice. Other environmental justice effects would be the same as the proposed project. For example, the proposed new SNF would benefit the elderly and/or disabled veterans who reside in the existing SNF at the VHC-Yountville campus, including minority and/or low-income residents, by providing them with an upgraded facility designed according to current building codes for health and safety, and according to current USDVA standards of care. These benefits would not change based on the location of the new SNF on the VHC-Yountville campus.

Geology and Soil. Impacts to geology and soil would be similar to the proposed project. Regional earthquake hazards would be the same as at the project site, and this alternative would have the same potential to disturb soils during construction as the proposed project.

Hazards/Hazardous Materials. Hazards and hazardous materials impacts would be similar to the proposed project, although it is likely that the newer buildings to be demolished on this site would not have asbestos-containing materials, lead-based paint, or other contaminants that are present in the historic buildings at the project site; the older buildings on this site would still need to be investigated for hazardous materials to determine whether or not special handling is required.

Hydrology/Water Quality. A tributary to Hopper Creek transects the northern third of this alternative site. This tributary flows to the Napa River and is considered jurisdictional waters. Any development plan encroachment on the tributary would likely require permitting by resource agencies including USACE, RWQCB, and CDFW. Hydrology and water quality impacts would be potentially greater than the proposed project due to the potential to impact water quality in the stream on the site. Potential impacts would otherwise be similar to the proposed project, with potential short-term impacts to stormwater runoff from contaminants during construction, and a potential increase in stormwater runoff from an increase in impervious surface area during project operation. The increase in postconstruction runoff water may be less under this alternative since a greater portion of this site is already paved.

Noise. Noise impacts would be similar to the proposed project, with construction noise in the short-term, and minimal noise impacts in the long-term from traffic to and from the site, landscape maintenance equipment and human voices, etc. However, this site is farther from the existing SNF and other residential land uses, therefore this alternative would avoid construction noise impacts to sensitive receptors.

Recreation. This alternative would locate the new SNF in a section of campus oriented toward community recreation uses such as the adjacent ballpark and community gardens. The West of Ballpark Location site includes a picnic ground and stage used by the VHC-Yountville campus residents and the broader Yountville community for recreational events. Development of the SNF at this location could involve removal of this facility resulting in the loss of access to recreational opportunity.

Socioeconomics. The socioeconomics effects of this alternative would be the same as for the proposed project and would remain less than significant. The proposed project and its alternatives would not impact nearby businesses or industries or affect property values in the project area or the local tax base. The new SNF would provide 100 new permanent jobs to the project region in order to adequately staff the new facility, as well as temporary jobs during project construction.

Transportation. Transportation impacts would be similar to the proposed project, with short-term impacts to local site circulation during construction, and long-term impacts related to an increase in the number of staff commuting to and from the project site. Current access to the site is through the ballpark parking area. This lack of direct access from a primary campus road could impede emergency access and new access may be required.

Utilities/Service Systems. Utility and service systems impacts would be similar to the proposed project, with short-term impacts related to installation of new water, sewer, and stormwater lines and minimal long-term impacts.

Wildfire. Wildfire impacts would be similar to the proposed project. This alternative site is not located in a wildfire hazard zone, but vegetated hills near the site to the north and west are in a high fire hazard zone.

16.4.3 Lead Agency Consideration of Alternative

This alternative partially meets the project objectives by allowing construction of the SNF facility with its proposed capacity and program elements. Similar to the proposed project alternative, the West of Ballpark Location alternative would demolish multiple buildings which are contributors to the VHC Historic District. This would be an unavoidable significant impact or adverse effect. This alternative site location also introduces a potential new impact to sensitive creek habitat (tributary to Hopper Creek) and could trigger new evaluations permits from resource agencies that is otherwise avoided by the proposed project location. A new SNF in this location would place an intensive medical service function in a section of campus oriented toward providing community recreation services. Further, this location is inconsistent with the FMPE goals to reinforce the existing general use districts and to cluster buildings with similar uses together, and past program decisions to consolidate or co-locate medical services at south end of campus near the Holderman Building. Given that significant impacts of the proposed project are not avoided by this alternative and new impacts to sensitive habitat, emergency access, and community recreation facilities, would likely be introduced, this alternative does not reduce environmental impacts.

CalVet has applied for federal grant funding of the project under the State Veterans Homes Construction Program. The USDVA proposed action subject to NEPA review is to award grant funding under this program to CalVet for the Yountville SNF project.

16.5 ALTERNATIVE 3: NORTHEAST CAMPUS LOCATION

16.5.1 Alternative Description

Under this alternative, CalVet would utilize State funds to construct the proposed SNF on an approximately 14-acre site located on the northeastern corner of the campus on the north end of the Alameda (Site 3; Figure 16-1). The purpose of this alternative would be to develop the SNF in a location close to the campus entrance. The portion of the site excluding Wilson Hall is identified in the FMPE as a PPP development zone and a potential location for an inn to replace the Hostess House.

Under this alternative, the proposed federal action subject to NEPA review is the award of USDVA grant funding under the State Veterans Homes Construction Program to CalVet for the Yountville SNF project.

16.5.2 Environmental Analysis

Air Quality. Air quality impacts would be similar to the proposed project, with short-term emissions associated with construction and long-term emissions associated with staff and visitor trips to and from the SNF. However, air quality impacts to sensitive receptors would be avoided because this site is farther from the existing SNF and other residential land uses.

Biological Resources. This alternative site is substantially developed with existing buildings, however a portion of the site adjacent to the property boundary with Domain Chandon remains undeveloped. The tributary to Hopper Creek transects this site north of Wilson Hall and beneath President's Circle toward the east. This alternative site could have a greater chance of aquatic special status species dispersing through the site if they are present in the stream. This alternative location would likely require tree removal similar to the proposed project, although there appear to be fewer native trees on this site. This location would have similar potential impacts to nesting birds and roosting bats at the proposed project.

Cultural, Historical, and Tribal Resources. This alternative site is located within the Historic District and contains five structures contributing to the Historic District. These structures include Wilson Hall (Building 11), Johnson Hall (Building 12), Johnson Hall carport (Building 15), Residence 0-24 (Building 13) and Residence 0-25 (Building 14). There would still be potential to impact undiscovered cultural resources during construction.

Energy/Greenhouse Gases. Greenhouse gas emission impacts would be similar to the proposed project, with short-term emissions associated with construction and long-term emissions associated with staff and visitor trips to and from the SNF and energy use in the new buildings.

Environmental Justice. This alternative may require the relocation of residents of Wilson Hall and Johnson Hall, all of whom are senior citizens, and some of whom may be minorities and/or low income. Thus, the relocation of residents may not be avoided by this alternative. The proposed new SNF would benefit the elderly and/or disabled veterans who reside in the existing SNF at the VHC-Yountville campus, including minority and/or low-income residents, by providing them with an upgraded facility designed according to current building codes for health and safety, and according to current USDVA standards of care. These benefits would not change based on the location of the new SNF on the VHC-Yountville campus.

Geology and Soil. Impacts to geology and soil would be similar to the proposed project. Regional earthquake hazards would be the same as at the project site, and this alternative would have the same potential to disturb soils during construction as the proposed project.

Hazards/Hazardous Materials. Hazards and hazardous materials impacts would be similar to the proposed project, although it is likely that the newer buildings to be demolished on this site would not have asbestos-containing materials, lead-based paint, or other contaminants that are present in the historic buildings at the project site for Alternative 1 (proposed project); the older buildings on this site would still need to be investigated for hazardous materials to determine whether or not special handling is required.

Hydrology/Water Quality. A tributary to Hopper Creek transects the northern third of this alternative site. This tributary flows to the Napa River and is considered jurisdictional waters. Any development plan encroachment on the tributary would likely require permitting by resource agencies including USACE, RWQCB, and CDFW. Hydrology and water quality impacts would be potentially greater than the proposed project due to the potential to impact

water quality in the stream on the site. Potential impacts would otherwise be similar to the proposed project, with potential short-term impacts to stormwater runoff from contaminants during construction, and a potential increase in stormwater runoff from an increase in impervious surface area during project operation. The increase in postconstruction runoff water may be less under this alternative since a greater portion of this site is already paved.

Noise. Noise impacts would be similar to the proposed project, with construction noise in the short-term, and minimal noise impacts in the long-term from traffic to and from the site, landscape maintenance equipment and human voices, etc. However, this site is farther from the existing SNF and other residential land uses, therefore this alternative would avoid construction noise impacts to sensitive receptors.

Socioeconomics. The socioeconomics effects of this alternative would be the same as for the proposed project and would remain less than significant. The proposed project and its alternatives would not impact nearby businesses or industries or affect property values in the project area or the local tax base. The new SNF would provide 100 new permanent jobs to the project region in order to adequately staff the new facility, as well as temporary jobs during project construction.

Transportation. Transportation impacts would be similar to the proposed project, with short-term impacts to local site circulation during construction, and long-term impacts related to an increase in the number of staff commuting to and from the project site.

Utilities/Service Systems. Utility and service systems impacts would be similar to the proposed project, with short-term impacts related to installation of new water, sewer, and stormwater lines and minimal long-term impacts.

Wildfire. Wildfire impacts would be similar to or somewhat less than the proposed project due to further distance from the oak woodland hills west of this alternative site that are in a high fire hazard zone.

16.5.3 Lead Agency Consideration of Alternative

This alternative partially meets the project objectives by allowing construction of the SNF facility with its proposed capacity and program elements. This alternative increases the impact to historic resources and potentially introduces new impacts to sensitive creek habitat that could trigger permit requirements from resource agencies. A new SNF in this location would place an intensive medical service function in a section of campus oriented toward providing housing and community recreation services. This location is also inconsistent with the FMPE goals to reinforce the existing general use districts and to cluster buildings with similar uses together, and past program decisions to consolidate or co-locate medical services at south end of campus near the Holderman Building. Given that significant impacts of the proposed project are not avoided by this alternative and new impacts to sensitive habitat, would likely be introduced, this alternative does not reduce environmental impacts.

CalVet has applied for federal grant funding of the project under the State Homes Construction Program. The USDVA proposed action subject to NEPA is to award grant funding under the State Homes Construction Program to CalVet for the Yountville SNF project.

16.6 ALTERNATIVE 4: NO ACTION / NO PROJECT ALTERNATIVE

16.6.1 Alternative Description

CEQA and NEPA require the discussion of a No Project / No Action Alternative in an EIR and EA. Under the No Action Alternative, state and federal funding of the project would not be awarded. The proposed SNF project would not be constructed and no physical changes to the site would occur. VHC-Yountville residents requiring SNF care would continue to reside in the Holderman Building, Roosevelt Hall (Annex I), and Eisenhower Hall (Annex II). Present-day operations of skilled nursing care would continue. In the long-term, VHC-Yountville would no longer be able to accept and serve veterans requiring skilled nursing care due to the existing Holderman Building posing health and safety risks to residents, increased repair and maintenance costs for the aging structure, and not meeting the current USDVA standards for care in a home-like setting. This alternative would result in a gradual reduction of SNF beds provided at VHC-Yountville. Polk Hall, Jefferson Hall, the Hostess House, the Nurses Education Building, the Memorial Grove and all other existing features on the project site would remain in place. No residents would be relocated, and no buildings would be demolished, and no trees or other vegetation would be removed.

16.6.2 Environmental Analysis

Air Quality. There would be no new air quality impacts under the No Project/No Action Alternative because there would be no project construction. Building demolition, grading, excavation, construction of new buildings and associated air emissions would be avoided. There would be no increase in the number of staff, and therefore, no increase in air emissions from employee commute travel (there would be a 12 percent increase from new staff under the proposed project and the other alternatives). However, the SNF patients would continue to be housed in older, less energy efficient buildings which could result in higher emissions from building operations than under the proposed project, which would include new, energy-efficient buildings.

Biological Resources. There would be no impacts to biological resources under the No Project/No Action Alternative. There would be no construction or removal of trees or other vegetation; therefore, impacts to FYLF, nesting birds, roosting bats, and wildlife habitat would be avoided. Wildlife in the project area would continue to use the site as under existing conditions.

Cultural, Historical, and Tribal Resources. There would be no impacts to cultural resources under the No Project/No Action Alternative. The three buildings which are contributors to the VHC Historic District would remain on the site, and no archaeological or tribal cultural resources which may be buried at the site would be disturbed. Impacts to historic, archaeological, and tribal resources would be avoided.

Energy/Greenhouse Gases. There would be no new greenhouse gas emissions under the No Project/No Action Alternative. Greenhouse gas emissions would continue to be the same from energy use and consumption, solid waste disposal, and to supply water and treat wastewater in the existing SNF. The existing SNF is not energy efficient, and therefore building operational GHG emissions may be greater over time under the no project alternative compared to the proposed project or other alternatives, which would include new, energy efficient buildings. GHG emissions from additional staff commuting to the site would be avoided by the No Project /

No Action Alternative (there would be a 12 percent increase in vehicle emissions from employees commuting under the proposed project). There would be no greenhouse gas emissions related to construction under the No Project/No Action Alternative.

Environmental Justice. This alternative would avoid the relocation of residents of Polk Hall and Jefferson Hall, all of whom are senior citizens, and some of whom may be minorities and/or low income. However, the existing SNF buildings would continue to pose health and safety risks to the residents, and the existing SNF would continue to have an institutional feel that does not meet the current USDVA standards for care in a home-like setting. Construction-related impacts to elderly, low-income and minority residents such as construction noise and dust would be avoided by the No Project/No Action Alternative.

Geology and Soils. There would be no new impacts to geology and soils under the No Project Alternative. There would be no construction and therefore no disturbance of soils or erosion. Existing buildings on or near the site were built before modern earthquake codes were in place, and therefore could be damaged in a big earthquake and/or pose a risk to residents and staff. Therefore, earthquake related hazards to residents and staff would be reduced under the proposed project and other alternative compared to the No Project/No Action Alternative, since the new buildings would be constructed according to current earthquake safety codes.

Hazards/Hazardous Materials. No hazards or hazardous materials would be generated by the No Project Alternative. Hazards or hazardous materials related to construction would be avoided. Under the No Project/No Action Alternative no hazardous building materials such as lead-based paint and asbestos-containing materials would be released into the environment or impact worker health and safety since there would be no building demolition. However, hazardous materials in the existing buildings on the site could affect the health of existing residents over time. Hazardous materials used at the existing SNF such as medical waste or cleaning fluids would continue to be transported, stored, handled, and disposed of in accordance with applicable regulations.

Hydrology/Water Quality. Under the No Project/No Action Alternative, there would be no construction and therefore related impacts to water quality such as sediment, fuels or other pollutants entering stormwater runoff. There would be no change in impervious surface area or drainage patterns in the project site or area. Stormwater runoff within the existing facility predominantly drains directly to the existing site storm drain system and then to Hinman Creek, with effectively no facilities specifically intended for stormwater quality treatment³². Under the proposed project and its alternatives, all stormwater discharge from impervious surfaces, including roof, roadway, sidewalk and hardscape would be treated and partially retained in facilities (biofiltration basins, flow-through planters, or bioswales, for example) that meet Napa County (NCSPPP) water quality treatment requirements. Therefore, the proposed project and alternatives may reduce the amount of pollutants entering Hinman Creek over the long-term compared to the No Project / No Action Alternative due to the water treatment and retention system.

³² Some paved surfaces, such as walkways and small rooftops may drain to vegetated areas that serve some water quality treatment function, but these were not likely explicitly designed as water quality BMPs at the time of facility construction.

Noise. Construction noise would be avoided under the No Project Alternative, and noise levels from traffic to and from the site, ground's maintenance, human conservation, etc. would continue to be the same at the project site as under existing conditions. Operational noise levels are likely similar under the No Project Alternative / No Action as they would be under the proposed project and other alternatives. No new noise would be generated.

Socioeconomics. The No Project Alternative would have no impacts to socioeconomics. Similar to the proposed project and other alternatives, the No Project/No Action Alternative would not impact nearby businesses or industries or affect property values in the project area or the local tax base. However, this alternative would not provide the 100 new permanent jobs to the project region in order to adequately staff the new SNF, or any temporary jobs during project construction. Housing in the project region for the new employees would not be required under the No Project/No Action Alternative, although new employees hired under the proposed project and the other alternatives are generally expected to be existing residents of the region, and any employees that move to the region for the job are expected to be accommodated by planned housing development in the project region.

Transportation. Construction traffic would be avoided under the No Project Alternative, and traffic levels to and from the site would continue to be the same at the project site as under existing conditions. No new trips would be generated. The proposed project and the other build alternatives are expected to generate new VMT in the project area due to the increase in staffing. The No Project/No Action Alternative would avoid any increase in VMT.

Utilities. There would be no construction of new utility lines under the No Project Alternative, and existing utilities would continue to function at the site as under current conditions. Temporary construction-related impacts of utility installation would be avoided. There would be no increase or decrease in use of water or electricity, or generation of wastewater or stormwater at the site. However, the existing SNF buildings have aging utility infrastructure and are not efficient; therefore, it is likely that energy use will be greater under the No Project/No Action Alternative than under the proposed project and other build alternatives. Potential reductions in water consumption resulting from transferring SNF operations from aging buildings to a new SNF building with pipes which prevents leaks and green building features such as low flow fixtures (e.g., showers, toilets, faucets, dripline irrigation, etc.) would not occur.

Wildfire. No new buildings or staff would be exposed to wildfire hazards under the No Project Alternative. Existing wildfire hazards at the site would continue as under current conditions. The existing SNF and the project site are near a high fire severity zone, and there have been recent large wildfires in the project area. The proposed project and other build alternatives may moderate wildfire hazards to SNF residents and staff compared to the No Project/No Action Alternative because the project would require protective buffer zones and fire hazard management in the vicinity of the new SNF buildings, as well as buildings designed and constructed consistent with current fire codes. CalVet does not currently have do regular fire hazard management on the VHC-Yountville campus, such as brush clearing or trimming tree branches away from power lines, etc.

16.6.3 Lead Agency Consideration of Alternative

Under the No Project / No Action Alternative, all environmental impacts of the proposed project identified in Chapters 4 through 15 as summarized in EIR/EA section S.3 would be avoided. The No Project / No Action Alternative would not meet the project objectives and would not resolve

the issues with the existing SNF that the new SNF Project was proposed to address. The existing SNF buildings are unserviceable due to non-compliance with seismic and ADA requirements and other infeasible reasons. These buildings would continue to pose health and safety risks to the residents and result in increasing repair and maintenance costs for the aging structures. In addition, the existing SNF would continue to have an institutional feel that does not meet the current USDVA standards for care in a home-like setting. A No Project/No Action Alternative would result in a gradual reduction in SNF beds available at VHC-Yountville. This attrition would contribute toward a statewide shortage in the availability of SNF beds in California. Existing VHC-Yountville residents would have to be relocated to readily available facilities that can service these funded restricted Veterans. The impact of displaced residents on other facilities is too speculative to determine its significance. The unintended consequence of vacated buildings includes mothballing buildings assuming availability of state funding; otherwise the buildings may suffer demolition by neglect.

CalVet has applied for federal grant funding of the project under the State Homes Construction Program. The USDVA proposed action subject to NEPA is to award grant funding under the State Homes Construction Program to CalVet for the Yountville SNF project.

16.7 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The environmentally superior alternative would be the No-Project /No Action Alternative because it would avoid significant but unavoidable impacts to historic resources, as well as potentially significant impacts to biological resources, cultural resources, geology and soils, hazardous materials (during construction), noise, transportation (during construction), and wildfire. However, health and safety hazards and energy inefficiency in the existing SNF may increase over time under the No Project /No Action Alternative, potentially resulting in some long-term environmental impacts that may be greater than those of the proposed project and other build alternatives. The No-Project Alternative also would not fulfill any of the project objectives. Under the No-Project/No-Action Alternative, a new SNF would not be constructed, and consequently, the need to provide SNF care to veterans consistent with current USDVA standards in a facility that meets current building codes would not be met.

Specifically, the No-Project Alternative would fail to meet following goals and objectives:

- Replace aging facilities with buildings that meet current building codes and regulations.
- To provide state-of-the-art long-term-care facilities for aged and/or disabled veterans.
- To enhance the quality of life for residents by providing common amenities, spaces, and conditions.
- To establish a new building capable of serving those with dementia and other memory disorders.
- To concentrate assisted living and medical care services at the southern end of the campus consistent with the vision of the Facilities Master Plan Evaluation completed in 2013.
- To utilize, to the fullest extent possible, the existing infrastructure, programs, and pool of skilled health care providers.
- Develop a sustainable and energy-efficient building.

- Design a building that is respectful of the existing historic structures throughout the Yountville campus.
- Maximize the effectiveness of the design-build project delivery method by maintaining sufficient flexibility in the performance criteria to support innovation in the design competition.
- Design the treatment program using current best practices.
- Increase satisfaction of both patient/family and staff.
- .

According to the *State CEQA Guidelines*, if the environmentally superior alternative is the No-Project Alternative, the EIR shall identify an environmentally superior alternative among the other alternatives. Based on the analysis presented above and summarized in Table 16-1 below, the proposed project alternative would be the environmentally superior alternative because it would have fewer impacts to the historic district and reduced impacts to biological resources by avoiding sensitive creek habitat.

Table 16-1. Comparative Environmental Analysis of Alternatives

Resource Area	Proposed Project (with mitigation)	West of Ballpark Location	Northeast Campus Location	No Project Alternative
Air Quality	Less than significant impact	Potentially less impact during construction, similar long term	Potentially less impact during construction, similar long term	No short-term impact, long-term building emissions could be greater, but vehicle emissions would be less.
Biological Resources	Less than significant impact	Greater impact to aquatic habitat, potentially greater impact to special-status species (yellow-legged frog), less impact to native trees	Greater impact to aquatic habitat, potentially greater impact to special-status species (yellow-legged frog), less to native trees	Less impact, no impact
Cultural, Historical, and Tribal Cultural Resources	Significant impact per CEQA; Less than significant	Greater impact to historic resources	Greater impact to historic resources	Less impact, no impact

Resource Area	Proposed Project (with mitigation)	West of Ballpark Location	Northeast Campus Location	No Project Alternative
	impact per NEPA			
Geology and Soils	Less than significant impact	Similar impact	Similar impact	No short-term impacts, potentially greater earthquake hazards in the long term
Greenhouse Gas Emissions	Less than significant impact	Similar impact	Similar impact	Less impact in the short-term, potentially greater impact in the long term
Environmental Justice	Less than significant impact	Less impact, avoids relocation of residents	Similar impact	Less impact in the short-term, potentially greater in the long term
Hazards and Hazardous Materials	Less than significant impact	Potentially less impact during construction, similar long term	Similar impact	Less impact in the short-term, potentially greater in the long term
Hydrology and Water Quality	Less than significant impact	Potentially greater impact tributary to Hopper Creek on site	Potentially greater impact-tributary to Hopper Creek on site	Less impact short-term potentially more stormwater pollutants long term.
Noise	Less than significant impact	Potentially less impact during construction, similar long term	Potentially less impact during construction, similar long term	Less impact, no impact would occur
Socioeconomics	Less than significant impact	Similar impact	Similar impact	No beneficial impact of new employment

Resource Area	Proposed Project (with mitigation)	West of Ballpark Location	Northeast Campus Location	No Project Alternative
Transportation	Less than significant impact	Potentially greater access impact. Similar vehicle trips	Similar impact	Less impact, no impact would occur
Utilities and Service Systems	Less than significant impact	Similar impact	Similar impact	Less impact short-term, potentially increased energy use but less water use long term.
Wildfire	Less than significant impact	Similar impact	Potentially less impact	Potentially greater wildfire risk long-term.

16.8 ALTERNATIVES CONSIDERED BUT REJECTED

16.8.1 Other On-Campus Sites

Three alternate sites previously considered in the FMPE or by the lead agency and have been rejected from further consideration in this EIR/EA. These alternative site locations are shown in Figure 16-1.

Central Campus

This 3-acre site is located west of the Member Services Building/Lincoln Theater within The Alameda (Site 4; Figure 16-1). This site would place the new SNF in a primary greenbelt running through center of campus. The site is too small to accommodate the building footprint and access needed to support 240-bed SNF. There is no direct vehicle access to this site from the primary loop road. Developing the SNF in center of the historic district would interrupt the aesthetic design and landscape feature of the Alameda. This location is also inconsistent with the FMPE goals to reinforce the existing general use districts and to cluster buildings with similar uses together, and past program decisions to consolidate or co-locate medical services at south end of campus near the Holderman Building. This alternative is infeasible and rejected from further consideration.

East of Holderman

This 3-acre site is located on the east side of the Holderman Building adjacent to the golf course property (Site 5; Figure 16-1). The site is identified in the FMPE as a potential location for the SNF. The western portion of the site is presently used for parking. This site is terraced and contains a drainage fed by a stormwater outflow pipe. Some riparian vegetation exists to the south of the parking area. The site is too small to accommodate the building footprint and access

needed to support a 240-bed SNF. Utilization of this site would require expansion into the golf course, which is adjacent to the site to the east. Use of the golf course is a rejected alternative as discussed below. Developing the SNF on this site would encroach on the natural drainages and riparian vegetation. This would likely require permits from the USACE, and RWQCB for compliance with the federal Clean Water Act, as well as from CDFW for compliance with California Fish and Game Code Section 1600. SNF development on the east side of Holderman would be highly visible from the golf course views and likely to be visible from SR 129. This alternative is infeasible and rejected from further consideration.

16.8.2 Golf Course Property Location

The Vintner's Golf Club operates under a long-term lease on land owned by CalVet. The Town of Yountville Wastewater Reclamation Facility is located in the center of the golf course (Figure 2-2). The golf course greens, and fairway are situated around the wastewater treatment plant. The Hopper Creek tributary runs through the center of the golf course property. A drainage and wetland area occur on the southwestern edge of the property adjacent to Holderman Building. Constructing a SNF on the golf course land would require use of five acres to be removed from the golf course greens and fairway. The greens, fairways, and water features comprise roughly 50 acres. The loss of acreage to construct a SNF would infringe upon the golf course operation by requiring redesign of fairway locations and possible change in fairway lengths and widths, which are set by PGA standards. This could potentially affect the golf course business and aesthetics. Removal of acreage from the golf course would require agreement and renegotiation of the lease agreement with the golf club. Due to the impact of the loss of acreage upon the golf course operation and the recognized value of the golf course as a community resource, this alternative is rejected from further consideration.

16.8.3 Renovation of Holderman Building

Initial analysis indicates that efforts to correct the many deficiencies with the Holderman Building (including remodeling the wards, window replacement, and an overall general modernization of the 1932-era hospital design) would be more costly and less effective than constructing a new a SNF designed from the ground up. The renovation to bring a 1930s building up to current spatial and licensing standards includes structural reinforcement, upgrades to all infrastructure components of the building, removal of hazardous materials, upgrade in Fire/Life Safety codes, sensitivity of the historic significance of the building, as well as temporary swing space for residents during construction.

Renovation of the Holderman building would also reduce the number of licensed SNF beds at the current facility in order to meet current USDVA space standards. In other words, the number of SNF beds would be reduced to less than 156, rather than increasing from 156 to 240 beds as in the proposed new SNF Project.

In addition, the health and safety of the residents would be negatively impacted by the SNF building renovation as there are no alternative active licensed beds to transfer current SNF residents into during renovation. SNF residents must be relocated to a facility meeting California Office of Statewide Health Planning and Development (OSHPD) requirements, and no other buildings on the VHC-Yountville campus meet this requirement. As such, another building on campus would have to be upgraded, requiring additional time and cost, prior to relocation. Or alternately the residents would have to be relocated off-site; meaning that an off-site SNF or SNFs would have to be found capable of accommodating up to 156 additional patients.

Relocating residents off-site could also cause an undue burden on the residents and their families who may reside locally.

Finally, changing the interior structure of the building would be difficult given the Holderman Building's designation as a contributor building to the VHC Historic District. Such changes would likely require extensive environmental review, agency consultation, and mitigation to comply with state laws protecting historic resources and minimize adverse impacts.

16.8.4 Off-Site Location

CalVet provides 1,027 licensed SNF beds statewide, spread across six locations - CalVet-West Los Angeles (312 beds), CalVet-Yountville (295 beds), CalVet-Chula Vista (180 beds), CalVet-Fresno (120 beds), CalVet-Barstow (60 beds), and CalVet-Redding (60 beds) (CalVet, 2019). Other than Barstow, all SNFs operate at full occupancy. There is limited opportunity to transfer existing or new SNF patients between campuses. One or more VHC campus locations would have to expand SNF capacity to provide additional SNF beds in order to provide 240 SNF/memory care beds proposed by the VHC-Yountville SNF project. Veterans Home programs historically were intended to serve Veterans in a regional geographic area.

Under this alternative, SNF services at VHC-Yountville would be phased out. Current SNF residents would remain at VHC-Yountville and Yountville residents needing future SNF services would eventually be relocated to the off-site expanded facility(ies). Expansion of facilities at other campuses does not meet the primary project objectives of replacing existing aged facilities on campus and serving the needs of VHC-Yountville residents. Therefore, this alternative was dismissed from further consideration.

16.8.5 Reduced Project

Under a reduced project alternative, the new SNF would have a reduced number of beds (less than 240 beds) in order to fit the building within a smaller footprint on the project site. The goal of this alternative would have a smaller SNF structure to avoid demolition of the residential buildings on the project site (i.e., Polk Hall and Jefferson Hall), which are contributors to the Historic District. Under the Reduced SNF Alternative, residents of Polk and Jefferson Hall would be temporarily relocated during project construction and then returned to their building after SNF construction is completed. The Hostess House (built in the 1950s), Bandstand, and Nurses Education Building (built in the 1970s) would still be demolished as in the proposed project.

In order to avoid the residential buildings on the site, the SNF would be constructed on 7 acres containing the center of the site between Polk and Jefferson halls and the existing parking area. The maximum sized SNF footprint that could be built on the site would be roughly 172,000 square feet and would allow for 150 SNF beds. This reduced sized SNF would be too small to meet the project goal of replacing aging facilities with modern buildings, as the need is to replace the 156 beds in the Holderman Building as well as some of the 105 ICF beds in Eisenhower Hall and some of the 75 memory care beds in Roosevelt Hall. Therefore, this alternative is dismissed from further consideration.

Figure 16-1. Alternative Sites Considered for the Proposed SNF

- Site 1: West of Holderman Building (11 acres)
- Site 2: West of Ballpark (13 acres)
- Site 3: Northeast Campus (14 acres)
- Site 4: Central Campus (3 acres)
- Site 5: East of Holderman Building (3 acres)

**Figure 16-1 Alternative Sites Considered for the Proposed SNF**

VHC-Yountville Skilled Nursing Facility Project

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CHAPTER 17 OTHER STATUTORY CONSIDERATIONS

17.1 SIGNIFICANT AND UNAVOIDABLE IMPACTS (CEQA AND NEPA)

17.1.1 CEQA Impacts

CEQA (PRC Section 21100(b)(2)(A)) requires that an EIR include a statement that summarizes any significant impacts on the environment that cannot be avoided if a proposed project is implemented. CEQA Guidelines section 15126.2(b) states that such impacts include those that can be mitigated but not reduced to a less-than-significant level.

All potentially significant impacts of the project are identified in Chapters 4 through 15 of this Draft EIR/EA along with mitigation measures that would reduce or avoid these impacts.

The proposed Yountville SNF project would have a significant and unavoidable impact on historic resources (Impact CUL-1), despite the implementation of mitigation measures. The project would demolish three buildings (Polk, Jefferson, and Hostess House), which are contributor buildings to the VHC Historic District. Mitigation Measures CUL-1A through 1F would reduce the impact and the VHC Historic District would retain its eligibility for inclusion in the CRHR. However, under significance threshold identified in CEQA Guideline 15064.5(b)(2), the demolition of three contributor buildings materially impairs the physical characteristics of the district that convey its historical significance. As a result, the impact of the state lead agency action on the Yountville SNF project under CEQA is significant and unavoidable.

17.1.2 NEPA Impacts

All potentially significant impacts of the project are identified in Chapters 4 through 15 of this Draft EIR/EA along with mitigation measures that would reduce or avoid these impacts.

Implementation of the Yountville SNF project would result in impacts that are not significant or potentially significant impacts that would be adequately mitigated on all resource areas considered in this EA.

As described above in 17.1.1, the impact to historic resources is significant under CEQA. As explained in section 1.2.4 impact conclusions under CEQA and NEPA may vary due to differences in approaches to determining significance. Under to historic resources is sufficiently mitigated as described in section S.6, section 6.3.8, and section 15.4.5. As a result, there are no significant environmental impacts from the Yountville SNF project under NEPA.

17.2 GROWTH INDUCEMENT (CEQA)

CEQA requires that an EIR discuss the ways in which the proposed project could foster economic or population growth. Pursuant to the State CEQA Guidelines Section 15126.2(d), this discussion should include ways in which the proposed project could directly or indirectly foster economic or population growth or construction of new housing in the surrounding area. The discussion should include projects which could remove obstacles to population growth such as major public service expansion that allow for more construction in applicable services areas and characteristics of projects that may encourage and facilitate other activities that could result in significant impacts. According to the CEQA Guidelines, it must not be assumed that growth in

any area is necessarily beneficial, detrimental, or of little significant to the environment. If a proposed project is determined to be growth inducing, an evaluation is made to determine whether significant impacts on the environment would result from that growth.

Section 15126.2(e) of the CEQA Guidelines provides definitions and guidance in determining the growth-inducing impacts of a proposed project. A project could be growth-inducing if it:

- fosters economic or population growth;
- constructs of additional housing;
- removes obstacles to population growth (e.g., a major expansion of infrastructure such as utility service); or
- taxes existing community service facilities such that construction of new facilities is required.

17.2.1 Project Potential for Growth Inducement

The proposed project would not directly cause growth. The proposed new SNF would serve existing SNF residents on the VHC-Yountville campus, who would be relocated to the new building(s). The proposed project does not include new housing or businesses. No new or extended roads are proposed which create access to new areas for development. New infrastructure would be limited to water, sewer, and stormwater lines sized to serve the new SNF buildings only. New infrastructure would not be capacity building or support additional development on- or off-campus.

The 100 new staff members needed for the new SNF are expected to be hired from existing residents within the project region. The expected average commute distance for the new staff is about 19 miles according to the TIA. Any need for additional housing for the increase in SNF staff is expected to be accommodated by planned growth in housing in the project area, described below. Thus, the project would not induce growth beyond what is planned in the Yountville and Napa County General Plans.

17.2.2 Potential Housing Growth in the Project Area

The VHC-Yountville currently has approximately 20 cottages on site that are rented by staff. This housing is in poor condition and increasingly substandard due to lack of maintenance funding. Already, three cottages are vacant because they are uninhabitable. The FMPE suggests a public-private partnership (PPP) to either renovate these existing cottages or build new housing either just east of the project site or in the northwest portion of the campus near the baseball field. However, it is unknown whether staff housing on the site will be built or renovated.

As stated in Section 15.1.3 of the Cumulative Impact Analysis, the Town of Yountville will add a maximum of 155 single family and mobile home units (an increase from 1,097 to 1,252), and 197 multi-family units (an increase from 76 to 273) at build-out of the recently adopted General Plan (March, 2019), but it may be less than that depending on a number of factors. According to the Yountville General Plan Housing Element, 17 new housing units will be built in Yountville by 2023 as part of the Town's responsibility to help meet the regional need for new housing (Town of Yountville, 2015).

Napa County is responsible for 180 new housing units between 2014 and 2022 to help meet the regional need for new housing (Napa County, 2014), although the proposed locations are all at

least ten miles from the project site. The population of unincorporated Napa County has declined since the year 2000 (Napa County 2014), freeing up additional housing in the County.

17.3 SIGNIFICANT IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES (CEQA AND NEPA)

CEQA Guidelines section 15126(c) requires that an EIR include a discussion of significant, irreversible environmental changes that would result from the implementation of a project. Irreversible environmental changes are identified as those involving a large commitment of nonrenewable resources or irreversible damage resulting from environmental accidents. Public Resources Code Section 21100.1 provides further guidance identifying when the evaluation of potential irreversible environmental changes must be included in an EIR. An EIR must evaluate the significant irreversible impacts associated with the following types of projects:

- The adoption, amendment, or enactment of a plan, policy, or ordinance of a public agency.
- The adoption by local agency formation commission of a resolution making a determination.
- A project which will be subject to the requirement for preparing an environmental impact statement pursuant to the requirements of the National Environmental Policy Act of 1969.

Similarly, NEPA requires that the environmental analysis identify “any irreversible and irretrievable commitment of resources which could be involve in the proposed action should it be implemented” (NEPA Section 102(2)(c)(v) and 40 CFR 1502.16). However, NEPA, CEQA Regulations, and NEPA Guidance to not define “resources” and how this requirement is to be applied.

Site clearing activities, by their very nature, result in irreversible changes. The removal of existing trees and shrubs from the project area, removal of some existing historic structures, and the corresponding construction of new facilities, would result in irreversible environmental changes. The proposed project would also result in the use of non-renewable energy resources such as fuel (gasoline and diesel) and oil for construction equipment and resident/employee vehicle trips; however, the incremental increase in the use of these resources would not interfere with regional supplies and availability of these resources.

The proposed project may require demolition of three buildings, Jefferson Hall, Hostess House, and Polk Hall, which are contributors to the VHC Historic District. The entrance gate at Memorial Grove (next to Polk Hall) and stone walls adjacent to Jefferson Hall are also contributors to the historic district. Historic resources documentation for the district also implies that other landscape features, such as light poles, are contributors. The Memorial Grove may not specifically be a contributor, but it is considered a sensitive resource located within the historic district. The proposed project will cause a substantial adverse change to the historical district by materially impairing the contributing buildings and landscape features within the APE.

17.4 RELATIONSHIP BETWEEN SHORT-TERM USE OF THE ENVIRONMENT AND LONG-TERM PRODUCTIVITY (NEPA)

In accordance with NEPA, Section 102 (40 U.S.C. 4332), an EA must include a discussion of the relationship between the short-term uses of the environment and the maintenance and enhancement of long-term productivity. Although the proposed project would result in short-term uses of the environment, it would have long-term benefits. The short-term uses of the environment and long-term productivity of the proposed project and its alternatives are discussed below.

17.4.1 Short-term Use of the Environment

The project would result in short-term use of the environment during construction. Construction-related impacts of the project include:

- Temporary increases in airborne dust and other air pollutants (Chapter 4. Air Quality);
- Potential impacts to FYLF, nesting birds and roosting bats especially during tree removal and building demolition activities (Chapter 5. Biological Resources);
- Potential impacts to undiscovered cultural resources during ground disturbing activities (Chapter 6. Cultural and Tribal Cultural Resources);
- Temporary increase in soil erosion during ground disturbing activities (Chapter 7. Geology and Soils);
- Temporary increase in greenhouse gas emissions from operation of construction equipment (Chapter 8. Greenhouse Gas Emissions);
- Potential for release of hazardous building materials during building demolition or spill of construction fuels and fluids (Chapter 9. Hazards and Hazardous Materials);
- Potential for sediments and/or construction fuels and fluids to enter stormwater runoff during ground disturbance and other construction activities (Chapter 10. Hydrology and Water Quality);
- Temporary increases in construction noise which may impact sensitive receptors at the existing SNF (Chapter 11. Noise);
- Temporary disruptions to internal circulation at the VHC-Yountville campus due to construction vehicles operating at the site (Chapter 12. Transportation); and
- Temporary impacts related to installation of new water, sewer, and stormwater lines to serve the new SNF (Chapter 13. Utilities and Service Systems).

All of these impacts would be minimized or avoided by compliance with applicable regulations and incorporation of the mitigation measures contained in this document (see the corresponding chapters in parentheses in the bulleted list above for more details about each temporary impact and how it would be avoided or minimized). In addition, all of the temporary impacts listed above would cease after project construction is completed.

The North Campus Alternative would have similar short-term impacts as the proposed project, and the No Project Alternative would avoid all short-term impacts.

17.4.2 Long-term Productivity

The new SNF would have long-term benefits for the health, safety, and quality of life for the SNF residents by providing them with a modern facility that meets current building codes and is consistent with current USDVA standards of care. The existing SNF has an institutional, rather than a homelike feel; lacks private rooms, ensuite bathrooms or food preparation facilities; has an awkward layout which inhibits staff circulation and has limited space for social gatherings or dining; and does not meet current building codes for earthquake safety and energy efficiency (see Chapter 2. Project Description, Section 2.1 for a more detailed description of the project need). The new SNF would provide care in a homelike setting with private rooms including ensuite bathrooms and meal preparation facilities, resident neighborhoods with communal spaces, and a central dining area and support services (see Chapter 2. Project Description, Section 2.3.2 for more details). The new SNF building would meet current health and safety codes and would be designed to be energy efficient. The new building is expected to last at least 50 years and would avoid costly repairs and maintenance needed for the continued use of existing SNF buildings. The new SNF would also provide permanent employment for 100 new staff members.

However, the proposed project would result in the permanent loss of three buildings which are contributors to the historic district on the VHC-Yountville campus, which is a significant and unavoidable impact under CEQA (section 6.3.2) and is a mitigated or resolved impact under NEPA (section 6.3.8). The project would also result in the permanent loss of up to 163 trees, although this impact may be offset in the long-term by replacement planting (Mitigation Measure BIO-4B). The project would also result in a permanent increase in VMT in the project area, which is not substantial.

These long-term impacts would be avoided by the No Project Alternatives, and the West of Ballpark Alternative would avoid the impacts to historic resources.

17.5 ENVIRONMENTAL JUSTICE (NEPA)

For the purposes of environmental justice analysis, Federal agencies are required to identify whether a proposed action will possibly have disproportionately high and adverse effects on minority or low-income populations within the proposed action vicinity. The VHC-Yountville campus provides housing and services to veterans in the project region in the State, including veterans who are minorities and/or low-income. According to the FMPE, the majority of campus residents are low income or very low income (CalVet, 2012).

The proposed new SNF would benefit the elderly and/or disabled veterans who reside in the existing SNF at the VHC-Yountville campus, including minority and/or low-income residents, by providing them with an upgraded facility designed according to current building codes for health and safety, and according to current USDVA standards of care. The experience of SNF residents would be improved by a modern building with larger, private rooms; ensuite toilets and meal preparation facilities; and a more home-like feel.

Residents of the existing SNF and nearby residential buildings, including elderly, minority and/or low-income residents, may be temporarily impacted by construction dust or noise (see Chapters 4 and 10 for detailed analyses of air and noise impacts, respectively). Construction related impacts to nearby residents would be short-term and limited to day-time hours. Construction-related air quality and noise impacts on sensitive receptors (nearby residents) are

expected to be less than significant with operating restrictions in place as identified in BMPs and mitigation incorporated.

The project would require residents of the Polk Hall and Jefferson Hall (which may include elderly, minority and/or low-income residents), to be relocated; however, they would be relocated within the VHC-Yountville campus and thus would not be substantially impacted. The demolition of these buildings would be avoided by all of the project alternatives, although the residents would still have to be temporarily relocated under Alternative 3: Reduced SNF.

The proposed project would not impact residents of the surrounding Yountville community. As such, off-site minority or low-income populations. Thus, project construction and operations would not be visible or audible to off-site populations such as those in the Town of Yountville. In addition, CalVet is an equal opportunity employer which does not discriminate against minorities when hiring staff for the VHC-Yountville SNF.

17.6 SOCIOECONOMICS (NEPA)

Under NEPA (42 USC 4321 et seq.), the social and economic effects of a project must be considered if they are related to the project's natural or physical effects. Implementation of NEPA (40 CFR Parts 1500-1508) defines "effects" to include economic and social factors whether direct, indirect or cumulative in nature (40 CFR 1508.8). Consequently, an EA or EIS must analyze a project's economic and social impacts related to natural or physical effects to the affected area's physical environment. However, NEPA provides no specific thresholds of significance for socioeconomic impact assessment.

The proposed new SNF is needed to meet existing building codes and USDVA standards of care, and the project would be located on the existing VHC-Yountville campus which already provides housing and services to veterans in the project region and the State. The proposed project and its alternatives would not impact nearby businesses or industries or affect property values in the project area or the local tax base. The new SNF would provide 100 new permanent jobs to the project region in order to adequately staff the new facility, as well as temporary jobs during project construction. Other socioeconomic issues are discussed in Section 17.5 Environmental Justice (project effects on minority and/or low-income populations), and Section 17.7.5 Population and Housing (unplanned growth, displacement of people or housing).

17.7 EFFECTS FOUND LESS THAN SIGNIFICANT (CEQA AND NEPA)

Chapters 4 through 15 identify less-than-significant impacts associated with air quality, biology, cultural resources, geology, energy/greenhouse gases, hazards/hazardous materials, hydrology/water quality, noise, transportation, utilities, and wildfire. All impacts except as identified in sections 6.3.2 and 17.1.1 (CEQA impact on historic resources) would be less than significant either with or without mitigation.

In addition to impacts identified in Chapters 4 through 15, the proposed SNF project would have less-than-significant impacts as described below.

17.7.1 Aesthetics

The proposed project would not adversely affect a scenic vista because the project site is in a low-lying area with limited views of surrounding areas. Views of the project site are limited to the immediate area by surrounding trees and buildings on the VHC-Yountville Campus. There

are no designated scenic vistas in the project area in the Napa County General Plan (Napa County, 2008) or Town of Yountville General Plan (Town of Yountville, 2019).

State Route (SR) 29, located approximately 0.6 mile east of the project site, is eligible for listing as a State Scenic Highway (Caltrans, 2019). Views of the project site from SR 29 are from northbound lanes looking west past open land and vineyard to the south end of the VHC – Yountville campus and the Holderman Building with oak woodland hills forming the visual backdrop. The project site is located between the west side of Holderman and the oak woodland hills. Views of the new SNF from SR 29 would be limited to brief segments due to the intervening landscape along the highway corridor and prominence of the Holderman Building mass, which shields the site from SR 29 views. The project site is not visible from southbound SR 29 views. Therefore, the project would not impair scenic views within a state scenic highway.

The project would not degrade the visual character or quality of public views of the site or its surroundings. The site is not visible from any nearby public viewpoints such as roads, trails, or vista points. In addition, the new SNF building(s) would be designed to be visually compatible with existing nearby historic buildings on the VHC-Yountville campus, such as the Holderman Building.

The proposed new SNF would not create a substantial new source of light or glare. The new SNF building(s) would have nighttime safety lighting in areas of path of travel similar to the existing VHC-Yountville buildings on and near the site. The new SNF building(s) would not be immediately adjacent to any existing residential buildings (separated by setbacks and an access road). Lighting for the new SNF would be designed to limit spillover and glare as a LEED requirement.

17.7.2 Agricultural and Forest Resources

The project would have no impacts to agricultural and forest resources. The project would not impact Prime Farmland, Unique Farmland or Farmland of Statewide Importance (Farmland) because there is no Farmland mapped on or near the project site (California Department of Conservation, 2016). The project site is not zoned for agricultural or forestry use (Town of Yountville, 2014 and Town of Yountville, 2019). The project site is not under a Williamson Act contract. The project would not convert farmland or forestland to a non-agricultural or non-forest use because there is no farmland or forestland on or near the project site.

17.7.3 Land Use and Planning

The proposed new SNF is located on 9 acres of a 615-acre VHC-Yountville campus, which is state-owned and managed property within the Town of Yountville. The new SNF is designed to serve the existing veteran's community at the VHC-Yountville campus and would be integrated into the southern part of the campus adjacent to other campus development. The proposed SNF would not physically divide an established community because of its location roughly one mile west of SR29. It would not affect Yountville land use planning, access, or the community population.

The proposed new SNF is compatible with the FMPE, which says that a new SNF is the highest priority project for the VHC-Yountville campus. In addition, the proposed project is compatible with the existing land use at the site provides housing and services to elderly and disabled veterans in the project region and the State. The location of the project site near the existing SNF

is consistent with the campus goal of clustering medical facilities in the southern end of the campus.

As state-owned and operated land, the SNF project site is not subject to local general plan and zoning regulations. Nevertheless, the new SNF is compatible with the Yountville General Plan land use designation and zoning code designation for the site, both of which are Public Facilities (Town of Yountville, 2019 and Town of Yountville, 2014). The project and its alternatives would be unlikely to conflict with the Town's General Plan or Municipal Code with implementation of project BMPs and the mitigation measures in this document.

17.7.4 Mineral Resources

The proposed SNF would not impact mineral resources. No locally important mineral resources are designated in the project area by either the Town of Yountville General Plan (2019) or the Napa County General Plan (2009). Therefore, the project would not result in the loss of availability of known mineral resources or affect a locally important mineral resource recovery site.

17.7.5 Population and Housing

The proposed project would not induce substantial unplanned population growth in the project area. The new SNF would serve existing SNF residents on the VHC-Yountville campus, who would be relocated to the new building(s). The proposed project does not include new housing or businesses. No new or extended roads are proposed which creates access to new areas for development. New infrastructure would be limited to water, sewer, and stormwater lines sized to serve the new SNF buildings only. New infrastructure would not be capacity building or support additional development on- or off-campus.

The 100 new staff members needed for the new SNF are expected to be hired from existing residents within the project region. The expected average commute distance for the new staff is about 19 miles according to the TIA. Any need for additional housing for the increase in SNF staff is expected to be accommodated by planned growth in housing in the project area, described below. Thus, the project would not induce growth beyond what is planned in the Yountville and Napa County General Plans.

The project would require residents of the Polk Hall and Jefferson Hall to be relocated; however, they would be relocated within the VHC-Yountville campus and thus no replacement housing would be required. As a result, the project would not result in any permanent displacement of the campus population. The demolition of these residential buildings would be avoided by all of the project alternatives, although the residents would still have to be temporarily relocated under Alternative 3: Reduced SNF.

17.7.6 Public Services

The new SNF would replace the existing SNF at the VHC-Yountville campus. The proposed SNF would offer medical services and assistance with daily living to elderly and disabled California veterans.

All residents of the new SNF would be current residents of VHC-Yountville. Building space in Holderman, Eisenhower, and Roosevelt buildings vacated by relocation of existing SNF residents to the new SNF would remain vacant and cannot be reoccupied due to seismic and ADA standards incompatibility. Since no new uses are proposed for the vacated building space,

the campus residential population would remain unchanged by the proposed SNF and population-based demands for public services would remain unchanged. The staff increase of 100 employees at the new SNF is not expected to significantly impact existing public services that serve the site.

The project is not expected to lead to a substantial increase in calls for emergency medical, fire suppression or police services. On-site medical care is provided at the SNF, and the project includes fire prevention design elements such as a fire road and adherence to all applicable state and local laws for fire prevention. The new SNF would have its own security system including alarms at each entry/exit door, controlled building access at all points of entry/egress, and a sign-in system for guests. The proposed project would not create a need for new or physically altered facilities to maintain adequate service ratios, response times, or other performance objectives.

The project would not impact school facilities because there are no school-aged residents at the existing SNF and there wouldn't be any school-aged residents at the proposed new SNF since the SNF serves elderly and disabled veterans. The new staff for the proposed SNF are expected to be existing residents of the project region. While some new staff may relocate to the project area, any relocation of school-aged children that may occur would likely be broadly dispersed across several local communities. As a result, the employment of new staff at VHC-Yountville is not expected to substantially increase enrollment and impact schools.

The project would not significantly impact community park facilities. The proposed SNF would not increase the campus population. Further, the new SNF would serve residents requiring skilled nursing care. SNF residents have limited mobility and do not generally create demand for park facilities. The VHC-Yountville campus offers green spaces and paths in a parklike setting for campus residents and employees. The project would increase the use of existing parking park facilities or create the demand for new or modified park facilities.

17.7.7 Recreation

The proposed new SNF would not significantly impact recreational facilities. The proposed SNF would not increase the campus population. Further, the new SNF would serve residents requiring skilled nursing care. SNF residents have limited mobility and do not generally create demand for park facilities. The VHC-Yountville campus offers green spaces and paths in a parklike setting for campus residents and employees. The project would increase the use of existing parking park facilities or create the demand for new or modified park facilities.

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CHAPTER 18 REFERENCES

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Shelley Whitaker, Capital Outlay Program Manager

California Department of Veterans Affairs (CalVet)

CEQA Lead Agency

David Gerard, Chief, Facilities and Business Services Division

Jack Striegel, Senior Architect/Capital Assists and Facilities Manager

U.S. Department of Veterans Affairs (USDVA)

NEPA Lead Agency

Christine Modovsky, M.S., P/PM-II-Environmental Engineer

MIG, Inc.

Environmental Consultant

Kate Werner, Senior Project Manager

Megan Kalyankar, Biologist/Analyst

David Gallagher, Biologist

Chris Dugan, Noise Analyst

Phil Gleason, Air Quality and GHG Analyst

Robert Templar, Archaeologist

Emily Goetschius, GIS Specialist

Technical Consultants

Historic Resources - JRP Historical Consulting, LLC.

Chris McMorris, Principal

Joseph Freeman, Architectural Historian

Geology and Soils - Rockridge Geotechnical

Craig Shields, Principal Engineer

Hydrology and Water Quality - Balance Hydrologics, Inc.

Scott Brown, Senior Geomorphologist/Hydrologist

Transportation - Fehr & Peers

Ellen Poling, Senior Associate
Shane Russell, Transportation Engineer

18.2 LIST OF AGENCIES AND ORGANIZATIONS CONTACTED

The following agencies and organizations received notification about the proposed project:

- Association of Bay Area Governments
- Bay Area Air Quality Management District
- California Association of Health Facilities
- California Department of Aging
- California Department of Fish and Wildlife
- California Department of General Services
- California Department of Transportation
- California Department of Veterans Affairs
- California Department of Veterans Affairs Board of Directors
- California Office of Statewide Health Planning and Development
- Chanticleer Winery
- Contra Costa County Veterans Services Officer
- Keever Vineyards and Winery
- Lake County Administration
- Lake County Planning Division
- Napa County Board of Supervisors
- Napa County Executive Office
- Napa County Fire Marshal's Office
- Napa County Planning, Building and Environmental Services Department
- Napa Valley Register
- Regional Water Quality Control Board
- Solano County Administrator
- Solano County Director
- Solano County Resource Management
- Sonoma County Administrator's Office

- Sonoma County Planning Division
- Sonoma County Veterans Services Officer
- State Assembly Member Aguiar-Curry
- State Historic Preservation Office
- State Senator Dodd
- Town of Yountville
- United States Department of Veterans Affairs
- Veterans of Foreign Wars
- VHC-Yountville Central Mail Distribution Center
- Vintner's Golf Club
- Yolo County Administrator
- Yolo County Community Services Department

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